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AN EXAMINATION OF
THE SOCIAL AND ECONOMIC
IMPLICATIONS OF
DR. BEECHING'S PROPOSALS
FOR RAILWAY CLOSURES IN
THE SCOTTISH HIGHLANDS NORTH
OF INVERNESS
AND AT
WHITBY IN THE NORTH RIDING
OF YORKSHIRE.

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The Inverness Courier

The Ross-shire Journal

The Northern Times

The John O'Groats Journal.

FOREWORD

The two areas to be examined are considered independently of each other rather than together: this was felt to be the better method of presentation since it makes it possible to consider more clearly the local economy of Whitby and the semi-regional economies of the counties and other obvious geographical areas in the Highlands. This would scarcely have been possible had the other method been adopted.

The Whitby case is taken first and the local economy assessed as to its make up, its strength and balance in the environment which existed before railway closure was intimated. Following a concise description of the terms of the proposals and their extent, the effects of this proposal upon the accessibility of Whitby are examined. The following two chapters are concerned with the implications for Whitby. Certain of these implications follow directly from the earlier assessment of the nature and qualities of the local economy. Others are more theoretical whilst others refer to particular social sectors. The reader will find the very interesting case of the school children is fully developed.

Other factors relating to the implications for Whitby are to be found in appendixes. They were felt to add interest and weight to the point of the thesis and yet were considered to be either too ponderous, or of insufficient merit to be included in the main argument.

The part examining the implications of the proposals to close the lines north of Inverness begins by taking stock of the transport network in that area and assessing the role of the railways in that network. Attention is then paid to the proposal itself and the validity of its basic suppositions are tested and under careful scrutiny are found to be of uncertain value.

As a preparation for the implications for the area a short chapter was deemed necessary where consideration could be given to the meanings of two terms which are perhaps rather too glibly used by many parties in connection with the subject of rail closures: the concepts are those of "Adequacy" and "Hardship".

The implications then follow, but before the implications for each county are examined, discussion embraces seven significant implications of a general nature which are raised by the forming of the proposals to close the lines north of Inverness.

Each county is then considered in detail, and each in a similar manner: the reader will find a pen picture of the economic state of each county prior to the publication of the proposals in question and detailed and general conclusions of the effects its impact would have brought about, are drawn. Where it is of significance, special sections are included on particular matters, for example, one of these concerns Europe's largest Distillery at Invergordon. Two further issues are then taken up, which each concern a sector of ^{the} region's economy - namely the cases of the Crofters and the Commercial Salmon Fishermen. They are mentioned

in other parts of the thesis but are deemed worthy of particular scrutiny.

This part of the thesis is concluded by an examination of certain economic and social issues, raised, but not finally developed in the previous section.

As in the part examining the Whitby case, and for similar reasons, there may be found further information in the appendixes.

The third and final part of the thesis is the concluding chapter where consideration is given to how the present, alleged financial position of the railways has come about, and calls for caution to be taken in the issue of railway closures.

The relevance of Benefit-Cost Analysis to the problem of Railway Closures has not been overlooked, and an Appendix¹ provided where an attempt has been made to outline a programme that could be followed if such analysis were sufficiently developed to tackle the problem in an adequate manner.

PART 1.

WHITBY

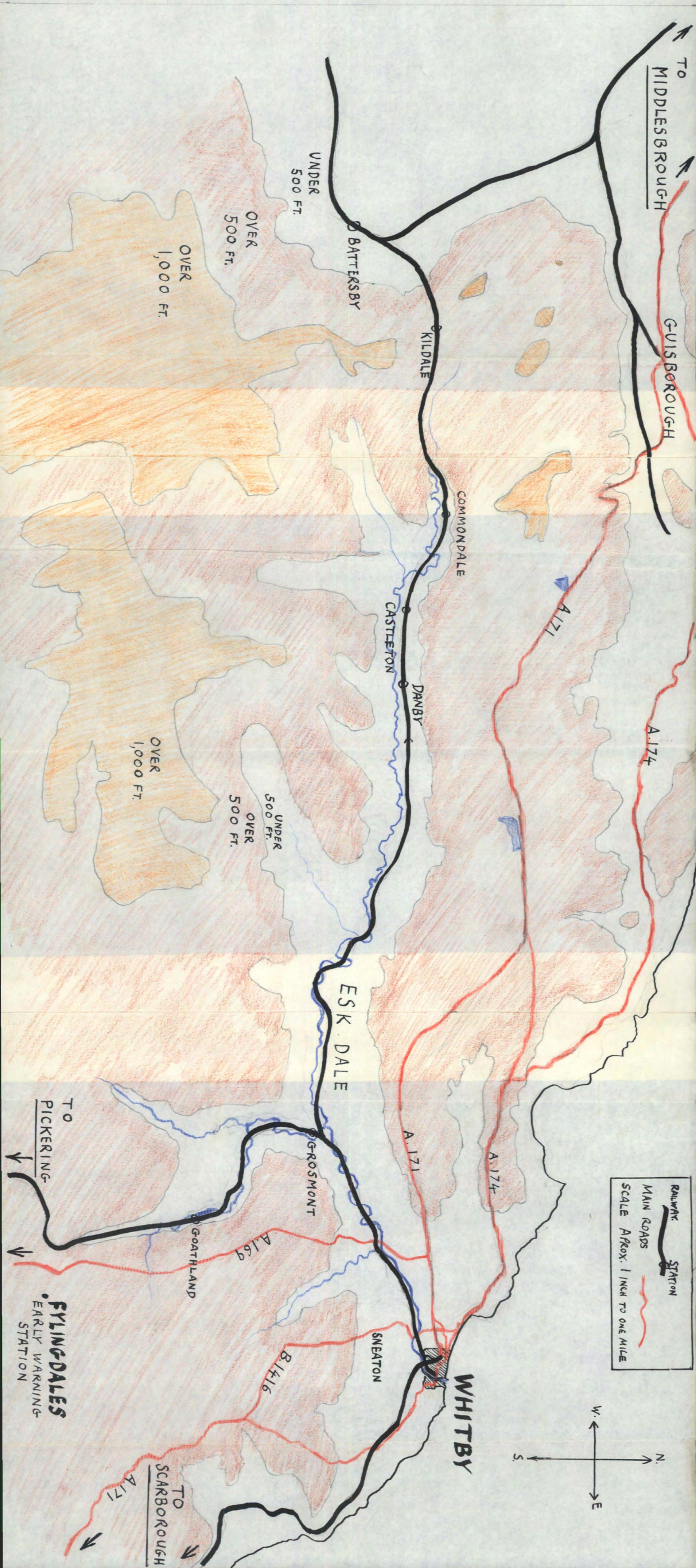
CHAPTER 1.

Introduction.

MAP 1 (Page 1)

Showing the position of Whitby, the three railways in question, the major roads of the area and the position of Fylingdales Early Warning Station.

.....



RAILWAY STATION
 MAIN ROADS
 SCALE APPROX. 1 INCH TO ONE MILE

N.
 S.
 W. ←
 → E

WHITBY

ESK DALE

TO SCARBOROUGH

TO PICKERING

FYLINGDALES
 EARLY WARNING
 STATION

OVER
 1,000 FT.

OVER
 500 FT.

UNDER
 500 FT.

OVER
 1,000 FT.

UNDER
 500 FT.

OVER
 500 FT.

UNDER
 500 FT.

OVER
 500 FT.

UNDER
 500 FT.

This study seeks to show the economic and social implications for Whitby, of the proposals made under the name of Dr Beeching to sever all rail ^{passenger} connections with the town.

After a brief description of Whitby I shall seek to assess the calibre of the local economy, and determine what factors that economy hinges upon, together with the relevant importance of each factor. When this is established it becomes possible to see something of the effect that railway closure would have upon each of these factors in turn and to estimate the overall implications for the town.

Description:

^{As Map shows}
 Whitby is situated on both sides of the mouth of the River Esk, on the coast of the North Riding of Yorkshire and its aspect is almost due north. Whitby is an historic town and has ancient traditions as a port and fishing centre. The environment is remarkably beautiful and Whitby sands are a feature known all over the North of England. The unique blend of these features makes Whitby an attractive, and comparatively unspoilt, holiday centre.

In normal conditions access to Whitby may readily be gained by trunk roads from Tees-side and Guisborough, York and the West Riding and from Scarborough. Before the proposals under consideration here, rail services linked Whitby with Middlesbrough and Scarborough and the third oldest passenger railway in Britain, the Whitby and Pickering Railway formed part of the connection at York with the East Coast main line and the industrial centres of the West Riding.

But the Yorkshire Moors to the West, whilst adding beauty and grandeur to the environment of Whitby, also cause problems in accessibility in winter conditions.

The harbour at Whitby is an excellent one, and ~~the~~^{its} usage is growing, with a new trade in paper providing a really exciting prospect, while the local fishing fleet continues to use the port facilities.

By tradition, and position Whitby has a unique place in England. It will be found that its economy too is unique, together with the problems that face it and the implications which stem from the closure proposals.

It takes only a glance at a map to see that the coast of Yorkshire is somewhat like an arc of a circle - and that the centre point of the circle is in the industrial West Riding. There is two-fold early evidence of efforts to join Whitby, on the circumference of the circle to the population centres at the centre point.

In Whitby itself, as early as the last decade of the eighteenth century, an attempt had been made to bring about a canal to Pickering, and although that scheme proved abortive, by 1826 plans were afoot for a railway out of the town.

Yet the very isolation which its leading inhabitants were seeking to breakdown, was seen by George Hudson, the Railway King, to have great potential as a holiday attraction. He sought to join Whitby to the West Riding by rail so that the town could draw on the vast markets of people there.

Now accessibility is crucial to a would-be resort, and until there was a railway to Whitby, any demand among the populace for a holiday at Whitby was not effective - for regardless of the price, they were prepared to pay, they were unable to satisfy the demand, but once through communication was established an interesting phenomenon is seen to have existed. The demand to spend a holiday at Whitby was clearly elastic, because excellent substitute facilities were available

at Scarborough to the South (where sea bathing was prevalent as early as 1735) (1) or Redcar to the North. However, once a person had decided to go to Whitby his demand for rail travel was very inelastic since the roads were very poor indeed over the North Yorkshire Moors, even when the turnpike trusts were growing in number, and could offer little competition in terms of speed, comfort, price or reliability.

As road improvements came about and better quality roads were constructed so a subtle alteration is seen in this picture. When all the coastal resorts had been connected to the population centres by road it is sure that demand for a holiday at Whitby became even more elastic because the role of the substitutes to the Whitby resort had been strengthened - access to Whitby by road over the Moors was slower and more difficult than to any other resort. At the same time the road was now offering, to the person who had decided to go to Whitby, a means of access to Whitby other than the train. Demand for the rail service to Whitby amongst those who would go there for a holiday was more elastic now.

- (1) This interesting snippet of information was gleaned from Professor J. House's description of the development of the resort of Whitby in the Normanby Report. The fact is reported in "A History of Yorkshire, North Riding", one of the Victoria County Histories of England.

Since the war competition to Whitby has grown more and more fierce - Blackpool's orbit encroached into the Yorkshire industrial areas in a significant way, Holiday Camps and Touring Holidays at home and on the continent have all been moves other than in Whitby's favour. Yet the resort has continued to attract visitors since it has been able to offset any losses by drawing on the new holiday makers brought about by paid holidays and a growing prosperity which have made holidays away from home a possibility to a whole sector of people where it was impossible before.

But any loss in accessibility for Whitby which caused it to be less attractive whilst there was no accompanying loss to other resorts and modes of holiday, would be to detract from Whitby's potential. Since local opinion is that the holiday season is of paramount importance to the Whitby economy, it is in no way surprising that the proposal to close the railway lines to Whitby was viewed with such dismay. The validity of this view and the implications for the economy will be assessed in this study.

CHAPTER 2.

The Strength, Complexion and Balance of the Local

Economy at Whitby.

AN ASSESSMENT OF THE COMPLEXION, STRENGTH AND BALANCE
OF THE LOCAL ECONOMY AT WHITBY

COMPLEXION

Estimated Numbers of Insured Employees in the
Area of the Whitby Employment Exchange

June 1963:

<u>Order No.</u>	<u>Industry</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
		aged 15 and over.		
1.	Agricultural Forestry & Fishing	584	36	620
11.	Mining & Quarrying	-	-	-
	<u>Manufacturing Industries</u>			
111.	Food, Drink, Tobacco	47	40	87
IV.	Chemicals & Allied Industries	5	1	6
V.	Metal Manufacture	2	-	2
VI.	Engineering & Electrical Goods	9	9	18
VII.	Shipbuilding & Marine Engineering	-	-	-
VIII.	Vehicles	1	1	1
IX.	Metal goods, not elsewhere specified.	-	-	-
X.	Textiles	-	-	-
XI.	Leather, leather goods, furs	-	-	-
XII.	Clothing & footwear	-	-	-
XIII.	Bricks, Pottery, Glass, Cement	8	-	8
XIV.	Timber, furniture	125	99	224
XV.	Paper, Printing, Publishing	-	-	-
XVI.	Other Manufacturing Industries	-	-	-
111-XVI -	<u>Total - all Manufacturing</u>	197	149	346
XVII.	Construction	645	38	683
XVIII.	Gas, Electricity, Water	136	7	143
XIX.	Transport & Communications	297	69	366
XX.	Distributive Trades	353	524	877
XXI.	Insurance, Banking & Finance	42	33	75
XXII.	Professional, Scientific Services	151	493	644
XXIII.	Miscellaneous Services	374	652	1026
XXIV.	Public Administration	345	67	412
	Ex-Service Personell not classified by industry	1	-	1
	Industry not stated	7	7	14
	<u>Grand Total:</u>	<u>3132</u>	<u>2075</u>	<u>5207</u>

The absence of new industrial development since the war and the concentration of new capital investment locally on, mainly the fishquay, hotels and boarding houses, dwelling houses, schools, and assets connected with what the local council does in providing holiday and entertainment facilities; and the as yet pending decision as to whether the potential potash is to be mined, has meant that there is insufficient employment in Whitby itself for all the labour potential, and some members of the labour force work in one or two sources of employment away from the immediate vicinity of the town.

The Normanby Report considered this question over

Bib. (1)

The Normanby/report considered this question, and found nearly 600 men from Whitby went to work on Tees-side each day. The project then under construction however has finished, and since local labour was sufficient to meet the needs, this source of income to the Whitby economy had become virtually non-existent by the end of 1963. But since the summer of 1964 the further development of the ICI plant at Wilton became a source of employment again for Whitby men. Tens of millions of pounds are being invested on chemical plant, nylon factories and oil refineries. It seems that already, by January 1965, about 250 men are making the daily journey in special buses. (1) Clearly this is a valuable source of income to Whitby - all sorts of skills are required on these sites, together with unskilled labour but in spite of unskilled labour being taken into account, it would not seem unreasonable to suggest that the average pay packet is about £15. per week.

The numbers employed on the sites, by the 53 contractors is expected to rise considerably during the year. Whether the number from Whitby will reach its previous proportions is a moot point. (2) some of those who used to go to Wilton were engaged in similar work at Fylingdales and are now doing jobs of varying levels of skill there. Also if the potash dream of Whitby becomes a reality there will be a source of manual employment near at hand. But the clear point is sure: the work provided at Wilton must be recognised as being of real value to Whitby - it brings a regular pay packet to the town each week of about £3,500 and keeps the unemployment rate a good deal lower than it would be otherwise.

(1) Given at interview, by the Manager of the Whitby Employment Exchange
 (2) There is evidence (later investigations, as yet unpublished, by G. Allen) that in some periods, subsequently, the figure has been over 600.

There is a second source of employment and income for Whitby at the Early Warning Station at Fylingdales - situated on the Moors, half a mile from the A.169 to Pickering at a point about 10 miles from Whitby. ^(see Map at page 1) The Station has benefitted the Whitby economy, firstly by importing personnel who have settled in the area, some at Scarborough and Pickering, and some at Whitby. 158 houses were built in Whitby to accommodate these people and their families, and so the Station has brought skilled men into the Whitby economy and the economy has been strengthened by the regular income of these men and their generated expenditure. The second way Fylingdales has helped in the local economy is through providing a source of employment for the indigenous population: in the early days this was largely manual occupations - site clearance, approach roads, drainage and then later, plant assembly. But to-day there are unskilled and semi skilled civilians employed there who have learnt new jobs but who first went to Fylingdales on manual work. It is particularly a useful source of clerical employment for Whitby. How important is Fylingdales to Whitby? It seems at the moment to be more important than the Wilton scheme, but that situation could easily alter as the number of men going to Tees-side increases. But there are about 250 civilian employees at Fylingdales from the Whitby area who could be expected to spend all or part of their income in Whitby. Their wages can be gauged fairly readily: the average basic wage is between £11 and £12 a week, but they are sometimes and to varying amounts, required to work in shifts, where the average may be as high as £17. It seems fair to

(1) figure provided by the Clerk of the Whitby Urban District Council.

say an average income of £13 each per week will not over-estimate the position. Security precautions will not permit the release of numbers or wages of men on the R.A.F. staff at Fylingdales but it is possible to reckon out from conversations with interested parties that there are about 130 of them from Whitby and this agrees with the known number of houses built for them. With the undoubtedly high wages that these men earn it is clear that Fylingdales has had a marked effect on Whitby; causing a weekly income to the town of considerably more than £5,000.

However, it must be recognised that the position is a precarious one - this very valuable source of employment could become of no account at all at the stroke of a pen, for if there is a change in defence techniques then the station will become obsolete.

It would not be too extreme to suggest that the Propensity to Spend of the Wilton workers is high, and so is that of the R.A.F. personnel at Fylingdales. It is suggested that the propensity to spend of the clerical and semi-skilled employees at Fylingdales will be less high. The tendency amongst manual workers to spend high proportions of what they earn in good times and to "get by" in the bad times is known, and the R.A.F. personnel will not need to save for retirement - he is assured of an early pension and will be able to take up a further job. If these suggestions are accurate it is then seen that the Propensity to Spend is higher amongst the higher earning groups: the generated income from these sources into the Whitby economy is high and valuable; backed by the civilian expenditure from Fylingdales these two sources of employment for Whitby to-day contribute

1. Quoted by Sir Alec Spearman, M.P. for Whitby and Scarborough at the Public Enquiry and reported by Whitby Gazette, July 10, 1964.

the
noticeably to economic welfare of Whitby.

In the circumstances existing before the proposals to close the railways into Whitby, the town had an assured place among the small natural resorts of Britain even if no spectacular advance in its prosperity was to be envisaged. Yet with increasing leisure time and prosperity, and the habit of taking a summer holiday growing so the prospect for the resort seemed to be fairly and soundly based.

Local opinion in Whitby is that the economy of the town depends upon the holiday season: it is held to be of paramount importance to Whitby and virtually its "raison d'etre".

In this section I shall seek to establish the validity of this view and to assess the role of the holiday season to the local economy. The traditional view was much vaunted by responsible and clear thinking persons at the Public Enquiry. The view is also held in Government circles: the Hailsham Report ^{Bib} (9) refers in Paragraph 127 to the North Riding outside Cleveland and concludes "the main prospects seem likely to lie in the further development of the areas excellent tourist potential, particularly at Scarborough itself, at Whitby, and on the moors". And just after the war when Sir Stafford Cripps was President of the Board of Trade, he was asked for a permit to build a factory and replied that he would favourably consider an application for building an hotel in Whitby but not an industrial building. ^(1.0pp) So it is not surprising to find this view so widely and firmly held in Whitby ~~(1.0pp)~~ itself.

From the ascertainable facts it is clear that the resort income in the holiday season is very important to Whitby. The figures showing the rhythm of takings of various indicators show this. The contributors to this very important income to Whitby are the residential visitors

1. This Keynesian term is fully explained in the Section 'The Multiplier in *Whitby*' on pages ~~27~~ 28-32.

and the day trippers: the latter are of minor importance it seems, making ^{up} only about one tenth of the estimated resort income of Whitby and its surrounding area. However it would seem reasonable to argue that this small proportion is in fact provided by certain types of day trippers rather than by others. The day trippers who come by car are able to bring all they need in the way of food and drink with them with no bother at all, but the tripper who comes by train has to be prepared either to carry all these items round with him or to purchase them when he gets to Whitby. The same can be said of the tripper who comes by coach, but he can leave his baggage on the coach and so is, other things being equal, more likely to be persuaded to bring his needs with him.

The Residential Visitor is of major economic importance to the resort income. Perhaps a half of the total resort income is paid over by him for accommodation - and much of this will be paid out again by the hotelier to tradesmen in the town, for food, particularly, and for other items, of which laundry would be prominent. The implication is that not only is ^{this} the major source of income to the resort but that the multiplier ^(1 opp.) is relatively higher too - though this is not assessable, it does accentuate the value of the Residential Visitor to Whitby.

The indicators also show the short duration of the holiday season at Whitby and the pronounced and sharply defined peak which lies at the end of July and the beginning of August. This is a shorter season than the national average seems likely to be, and also the falling away of traffic after the peak is steeper in Whitby than is probably experienced at other types of resorts or at similar ones

in the warmer south and south west. It is clear that the season at Whitby can be divided into a fore peak period and a peak period, and there is virtually no after peak period. The former includes a very short term rise at Easter and Whitsun for week-end or perhaps weekly visitors. In June and early July the boarding houses and hotels seem to have about half of their potential accommodation booked and the visitors comprise, as might be expected, the following classes of people: old folk, mothers with young children, junior staff from business firms and Scottish holiday makers.

Whitby Seasonal Receipts, 1964

<u>Week</u> <u>Ending</u>	<u>Cliff</u> <u>Lift</u>	<u>Chairs</u>	<u>Chalets</u>	<u>Foreshore</u> <u>Total</u>	<u>Total</u> <u>Gross</u> <u>Receipts</u>	<u>Rail Tickets</u> <u>collected</u> <u>at Whitby</u>
	£	£	£	£	£	
May 17	67	134	392	545	1064	
24	93	56	148	218	1296	10299
31	34	20	62	82	527	4842
June 7	18	10	16	48	501	5116
14	54	70	71	158	1036	5369
21	22	9	40	60	768	5812
28	105	143	99	270	1190	8022
July 5	76	84	79	198	1260	7490
12	68	94	126	249	1195	6963
19	102	132	153	320	1468	8608
26	166	181	240	504	2124	10070
Aug. 2	206	313	165	621	2889	16560
9	246	343	182	644	3041	17019
16	144	163	182	420	2627	12599
23	145	171	134	392	2112	11677
30	205	343	152	596	2613	12103
Sep. 6	104	98	50	174	1652	10512
13	65	94	38	154	1160	
20	23	16	21	39	486	
Total:	1943	2474	2350	5692	29009	153061 (in 16 week period)

Notes

1. Chairs: Although chairs are hired on a deposit system, no element for unclaimed deposits is included in the figures given.
2. Chalets: Are bookable in advance, and in the early part of the season, weekly takings are boosted by cash received for full seasonal letting. e.g. Part-week ending 17th May.
3. These indications are shown in graph form at Diagrams 1 and 2.
4. As shown on the diagrams the effects of weather must be allowed for.

The figures show the pattern of previous years but the late August peaks are more dramatic in 1964 than in previous years.

The peak period lasts from mid-July to early September, and it is at the end of July and early August that is the most congested, but it is the whole 8 weeks that is referred to as "The Season". By early September the traffic has thinned appreciably and the season has ended by the second week of September.

It will be valuable at this point to consider the sources of holiday makers in Whitby. From personal enquiries - see Appendix 4, hotel visitors' registers, and from the number of enquiries received by the Holiday Bureau it is clear that the Residential Visitor from the West Riding of Yorkshire is the largest single source, making up perhaps one-third of the total number. Lancashire and Cheshire, the rest of Yorkshire, and Tees-side and County Durham, and Newcastle, all provide a significant number of visitors, and seem usually to account together for about another third. Clearly Whitby relies on visitors from a relatively local orbit: contrast this position with a.....

see page 16

position with a small resort in Devonshire like Dawlish, where people from all over Britain are found in much closer proportions.

It is suggested that the "package deal" tours of the continent by coach offered nowadays will have drawn some of the middle class type of visitors away from Whitby: to offset this there has been a growing tendency to take an annual holiday away from home, and a growing urge to find places which have not been too commercialised is noticeable amongst a slightly better class person.

A fall in the number of middle-class holiday makers may be implied in the claim made by the Secretary of the Whitby Hotel and Boarding House Association during my interview with him that "the capacity for residential visitors in boarding houses has fallen by nearly one half in the last three years". However, he could produce no figures to verify this claim.

But the facts are that in the last two or three years the continental towns have begun to draw upon the highly paid manual worker; and amongst the salaried and fixed income families the trend now is to stay in Britain and at the natural, rather than the commercial type of resort. The trend exists, its extent as yet is small, but growing. (1) (Foot of next page).

Obviously, because of considerations of time and distance the day trippers to Whitby will come generally from a slightly tighter orbit than it appears the residential visitors come from. No precise measurement could be attempted but it is reckoned that the Tees-side and County Durham area is as big a source of day visitors as the West Riding. This is certainly indicated by the issue of rail tickets from

Middlesbrough to Whitby.

From all the foregoing the dramatic nature of the holiday season in Whitby, is apparent. The highly concentrated season when Whitby teems with visitors and the business concerns turn over their stock at an incredible pace has given rise to the notion that the season is the paramount reason for Whitby's local economy being a viable one. Certainly its value must not be under estimated: Whitby could not survive without the holiday season and indeed if it has been a poor season it is known that many accounts at the Banks are overdrawn by Christmas. But to say that it is paramount (2) is to disregard the value of Fylingdales and Wilton to Whitby and also the value of the custom, provided all the rest of the year, by the inhabitants of Whitby and the surrounding area, which though not dramatic in any way is regular and certain. It seems the value of the holiday season as a whole - compressed as it is into a short season - is not as important to Whitby as has been suggested in some quarters though it does play a very valuable role in supporting the economy there and the role may be the most important single role, but it is not paramount.

- (1) I am indebted to the Entertainments and Publicity Manager, Captain Cooper, for this helpful piece of information. The point was made at the Annual Meeting of representatives from the Health & Pleasure Resorts of Great Britain in February 1965.
- (2) This was argued by the Secretary of the Whitby Hotels and Boarding House Association at the Public Enquiry.

With the exception of those concerns previously mentioned, it becomes apparent that the majority of firms in the town of Whitby depend, at least to an equal degree, (and perhaps even essentially), upon the permanent market provided by the 24,000 population of Whitby town and the rural area which it serves, as upon the holiday season.

It will be valuable now to assess the extent and calibre of this area.(2)To the south east it is fairly obvious that the rural population as far as Ness Point uses Whitby as its centre for shopping and entertainment. The settlements of Robin Hoods Bay and Fylingthorpe, comprised of native and immigrant populations to an almost equal degree are linked to Whitby by rail, and by road (when their access roads, which have very steep gradients - Sledgates is 1 in $4\frac{1}{2}$ - are climbable) but buses only run in the summer season. The north-south roads are at all times rated by professional opinion sought out (1) as 'unsuitable for motor traffic'. The immigrant populations of these two villages are made up of retired people: these people contribute much to the economy of Whitby and it is to the advantage of Whitby that these places are considered as suitable places for retirement in the future. Surmounting the crescent of the Bay there is a scarp rising to over 800 feet and beyond that mark the Whitby pull lessens appreciably and the trade belongs almost completely to Scarborough from Ravenscar onwards.

(1) The Area Surveyor of the North Riding County Council.

(2) The information contained in the following discussion on the spheres of influence of Whitby was provided by the Chairman of the Whitby Chamber of Commerce.

1. Whilst the concept of the orbits of Whitby's influence is subjective, it is observable. The Whitby Chamber of Commerce accepts the position here outlined and the concept was formulated with the assistance of the Chairman and the Secretary of the Whitby Rural District Council. This seems to be a satisfactory empirical concept: I could adduce no evidence to contradict it in spite of attempts to do so.

Clerk

The coast to north and west sees a stronger pull towards Whitby because there are no geographical difficulties of getting to Whitby: it is really a matter of proximity and time and distance whether the populations tend towards Whitby or to Tees-side. Whitby dominates the area as far as Staithes, but has lost its significance at Easington and is of little value for shopping to the people of Loftus, unless the shopping is to be combined with a day at the sea. The various pulls of Tees-side, Saltburn and Guisborough prove too strong for Whitby at this distance. In spite of the greater distance from Whitby itself that its orbit is felt along this coast, the value of this part to the year round trade of Whitby is unlikely to be more important than that provided by Robin Hoods Bay and Fylingthorpe, because Staithes is not so full of prosperous retired people as these two places and Runswick Bay is much smaller.

The biggest orbit is in fact inland - up the Esk Valley as far as Comondale and including the small but important village of Goathland further south ⁽¹⁾_{app.} These places gravitate towards Whitby because of the ease of getting to Whitby on the train which runs through the villages at the bottom of the valley: the moor road keeps to the high ground and is at least two miles, ^(see Map 2 on page 75) ~~and at most,~~ ^(for examples) ~~six miles~~ from the villages concerned. Goathland is valuable to Whitby - again because of its large proportion of retired folk, but Whitby's influence is not much felt beyond here because there is only a very sparse population, and then villages on the southward slopes of the moors will be nearer to Pickering.

In monetary terms this source must be the most important to the round-the-year trade of Whitby, because of the numbers of people who live here and because of the special value of Goathland.

Consider now the sources of earned income to Whitby during the out of season period. These sources are 4 in number.

The largest section of employment is engaged in Shopkeeping or assisting, and the services. The figures on page 6 show that there are over 2½ thousand people employed in this category, and it is reckoned that there are another 400 self-employed within the area of the Whitby Employment Exchange (1) However, some of the overall figure of nearly 3,000 people are only employed through the off-season so that the concern can cope in the holiday rush. This is known to be true, by the Urban District Council, and the Chamber of Commerce, and was borne out by my own private questioning in stores and shops in Whitby. The proportion to which this applies however is not readily gauged. My considered opinion that it may account for one-fifth of the total number of employed persons in this category was accepted by the Chamber of Commerce.

(1) Reckoned by the local Manager of the Exchange, in an interview.

A second important source of income to the area is from the Agricultural Industry (1) The Chief Agricultural Officer of the North Riding County Council reported there to be between 900 and 1000 persons engaged in Agriculture (i.e. employed or self employed) within the orbit of Whitby. (The Ministry of Labour return on page 6 shows 625 employees in the "Agricultural Forestry and Fishing" category).

An important question here concerns the proportion of these persons engaged in Market Gardening, because at least a part of such income should be attributed to the holiday season.

(1) For the information contained in this analysis I am indebted to the Chief Agricultural Officer of the North Riding County Council.

In fact, Market Gardening has virtually no significance, as an employer, or as an income earner in the area: there are no more than eight viable horticultural holdings in the area, covering only 26 acres in all, and the area has to import a very large proportion of its fruit and vegetables from wholesalers in Leeds. A small rider must be added because the area does export flowers to the Tees-side markets. Thus the extent of Horticulture in the area is insignificant, and there is no need to refine the position of the holiday trade and the round-the-year trade as a result, for the agriculture of the area is not geared to producing for the holiday market.

The income to the area provided by Agriculture is very nearly all derived from the ordinary farms which produce milk, beef and lamb, wool, seed potatoes and cereals of which barley is the most important. There are about 700 such farms in the orbit of Whitby, with an average size of about 70 acres. There are vast discrepancies from this mean however, since there are 900 acre farms and very small, but intensively farmed ones of no more than 50 acres.

What is the extent of the incomes these farms provide ?

It is reckoned that there is a gross profit of about £50 per acre (1) per year on these farms on average, but about £40 is spent on necessary matters - feeding stuffs for the cattle for example, and building improvements - and the expense of this mainly goes to contractors outside the area, that is, to national firms, or at least to firms whose centres are not in Whitby or Whitby area. But these expenses will generate some useful income in the area, and will include the wages of the men employed on the farms. It is reckoned that there is 1 man employed for every 2 farms.(1)

(1) Chief Agricultural Officer of North Riding C.C.

Thus the gross income to the area through these Agricultural holdings may be represented as 700 holdings x 70 average acreage x 50 average gross profit per year per acre = £2,450,000. But since a large proportion of the expenses incurred provides no income for anyone in the Whitby area, and much of this gross income is lost, the minimum income the agricultural holdings will provide is the wages to the employees: 350 employees x say £700 a year = £245,000. From these two figures it may be suggested that there is between half a million and a million pounds of income generated to the Whitby area from Agricultural holdings.

To this must be added the net income of the holding: it is thought that in this area the net profit per acre is about £10.(1) per year. Thus the net income of the holdings will be 700 x 70 x 10 = £490,000.

Thus altogether each year these holdings produce between £1.million and £1½.million of income, some or all of which is potentially available for spending in the town of Whitby. A note on The Multiplier in Whitby follows shortly and it includes an attempt to assess how much of the incomes derived from the Agricultural Industry and the Distributive Trades is, in fact, available for spending and how much of that is actually spent in the Whitby area.

The value of this to Whitby is obviously very great. Like the income to Whitby generated through employment in the distributive trades and services, this income is steady and reliable and thus it clearly has a stabilizing effect on the round year trade of Whitby.

(1) Chief Agricultural Officer of the North Riding County Council.

A third valuable source of income to Whitby is the railway itself. At Whitby Town station 96 men are employed and so when men engaged at local stations within the orbit of Whitby are considered too the number of railwaymen who receive an income (of which the part that is spent is mostly spent in Whitby) rises to between 130 and 140. I have been able to pursue this matter a little (1): basic wages vary from a minimum of £10-£11 to £16-£18 a week and so the average wage is rated at about £12. Thus the weekly income to Whitby and the district from this source is over £1,500. The actual wages paid to 49 men at Whitby Town station for 1964 was £37,800 and so in a year it is reasonable to suggest that nearly £100,000 is paid to men which will, with a propensity to save being relatively low amongst the lower paid men who will make up the majority, mostly be spent and that which is spent will be mainly spent in Whitby.

On page 2 it was stated that the usage of the Harbour at Whitby was growing. The following Table indicates the growing use that is being made of the Harbour and implies that it is an increasingly useful source of income to Whitby.

(1) I am here indebted to the station master, now retired, of Whitby Town, Mr. Harold Wise.

Cargoes loaded and unloaded at Whitby 1958-65

<u>Year</u>	<u>Limestone Out</u>		<u>Timber In</u>		<u>Other Ships</u>	<u>Cargoes</u>
	<u>Ships</u>	<u>Tons</u>	<u>Ships</u>	<u>Tons</u>		
1958	13	8,365	2	261	-	
1959	62	33,398	7	905	-	
1960	56	26,229	7	966	6	Alfalfagrass scrap metal, Potatoes and Seaweed all coming in.
1961	59	25,253	9	1312	-	
1962	61	26,730	3	460	2	No Cargo
1963	62	25,400	7	1021	3	773 Tons of Strip Steel, out.
1964 //	46	19,475	16	2500 ①	-	
1965	45	20,555	29	5630	23	13275 Tons. A new trade starting 1965 of import of paper Involved 18 ships and 11815 tons in 1965.

// Dropⁱⁿ limestone exports in 1964 attributed by Harbour Master to the Transfer of the shed and loading operations from the Fish Quay to the new Endeavour Wharf.

① Increase in Timber imports attributed to the new wharf coming into use in September 1964, allowing larger vessels to discharge.

Table taken from the as yet unpublished material of Prof. E. Allen, to form part of "A following^{up} to the 1958 Survey of Whitby".

In spite of attempts to do so I have been unable to adduce any reliable information on the extent of the income ^{the} of Harbour generates to Whitby through the handling of the above cargoes.

The other source of income to Whitby via the Harbour is the earnings of the Fishing Fleet. The Table below shows that although there have been changes in the composition of the Landings, yet their total value has not declined appreciably.

Fish Landings at Whitby 1960 - 1965

<u>Year</u>	<u>Whitefish</u>		<u>Shellfish</u>		<u>Herrings</u>		<u>Total</u> value
	cwts	value	cwts	value	Crans	value	
1960	12,817	£54,987	8,921	£60,905	19,325	£77,560	£193,35
1961	17,924	78,530	8,041	52,920	7,535	38,953	170,003
1962	16,449	67,951	7,466	54,496	3,931	30,558	153,005
1963	19,143	83,989	7,592	50,291	12,382	52,758	187,038
1964	21,932	91,982	7,661	56,989	7,245	34,635	183,606
1965	24,728	105,905	5,146	48,591	3,063	15,792	170,288

Table taken from the as yet unpublished material of Prof. E. Allen to form part of "A following^{ing} to the 1958 Survey of Whitby".

Again I am unable to make any reliable statement as to how much of the Total Value of the Landings actually results in income to Whitby owners or how much is earned by the fishermen of Whitby in the catching of the fish shown in the table.

But in spite of the non-availability of the details of the income generated in Whitby by the handling of cargoes and by the fish landings the above data ^{are} reported since ^{they} it reflect the fact that the Port as a whole makes a valuable positive contribution to the income of Whitby.

From the foregoing discussions on the earnings of the folk in Whitby and the surrounding area in Shopkeeping and the services, Agriculture, the Railway itself, and the Port, and before that on the extent of the area upon which Whitby draws, it is now submitted that the value of the permanent local market is of at least equal importance to the Whitby economy as the Holiday Season. The violent upsurge in business in summer, may make viable a concern that otherwise could not make a profit, but equally, if the concern had to depend solely upon the holiday traffic, its ability to cover costs in that way would be remote - (I exempt from that statement those firms which cater solely for the holiday traffic).

The Multiplier in Whitby

In every economy, local, regional, or national, the concept of the multiplier must be taken into account.

In an existing economy the value of the Multiplier will depend upon the existing propensity to consume in that economy and if the tendency is strong for people to spend most of their income then the Multiplier will be high. When a new situation is imposed on the economy, as for example the boost given to the economy of the North East by the implementing of the fiscal and other policies of the Hailsham plan, the value of the Multiplier of the new situation will depend upon the marginal propensity to consume.

The equation used to show this concept and the value of the Multiplier is:

$$K = \frac{1}{1-m}$$

When "K" = the Multiplier and "m" is the marginal propensity to consume.

All of the above also implies that the Multiplier is dependent upon the extent of the propensity to save in the economy. This is in fact one of the two leakages that Keynes envisaged - one of the two reasons why the multiplier is unable to be an infinite multiplier.

Thus if the propensities to save and to spend are equal and the income of the economy is £1,000 the multiplier will work as follows:

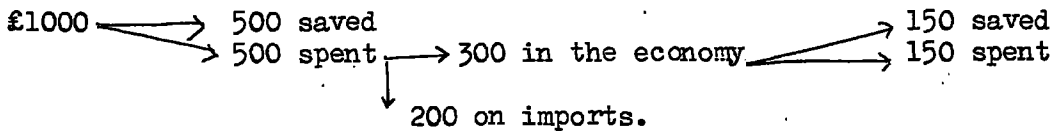
£1000 $\begin{cases} \rightarrow \text{£500 saved} \\ \rightarrow \text{£500 spent} \end{cases}$ $\begin{cases} \rightarrow \text{£250 saved} \\ \rightarrow \text{£250 spent} \end{cases}$ $\begin{cases} \rightarrow \text{£125 saved} \\ \rightarrow \text{£125 spent} \end{cases}$

and so on, and the total income to the economy will be £2,000. Or, in

the equation above $K = \frac{1}{1-\frac{1}{2}}$, $K = \frac{1}{\frac{1}{2}}$ $K = 2$. Total income will be 2×1000 .

The other leakage which Keynes envisaged was through imports. Clearly if £200 of the first £500 spent is spent on imports then that money is lost to the economy, and is unable to generate any additional spending or saving.

The position becomes:



Clearly in such a situation the value of the multiplier to the particular economy is reduced.

This may now be related to Whitby. Here there is an existing multiplier effect all the year round. Its extent is sufficient to keep the economy alive, even when savings and imports are accounted for, though following a bad holiday season it is sluggish in its effect and some concerns to which the multiplier does not flow so easily become overdrawn at the banks. These are the concerns heavily dependent upon the holiday trades and who are relatively cut off from the round year trading; concerns will include the boarding houses, some cafes, any retailers catering for visitors rather than the local population. Generally, however, the propensity to spend in Whitby is sufficiently high to ensure that the Multiplier effect reaches all over the local economy, though with an uneven spread.

In the summer, a new situation is imposed on the economy, through the holiday season. Now the multiplier in the economy depends upon how much of the additional income to Whitby is spent and how much is saved.

But whilst the income of the town soars during the season it is now suggested that the Multiplier does not rise either in proportion, or as much as may be the case elsewhere. I suggest that in Whitby there is a departure from the traditional situation where as income rises so propensity to spend rises until a certain point where wants are satisfied and the propensity tapers.

The suggestion is based on the proposition that the holiday traders, knowing that they rely, perhaps entirely, upon the income they gain during the season, have a higher propensity to save at a lower income than is the typical case. The "m" of the equation becomes lower than might be normally expected.

As to the other leakage, that of imports, it seems likely to be a considerable leak to the Whitby multiplier, and would draw strongly on the valuable round-the-year trade of Whitby. There are firm grounds for this supposition because it is clear that many commodities are not available for sale in Whitby, but which may easily be obtained in Scarborough, York or Middlesbrough. And the further a person lives from Whitby, within the orbit of Whitby, the greater the likelihood is that when he goes to one of those places for the goods in question, he will also buy the other goods, these goods also being goods which could have been bought in Whitby itself. Any small economy is vulnerable to loss of potential income from this source: its multiplier effect is bridled. The concept of the import leakage applies in considerable strength at Whitby: this is not surprising, for it is known that the multiplier effect tends to flow to prosperous parts.

For the above two reasons it is possible to say that perhaps the Multiplier effect in Whitby is not so potent as might at first be expected.

One further matter should be discussed here. The role of the multiplier makes the difficulty of assessing the relative value of the holiday season and the round-the-year trade to the economy of Whitby, an impossible task. I have suggested earlier that those concerns which depend to some or great extent upon the holiday season for their income will have a higher propensity to save at a lower income than might normally be expected. The difficulty then arises in the assessing of what proportion is saved and then eked out during the course of the rest of the year. That is, some of the round-the-year trade is directly derived from the holiday season and is not genuine round-the-year trade at all. This must be born in mind when the relative merits of this trade and the holiday season, to the local economy, are in dispute.

There now follows an assessment of the strength of the Multiplier in Whitby as it relates to incomes derived from the two major occupations of the area that bring in an income all the year round. These are the agricultural industry and the Distributive Trades and make up between a third and a half of the total working population between them.

Of the total incomes available to Whitby from these sources, what proportion may be expected to be saved relative to the country as a whole? Since the people engaged in these employments are unlikely to be receiving (as wages or profits) a very large income it seems probable

that the propensity to save is low. This would, generally speaking, be true of all cases in Whitby since it is known that there is a lack of openings for school leavers of quality and a dearth of posts or opportunities where income may reasonably be expected to be high enough for the propensity to spend, to taper off. In general terms then, the negative effect of saving upon the Multiplier may be regarded as being smaller in Whitby than is generally the case elsewhere.

But the "leakage" of imports may be a considerable one. Whitby does not have big contractors to do repair work and to erect new buildings on the farms or in the shops, thus any project requiring more than the small businesses of Whitby can provide, will involve a leakage of local money away from the local economy. Timber for example, will probably come from Hull and pre-stressed concrete from a Tees-side firm. Again Whitby may be hampered in that whilst it has about 200 selling points these include relatively large (in comparison with the other selling points) branches of Boots, Woolworths, 2 Circuit Cinemas, and seven shops are branches of local rather than national chains: this is so in the case of a chemist (where the Head Office is in Hull, as are the following), an ironmonger and a florist, and also there is a department store Co-operative. Most of the money that is spent in these concerns is not regenerated into the Whitby economy again: the only money that will be returned to the local economy is that small proportion which covers the variable costs of the concern - namely wages, (and in the case of a cafe, some of their materials). But much of the money spent in these concerns is an immediate leakage away from the Whitby economy. It is seen there is two-fold evidence to suggest that there is considerable leakage in the Whitby economy, and that the effect of the Multiplier is, accordingly, diluted.

STRENGTH

From the foregoing the impression has been gained that the Whitby economy is functioning well at the present time. It appears to be as healthy as could reasonably be expected in its present environment.

But there is evidence, to be presented, which indicates that there is some malaise in the economy: what looks strong and healthy may in fact, upon closer examination, have a pall of sickness about it.

Whitby suffers from an apparently serious unemployment problem, and it is only during the summer visiting season that the position shows any relief. The figures on the next page show the number of men registered as wholly unemployed at the Whitby Exchange from 1955 to 1964.

MEN: WHOLLY UNEMPLOYED, AT WHITBY EMPLOYMENT EXCHANGE. (1)

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Average for year.</u>
1955	179	189	164	118	113	55	72	42	68	90	99	93	107
1956	108	97	85	74	69	54	40	54	86	135	118	129	88
1957	158	160	170	159	184	132	143	133	142	171	171	204	161
1958	224	213	236	178	149	110	115	129	197	241	348	320	205
1959	420	435	370	336	369	316	266	243	257	311	308	323	330
1960	314	265	259	204	136	148	113	96	162	189	181	167	186
1961	174	155	137	131	143	97	94	99	127	162	183	184	140
1962	216	220	204	148	137	106	69	74	113	189	210	297	165
1963	436	469	438	361	340	270	273	235	280	303	329	313	337
1964	323	343	418	290	232	218	196	204	215	242	226	253	263

Mon-
thly
Avge: 255 255 248 220 187 150 138 131 165 203 217 233 198

Index:
If 200
= 100 128 128 124 110 94 75 69 66 83 102 109 117

(1) From the as yet unpublished material of Prof. E. Allen to form part of "A Follow-up to the 1958 Survey of Whitby".

This serious situation is recognised by the Government. The Whitby area was scheduled for the purposes of the Distribution of Industry (Industrial Finance) Act 1958 and was later included, and still remains a Development District for the purposes of the Local Employment Act 1960: the preamble of this Act states that its purpose is to promote employment in localities where high and persistent unemployment exists or threatens.

Clearly the situation causes disquiet: this is further added to by the Ministry of Labour revelation that the ratio of unemployed persons in the area is approximately 4 in the Urban District to 1 in the Rural District.

In attempts to remedy this situation Whitby has been trying for many years to attract to the town suitable light industry: the establishment of an Industrial Trading Estate in the area was suggested by the Tees-side Development Board, but it was not pursued, at the request of Government departments, owing to the Fylingdales Early Warning Station which was being launched as a project at that time demanding absolute priority in labour requirements. The development of the large deposits of potash, known to exist in the area has been advocated, and an American firm is actively engaged in exploration works: if this proves successful it would lead to the establishment of a plant which could employ 250-300 men. (1).

- (1) The Company is the Armour Chemical Coy. of America. Production is expected to be in the region of 3000-5000 tons per day, in spite of the deposits being at great depth. The figure of 250-300 men was the opinion of the Company when preparatory bores were being drilled in 1963.

There is however, a further, though closely allied, reason for concern at the state of the Whitby economy. This isto be found amongst the school leavers. At the two Secondary Modern schools the majority of leavers find jobs in Whitby or nearby, the majority who go away are usually of better quality and take up jobs like nursing or go into one of the Services. At the Grammar School the trend is more pronounced. Half of the leavers do not stay in Whitby and nearly half of the total take Higher Education courses and most of these will not be able to find jobs in Whitby when their courses are complete. This "creaming off" of the better able young people indicates a paucity of openings for their talents and mirrors an economy which depends too much on certain types of employment. As the poorer quality people stay in Whitby it can be seen that over a period of time the quality of workers in Whitby is worsening.

The situation with regard to school leavers is an unhappy one and gives further indication that all is not well with the economy of Whitby.

School Leavers from Whitby

	Stay in Whitby	Leave Whitby	Further Edcn.	Higher Edcn.	Reg. for Employment.
Eskdale County Modern From 12.62 to 7.64	145	10	11	-	11
Whitby County Modern From 3.63 to 7.64	90	18	16	-	-
Whitby Grammar School From 12.62 to 7.64	37	26	-	38	-

NOTE: There is a definite flow of those leavers from the Modern schools who left the area, to such occupations and places as the Services and the Police for boys and to Nursing for girls.

From the Grammar School the range is more diffuse and includes posts with I.C.I., Shell, Banks and offices; training posts in the Services for boys, whilst Clerical posts and Nursing are dominant amongst the girl leavers.

However, whilst there is this evidence of malaise in the Whitby economy, it is possible to over-emphasize the extent of this; indeed it seems likely that the position is not so acute as may be held.

The high unemployment figures for Whitby are not such a reliable guide as may be the case in most other places because of two factors. The first concerns the fishermen: if the count of unemployment takes place on a day when, because of inclement weather or because the fish are not rising, the fishermen have chosen not to put to sea then these men will be included. And during the winter months it seems probable that at all times there will be some of them unable, through sickness or injury, or unwilling because of any number of reasons, to put to sea. Such cases will be included in the number of unemployed; whilst technically this is true the real position is however distorted as a result. A further disfigurement to the true picture is thought to be caused by some of the people who retire to Whitby. Since Whitby is a retirement spot chosen by many people from the industrial regions of the north of England, there will be some proportion of people retired from their means of livelihood and yet not old enough to claim the Old Age Pension. It is expected that some of these people will

sign on to the employment register in order to collect the unemployment benefit each week: there may be but a few of these cases but it will probably be more than a mere handful.

Thus it is almost certain that the economy is stronger than is thought when the unemployment figures are considered and give rise to doubts as to the nature of the Whitby economy. The position with regard to school leavers must be regarded as unsatisfactory. It is perhaps fair to say that the Whitby economy is as healthy as would be expected but that it does have symptoms of unsettledness which may cause future unease. However, a carefully devised development policy could remove these symptoms and the economy would be able to improve itself and forge slowly ahead.

BALANCE

There is no ground for dispute over this point. It is clear that the economy of Whitby hinges on 4 issues: all of these are vital to the well being of Whitby, but two are unstable hinges and the economy is as a result finely balanced now and the balance is precarious.

The Holiday season depends entirely upon the public taste which may be very whimsical and also upon the weather. This matter is crucial to Whitby's holiday trade because Whitby is a natural rather than commercial resort and as such depends upon fine weather prevailing during the summer. It is known that following a poor season, the bank accounts of hoteliers and traders may be overdrawn by Christmas - at least three months before the small peak of Easter and six months

before the season really starts again. (1): a run of bad summers, or even a run of poor weather during the peak seasons could bring many Whitby boarding house entrepreneurs into liquidation. Again fashions in holiday-making change, vogues for particular amenities rise and fall, and likes and dislikes wax and wane. It must be admitted that Whitby is geared, fortunately, to appeal over a long term, to holiday makers through its historical and natural assets - but these can be envisaged as becoming of small account to holiday makers regardless of how powerful the current taste may be.

The value of Fylingdales has been discussed: and it has been noted that as a source of employment, it could become valueless virtually overnight if defence techniques alter. This would present a double blow to Whitby - it would no longer be a source of employment for people in Whitby, but also the R.A.F. personnel who have been drafted into the area would be moved away.

The position at Wilton is now encouraging and there seems to be no prospect of the work coming to an abrupt end in the immediate future. Minor difficulties however can be envisaged: a possible trend amongst the workers to move nearer to the site, that is away from Whitby; and "leakages" to the Multiplier are likely to be higher here than if the men worked locally. But for the immediate future the valuable role of Wilton as a support to the economy of Whitby is certain; but again one day this source of employment will again come to an end as it did in the early years of this decade.

The other stable element in the Whitby economy is the trade that is provided all the year round by the local market of ^{23,000}~~22,000~~ people in
 (6) Information supplied by: Mr H.W.B. Cummins, manager of the Midland Bank and Chairman of the Chamber of Trade.

Whitby and the area around. This undramatic but essential source of income and employment is probably the present stabilizer of the economy. It is constant and regular, and an important factor, it is known in the sense that its extent can be relied upon. Any contraction in this market would have chronic effects upon the local economy: any implication of this resulting from the proposed rail closures would be severe indeed.

CHAPTER 3.

The Beeching Proposals.

THE BEECHING PROPOSALS

The proposed withdrawal of all passenger services to and from Whitby was first officially intimated in the Beeching Report (Appendix 2, section 1) (Bib. 3) and on Friday 14th February 1964, British Railways announced their intention to implement this withdrawal with effect from October 5th of the same year.

As a result of the objections to the proposals a Public Enquiry was held on Wednesday and Thursday July 8th and 9th, and on September 11th the Minister of Transport, Mr Ernest Marples, announced his decision to uphold the proposals to cease the passenger services to Malton and to Scarborough, but to reject the proposal that would leave the Esk Valley without a rail passenger service; services to Malton and Scarborough ceased to run on March 8th 1965.

The line to Scarborough is virtually single track throughout: there are two short double track sections - into Whitby itself and where the line gives access to the Scarborough Goods Depot. It is $23\frac{1}{2}$ miles long and serves the villages along the line - Hawsker, Stainsacre, Robin Hoods Bay, Fylingthorpe, Ravenscar, Stainton Dale, Hayburn, Wyke and Cloughton are thus linked to either Whitby or Scarborough by this line, which is also of scenic interest for hikers and campers.

In winter four trains run in each direction on weekdays: 3 run on to Middlesbrough and all four have run from Middlesbrough. The service interval is about $2\frac{1}{2}$ hours and the journey takes just over an hour. In summer the weekday service is doubled and a service of seven trains to Whitby and 8 from Whitby is provided on Sundays in summer.

The Malton-Whitby line diverges from the York-Scarborough line at Rillington Junction, $4\frac{1}{2}$ miles east of Malton. It then runs $24\frac{1}{2}$ miles in a northerly direction to join the Middlesbrough line at Grosmont at $6\frac{1}{4}$ miles west of Whitby; this gives a total length of line of $35\frac{1}{4}$ miles. Apart from the 6 miles of single track between Pickering and Levisham the line is all double track. Journey time varies between 1 hr 10 min. and 1 hr 20 min. The line provides a link with Whitby for Goathland, situated on the bleak moors and also is the most direct means of access to Whitby for travellers from the South or from the West Riding.

The train service in winter is of 5 trains each way on weekdays, two of which run to and from York. In summer there are 5 trains on Mondays to Fridays each way, 6 on Saturdays to Whitby and 8 to Malton, and 2 on Sundays each way. Through trains operate to and from Leeds, and Selby, and through carriages to and from Kings Cross are available (Sundays only) on four Fridays and every Saturday. In addition to these services there are two trains in each direction Monday to Saturday all the year and a third one on Monday to Friday during the summer school term between Whitby and Goathland.

The line to Middlesbrough is 35 miles in length: it is double track for $11\frac{3}{4}$ miles (Middlesbrough to 1 mile east of Nunthorpe - $5\frac{1}{2}$ miles, and from Grosmont to Whitby - $6\frac{1}{4}$ miles) and single track for the rest of its course. The line serves the communities in the Esk Valley and links Whitby with the Tees-side conurbation and gives access to County Durham and the north. The service is operated by Diesel Multiple Units and in winter consists of 5 trains in each direction, on weekdays; four extended to Scarborough, and three originating from

there. The journey from Whitby to Middlesbrough takes about 1 hour and 20 minutes and the service interval is about $2\frac{1}{2}$ hours. On Saturdays an additional train departs Whitby at 9.15 p.m. and terminates at Glaisdale. In the summer there are ten trains to Whitby - eight extended to Scarborough and one of these originates from Darlington and one from West Hartlepool. The frequency is hourly in the morning and $2\frac{1}{2}$ hours in the afternoon. Eleven trains run in the Middlesbrough direction, seven originate at Scarborough and two are extended to Darlington and Stockton respectively. The frequency is about hourly in the morning and then six trains between 4 p.m. and 8.30 p.m. On Sundays seven trains run in each direction.

The proposals to withdraw these services also included certain proposed new bus services, which, it was argued, would cater for all intending traffic. The sufficiency of this argument is discussed in the next section.

CHAPTER 4.-----

The Implications of the Proposals upon Accessibility.

ACCESSIBILITY

It has been thought useful to discuss the question of accessibility before the implications of the Beeching proposals are taken up in detail for all the practical implications stem from the degree to which access to Whitby is impaired.

The chapter is in fact, designed to show that the severance of all the ^{passenger} railway links with Whitby would indeed have impaired access to the Town and its immediate surroundings.

For much of the information concerning the road network I am indebted to Dr Appleton's work in connection with the Survey of Whitby (Bib. 1).

The map references are taken from the Ordnance Survey 1" map of the area.

IMPLICATIONS ON ACCESSIBILITY

(See Map 1 at page 1.)

Whitby to-day is served by four "A class" roads. These, together with two minor roads which are important to modern traffic, would become the only means of land access to the town of Whitby if the railway services are withdrawn.

The A.171 to Scarborough is hilly and reaches a height of 700 feet at Low Moor (916037) but steep gradients are confined to short sections and are not as severe as those of the other main roads.

The A.169 to Pickering is based on the old eighteenth century turnpike road: it is a well engineered road, but contains a very steep section at Blue Bank (1 in $4\frac{1}{2}$) as it drops down into Sleights. The road formerly continued into Whitby via Ruswarp - that road B.1410 is

still used by the regular bus services but now A.169 joins the A.171 from Guisborough at Bannial Flat (870099) and avoids a heavy gradient (1 in 5) at Ruswarp Bank. The worst grade on the new section is 1 in 8.

A.171 is the road to Guisborough and Tees-side: it makes for the high ground at Aislaby Moor and reaches 850 feet beyond Skeldes Cottages (8408) but its gradients are not too severe and it is the quickest, but not the shortest, route between Whitby and Tees-side.

The coast road A.174 contains the most unsatisfactory section in the immediate area. From East Row westwards there are severe bends and awkward bridges over the East Row and Sandsend Becks, and these are followed immediately by the 1 in $4\frac{1}{2}$ gradient of Lythe Bank whilst at Sandsend the road is liable to flooding by heavy seas: and after heavy rain significant amounts of debris can foul the roads from the boulder clay cliffs.

Of the two minor roads mention has already been made of B.1410 from Sleights to Ruswarp. The other, B.1416 is a by-pass (of sorts) for Whitby: it connects the roads from the west with the Scarborough road at Sneaton Corner (917037).

The problem in question then becomes as follows:- 'Can this road system meet the demands which will be laid upon it when the only means of entry to or exit from Whitby is this system.' The answers to this problem will be seen to shade according to season, and there are other issues involved.

Consider then, the general matter of the 3 severe gradients mentioned earlier. What effect do Lythe Bank, Blue Bank and Ruswarp Bank have upon the movement of traffic? The R.A.C. submit that "with

the efficient braking system on modern vehicles the major gradients should not present undue danger provided reasonable care is exercised. The necessary warnings are provided and it is understood that the Council pay particular attention to the gritting of these hills in bad weather" (1). Observations made by members of the team engaged on the Whitby Survey (Bib.1.) in 1956 show too that the gradients, as would be expected, affect the speeds of traffic, but also that the effect is less than may be supposed. The real problem seems to lie in the danger and difficulty of overtaking on the gradients which exists when there is a stream of traffic as may happen in summer peaks or when a lorry or bus depress the speed of flow. And at Lythe Bank tests show that the average speed of descent is slower than that for the ascent. There can be no doubt that these 3 gradients are a problem to traffic movement in the area now, and particularly so in Peak holiday movements. The situation will become more strained when more vehicles use the gradients - vehicles which will include the heavy ones like coaches and buses for the trippers and vans and lorries used by firms now unable to make use of the railways parcels service.

I propose to consider now the matter of conditions on these roads in winter, and then to show the effects on access to and from Whitby in those conditions.

All the roads approaching Whitby traverse high ground which is, in places, very exposed, and liable to be affected by snow and ice - and the North York moors particularly have very rapid changes in altitude as a rule rather than as an exception.

(1) In a memorandum of 28.8.56 to Dr. J. Appleton and quoted by him on page 223 of the Survey of Whitby.

The worst conditions in winter are on the Whitby - Pickering road. The open moors receive the full blast of northerly winds which whip up snow into a fine powder and cause drifting at an exceptionally fast rate. The County Council Surveyor can quote occasions when 5 foot drifts have accumulated in $9\frac{1}{2}$ minutes and reported to me that drifts 20 feet deep are common each winter.

The evidence is that the conditions on the road have caused cancellation of, or great delays to, the bus service between Whitby and Goathland every year since 1942 at least, and in one third of these years such conditions prevailed for over 2 months. (Appendix 2 gives full details)

In these circumstances the reliability of the rail links are very valuable to Whitby. (The only evidence of railway access being prevented refers to the severe winter of 1962-63 when the Esk Valley line was blocked 5 times during January and February 1963 between Great Ayton and Danby (1)) This is mirrored at Goathland (population of 518) where ^{2,300}~~8,800~~ railway tickets were issued and collected during January and February 1963 and that number does not include the school childrens' passes which represent a further 1200 journey to or from Whitby in the two months. (2)

(1) Railway Magazine March 1963

(2) Quoted by the Parish Council at the Public Enquiry and in a letter by the Minister of Transport.

Clearly then, without its railways Whitby would be isolated from neighbouring villages for varying periods every winter. It would be unreasonable to argue that Whitby would suffer from this isolation to such a degree as would cause hardship for its inhabitants, but it seems likely that real inconvenience will occur to any inhabitants of a village that could be isolated who has to purchase larger stocks of fuel than he may wish to do, in order to bulwark himself against a severe spell of weather that could happen at any time in the winter months. (These social implications are amplified further in a later section devoted to retired folk).

During the rest of the year when weather conditions are not so severe the roads appear able to cope with the traffic that chooses to use them. Whilst congestion does occur at isolated points and on peak holidays it is not true to state that the roads are "strained to the limits of their capacity" as was done at the Public Enquiry by the Urban District Council.

Only the Guisborough - Whitby road has an official traffic census. The Census, on the next page, shows the weekly totals of vehicles for a week in mid August and shows no great increase in traffic.

TRAFFIC CENSUS - A.171 GUISBOROUGH-WHITBY

	Commercial Vehicles	Buses & Coaches	Articulated or Trailered Lorry	Private: cycles, m.cycles & comb. scooters, cars & taxis.	Total
1960	1381	833	32	23959	26205
1961	1418	921	44	24595	27978
1962	1560	1076	37	28676	31349
1963	1504	868	60	26029	28461
1964	1437	910	23	25955	28325

(1) Professional opinion is that these particular figures do not represent a severe degree of overloading and that all the trunk roads could cope with the extra traffic which may be imposed upon them in the absence of any rail access into Whitby. It does seem clear however, that at certain points there will be congestion and the roads will be inadequate at the Whitsun and August Bank Holiday peaks particularly.

If this is so then it follows that an intending visitor to Whitby in the summer will still be able to get to Whitby reasonably well if he is prepared to come by bus, or has access to a private motor. But it does seem likely that the problem is not of the roads being able to cope, but of the bus companies having vehicles and crews readily available at journey starting points to bring people who depend on Public Transport into Whitby. Whilst a train can be depended upon to run, and will run, however full or empty, it seems doubtful if there will always be a sufficient supply of seats available on buses to meet the somewhat whimsical demand of the public. One bus will always be

(1) The opinion is that of the Area Surveyor of the N.Riding C.Council.

provided, but it is a matter for conjecture whether it will be running full or whether another ten buses will be needed. The service of the railway is, in this respect, valuable to Whitby - which needs as many visitors as it can get.

It seems that a special sort of Demand curve is required to show the position that exists for it is not simply a matter of the price of the Service causing a certain quantity to be demanded, or a certain quantity being demanded causing a price to be fixed accordingly. Other factors will enter in: the weather, the facilities offered on the bus for luggage, prams and other impedimenta, are crucial ones, personal taste will enter in, and a state of health and other matters too, and it seems that the price required in the form of the fare will be of less importance than these matters. If these 'conditions' are suitable people will go to Whitby, if one or more conditions is unsuitable they they will not go - unless (in some cases only) the price was very much lower. For example, if the day of a projected outing brought appalling weather, even if the fare was nil people would not go to Whitby, or if a baby in a pram cannot be taken on the bus, then even at nil fares the family would not travel by bus.

This special Demand curve would be best represented by a three dimensional effect, for if all conditions are met it is known that Demand for the service is high (i.e. The curve is deep at the left end), but where conditions are not all met the Demand tapers and thins, and it has a definite end to it: below which conditions no-one would travel to Whitby.

So, both in summer and winter conditions, the depreciated accessibility of Whitby seems likely to cause hardship to the town - but this is not because of defects in the road system itself.

In the town of Whitby however, the implications are rather more pressing. The traffic problems of maintaining a flow, and of parking are already acute under the existing circumstances. A greater influx of cars and coaches will make difficulties very much worse, since there is no further answer to Whitby's problems in this respect except demolition of buildings: an intricate one-way system has been in use since 1934.

The social implications are pursued in a later section where the increased likelihood of accidents is taken up, in detail.

CHAPTER 5.

The Implications of the Proposals for the Local Economy
of Whitby.

ACADEMIC IMPLICATIONS

The obvious implication is a financial one: that the lines are uneconomic. The proposal is based on the contention that each of the lines makes an annual loss as follows:-

	<u>Annual Earnings</u>	<u>Annual Costs</u>	<u>Annual Loss</u>
Whitby-Scarborough	£20,000	£50,700	£30,700
Whitby-Malton	£34,000	£83,200	£49,200
Whitby-Middlesbrough	£46,500	£69,700	£23,200
			<u>£103,100</u>

(1)

Whilst these figures are known to be distorted it would not seem that Lord Stonham's suggestion ~~suggestion~~, made in Whitby on Monday, April 20, 1964, that there is 'no financial justification in closing the lines' is any more accurate than the railway figures. It must be admitted that it is very likely that the lines do lose money: the figures may be false and give a distorted view but the facts they reflect are probably sound. However, it must also be noted that the annual loss is undoubtedly much less than the figure shown above. It is known that certain types of income have been excluded from these figures. Money earned by passenger services that carry parcels traffic is not included. For example in 1963 Whitby fish merchants paid over £3,000 (1) to British Railways in freight charges for fish carried out of Whitby and for boxes returned empty and new boxes coming to Whitby. In 1963 over 6,500 (2) parcels were despatched from and over 46,500 (2) parcels received at Whitby Town Station: many of those received contained goods for the trades people of the town.

(1) From British Railways Heads of Information.

(2) Details provided by the Station-Master, now retired, of Whitby Town Station.

Again, money received from advertisements and for the use of railway property for miscellaneous services is not included, neither is any revenue received from station car parks.

But the biggest omission is the exclusion of money received at stations outside the three lines for tickets to stations on the lines. With the vast influx of holiday makers and trippers in the summer obviously revenue from this source is a greater proportion of the income to the Railway system earned by these lines than by other lines.

In this respect the system of railway accounting will show these lines in a poor light because it makes no account of a truly major source of earnings which they provide.

Further, it is held that considerable saving of expense could be made if the outdated signalling system were replaced by a modern system on all three branches.

For all of these reasons it is fair to argue that there are significant discrepancies between the figures quoted by the railways and the true position. Yet it does seem likely that the discrepancy is not sufficient to warrant Lord Stonham's somewhat rash statement. The margin between profit and loss may even be sufficiently narrow that it would cost the country more to pay out unemployment benefits to the men whose jobs will be lost as a result, direct or indirect, of the closure.

current in October 1965

At ~~current~~ rates of benefit² if 100 men became unemployed in the whole area covered by the lines in question, and on average each had a wife and 1 child dependent upon him, this would cost £7.15.6d. x 100

a week - £777. 10. 0. assuming that each man qualified for full benefit. In a year this would amount to £40,430. Thus it could be that it would be cheaper to subsidise the lines.

The ^{second} implication of the proposals is that every effort has been made to exploit the full potential of these lines, but that these efforts have been unsuccessful. This implication is not however true. The area appears to lend itself to excursions (there is scenic beauty, and rock formations of interest to geologists for example) and yet, according to the Station Master at Whitby Town Station the number of excursions that have run has declined each year since 1962, and the Urban District Council quoted an instance to the Public Enquiry where a potential excursion to Whitby of 120 Wakefield school children was refused by British Railways. Since the running of extra trains will not affect the fixed costs of the lines, the profitability of such ventures clearly depends upon the ratio of the extent of the variable costs incurred to receipts. The variable costs would comprise administration, fuel, depreciation through wear and tear on assets, and wages for the driver and guard on the special train (presumably employed on over-time).

A further point is that the full benefits of Diesel Units has not been gained. Since reversal times are speeded up so radically, journey times could be quicker than they are, and an exciting prospect can be envisaged of developing high speed inter-city transit between Hull and Tees-side.

Thus it seems that little effort has been made to attract traffic to these lines. This can then be used in argument in two ways. Firstly it can be held that these lines will clearly be running at a loss, if, as it seems, potential traffic has been refused. This is like a firm that leaves productive capacity idle. In this case it may not be justly argued that the lines are "uneconomic" because means exist that could make them economic.

The second argument is that the decision to apply for consent to close these lines is short-sighted. If potential exists which could be developed which at least will bring the deficit down, and at best make the lines profitable concerns, (and if the former, then the degree of social cost involved by closure need only be shown to an accompanying lesser degree) then a progressive policy would be to attempt these methods. If they failed, a decision to close the lines would be then justified, but it is not justifiable while the means remain untried.

A third implication stems from the proposal to ~~close the lines~~ ^{with draw passenger facilities} to Whitby: obviously if there are no railways, a ^{passenger} transport monopoly is created with United Autos. as the monopolist. The service provided by a transport monopolist is however, different in two ways from the position of monopolists producing a good.

First the service is not homogeneous. Whether a person is 15 or 75 the function of fuel or food is the same in their lives, but the function of the bus service may not be possible to the old person who has arthritis, and needs some substantial degree of comfort before it is safe for him or her to travel. The service provided to the older person is not the same as the service provided to the young person.

Secondly the service is not provided at a market or common point. Whilst monopolistic commodities can be bought or refused at a shop where the potential buyer is, presumably, already at the shop; the transport service requires a definite effort to be made to reach the point where the customer can avail himself of it. This may mean a short walk to the corner of his road, or a ^{long} ~~six mile~~ haul up a steep bank to the main road. (See chap 2 for examples of the latter.)

The transport monopolist would seem at first sight to be able to fix not only the price of his service, or extent of supply of that service, but both price and supply. It would seem that, amongst those people who have no access to private means of transport, the demand for a transport service is very inelastic. Thus even if price is raised, the people who must travel are obliged to pay the increased fare. However, there is a factor which though not an obvious substitute has the same affect on the elasticity of demand for the monopolist of transport services. If a person feels the price of that service is too high, and yet must still travel to point A, he can decide to move away from the orbit of the transport monopolist to another place, or more drastically move to another part of the country and find another job. Thus, what looks to be an almost perfect monopolistic position - the service being a necessity to travellers without a car - is in fact, not so acute as it first appears.

It must be admitted here that in fact United Autos are a company of repute and trust and would not charge unfair prices. *In any case the charges are subject to public control.* The position as described in theoretical terms will exist - but its potentials will probably be latent.

IMPLICATIONS FOR THE LOCAL ECONOMY

1, ON THE HOLIDAY SEASON

Clearly the major issue here is the problem of the extent, if any, to which the number of visitors, residential or day, will fall if the rail lines into Whitby were all lost. Any other matter in this section ~~either~~ stems from this point; the effect upon local concerns of any loss in holiday traffic, ~~for example, or is peripheral; the difficulty that hoteliers or consumer businesses in Whitby may encounter in getting their wares into the town for holiday makers to buy.~~

The first point to establish is an estimate of the number of visitors who come to Whitby in an average season, and then to attempt to assess what proportion of these visitors come by train. The enquiries on behalf of Lord Normanby (Bib. 1) reckoned that in a normal season about 60,000 residential visitors came to stay in Whitby and the rural area around: 42,000 in Whitby itself, and 18,000 outside (Normanby Report, p.163).

Certain recent enquiries of my own indicate that the figure is not much different to-day. Local official opinion is that the figure has not fallen. But measurement has become more difficult because fewer visitors are staying in the hotels and boarding houses to-day (~~the total capacity has fallen by about one third in the last 5 years~~), and more are staying in flatlets⁽¹⁾; this trend would seem likely to maintain the number of visitors since more people can live in a flatlet than can live in a room in a hotel, thus it is a cheaper, and for some families, more attractive holiday. Again, Whitby seems likely to have benefitted from a growing national trend, to take 2 holidays away from home in a year - one abroad and one in England.

(1) Secretary of the Whitby Hotels and Boarding House Association

An assessment may be made of the number of residential visitors as follows:-

The capacity of the Hotels and Boarding House Association in Whitby is reckoned to be about 5,000 at any one time: (figure provided by the Secretary of the Association.)

If the hotels are:	full for 3 weeks	.....	15000	visitor-weeks
	4/5 "	" 2 "	.....	8000 " "
	3/5 "	" 3 "	.....	9000 " "
	2/5 "	" 2 "	.....	4000 " "
	1/5 "	" 2 "	.....	2000 " "
			Total:	<u>38000</u> visitor weeks

Now, if the average length of stay is over a week, the number of visitor weeks will be in excess of the number of visitors. The Normanby team reckoned that an average stay was of 9 days - thus it will be appropriate to reduce the number of visitor weeks to a figure of 35000 visitors.

To this number must be added the visitors who stay in boarding houses not in the Association, the homes which take bed and breakfast visitors in the summer season, the campers, caravanners and the Youth Hostellers who seem likely to make up about 15%-20% of the total visitors to Whitby.

If 35000 visitors is 4/5 of the total visitors, then the total number is $\frac{35000}{4} \times 5 = 43750$. Or if 35000 visitors is $\frac{85}{100}$ of the total visitors then the total number is $\frac{35000}{85} \times 100 = 41200$ approx.

A figure of 42,000 residential visitors in an average season is a

reliable estimate to work on, and a figure of 60,000 visitors (42,000 visitors to Whitby itself, plus 18,000 visitors in the rural areas around, as shown on page 5B) to the area may be said to represent a true picture in the absence of any further information.

(Appendix 3 shows a further possible means of assessment, but its basic premise is weak and so the method is not included here).

What proportion of these visitors come to Whitby by train? Here again it is impossible to ascertain with accuracy the actual percentage, but estimates vary from an unverified (1) 41% to an unofficial considered minimum of 15% (2). In 1961 the Association of Health and Pleasure Resorts which represents all the resorts in Britain estimated that an average of 27% of all holiday makers travel by rail. I suggest that for two reasons this figure is still too high. The number of vehicles (licenced) on the road has increased since 1961 (3) and, a smaller point, but one which will affect the marginal case, Whitby is not readily reached by rail even with the improved services run in summer: there is only one through train from the West Riding, in fact from Leeds, to Whitby on a summer Saturday, compared with 8 from Leeds to Scarborough and 12 from the West Riding, whilst coach operators do provide a direct service to Whitby. A figure of 18%-20% will probably fairly represent the proportion of visitors to Whitby who come by rail.

- (1) Made by the Secretary of the Hotels & Boarding House Association.
- (2) Reached by Professor House and myself and accepted by the Urban District Council.
- (3) See table showing the number of private cars licenced on p.128.

It is now my task to try to establish what the loss to Whitby would be if the rail services were withdrawn.

To avoid any ambiguity, or any doubt in the mind of the reader, it is worth stressing a point made earlier in this thesis. The situation which presently exists in Whitby is that one line, the line to Middlesbrough, remains open, since the proposal to close that line was rejected by Mr Ernest Marples, then Minister of Transport.

This thesis aims to show the implications of the proposals to close all three of the lines running into Whitby.

Thus the implications set out below are now merely academic, since, though they are the implications of the proposals to close all three lines, the position has been mitigated by the reprieve given to the Esk Valley line, and thus the total damage to the Whitby economy is less than is envisaged in this thesis.

Is it certain that all the 60,000 residential visitors to Whitby would continue to come? In nearly all cases it seems reasonable to suggest that they would continue to come, but it must be recognised that in some cases the area will be less attractive to them without the availability of the railway. The scenic value of the lines to Scarborough and Malton may count as part of a holiday in Whitby for a few people; and it may be true that for a marginal case the lack of these scenic railway lines may induce him to choose another resort. There is no suggestion that there would be ^{many} ~~may~~ such cases, but it is fair to argue that it is not certain that all of the visitors by other

means of transport would still come to Whitby.

However, it does seem that of the residential visitors to Whitby it is probable that most of them would continue to come to Whitby even if the railway was closed: The above is the only argument against them coming, but again, what of those who came by train ?

The North East Development Council has said that to cut Whitby off by rail would be to launch a crippling blow at the holiday industry (2). Certainly if the industry were to lose 18%-20% of its income the blow would not just be crippling, it would be fatal. But this is extremely unlikely: some of the visitors will be certain to transfer to other means of transport to travel to Whitby. Whitby is perhaps less likely to lose here than in the case of the day visitors. If a person has booked his holiday accommodation he can then book a seat for the relevant date on a coach because he will be certain to want to travel, regardless of inclement weather. The tripper who in most cases leaves his decision to the last minute cannot prevaricate if there is no train - he will either have to book a seat on a coach in advance or not go at all.

Evidence has been adduced to show that in rural parts of England when a railway closes one third of the travellers find alternative means of travel.(1). But the correlation here is dangerous. On most lines people do have to travel by road or rail for necessary reasons (e.g. shopping or work): in the case of resorts, the holiday maker does not have to go to that resort at all. It must be agreed though that there will be a hard core of visitors to Whitby who go there regularly - these will be the nearest equivalent to the traveller who must make the journey by one means or another, but whether they make up one third of

(2) Statement made on 26 July 1963.

1) see next page.

the rail travellers is doubtful: they may perhaps make up one fifth, or in Whitby's case 4% of the total number of residential visitors. To these must be added others who would like to go to Whitby and who are prepared to travel by road even though they would have preferred the rail journey. These people may represent a substantial proportion of the rail travellers, ^{for} since by far the largest proportion of visitors come from the West Riding, the coach journey will not be too tiresome and the coach operators in the West Riding will be prepared to make profitable runs to and from Whitby with the intending and returning holiday makers. However, because of limited luggage facilities, greater difficulties in coping with children, and for those in poor health, it seems that this mode of transport will be more acceptable to the younger person than an older one, and to single people or married couples with no children, young teenagers or very young children rather than married couples with a young family.

I would submit that it would be realistic to say that at the most half of the rail travellers will transfer to alternative means of transport to get to Whitby and that the figure could be nearer to 20%.

If the figure of 60,000 residential visitors in an average season is used, and 20% of these come by train then between one-fifth and one-third of the 12,000 will continue to come by other means: but between 8000 and 9600 are likely to be lost to the resort.

What is the extent of this loss, in monetary terms, to Whitby? Evidence on this is discussed shortly, but this much is certain, it

- (1) St. John Thomas found this to be the case in Devonshire in his Rural Transport in Devonshire.

will be a loss which will, other things being equal, bring certain enterprises into a state where income does not exceed payments, and these firms will go out of existence - either completely, or from Whitby, by buying premises elsewhere. Other concerns will be finding the cooler economic climate reduces their profit margin.

The expenditure, by residential visitors, lost to Whitby, as a result of a fall in the number of such visitors to the extent of 8000 may be calculated as follows:

The Normanby Research Team (Bib. 1) reckoned that each residential visitor in 1956 spent £15. per head on average, but that this figure included an estimated average of £2. each spent on travel to and from the resort. I propose that to-day this figure is in excess of £17. and that the average per capita expenditure in the resort would be fairly represented by a figure of £15. Thus the immediate loss to Whitby would be $8000 \times £15. = £120,000.$

Mention was made earlier of a small, but growing trend amongst salaried and fixed income groups, to take advantage of a natural resort in Britain, instead of, or as well as the "all-in" coach tours of Europe: whether this is because these groups have already been to Europe on the coach tours, or privately, or because they chose not to, for financial reasons perhaps, or for personal ones, does not matter in this context. What is crucial to Whitby is whether it can offset the losses, hazarded above to a significant degree by attracting further visitors from this source. There does appear to be a natural growth in them already and this could probably be stimulated, by selective advertising in journals like The Director, for instance, as well as continuing the current policy embracing national newspapers.

But, if the loss to Whitby has been correctly assessed above, it does not seem likely that a growth in this sector will be sufficient to offset a loss of that nature, even if the average amount spent by people in this group is higher than in the groups which are lost to Whitby. It will, almost certainly, offset part of the loss, but only a small part of it, in the immediate future.

However, there is one further group of people to whom Whitby will appeal for the first time if all the rail links from Whitby to the outside world are severed; and these are those people who only take a holiday in a resort where there are no railways to bring in day trippers: the folk who like a remote beach to themselves and if the area around contains quaint villages, so much the better. This quest for solitude on holiday is also a growing trend - Ireland has benefitted from it - but it must be admitted that it is a small trend. Again careful advertising and perhaps some small expenditure on facilities for yachting might develop its usefulness to Whitby.

These two select groups may in fact hold the key to the future position of the holiday trade in Whitby. If they came in sufficient numbers in the next three summers to partly offset the losses caused by the rail closures then the Whitby firms going out of business would only be the ones that are marginal now, and the Whitby economy as a whole would perhaps remain buoyant, even if it was, overall, nearer to the waters of distress.

But in fact, it seems unlikely that these two groups will be coming in sufficient numbers for this to happen. (see diagram on next page).

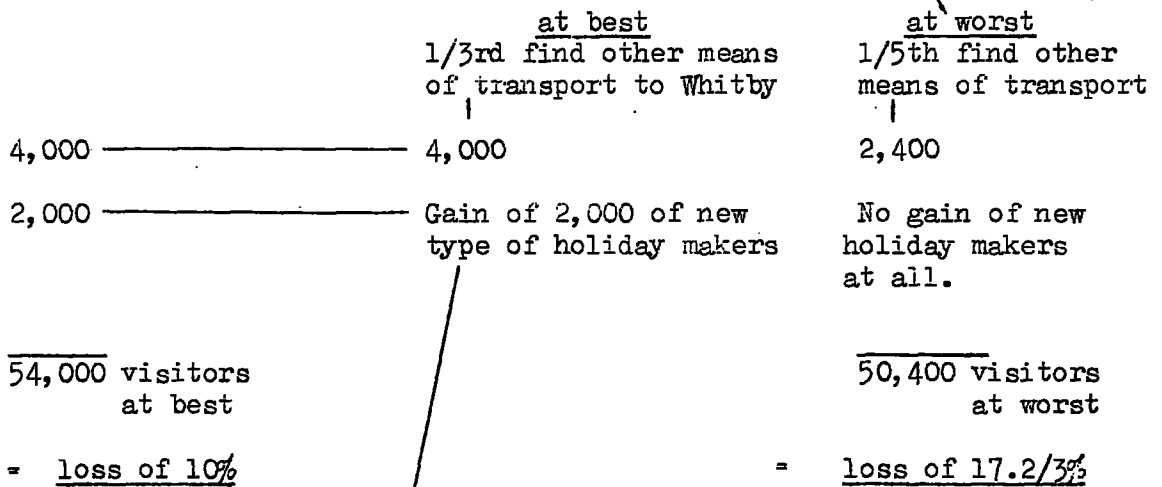
Projected possible effects of proposed railway
closure on residential visitors to Whitby.

Average season of 60,000 residential visitors

80% by road
= 48,000

12,000 by rail = 20%

Assume all these still come.



To this 10% loss add the gain which
accrues by virtue of the greater affluence
of these people whose propensity to spend
may be, say, $\frac{1}{2}$ again higher: but this will
only represent a further 1.6%; though this
might be crucial to Whitby. Loss now, at
very best = 8.3%.

This loss would be cumulative each year,
and not isolated - at least until such time as
the new holiday makers are coming to Whitby in
sufficiently greater numbers to offset the loss.

Although the number of enquiries received at The Spa is higher, by about 1/10 on 1964⁽¹⁾ this probably does not represent a sufficient number. It is doubtful if all the extra 10% of applicants will come and even if visitors were 10% up on the average of say 60,000 this would only be $\frac{3}{4}$ at the most of the least (i.e. best) expected loss amongst the rail travellers, and Whitby's future then hinges on the whimsical choices of the new type holiday makers. The prospect appears to be a rather melancholy one, though not entirely unrelieved because there are gleams of hope.

The result of such a fall in the level of holiday activity will be seen in the further closure of boarding houses. Any contraction in demand for accommodation will hit these concerns acutely because their heaviest overhead costs are the fixed costs of rates, mortgage, repayments and perhaps overdraft or loan repayments for furnishings. The varying costs are small in proportion and are largely made up of expenditure of food, fuel and domestic help. In a situation like this to carry idle capacity for long is dangerous: in this case the idle capacity of the concern cannot be used for any alternative means in the period when it is not in use, nor can it be sold up. An increase of the anticipated extent of the period when capacity is idle, and a shortening of the time when it is in full usage will be sure to cause some boarding house concerns to sell up and move away. (This however, would not be easy - the proprietors are almost 'locked in'. Even to sell to a person hoping to turn the boarding house into flatlets will be difficult. In fact this trend may have finished now and it assumes the person has considerable capital to expend on the re-equipment necessary).

(1) Entertainments and Publicity Manager, at The Spa.

Clearly, too, a contraction of the demand for accommodation will mean less scope for employment of seasonal workers as domestic helpers in the boarding houses: and if there are fewer visitors there will be less demand for seasonal assistance on the Foreshore (deck-chair assistants, amusements etc.), and there will be less pressing need for entrepreneurs to keep so many, or any, employees on during the winter because the summer rush which they are required to cope with will be less severe, and the entrepreneur will find his stocks turning over more slowly and his profit margins reduced.

These losses to the income of Whitby cannot be estimated - but they would be significant and must be added to the net loss already discussed.

.....

It is reckoned that the day tripper contributes only about 1/10 to the holiday expenditure in Whitby. (1). Yet, two things are clear: this 1/10 is a noticeable and valuable contribution and Whitby can ill afford to lose it, and secondly, this income is provided more by some kinds of tripper than by others. It is here held that, generally speaking, the tripper by train is less likely to bring his food for the day with him than the car trippers because the former has to carry it with him until it is disposed of, whilst to the latter it is no trouble. The coach tripper lies in between these two.

How many trippers come to Whitby by train? The Normanby Researchers (Bib. 1.) estimated 30,000. I suggest the figure must exceed this estimate.

(1) Assessed by Professor J. House in the Survey of Whitby.

It is known that in 1963 there were 130,500 tickets collected at Whitby Town Station during June to September(1). Between February and May inclusive there were 70,000 collected (a monthly average for winter usage of 17,500) (1). Thus in summer there are 60,500 additional passengers to Whitby. I submit the following breakdown of the 130,500 summer travellers:

4 months x winter monthly average to cover the domestic travellers...	4 x 17500 ...	70,000
In an average season there are 60,000 Residential visitors: suggestion is that 20% of these come by train ...	60,000 x $\frac{1}{5}$	12,000

This leaves 48,500 passengers: most of whom may be called Day Trippers either from their homes or from other nearby resorts.

It will be fair to use a conservative measure of 40,000 Trippers arriving in Whitby by train: all of which are potentially more valuable to the town through its holiday trade than trippers arriving by other means.

How many of these travellers will be likely to transfer to other means of transport to Whitby? It seems likely to be a smaller number for several reasons. A family travels more cheaply by car than by rail, and in the case of Whitby, as quickly, so it is likely that the present trippers coming by train do not have a car of their own. Very few will have access to one but some may decide to hire one, but overall the number who can transfer to private cars is a low one. The second reason why a small number is likely to transfer to alternative means of transport to Whitby is that it is much more bother to book a seat

on a coach in advance than to step on to a train, and with uncertainty

(1) Station Master, Whitby Town Station.

(1) This was reported in the local press, and quoted by the Urban District Council at the Public Enquiry.

regarding the weather, the step of committing oneself to the coach may be felt too presumptuous. This will be allied to the fact that for people living on Tees-side, Saltburn and Redcar may readily be reached by train, and for the West Riding populace the coastal resorts of Scarborough, Filey and Bridlington are all accessible by rail.

Again, problems are involved for coach travellers with young children; lack of space and toilet facilities are the most salient. Finally, the intending traveller could go to Whitby by bus and United Autos have promised extensive duplication, but it seems as if it will lie idle in part when the demand is slack, and will be inadequate for it when it is at its peak. One Sunday at the end of July 1964, for example, so many travellers wanted to get to Whitby that the trains were filled to capacity, and the issuing of tickets was suspended. (1) It does not seem likely that the buses could cope with such fluctuations in demand for travel, and some intending Whitby visitors will have to change their plans: this is crucial to Whitby which needs every visitor and day tripper it can get.

The nearest estimate of the number of travellers who will continue to come may be between a quarter and one third. At first sight the first suggestion seems likely, but bus journeys by residential visitors from nearby places will keep the figure balanced between the two suggestions. A loss of such proportions as is reckoned here will be disastrous to the income of Whitby generated by the trippers. There may be some offset to these losses by increased numbers of day trippers in private cars who would not come to Whitby whilst railway trippers could come, but these will be few since the extra coaches and cars that will be on the already busy roads in to Whitby will sway them

to visit the Moors or the Pennines instead.

An acute fall in the number of trippers as is envisaged here, which could be in the region of 30,000 would have a drastic effect upon the concerns which are only open during the summer. With a daily turnover of 100% amongst trippers, it is on these as much as upon the resident visitor (who will be more numerous on any one day, but not per head in a week) that the ice cream vendors, amusement arcades, gift shops and some cafes depend.

These firms can find no market during the rest of the year and so have no other means of income if the season does not provide enough to cover immediate costs and the costs of existing until the start of the next season. Other firms in Whitby will suffer by a fall in the number of day trippers - the cafes which are open all year round, confectioners, public houses most noticeably, but the hardship here will not be so great as that experienced by the firms entirely dependent upon the holiday season. Most firms will not be hit at all, or only to a negligible degree by the reduction in day trippers - the cinemas, the greengrocers, bakers, butchers who depend so much more on the resident visitors, for example.

Thus the implications of a fall in number of trippers when considered in detail are seen to vary in shade completely.

The diagram on the next page shows the overall losses to be anticipated through the closing of the Railways into Whitby affecting the number of trippers.

AVERAGE SEASON

40,000 Day Trippers to Whitby by Train: Estimated total number of trippers from all sources:

100,000

Trippers still coming to Whitby:

Certain to come: 60,000 from other sources than rail.

	<u>At Best</u>	<u>At worst</u>
Rail Trippers: 1/3 still come by other means:	13,333	1/4 still come by other means: 10,000
Add new type of trippers (few)	666	No new trippers -
	<hr/>	<hr/>
	14,000	10,000
Loss	26,000	30,000
% loss of rail trippers	65%	75%
% loss of all trippers	26%	30%

.....

SUMMARY TABLE TO SHOW

EFFECT OF RAIL CLOSURE ON HOLIDAY ECONOMY

Loss Accruing to Whitby as a whole

	<u>Best</u> %	<u>Worst</u> %
	Loss of Income	Loss of Income
<u>From Residential visitors:</u> who contribute 9/10 of the estimated total holiday expenditure		
At best: 9/10 x 8.3	7.47	
At worst: 9/10 x 17.6		15.84
<u>From Trippers:</u> who contribute 1/10 of the estimated total holiday expenditure		
At best: 1/10 x 26%	2.60	
At worst 1/10 x 30%		3.00
	<hr/>	<hr/>
	<u>10.07</u>	<u>18.84</u>

This shows that the loss is likely to be of a very serious nature: a blow that could be crippling would be administered to the Whitby Economy, even if its effects were limited to the Holiday Season.

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2. IMPLICATIONS FOR THE ROUND-THE-YEAR TRADE OF WHITBY

In the discussion in the first section the extent of the areas on which Whitby draws, was assessed and the value of the trade provided was reckoned to be at least equal to that of the Holiday trades.

It has just been seen that the Holiday season is likely to be hit hard by the closure of the railways: it will now be seen that this blow to Whitby would be accompanied by a perhaps even more severe blow to the round-the-year trade, and four reasons can be advanced for this.

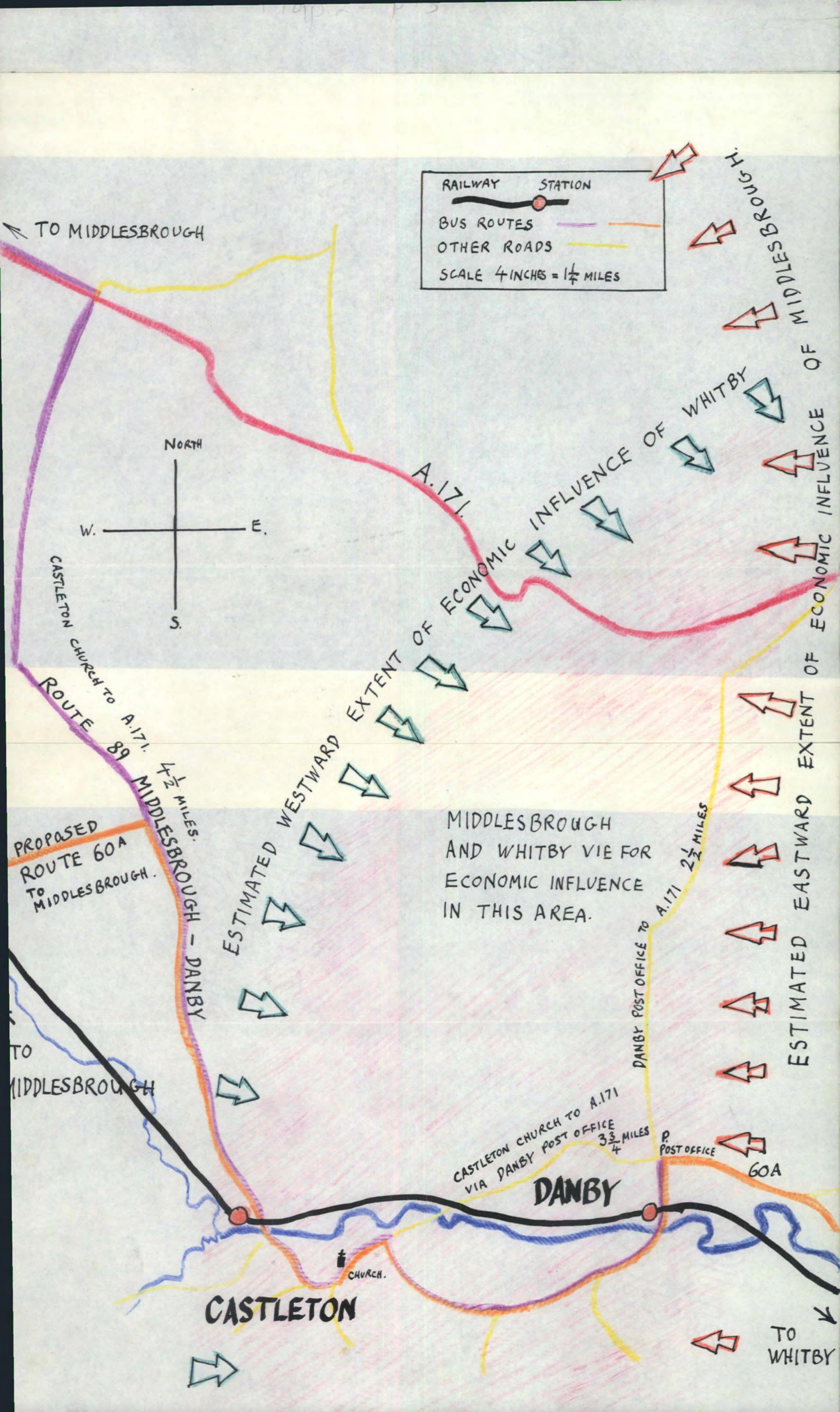
The first reason is that if the proposal to close the lines to Whitby was upheld, the area from which Whitby draws its trade seems likely to contract. It does not seem likely that there will be much contraction on the coast towards Scarborough: if the rail link for Robin Hoods Bay with Whitby and Scarborough is lost this will have the effect of pushing Scarborough further away from Robin Hoods Bay than Whitby is pushed away; and Whitby might even gain trade here, and its present advantage at Robin Hoods Bay become even greater. Nor is there expected to be any change at all on the coast to the north and west. Since there is no railway serving these places it will be fair to assume that these places will remain within the orbit of Whitby.

But the trade of Whitby appears likely to lose an important part of its market in the Esk Valley. Of the villages out as far as Sleights little falling off in trade can be envisaged. Beyond Sleights and as far as Leholm it would not be unfair to say that the pull of Whitby lessens and if transport to Whitby is not readily available the people may choose to go less to Whitby and buy more at the local village shops. Certain shops in Whitby will be more hit than others: those selling necessities will lose more trade than those selling luxuries, because

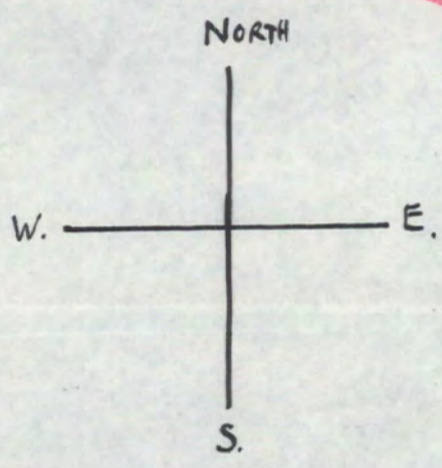
Showing the distances from Danby and Castleton to the A171 and the estimated extent of the orbits of economic influence of Whitby and Middlesbrough before the proposed closure of the railways.

The map also demonstrates that if the railway was removed the orbit of Whitby would contract to exclude Castleton and Danby because the only remaining transport links would be to Middlesbrough.

.....



RAILWAY STATION
 ———●————
 BUS ROUTES ————
 OTHER ROADS ————
 SCALE 4 INCHES = 1 $\frac{1}{7}$ MILES



MIDDLESBROUGH AND WHITBY VIE FOR ECONOMIC INFLUENCE IN THIS AREA.

ESTIMATED WESTWARD

ESTIMATED EASTWARD

EXTENT OF ECONOMIC INFLUENCE OF WHITBY

EXTENT OF ECONOMIC INFLUENCE OF MIDDLESBROUGH

TO MIDDLESBROUGH

TO MIDDLESBROUGH

TO WHITBY

CASTLETON CHURCH TO A.171. 4 $\frac{1}{2}$ MILES.

ROUTE 89 MIDDLESBROUGH - DANBY

PROPOSED ROUTE 60A TO MIDDLESBROUGH.

DANBY POST OFFICE TO A.171 2 $\frac{1}{2}$ MILES

CASTLETON CHURCH TO A.171 VIA DANBY POST OFFICE 3 $\frac{3}{4}$ MILES

CASTLETON

DANBY

GOA

CHURCH.

P. POST OFFICE

the necessities will be available in the village shops and the luxuries will be bought on one of the fewer trips to Whitby.

However, it is also possible to envisage a growth in the usage of mobile shops into the area on behalf of Whitby tradesmen. But still further up the valley the situation looks as if Whitby will suffer: family connections in these villages are already quite strong with Tees-side anyway, and if the railway which runs through the villages is closed the economic connections with Whitby will weaken.

At Comondale and Danby, there is an elastic demand for the shopping facilities of Whitby. The demand is elastic because there is a readily available substitute in the shopping facilities on Tees-side. These two areas compete for the trade of the marginal areas of the Esk Valley which are on the watersheds of both orbits, as Map 2 demonstrates.

However, if for any reason, the decision is made to avail oneself of the facilities in Whitby then an interesting phenomenon is seen. Though the demand for those facilities is elastic, the demand for the rail service to take that person who depends on public transport, to those facilities is virtually perfectly inelastic. This is because there is virtually no alternative means. The nearest bus service to Whitby is up to 4 1/2 miles away, and even then it may not prove a feasible means of transport to some - pensioners or mothers who must take a pram with them, for example.

The ties with Whitby would seem to depend heavily on the continued existence of the railway link because there is no bus service, either existing or proposed, between Danby and Castleton, and Whitby. It is

2 1/2 miles from Danby and ~~up to~~ ^{by} 4 1/2 miles from Castleton to the A.171 where the nearest bus to Whitby may be boarded. However, on Saturdays only there is a bus from Westerdale and Castleton to Lingdale which connects with a bus to Middlesbrough. It seems likely that owing to the ease and convenience of travel between these villages and Whitby and Middlesbrough that Whitby is able to compete on equal terms with the Tees-side area for the custom of these villagers. If the rail link is withdrawn, it seems likely that this competitive nature will lose its strength.

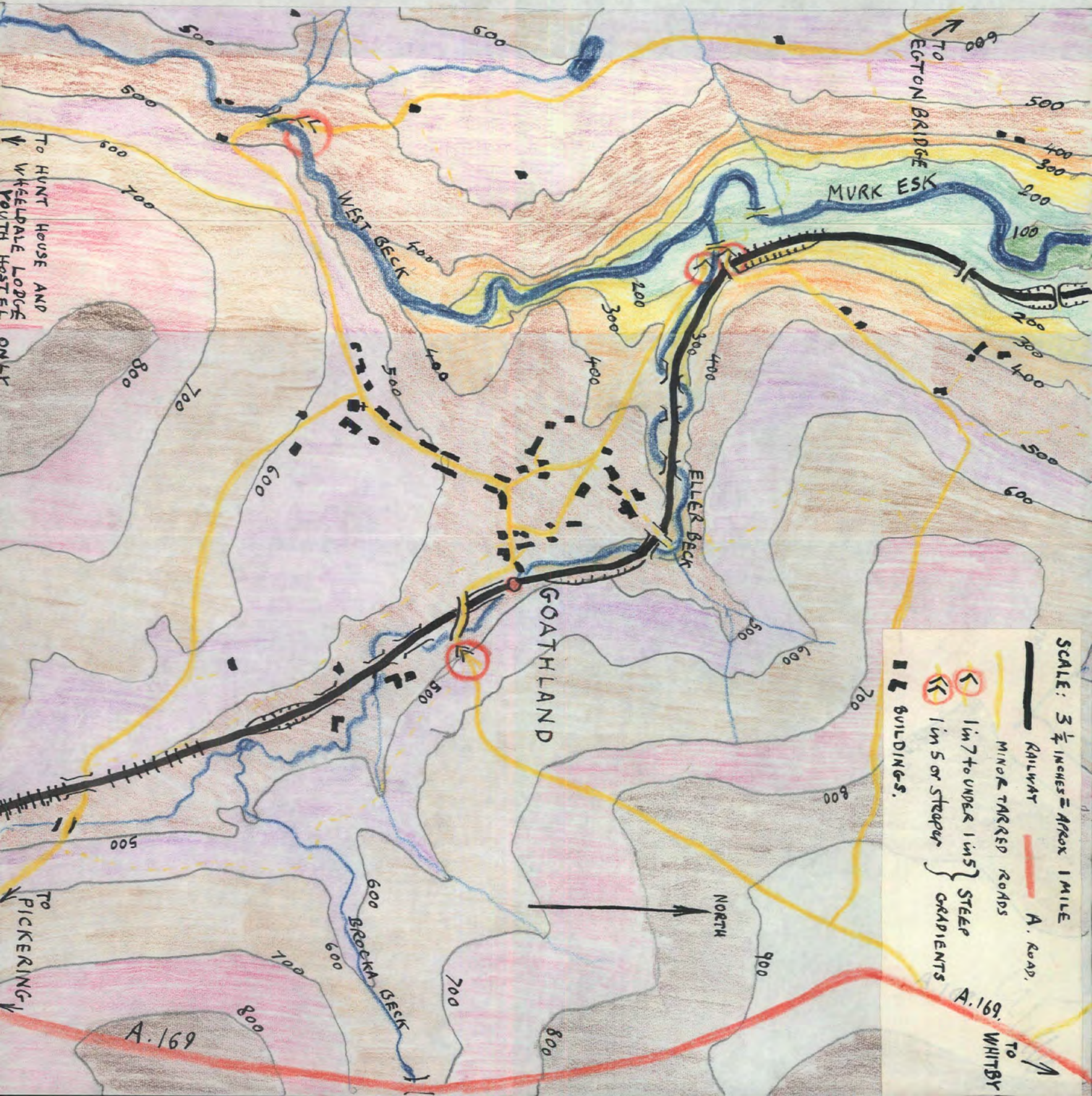
Communication by public transport, and family ties, will be towards Middlesbrough; and Whitby will experience a falling off in trade due to a tightening of its orbit of influence ^{as Map 2, at page 7 shows.} The use of mobile shops past Leaholm seems less likely: it would require a further round journey of 10, 14 and 20 miles respectively for the shop to serve Danby, Castleton and Westerdale - the profit margin will be lessened by petrol consumption and deterioration to the shop. And in any case, the mobile shops are not likely to provide goods which cannot be bought in the shops in the villages. The population of Danby and Castleton Parish is 1178(1): this alone represents about 1/20 of the population of the Rural and Urban districts on which Whitby draws. If the population of Westerdale is added to this it would not seem unreasonable to suggest a loss of 5% of trade from this area at the top of the Esk Valley.

But this is a very important part of the income of Whitby traders - if the loss is of this proportion it will be noticeable. And it is now suggested that the second reason for a severe blow being anticipated upon the trade of Whitby by an acceptance of the proposal will exceed the first in its extent. Not only is the area of Whitby's influence likely to contract but the number of people in the reduced area is

(1) Figure provided by the Clerk of the Whitby Rural District Council.

Showing the ease of access to Goathland by rail at all times and the steep gradients which make access by road difficult in winter conditions.

.....



SCALE: 3 1/4 INCHES = APPROX 1 MILE

- RAILWAY
- A. ROAD.
- MINOR TARRIED ROADS
- 1 in 7 to UNDER 1 in 5 } STEEP GRADIENTS
- 1 in 5 or steeper } GRADIENTS
- BUILDINGS.

TO HUNT HOUSE AND
WHELDPALE LODGE
YOUTH HOSTEL
ONLY

TO
EGTON BRIDGE

GOATHLAND

NORTH

TO
PICKERING

TO
WHITBY

A.169

BOREKA BECK

WEST BECK

MURK ESK

ELLER BECK

likely to be fewer; depopulation is anticipated.

Whitby and the surrounding area is a well known place for retirement. It is known that in the Rural District area 177 persons per 1000 are over 65 years old, and the Clerk of the Fylingdales Parish Council estimated that half the population of that Parish is retired elderly folk.

I have already established that an implication of the proposals to close the railways to Whitby is that villages will be isolated. Map 3 demonstrates the particular example of Goathland. The prospects for an elderly person, if the railway service is withdrawn, are bleak. Some villages, like Goathland, have no resident doctor, and if the roads were blocked then no doctor or ambulance could get into the village. It could be necessary to face a period of food scarcity.

Provided that an elderly person has no real risk of illness, and can cope, by building up fuel and food supplies, in case of shortage then there is little danger of depopulation. But if any must be able to receive hospital treatment or medical supplies then they may either risk staying in their village or find somewhere less isolated to live - perhaps Whitby itself, but since many of the retired folk have ties with the West Riding, Scarborough or Malton (which both have rail links intact) would seem to be more attractive to them than Whitby.

(1) Information received from the Clerk of the Whitby Rural District Council.

(1)

This contention is supported by the evidence produced by the following survey:-

Whitby School Leavers Motor Transport

School Year ending Summer Term 1967

<u>School</u>	<u>Number of Leavers</u>	<u>Car Owners</u>	<u>Motor Cycle Owners</u>	<u>Scooter Owners</u>
Whitby County Modern	80	-	2	-
Whitby Grammar	47	1	-	-
Eskdale County Modern	No reply received			

A letter was also sent to the North Riding County Council in quest of similar information for previous years but the ^{Authority} Author was unable to breakdown either by age groups, or by local areas their overall figures concerning motor transport licences.

Others will move back to their old home towns perhaps to live with relatives. One point only mitigates against the older folk moving at all, and that is that it is possible that their property in the area will fetch a lower "real" price than they paid for it and to sell may incur loss that they are unable to bear financially: but this would not weigh so heavily in the cases of those who must be able to get to a doctor or hospital at any time of year.

I consider that when all these matters are taken into account, the degree of depopulation amongst the older people of the area may be extensive. Whatever its degree, it is certain to exist and any existence will cause a falling off in the trade of Whitby.

Depopulation amongst people other than elderly folk can also be envisaged. Parents in the villages who work on Tees-side, or in Whitby and have no private means of transport, and whose children use the train to get to school at Whitby or Egton, may move away, or into Whitby itself. Young people on leaving school do not usually have private transport and are totally reliant upon the train service to get them to and from work: if their job is in Whitby and they are unable, because of no railway service being available, to get to work at all, or to be sure of getting to work, they could either move away, which is possible, but if their wages are low they may be insufficient for them to afford to live away from home and they may become unemployed. Those who take up positions as labourers at Wilton will not be likely to be hit because the special buses are run to take them to work. The railway men in the area will be offered alternative jobs elsewhere: some at least will take them, and move away.

This much is certain: depopulation will occur and mainly amongst

older people, though probably not exclusively. The extent of this depopulation ^h whilst not known can be anticipated as being not inconsiderable and Whitby traders will be serving a reduced market as a result of which their turnover of stock will be lower and their profits reduced.

From all this it seems that it is not a change in the shape of the general demand curve showing demand for the goods and services of Whitby, but that the curve will be a less potent one; its strength sapped for the two reasons discussed. The weaker curve will be unlikely to be different in shape: but its schedule will be applying to fewer people in a smaller area.

The third reason for anticipating a severe blow to the round-year trade of Whitby follows from all the above. Whitby and the surrounding area will become less attractive to the retired person living there, and also to the retired person who may be considering a move to Whitby. The extent of this cannot be envisaged but the possibility of a falling off in the number of persons retiring to the locality must be admitted. If this is true it does seem likely that the effect will be felt in growing amount in Whitby: as people move away, or die, there will be a smaller number moving into the area and the discrepancy between the two will get larger.

PROPERTY PRICES.

An attempt was made to assess the extent, if any, to which the Whitby area had become less attractive after the proposal to close the Whitby lines had been made.

The attempt assumes that the attractiveness of an area can be shown graphically by plotting property prices against rateable values and is found in full in Appendix 5.

The results showed that in comparison with Scarborough, at least, Whitby property values had risen less, but whilst this may have been due to the imminent possibility of railway closure, the speculative nature of the enquiry is fully recognised and it is admitted that the lagging position of Whitby could be entirely due to other factors.

.....

The final reason for expecting a severe blow to hit the round-year trade of Whitby is that there will be reductions in the number of persons earning incomes in Whitby if the proposal was upheld. The 96 men employed at Whitby Town station will be either redundant, ^{or} move away, or find alternative employment in the area. It is certain that there will be men in all 3 categories and the same argument will apply to the 30-40 railway employees in the area. Even if some of the maintenance men were kept on to remove the track, the situation would be as described within a year. From this source alone Whitby will lose about £100,000 of income a year, ⁽¹⁾ and the generated income from the Multiplier. The other real source of a fall in earnings is amongst the fishermen who, because of the absence of the passenger parcels service will have to incur expense in hiring or buying lorries to get the fish to Scarborough to ensure its arrival at Billingsgate the next day. It seems probable that it will be an uneconomic means of transport: double handling costs will be incurred, and the lorry will be making half of its journey empty. The profitability of fishing will decline and the fishermen will be only a smaller source of income to Whitby. However, there is the possibility that there would be employment for extra men to drive and maintain the lorries and this would have to be offset against the overall loss. Also this matter can be ex³aggerated because the equipping of the lorries and their servicing will probably be done by Whitby firms, though it must ⁽¹⁾ as shown on page 24.

also be agreed that since petrol would sometimes be bought out of Whitby the 'leakage' will offset this in part.

It follows from all of this that the round-year trade of Whitby which is vital to Whitby, will suffer: it will reach a smaller area, populated more thinly and with a smaller purchasing power per head. This very sound base of the Whitby economy will have been whittled away and any reduction in its extent will prove serious. The reduction could be very considerable: the extent drastic.

But the above case will be mitigated because the proposal to close the railway lines to Whitby has no positive implications for the two bodies of people employed at Wilton and Fylingdales, and these number ^{early 1965} more than 600 (2) At both establishments the workers are transported to and from the sites by special buses, and the matter of rail access to Whitby is only of secondary importance to these people. It would be too much to argue that any of these groups will experience hardship: all that can be expected is that the loss of the railway will mean inconvenience to those who have not got private cars and who wish to leave Whitby for visits to other places. The value of these sources of employment to the Whitby economy can perhaps be gauged by comparing the numbers employed there with the estimated number of insured employees in the area of the Whitby Employment Exchange.

The latest figures show 5207 (1) and there is reckoned to be about 950 self employed persons in the same area. So, at present the 600 plus persons who work outside the area of the Whitby Exchange at Fylingdales and Wilton make up about 1/11 of the Whitby labour force that is available for work, and over 1/10 of the total working population.

If this assessment is right, then here is a sector of the Whitby area

(1) See page 6.

(2) As shown on pages 8 to 10.

which is going to be unshaken by the implied railway closure: its purchasing power will be fully maintained and in no way will the trade of Whitby suffer through any effect upon these two very useful groups of Whitby employees.

IMPLICATIONS ON ADVANCE IN THE ECONOMY

The North Eastern Development Council has assessed the regional impact of the closure proposal and a statement made by the Council says 'the proposal would help spell the economic and social death of the Whitby and Cleveland area' (1). It seems in view of the above discussions that this is an exaggerated view. It must be agreed that Whitby could suffer considerably from the closure and that at the worst this could be to an acute degree, with many concerns going out of business. But to say that it spells the death of the local economy is too much.

And yet there are significant implications for the advance of the local economy which are unsettling.

With the new approach of the Hailsham plan for the North East, (B: b 9) where employment and growth are considered best concentrated in the points where conditions are most favourable, Whitby, rightly, expected that the increasing level of prosperity in the North East would be to Whitby's benefit. The most obvious was that this would be likely through Whitby becoming more of a lung for the industrial development projected on Tees-side. By providing a source of relaxation, recreation and amusement for the people of Tees-side the resort would benefit from the growing affluence of the area. Another way would be for Whitby, along with places in the Esk Valley, to become small dormitories for some of the people working on Tees-side. A small migration, particularly but not exclusively, of executives was to be foreseen, and again, in this

(1) Statement made on 26. July 1963

way Whitby would share in the proposed development. But if the rail link with Tees-side is cut then Whitby is less likely to benefit to the full extent that it would if the line was maintained. It would be to cut off a channel down which it seems prosperity would flow readily, and a channel upon which Whitby's future at least partly depends. Without the railway, it is certain that fewer trippers and holiday makers from the Tees-side area will come to Whitby: this has been discussed earlier. It is also sure that the town and the district will become less attractive as areas to live in whilst working on Tees-side; the effect here may not be extensive because if most of the anticipated migration consisted of executives they would be expected to own cars; but again they might choose not to use them to go to work and they would know of the winter conditions which prevail and decide that their move to the Whitby area was justified because even if the roads were blocked they could rely on the rail service. So the implication for Whitby of the proposed closure in this respect is that some of the expected growth in prosperity which would have flowed to Whitby from Tees-side will be either diverted to other places - Saltburn, Redcar, Seaton Carew, for example, or else plugged at its source.

In this respect the position of Whitby with regard to Tees-side is similar to the position of Hastings to Ashford in Kent: in that case the railway line was retained in order that Hastings might benefit to the full from the proposed industrial development at Ashford.

However, Whitby's future prosperity does not only depend upon its being able to feed off the developments on Tees-side though it does appear that that part of it which does depend on it will be partly thwarted if the proposals to close the Esk Valley line was upheld.

There is potential for development in Whitby itself. For many years now it has been mooted that the potash deposits to the south west of the town would be mined. The position at present is fairly hopeful for an American firm have sunk bore holes and seem likely to go ahead. Though it should be pointed out that optimism has reached similar points before and been disappointed. It seems that, if the project is to be undertaken, private sidings will be built from the railway. The output is expected to be about 3000 tons a day to begin with. It is difficult to envisage any major effect upon the decision to develop these deposits by the railway closures proposed. It would be unfair to claim that there is any concrete evidence that the Railway Board has intended to withdraw all services and remove the track once the proposal to withdraw the passenger service has been accepted. Such a position would be a point against the development of the potash. But it is held that this development will depend upon the method of extraction being a viable method in this instance: the transport of the potash does not seem likely to be hampered by the withdrawal of passenger services nor can one fairly imply that the rail facility seems likely to be withdrawn.

The development of the Holiday Trades has already been partly spoken of earlier when considering the likelihood of prosperity on Tees-side being transmitted to Whitby. But tourism as a whole is a bigger issue. This much is certain: the increase in the value of tourism to Whitby and the area does not seem likely to be so great if the railway service is withdrawn. It seems exaggerated to hold that withdrawal will prevent any further development of the tourist potential, but it must be agreed that it will not help such development and is likely to hinder it.

A further smaller matter. Paragraph 55 of the Hailsham Report (Bib. 9) refers to Whitby as being one of the towns well placed for offices moving out of London: Scarborough and Berwick are also mentioned. It is obvious that if all rail passenger services are withdrawn from Whitby the town will be less favourably considered than the other two mentioned which both have main line facilities. The travel of personnel and reliability of mail services are crucial issues to firms, and if both are going to depend upon notoriously bad conditions on the roads in winter, Whitby will be unlikely to benefit from any firms moving away from the South East or setting up branches in the North.

From all this it is clear that the development of the Whitby economy will be hindered by the upholding of the proposal to close these lines: and this can be put in perspective when it is seen that development in Whitby is expected to be modest anyway.

.....

These sections have shown that the balance of the Whitby economy is already rather a fine one. The implications of the proposal to close the railways to Whitby amount to this, that the balance will be more unstable, particularly as a severe blow to the most stable support of the economy is expected - namely the support of the trade provided by the local area all the year round. If the economy wilts as expected then clearly a run of poor holiday seasons, for whatever reason, or if Fylingdales became obsolete, would cause the Whitby economy to deteriorate even further.

.....

CHAPTER 6.

The Social Implications of the Proposals.

In dealing with the Social implications of the Proposals I have made every attempt to be detached and objective in my analyses, but it would be quite wrong for no warm-blooded feeling to seep into the discussion, for no less an authority than Marshall himself says "The main concern of Economics is with human beings, who are impelled, for good and evil, to change and to progress", (Preface to 8th Edition of Principles of Economics 1920).

The school children of Whitby and the surrounding area form a specific group for whom the social implications of the proposals may be considered. Secondary education in this area centres on Whitby where ~~there~~ is a Grammar School and two Secondary Modern Schools.

2 points of evidence are important here. First when the North Riding County Council had to use contract buses to get the children to and from school in Whitby, it was their experience that the children lost on average 8 weeks of schooling in a bad winter (1). Secondly Appendix 2 shows that 15 out of 22 winters since 1942 have been almost as bad as, or worse than, the winter of 1962-63.

(1) Given as evidence by the North Riding County Council to the Public Enquiry.

The implication to be drawn from this is that in 2 years out of 3 those pupils who use the railway to get to school in Whitby will lose up to 8 weeks of school time. This may be construed as hardship, and it will extend to 255 secondary school scholars. The number is made up as follows-

<u>BOARDING AT</u>	<u>NUMBER</u>	<u>BROUGHT BY FEEDER BUS OR CAR</u>	<u>DISTANCE FROM WHITBY</u>
			Miles
Commondale	7		18 $\frac{1}{4}$
Castleton	28	6 - Westerdale	16 $\frac{1}{2}$
Danby	17	3 - Danby Dale	15
Lealholm	30	16 - Fryup Dale	11 $\frac{1}{2}$
Glaisdale	30	6 - Glaisdale Head	9 $\frac{1}{2}$
Egton Bridge	14	1 - Thackside	7 $\frac{3}{4}$
Goathland	15		9 $\frac{3}{4}$
Grosmont	25		6 $\frac{1}{4}$
Sleights	88		3
Ruswarp	1		1
Ruswarp Sleights	<u>1</u>		<u>1$\frac{1}{4}$</u>
	255	32	

It is conceded that contract buses might be more convenient for children living on outlying farms, but there are only 32 children out of 255 who are not within walking distance of the railway stations.

Two points need now to be made. Some scholars will suffer more hardship than others; those from Westerdale, Comondale, Castleton and Danby (52 in all) will experience greater hardship than the 88 who must, if the railway be closed, travel by bus from Sleights. Secondly because of late and irregular arrivals of buses at school, and their early afternoon departures, when the weather is bad, there will be a measure of disorganisation at the schools and all the children will suffer to some extent. Thus hardship will not be confined to the scholars travelling by contract bus.

The children travelling by contract bus will be deprived of virtually all opportunities for taking part in school social activities because they will be forced to leave school by school transport each day; at present they are able to catch a later train. The Newsom Report (1) drew attention to social matters, in paragraphs 135 and 210 particularly.

e.g. from Paragraph 135 "extra-curricular activities ought to be recognised as an integral part of the total educational programme"

e.g. from Paragraph 210 "the school programme... may require more time than is normally available in the conventional school day".

(1) "Half Our Future" is a Report of the Central Advisory Council for Education (England) and was produced under the Chairmanship of John Newsom. It was presented to the Minister of Education on August 7th 1963.

In addition to the Secondary Schoolchildren there are 2 further groups of schoolchildren; 6 Roman Catholic children attend the R.C. Primary School of St. Hilda's in Whitby, 5 coming from Grosmont and 1 from Sleights and 31 children attend the R.C. Primary School at Egton from the following villages:- Castleton 2, Danby 4, Lealholm 19, Glaisdale 6. All the children travelling to Egton would have to journey over most difficult roads to reach school, and these will include very young children of only 5 years (e.g. Limber Hill - gradient of 1 in 3 and only avoidable by making a lengthy detour involving further steep banks and negotiation of roads prone to snow drifting).

Taken over all the journey times of the contract buses in summer months would not greatly exceed the present journey times by rail, but extreme difficulties are likely to arise in bad weather conditions because the roads which link the villages to each other, and to the A171 are all susceptible to blocking by snow and ice, and some to flooding or other hazards. Many parents, objecting individually, stated that they would not allow their children to travel on the contract buses to school if the rail service was withdrawn.

Lastly, the cost of providing the buses would be thrown on to the ratepayers of the North Riding.

It was shown earlier that an implication of the proposals to close the railways is that the roads will be more heavily used. Two matters arise, and the first concerns the greater risk of accidents which comes when a road is carrying more traffic. At present the accident rate is not considered by the Whitby Police to be excessive either in the Whitby Police District (which extends beyond Whitby itself) or within the Urban area.

I have pursued the issue more closely in the Whitby Urban District Area itself:-

Table 1.

NUMBER AND EXTENT OF ACCIDENTS REPORTED TO THE POLICE IN THE
URBAN DISTRICT AREA OF THE WHITBY POLICE DIVISION, 1963-1964

By Months

<u>Month</u>	<u>Fatal</u>	<u>Injury</u>	<u>Fatal & Injury</u>	<u>No injury</u>	<u>Total</u>
January	-	3	3	10	13
February	-	3	3	13	16
March	-	7	7	14	21
April	-	6	6	12	18
May	-	9	9	12	21
June	-	10	10	22	32
July	2	14	16	20	36
August	-	14	14	31	45
Sept.	-	8	8	15	23
Oct.	-	9	9	13	22
Nov.	-	4	4	12	16
Dec.	1	8	9	19	28
Total:	3	95	98	193	291

Percentages:

October-March	35.8	35.7	41.9	39.9
April-Sept.	64.2	64.3	58.1	60.1
	100%	100%	100%	100%

1. No accompanying proposed improvement in the road facilities was made with the proposal to close the railways. Indeed it is difficult to see what improvements could be made in Whitby itself, short of drastic demolition and reconstruction as already demonstrated on page ~~4~~. Thus it is legitimate to argue that road accidents would probably increase following railway closure at Whitby.

Table 1 and the graph which represent it (as shown in Diagram 3) show the seasonal variations in the accident rate. From it the summer maximum can be seen and also that this is more pronounced in the non-injury than in the injury category. It may be suggested this is because the congestion of the summer months is partially balanced by a reduction in speeds. If the congestion is added to by an influx of extra vehicles owned or driven by people who would formerly have come by rail, or by new visitors then this accident rate maximum can be expected to become even more pronounced. It seems likely too, that this expected increase will be mainly though not exclusively made up of certain sections of the population who are more accident prone than others: old people especially and children. To these people, hardship will accrue in the form of a raising in the risk of injury or death by accident on the roads, because the roads are busier as a result of the rail closure. (1 opp.)

However, the matter can be pursued further because of the incidence of accidents has an enormous inequality: almost half of the accidents in the area of Whitby Urban District occur on the main road through Whitby (A.171 and A.169) between Guisborough Road and Stainesacre Lane. Table 2 shows their distribution and the accident rate per hundred yards shows the worst spots.

This situation in Whitby will probably deteriorate: with more vehicles coming into Whitby it will be along these very roads that are already dangerous that they will come. ~~The risk of accidents has reached a point where it now increases in geometric rather than arithmetical ratio to the amount of traffic on these roads.~~ And the table shows the blackest spots to be those which are the main shopping centres too -

notice especially that Baxtergate has a ~~high~~-higher accident rate per 100 yards than New Quay Road and Station Square, and yet the former takes all west-bound traffic and the latter is the east-bound counterpart.

~~There~~ ^{This} is no doubt due in part to the much narrower road widths in Baxtergate but also in part to the fact that it is an important shopping street. It must also be pointed out that in the shopping areas in the town the bulk of accidents are non-injury accidents: in Baxtergate less than 1 in 3 is an injury accident, and in Flowergate and Skinnergate it is 2 in 15. This is probably because of the low speeds which become inevitable under the prevalent conditions of congestion of vehicles and milling shoppers. Thus any increase in accidents that is to be expected may be also expected to be largely amongst non-injury accidents in the shopping streets, but on Church Street, where the traffic moves faster, and the ratio of non-injury accidents becomes only just over one in two, the increase may be expected to be more of both categories, and in about the same proportions.

1. This notion was introduced by J. Appleton in his section of the Normanby Report and has been adopted here as a helpful means of analysis.

Table 2

NUMBER AND LOCATION OF ACCIDENTS REPORTED TO THE
POLICE IN WHITBY URBAN DISTRICT AREA 1963 & 1964

A c c i d e n t s

<u>Location</u>	<u>Fatal</u>	<u>Injury</u>	<u>No</u>	<u>Total</u>	<u>%</u>	<u>Approx.</u> <u>length of</u> <u>street in</u> <u>yards</u>	<u>Accidents</u> <u>per</u> <u>100 yards</u>
<u>1.</u>							
Guisborough Road to Stainsacre Lane A.171 & A.169						(1 opp.)	
(a) Guisborough Rd.	-	5	7	12	4.1		
(b) Mayfield Road including 4 Lane Ends Roundabout	-	2	5	7	2.4	880	0.80
(c) Prospect Hill & Downdinner Hill	-	1	3	4	1.4	440	0.91
(d) Bagdale	-	1	4	5	1.7	340	1.47
(e) i. Victoria Sq. ii. New Quay Ed. & Station Sq.	-	-	2	2	.7		
iii. Baxtengate	-	7	18	25	8.6	400 330	2.25 7.58
(f) Whitby Bridge & Approaches	-	7	7	14	4.8	150	9.33
(g) Church St. up to Boulby Bank	-	10	12	22	7.6	360	6.11
(h) Church St. be- yond Boulby Bank	5	15	11	16	5.5	360	4.44
(i) Spital Bridge Bridge Bank & Hel- vedale Road	-	7	10	17	5.8		
(j) Stainsacre Lane	1	-	5	6	2.1.		
Total:	1	45	93	139	47.8	-	-
2. Skinner St. Flowergate-		2	13	15	5.1	-	-
2. Other Accidents in Whitby	2	48	87	137	47.1	-	-
Total Accidents in Whitby:	3	95	193	291	100.0	-	-

The second matter that arises from the implication of the Proposals to close the railways that the roads will be more heavily used, concerns the loss of part of the means of livelihood as a result of the increased traffic on the road.

I made enquiries into the losses incurred by a Goathland sheep-farmer. He experiences considerable loss each year through sheep killed on the Whitby-Pickering Road. The following table analyses his losses for 1962:-

Total loss of Ewes	12%
from natural causes	5%
Killed on Whitby-Pickering Road	7%
Total loss of Lambs	28%
from natural causes	8%
Killed on Whitby-Pickering Road	20%

The flock is made up of about 1100 breeding ewes, so over 70 sheep were killed in 1962 on the A 169. The farmer reckons on an average annual yield of lambs of between 800 and 850, so about 170 lambs were also killed on the A 169. A breeding ewe is worth about £15, with her lambing potential, so clearly the farmers losses are already, considerable. The implication of the Proposal is that they will become more serious.

A final Social implication of the Proposal concerns the three hospitals in Whitby. It was stated in written evidence submitted to the Public Enquiry by them, that they depended upon the central hospital in Scarborough for Consultant and Surgical staff, and supplies of blood and drugs, and that, in the winter months, they were very dependent upon the railway service to maintain the steady flow of personnel and supplies.

It would appear then that, if that service were withdrawn Whitby could not rely on Consultant and Surgical staff being available during the winter months, but it seems fair to expect that an alternative means of supplying blood and drugs could be found. However, this does seem to indicate that the chances of recovery from illness would be, albeit perhaps slightly, reduced in Whitby during the winter months.

AN EPILOGUE

EPILOGUE

During the early part of the summer of 1965, whilst in Whitby, it was brought to my notice that two firms were having new factories built at Whitby. The firms are hoping to begin production at these factories by October 1965.

One factory is a branch of a Bradford firm of woodworkers and will produce non standard fittings for windows, doors, stairs and other house fixtures. The second factory is owned by a firm at Ilkeston, Derbyshire and will produce plastic cable-coverings. This production is known to require shift work, and thus the firm anticipates employment of up to 200 local men.

The Urban District Council is also, at present, negotiating with an engineering firm at Leeds, which may set up a branch at Whitby.

All these applications have been received since the decision was made to close the lines to Scarborough and Malton. It can only be said that it seems probable that they would still have been received and taken up even if the line to Middlesbrough had been closed too.

The question may then be posed "Is the timing of these applications significant in any way?" The answer must be that their timing is significant. The fact that, at last, some industrial development is being brought to Whitby, and that this development

follows closely on the controversy over the Rail Closure proposals at Whitby, is thought by the writer not to be a co-incidence. The controversy certainly gave Whitby considerable unprecedented publicity, and the view that industrial development was potentially possible there (namely through the exploitation of the potash reserves) may have not been recognised by firms in other areas until it was declared in the controversy.

This is not to suggest that the closure controversy was the only cause of these firms actually setting up a branch in Whitby. No doubt the availability of concessions to firms setting up, or establishing branches in the North East Region also played a role in causing these developments: it must be admitted that this could have been the major influence.

There is one further factor worth noticing. It is of interest that none of the 3 cases ^{is} ~~are~~ from Tees-side firms. Thus Whitby is to share in the growth of other industrial areas besides Tees-side, which was expected by the Hailsham (Bib. 9) Plan for the North East to be the cause of any development in Whitby. Some at least, of the future growth of Whitby will be generated from an unexpected source.

NOTE In order to ascertain the reason for the firm's' decisions to establish themselves at Whitby, I sought their names from the Secretary of the Urban District Council. But since negotiations with the firms were still open over certain issues he preferred not to disclose their identities.

PART 2.

THE SCOTTISH HIGHLANDS
NORTH OF INVERNESS

CHAPTER 7.

Introduction.

From the historical evidence shown in Appendix 6 three matters are made clear concerning the availability of a transport service in this area and the usage made of that service by the public.

It can first be seen that the provision of the new form of transport, caused, not a channelling of traffic to the railway from the roads, but a new sector of traffic to come about. It was no longer necessary to own a vehicle to be able to travel, thus a whole new sector of the public was drawn upon by the railway. The demand for a form of transport now had to be represented by a completely new demand schedule: it was not a case of a new substitute competing with an existing service.

It must be admitted that there were cases where the Railway Company over-estimated the extent to which their services would be required. An example of this occurred with reference to the steamship services which originally plied daily to Portree in Skye and weekly to Stornoway from Stromie Ferry and the former were reduced to 3 a week and the latter suspended in the winter of 1870 because the traffic did not warrant the service (1). Also a case can be shown where the railway was built to compete with an existing method of transport: this was the Wick-Lybster branch where a need existed for a means of disposing of the fish caught in the locality. The new line competed favourably with the road in the early days in spite of the circuitous route that it took.

After the first world war it was possible to see the changing elasticity of demand for the rail service, caused by growing competition in the form of a more efficient petrol engine, which led to a growth in the number of road hauliers and enabling buses to compete over short distances instead of acting as feeders only.

(1) *Highland Railway Directors Report, April 27, 1880.*
~~Dingwall & Skye Railway Minute Book.~~

Thus it is to be expected that the availability of an alternative means of travel or transit would cause the curve of the demand for rail usage to become more elastic. The service provided by the bus had previously been in complementary demand with rail, now it was a competitor. The symptoms were seen in the closing of the branch lines, and the strength of the competition is seen in these two factors: The very low receipts at the local passengers stations, and the fact that there was no outcry at the closures of the lines. However, it was not until more recent times that the demand curve for longer distance travel was to be seen to become more elastic - the competition from the buses or the private vehicle was not real enough to be a proper substitute.

Even to-day it seems unlikely that there is a proper substitute for the demand for rail travel over a long distance to turn to: bus services are so slow and offer a far reduced level of comfort that over the distances involved in this area, they do not really act as a substitute, though it would be admitted that they do have some of this effect. The air service from Inverness to Wick also has some effect in this respect but since it can only appeal to intending travellers between the two points it again can only have a limited effect as a substitute upon the demand curve for rail travel over a long distance. Over long distances the strongest competitor is in fact likely to be the private car, but here again because of the poor roads in many cases, and their susceptibility to snow, and their dangerous nature, especially to Kyle - the position must be partly mitigated. All these factors have made the demand

for rail travel more elastic because of their influence as substitutes, but over long distances in this area it would be fair to say that the demand curve for rail travel still retains traces of inelasticity.

NOTE

The proposals made by Dr Beeching only refer to the withdrawal of PASSENGER Services. However, it is ^a fact that the Railway Board can withdraw a FREIGHT Service without going to a Transport Users Consultative Committee or a Public Enquiry. A freight service may be withdrawn before or after the passenger service is withdrawn.

It seems very likely that if the passenger services had been withdrawn, as proposed, the freight service would also have been cut off at Inverness in the near future: that service is unremunerative too, and it is at present "being considered" by the Railway. (1) The foundation for the belief is seen at several northern stations where the removal or demolition of goods sidings and sheds has already been begun.

I have therefore, partly for the sake of simplicity, partly for thoroughness, taken this implication for granted: if the proposal had been upheld then the freight service would also have been withdrawn, and all this section should be considered in this light.

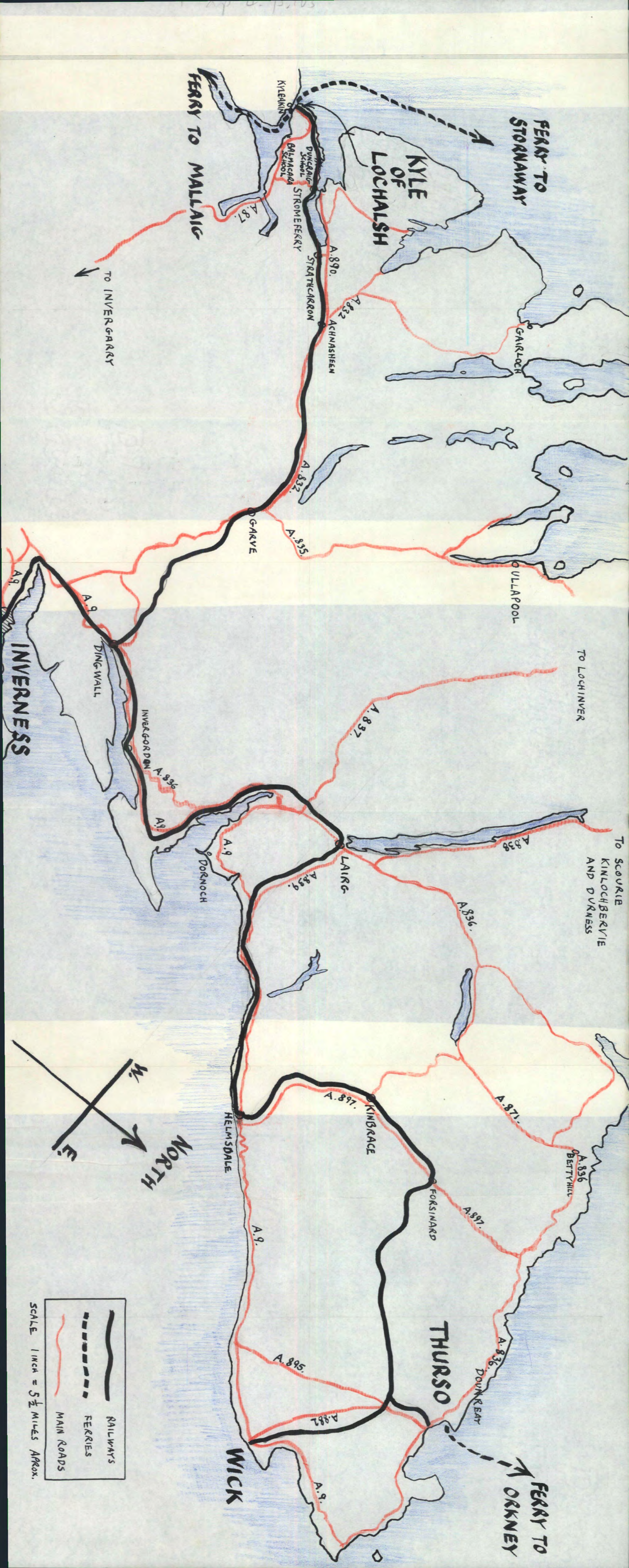
(1) Given in evidence by the main speaker for British Railways at the Public Enquiry at Inverness and reported in 'Inverness Courier' of 10.3.64.

CHAPTER 8.

The Transport Network in the Area North of Inverness and
the Role of the Railways in that Network.

Showing the transport web of the Northern Highlands and
locating the Atomic Energy Establishment at Dounreay and the
schools at Duncraig and Balmacara.

.....



FERRY TO STORNAWAY

KYLE OF LOCHALSH

FERRY TO MALLAIG

TO INVERGARRY

TO LOCHINVER

TO SCOURIE KINLOCHBERVIE AND DURNESS

INVERNESS

THURSO

WICK

FERRY TO ORKNEY

NORTH

W

E

SCALE 1 INCH = 5 1/2 MILES APPROX.

	RAILWAYS
	FERRIES
	MAIN ROADS

EXISTING TRANSPORT FACILITIES IN THE REGION (1)

Railways:

From the historical appendix some impression may be gained of the railway facilities in the area. The line from Inverness to Wick and Thurso is 161 miles long and is single track, except for about 8 miles between Clachnaharry and Kirkhill. Through railheads at Feam, Bonarbridge, Lairg, Kinbrace, Wick and Thurso, the line serves Caithness, Sutherland and the eastern seaboard of Ross and Cromarty - there are railway lorries at these railheads.

The service to Thurso connects with the daily sailing of the mail-ship from Scrabster to Stromness in Orkney.
are discussed on page 114.

The freight carryings ~~have already been discussed~~. Passenger usage more than doubles in the summer months with sharp peaks too, where all the 926 seats per day provided are fully taken up. Restaurant buffet cars are provided on through services.

In spite of the severe weather - even blizzards - that may be encountered on this line the rail service is never interrupted for more than half a day.

The Kyle line is 63 miles of single track. Garve, Achmasheen and Strathcarron are the railheads for the communities on the west coast at Ullapool and Gairloch and the shores of Loch Torridon. In addition to serving the greater part of mainland Ross-shire this railway connects Aberdeen and the Moray Firth with the west coast and the Hebrides, and in particular it links the county town of Dingwall with Lewis.

The railway services link up with ferries to Skye and there are

(1) Unless otherwise noted, factual detail in this section is taken from the Cameron-Kilbrandon Report. Bib.4.

daily steamer services by MacBraynes to Stornaway in Lewis, Portree in Skye, Raasay, Applecross and Mallaig: three times a week a steamer goes to Harris and the Uists.

The freight carryings which are small ^{are} ~~have been~~ discussed, on page 114. Passenger services are more than doubled in summer - again sharp peaks are to be found when all 770 seats are fully taken up. In winter central Ross-shire is liable to heavy falls of snow, though conditions are not so bad here as on the far north line, but the rail service is not interrupted.

Roads

The road to Wick-Thurso is shorter than the rail route by 36 miles. Its condition varies - in width from 20 feet to 16 feet, ^{and} its alignment is only 'fair' according to the Cameron Kilbrandon Report (Bib. 4) but the worst feature at Berriedale Hill has been improved. It is overloaded by 10%-20% in the first 30 miles but north of this loading is up to 70% under capacity. The coastal sections of the road are very exposed and the Struie Hill short cut in Ross-shire is sometimes blocked by snow.

The roads across to Kyle are very poor: considerable parts are only single carriageway and these are 50% overloaded (1). The road via Strome Ferry necessitates traffic crossing Loch Carron by the toll ferry which does not operate in darkness or in high wind. The Invergarry-Kyle road is very inadequate in width, alignment, and is overloaded by 100% on the single width sections.

NOTE: "Overloading" is calculated with reference to the point beyond which the density of traffic is greater than is desirable for free flow and general convenience. But serious congestion, and the resulting

(1) Given in evidence at Public Enquiry ^{on 9th and 10th March 1964 in Inverness} by the County Road Surveyor.

dangers may not begin until overloading approaches 100%. Cameron Kil-
Bib.
brandon Report (4).

Road Haulage

Even on the inadequate roads of the Highlands road haulage finds it worth while to compete with rail for all traffic except heavy fuels. But it does not seem able to take over (a) all the seasonal traffics (b) heavy traffic, (c) long distance traffic, or (d) small consignments. Nor is it known whether, if left to itself, it would expand these services, but it must be pointed out that it is an important factor in Highland transport and offers direct economies in its facility of speedy through transit from consignor to consignee, and elimination of handling difficulties and costs.

Road Passenger Services

The relevant services are outlined in the section dealing with the Beeching proposals, as alternatives to the railway service. But it should be noted here that the Kyle-Inverness bus service at present runs on the Invermoriston route and so serves a different part from the railways, and the buses to the north also serve different parts where the railway sweeps inland at Bonar Bridge and Helmsdale.

Sea

It has been indicated how the trains connect with steamers at the extremities of the two lines.

Heavy cargo for the Hebrides from Glasgow is more cheaply transported by sea than by rail to west coast ports and then by sea, but perishable products could not take the sea route because of the time factor.

Air

Highland air services have developed into a comprehensive system since the war. The services are primarily passenger ones, and it seems that a significant sector of the Highland population regards air services as the normal means of travel to central Scotland and England.

But the fact remains that in the area under discussion the available airports, located as they are at: Inverness (Dalcross) and Wick, on the mainland, and Stornoway on Lewis, Kirkwall in Orkney and Benbecula in North Uist, that is at the extreme points of the area, will only be able to serve passengers to or from these extremes, and not at any intermediate points. However, to the inhabitants of the outer isles and Orkney and Caithness there can be no doubt that the air services represent a very valuable transport service.

The Role of the Railways in this Framework

The role of the railways in the area in question can, firstly, be called unique. The railway, it has been seen, is the only means of public transport or any transport for some settlements: in places there is a railway line and a station, but no trunk road. This argument applies to the sixty miles of track north of Helmsdale, and to the ten miles between Strome Ferry and Kyle. So for these places the railway has a unique role in that it provides a service which cannot be provided in any other way.

Then again, the railway service is a unique service because it provides (referring specially to places on the line to Kyle) a daily service of transport: the buses at present run once a week in winter and

twice weekly in summer. The railway provides a service twice a day.

The role of the railway is unique too, in this sense - it is faster, more comfortable and offers more amenities (toilet accommodation, meals on the journey and terminal and interim stations have waiting rooms) than either a bus or a car.

Secondly, the role of the railways may be called Valuable. Part of the value of the service has been shown above - linking otherwise cut-off settlements and provision of a faster, more attractive service than can be offered on the road, is socially valuable.

But there is more to the value of the railway than this. It is particularly valuable in that the service is reliable. I showed that even on the Far North line in severest weather, delays are at most for half a day. This is an excellent record by any standard: roads are blocked for days at a time by snow, e.g. A87 Kyle-Inverness via Invermoriston:

- Winter 1961-62 ... Blocked 2 days
Gritting carried on for 29 days
- " 1962-63 ... Drifts cleared - 1 time
Clearance and gritting 69 times. (1)

and for hours by even a relatively minor accident on a single carriageway road. The value of the railway is added to in that it carries on its passenger services, the mail for the area. Without a railway service this would have to be distributed by road to all places north and west of Inverness and the delay would be, according to location, up to 24 hours. Again the railway service is particularly valuable to the small industries which

(1) Given in evidence at Public Enquiry ^{on 10th March 1964 in Inverness by the Ross-shire C.C.} ~~by the Scottish Vigilantes~~

produce perishable goods and rely on quick transit to the market: shellfish, salmon, milk for example. These are carried on the passenger services and if this form of transport were not available it is fair to say that such concerns would be severely hit, and in some cases would die out. A full discussion on salmon fishing follows later.

This unique and valuable role of the railways should also be seen with regard to sea and air transport. The railway and the steamer services are complementary in the area. The competitive element does not enter in - in this area. Indeed the systems are integrated, as has been shown, at Kyle and Thurso. And on a wider orbit it seems that, for heavy traffic to the western islands the Kyle line (nor the other two lines to the west coast) cannot compete favourably.

The role of the railways in relation to air travel is most interesting for it can be seen to be both competitive and complementary. The two means of transport do compete over the whole journey from Wick to Inverness, but the railway is complementary to air travel, in that it acts as a feeder by getting intending air passengers to either Wick or Inverness. And there can be no competition at all at intermediate points where the aeroplanes do not touch down. With respect to air-rail competition, it is interesting to note the finding of the Cameron Kilbrandon Report. (Bib 4.)

'Increasing use is being made of the Highland air services, this is to some extent at the expense of rail..... but not entirely so for a good part of the air traffic is recognisably new'.

1. No exact date of this Survey can be given. It is the result of interviews of Council representatives made on certain days in January 1964. However, it is known that interviews were conducted on Thursday 16th and 23rd and on Saturday 18th Jan.

The railway, it must be recognised, in spite of its unique and valuable role, does face competition from the roads. I discussed this in relation to the road hauliers earlier, but with regard to passenger traffic versus the private car, a Ross and Cromarty County Council Survey is interesting:

Sample Survey of Rail Passenger Journeys (1 opp.)

<u>Train</u>	<u>Ownership of Motor Vehicles</u>	
	<u>% of passengers owning own motor vehicles</u>	<u>% not having private transport</u>
6.00 a.m. Kyle-Dingwall (Mon-Fri.)	61%	39%
6.00 a.m. Kyle-Dingwall (Saturday)	32%	68%
11.19 a.m. Dingwall-Kyle	60%	40%
Average:	41%	59%

The figures show that approaching half of the passengers owned motor vehicles, but found the train either more convenient, less expensive, or safer. (Some replies stated e.g. I do not use my car on bad roads, ice or snow).

Thus whilst it must obviously be admitted that the railway is in competition with the private car, it is fair to submit that the railway competition itself is keen - because of the factors which combine to make the railways' role in the transport framework, a unique role and a valuable one.

The Cameron Kilbrandon Report (Bib 4) expresses the view that the trend of freight traffic from the railways to the road haulier in the Highlands 'may now have gone as far as it is likely to go'. But two qualifications are needed to this statement. If the roads are improved in the area, then tighter competition would be faced, as it also would be if the projected vehicle ferry to the Hebrides comes about. And, if the railways become more selective in their

freight carrying policy and discriminate against small seasonal loads, which in the Highlands makes up a substantial part of the traffic, then it is fair to assume that the consignee would benefit by lower transport costs if he used road haulage, rather than railway: the trend MAY have reached its limit but it is not certain. So the role of the railways in freight carriage in the future is uncertain.

Future trends in passenger traffic are likely to continue to be similar to the present traffic - reviewed earlier - with the steep seasonal peaks and long periods of small use.

Implications of Proposed Closure upon this Role

The obvious implication from the above discussion is that closure of the railway lines would bring a cessation to a service which is unique and valuable. This section has shown that a 'prima facie' case can be established to show that the welfare of the area depends to a considerable extent upon the railways of the area.

CHAPTER 9.

The Beeching Proposals and the Validity of the Arguments
upon which they are based.

THE BEECHING PROPOSALS

The proposed closure of all passenger services north of Inverness was first officially intimated in the Beeching Report, (Appendix 2, section 1) (Bib. 3). On 26th November 1963 a letter to this effect was circulated from British Railways Scottish Headquarters in Glasgow to all authorities, informing them of the intention to close the lines as from 2nd March 1964.

The proposals made by British Railways to withdraw all passenger services north of Inverness were then made at the resulting Public Enquiry held in Inverness on Monday and Tuesday, March 9th and 10th 1964. Mr Marples refusal of the proposal was made on 15th April 1964 and in a written Commons reply of the next day.

The proposals, when baldly stated, occupy very little space. The proposal meant the withdrawal of two passenger services each way between Inverness and Kyle of Lochalsh in winter with an additional service each way in the summer, and the substitution by three bus journeys each way between Inverness and Kyle of Lochalsh via Dingwall and 3 buses each way daily between Inverness and Kyle of Lochalsh via Invermoriston. With regard to the Far North Line the proposal was to withdraw the passenger service which consisted of two daily trains in each direction between Inverness and Wick, one train in each direction between Inverness and Helmsdale, and an additional fast train in each direction in summer between Inverness and Wick. Alternative bus services then available were two daily journeys from Inverness to Wick, one of which continued to Thurso, and three from Wick to Inverness, two of which gave connections from Thurso. Also Highland Omnibuses proposed to operate more services between the extremities of the route: three

daily

additional journeys each way and an extra one in summer. In each case, the British Railways claimed, adequate alternative facilities would be available if the proposal was upheld.

The proposals to withdraw these passenger services had been made because of the losses British Railways were incurring by running the services: the losses came about because insufficient use was made of the service by the public and because a distinct pattern of travel exists among those who did use it; particularly on the far north line.

The total number of passengers leaving Inverness is halved by the time the train reaches Brora (90 miles north by rail) and from then on there is little change in total carryings or in the make up of the passengers. And on south bound trains the same pattern is apparent: there are 'several' passengers in the train from Wick and Thurso, and there is no appreciable change in the total carryings or in the passenger complexion until the train reaches Brora. There is a similar though less pronounced trend on the Kyle line, and also the train load generally increases at the last few stations, prior to Kyle with a reverse pattern on the return journey.

Number of passengers carried

Inverness-Kyle

Daily:	Winter	...	...	120-220
	Summer	...	...	250-400

Inverness-Wick

Mon-Friday:	Winter	...	...	180-200
	Summer	...	...	350
Sats.	Winter	...	...	250-300
	Summer	...	...	600-650

(1)

(1)
Taken from British Railways Heads of Information

Such a distinct pattern of travel can be accounted for in economical theory, for it is seen that there are three separate Demand Schedules in operation here. There is a demand schedule for the rail travel between Inverness and Lairg and Brora which is relatively inelastic. This may be partly because there is an inelastic demand in this area for the specialist services provided only in Dingwall or Inverness (i.e. these two demands are complementary) and partly due to the fact that the bus service can only be a partial substitute in that it is much slower, taking about twice as long over any journey as the train.

Again there is a demand schedule for travel by train between Inverness and the Far North: this is relatively inelastic though not because of the availability of an obvious substitute means of travel. The air service could only be regarded as a substitute for some people since it can only convey passengers from or to Wick and Inverness, and only provides a possible day return journey from Inverness and not from Wick. The more potent substitute causing demand for rail travel over this distance to be elastic is the substitute of having no need to travel anyway. People at the northern end of the line have no real reason for going south, except on holiday, and the same applies in reverse at Inverness.

It seems probable that it is the third pattern of demand which accounts for most of the traffic to and from the Far North and this is the schedule of demand for rail travel from the South to places beyond Lairg and Brora. This schedule is relatively inelastic - and is made up either of those who must undertake business trips to the far north or from Wick, Thurso, and Dounreay, and of people visiting

their relatives who have gone to live in Thurso and work at Dounreay. There would also be a small number of holiday makers to the far north who must come by rail if they are to come at all. For all these people the rail service is the only feasible way of travel, its reliability in all weathers, its speed, its comfort and facilities mean that in spite of apparent substitutes these are not effective in their competition to such a degree to make this schedule of demand elastic. And the improved service made in the winter timetable of 1964-5 will serve to make the competition of the railway even more strong.

Freight carryings on the far north line may fairly be described as 'considerable' 170,000 tons per year ^{are carried} made up to more than 1/3 of coal, and also to more than 1/3 of general merchandise including agricultural requisites. Also half a million parcels and half a million bags of mail are carried annually. But carryings to Kyle are only "small" and amount to only about 17,000 tons a year though 330,000 parcels and 310,000 mail bags are carried in a year together with 70,000 head of livestock and 300,000 gallons of milk. - from Paragraphs 17 & 18 of Cameron-Kilbrandon Report. (Bib.4).

British Railways intimated at the Public Enquiry that they would withdraw the freight services if it suited them to do so.

As a result of the above services British Railways claimed that their costs were £302,430 and receipts from all sources £139,550. They claimed to be losing £162,880 whilst they were providing the service.

Although no indication to this effect is given by British Railways, the figures are, presumably, annual ones. The figures are made up as follows:

Inverness - Wick/Thurso

	£
Estimated receipts	88,340
Estimated direct expenses	209,030

Inverness - Kyle of Lockalsh

	£
Estimated receipts	51,210
Estimated direct expenses	93,400 (1)

(1) In a letter from British Railways, Scottish Region, dated 10.11.64, and included in their heads of information.

THE VALIDITY OF THE ARGUMENTS ON

WHICH THE BEECHING PROPOSALS ARE BASED

This matter is important for two reasons. Firstly, the implication of the proposal is that the arguments on which it is based are sound. It will be seen that this is not true - though the overall case still holds. ^{Secondly} If the basis of the argument is sound then there exists a complete answer to the 'prima facie' case established previously. If it is unsound and found to be inaccurate or in need of modification then the counter answer is weakened, and, at least, even if the burden were put upon the users of the Railway to prove the necessity of the railway their burden becomes lighter -

the actual monetary benefit of removing the services being less, then the degree of social value provided by the service that needs to be shown is less too.

The Transport Users Consultative Committee and the Public En-
by the Transport Act of 1962
quiry are not allowed to query the figures laid before them by the Railway. However, this enquiry is not bound in that way, and would submit that those figures are inaccurate. Lord Cameron is reported as saying in Spring 1964 "There is good reason to think that these figures do not present a whole, or accurate picture of the accounting position in relation to passenger services" (1). It seems then that fuller disclosure of figures would produce a different picture of the costs of providing the existing service, the revenues derived and of the real deficiency - if any - resulting.

I do not have access to the information which Lord Cameron had available: but there are several potent reasons for subscribing to this view without such access.

The first of these refers to the freight carryings on passenger trains: receipts from carriage of perishable freights like salmon, shellfish, cheese, poultry, milk and eggs, and from mail and newspaper carriage are not included in the British Railways figures.

Secondly, because of the 'overall' accounting methods of the railways, information about the total number of passengers travelling over these sections of their system ^{is} ~~are~~ not available. The figures which are available, of passenger bookings made at stations on the lines (actual number of bookings, but not where to) may reflect

(1) Reported by the Scottish Vigilantes in evidence at the Public Enquiry.

1. This is demonstrated by Professor Honderlink, a Transport Adviser to United Nations, and reported in a memorandum published by The Scottish Vigilantes Association - see Bibliography, Article 10.

fairly accurately the trends of local demand, but they do NOT include, for example, Glasgow or Edinburgh bookings to stations on the system north of Inverness; the railway figures are incomplete.

Thirdly - from the above in part - to consider that 'peripheral' parts of the railway system are unprofitable in themselves is unrealistic. It must be fairly considered - they may act as feeders to the main parts of the system and a lack of immediate profit may be compensated for by the traffic they bring to the central part. It is interesting to note here that other countries have unprofitable lines, but find it worth keeping them because of the traffic they subscribe to the whole system; Japan and Mexico are notable examples. (1. opp.)

Fourthly, the balance sheets were examined at the time when the railway, as a common carrier, was obliged, by statute, to accept uneconomic freights.

Fifthly, the figures were taken at an end of a railway era, and purported to refer to the new era. The figures were collected in the time when steam engines were still important to the railway system and when the system was notoriously inefficient. Since diesel trains have succeeded the steam engine, many economies have come about. They are more efficient machines, and have lower operating costs and so soon compensate for a higher capital expenditure. There is no need to keep coal supplies, and engine sheds at every station, turntables and water tanks are not required (on the Far North line, Helmsdale had to have coal supplies and water ready for the steamer - the diesel needs no refuelling)

However, multiple unit stock does not have any application in the area: the economies of dieselisation are economies through the locomotive. The great advantage of the multiple unit is its quick turn round at terminals and this is at a minimum on the Highland lines; also mixed train operations are not suited to this stock. Again, hilly areas increase their operating and capital costs since additional, or else higher powered, engines must be fitted.

Also signalling and control are more efficient in monetary terms now, and at the time the figures were collected, there had been no attempt to improve, in the north of Scotland, at least, the services, or to get rid of outmoded practices.

Sixthly, the figures referring to the Kyle-Kyleakin Ferry run by British Railways under the name of The Caledonian Steam Packet Company were not included. This caused accusations of 'deceit!' from railway defendants.

Seventhly, no effort had been made by the Railway Board to attract traffic and cause the line to pay.

It could be argued that the Plan to re-shape the Railways has a restricted notion of economic fact in that it refers only to balance sheets and not to the larger matters of economy, like management and utilisation of resources. Whilst this is true it is also unfair because the remit of that Enquiry was a financial one.

In conclusion, it would be fair to say that, in spite of these factors, it seems likely that the Railway is right when it argues that the lines in question make a considerable loss over any working period.

So in spite of mistakes and inadequacies, the Railway case still holds - but it holds in a less stringent and somewhat modified form. The two counter arguments having been mounted can stand: on an accounting basis the lines are unprofitable; whilst from a social and economic viewpoint their value is considerable.

Without a common term of reference, and in direct opposition to each other, the cases cannot be solved. It would only be on value judgements that one could be held to be conclusive over the other.

CHAPTER 10.

The Concepts of "Adequacy" and "Hardship".

THE CONCEPT OF "ADEQUACY"

The alternative transport that is to be made available when a railway line is closed may be called totally adequate when it provides the same features as the original in terms of speed, frequency, reliability, safety, and where the physical needs of passengers are met to the same degree as in the original service. So, it is possible to conceive of an alternative service that is more than adequate : if a new bus is used in place of old railway rolling stock, and the distance involved means that there is no need for toilet or eating facilities, and that the service is sufficiently frequent, reliable and speedy, then that alternative system can be held to be more than adequate.

The alternative service may be called adequate when, even if it does not have some features of the original service, and others are reduced, it still provides sufficient of these facilities (in whatever ratios) for a journey to be undertaken with no misgivings.

The alternative service is inadequate when, though some of the features of the original may be retained to some degree, certain features are lacking to such an extent that a person is dubious - even if only to the smallest degree - about making a journey he would have made if the original service was still provided. It does not matter that he does or does not make the journey: the new service is inadequate when any doubt is put into his mind. Indeed, the service may be called 'totally inadequate' when he is actually deterred from making a journey.

Thus adequacy is a subjective matter, and, secondly, would be more difficult to establish the longer the distance the alternative service is required to ply over. Adequacy will differ from person to person in a community, according to age, health, and temperament; it will differ in a person over a lifetime, and what might be an adequate alternative for A. who lives 10 miles from the new railhead, may not be adequate for B. who lives 70 miles further away.

With regard to freight: any alternative, to be considered as adequate would have to ensure that all essential freight (i.e. that without which a person's standard of living would decline, directly or indirectly) was carried. A part of this service would have to ensure a daily collection of perishables. There is the possibility - not as yet allayed - that road hauliers would tend to concentrate on the more attractive type of goods, that is the more lucrative traffic, to the detriment of less rewarding; but perhaps more essential items. If this happens the alternative service would be totally inadequate.

THE CONCEPT OF "HARDSHIP"SUBJECTIVE.

In the area north of Inverness, it is doubtless true that many people are living in conditions which can only be described as 'hard' by modern standards: it is admitted that for some of these this is voluntary and there is no desire to move to a more comfortable place, but for others these 'hard' conditions become such that they do choose to leave their homes in the Highlands.

"Hardship" may be taken to mean "any worsening in the conditions of life which subscribe to the welfare of a person, group or body". In the Highlands hardship will often, therefore, mean that conditions of life which are hard anyway, become even harder.

Four points are here relevant:

A. (1) Hardship may be insignificant. There will be some folk in the area who are sufficiently comfortably provided for that the loss of the railway service will cause them no hardship, or an insignificant amount, or no worsening of conditions. Perhaps an example would be the Duchess of Sutherland at Dunrobin Castle (who apparently never leaves the castle) but her condition may be such that she would not be less comfortable, nor her welfare impaired, if the railway was closed. Again there are probably a lot of crofters in the remoter western parts who rarely, if ever, wish to travel south: it would be a misplaced emphasis to argue that the hardship they would suffer on the rare occasion when they did wish to travel, was really significant.

(2) Significant hardship will have degrees. Some people will suffer a worsening of the conditions which subscribe to their welfare

to a greater degree than others, even if all other things are equal. Young folk in the far north for example may be prepared to endure the long bus journey to Inverness for a holiday in the South, but older people, or cripples may not be able to undertake the journey by bus. The hardship caused to the young people is less than to the old and ill because the latter are robbed of their freedom to travel. The degrees of significant hardship may be called 'Notic^eable' and 'Appreciable', and in my example the young people suffer notic^eable hardship and the older folk suffer very appreciable hardship.

The distinction between Notic^eable and Insignificant is made because there comes a point beyond which hardship becomes accountable or measurable - it can be seen to operate, and thus beyond this point it may be called notic^eable hardship.

(3) A short digression will now be made to show that personal temperament will in some cases influence the degree of hardship. If a person is a restive person who likes to go to Inverness for a look round the shops once a fortnight her conditions will be made worse if the means of doing this is withdrawn, than those of her husband who has never had any wish to leave his farm for any reason. Or if one person fears isolation by the snow and another does not, the removal of a vital link in the worst weather implies a greater worsening in the conditions of the former than of the latter.

B. It can be simply stated that there is no need for hardship to be persistent for it to be real. Notic^eable hardship would be caused to a sick man if medicine or blood was delayed in arrival, or even if it was slower in arriving than is possible by train.

C. A smaller degree of hardship needs to be shown in the Highlands of Scotland where conditions are hard anyhow, for the hardship to amount to notic^eable hardship, than would need to be shown in an area where conditions of life were more comfortable. However, it would be necessary to show that conditions were to be made worse by the withdrawal of the railway or resultant factors for the hardship to be valid. It would not be enough to show notic^eable hardship as existing anyhow.

D. (1) Hardship may be Direct. Simple examples show this: if a man becomes unemployed through the closure of the railway line on which he works, then that is direct hardship to him. If a person has to use a less adequate means of transport he incurs direct hardship.

(2) Hardship may be Indirect: a local businessman will be hit by the loss of purchasing power in the community - the hardship thus caused is indirectly caused to him.

(3) Hardship may be both Direct and Indirect.

OBJECTIVE

The foregoing discussion shows what hardship is, and how it may be seen to operate. This section seeks to show what factors cause it to operate.

Basically, the hardship caused by the withdrawal of the railway service in an area is caused by the absence of features of the service now withdrawn. I shall discuss these now as they relate to the Highland area in question.

The Regularity of the rail service is an attribute which would be sorely missed in the parts of the Highlands away from the main centres of population where, at least, to some degree some form

of regular bus service operates. Regular may be taken to mean, "daily services which do not alter according to weather conditions, tide, time of day, or time of year"; and which run to time"

But in these parts that are more remote the regular, on time, service provided by the railway is valuable. The loss of them and the need to revert to the less regular and, it seems likely, off time buses will cause hardship in the form of doubt as to whether to travel or not.

Closely allied to this matter is the feature which may be described as Dependability. The train can be depended on; at a certain time of day, every day, the advertised train can be relied upon to roll into the station. The attribute applies in another sense too: the train may be depended upon to reach its destination: (the risk of accident is higher on the ^{Highland (see page 144, lines 4-15 for an example)} roads than on the railways) and it may be depended upon to provide toilet and eating facilities and room for exercise which the buses lack.

These two applications of Dependability and the application of Regularity all contribute to the welfare of the intending traveller. This applies before he travels in that he knows he can make a journey in a given time on a certain day, in known conditions, and make it safely. It applies during the journey in the knowledge of a certain arrival time and a high degree of safety.

When these factors are removed by the withdrawal of the railway service it is clear that hardship will accrue. To what degree it will accrue will depend on the matters discussed in the first section above.

NOTE

I do not wish to give the impression that the railways north of Inverness are perfect timekeepers. They are not. But they are better than they used to be. Skewis (Bib. 2) shows that in 3 months in 1960 one fifth of the trains arriving at Kyle were over one hour late but since then the trains have improved - less than 10% are so late as this and over a half are on time or within 15 minutes,⁽¹⁾ as against only 43% in 1960.^(5/62) Also it must be noticed that this lateness is seldom due to the actual operation itself, or faults, but to the late running of London and South connections.

If the 4.00 a.m. from Glasgow bringing the mails is late then the Far North and Kyle trains are delayed. If this lateness could be eliminated then the timing of the Highland trains would be excellent: at present it may be regarded as admirable, and in spite of tighter schedules, parts of the deficits on the late trains are made up.

(1) From British Railways Area Manager at Inverness.

CHAPTER 11.

General Implications.

GENERAL IMPLICATIONS

The most obvious implication of the proposals is that the lines to the North of Inverness are "uneconomic". Whilst this is an ambiguous term as G.J. Ponsonby showed in his article 'What is an Unremunerative Transport Service' (Bib. Article 2) it seems that if the criterion of "Opportunity Cost" is applied to the railway services to the north of Inverness then the lines would be shown to be 'uneconomic'. To the question 'do the resources needed to provide the present service yield a higher return here than in the most profitable alternative employment' it would seem that, financially speaking, the answer would be an emphatic 'No'.

Four reasons can be advanced for this. The area is one that is sparsely populated - other things being equal, a more densely populated area would make more use of its railways than a more sparsely populated area - and the area is so extensive that the railway lines may be a day's journey from where some of the population live. Skewis (Bib. 2) showed that (a) one mile of passenger route serves twice the area in the Highlands than in Scotland as a whole, but only one fifth of the population (b) one passenger station in the Highlands serves three times the area, but only one-third of the population (c) each mile of Highland route has only 468 prospective travellers: Scottish potential is 2,115, Britain 3556.

N.B. Skewis' area of Reference included all Inverness-shire and Argyllshire, plus one parish in Moray, in addition to the area in my reference.

Secondly, the growth of motor transport in Scotland as a whole has drawn people away from using Public Transport, and in each of the Counties North of Inverness the increase is above that of the nation. The situation is as follows:-

Number of Private Cars licenced on 30th September

	1951	1961	% increase 1951-1961	1965
England, Scotland and Wales:	2,380,343	5,978,500	109%	8,916,600
Scotland:	176,166	446,270	153%	668,600
Ross & Cromarty:	2,376	5,640	137%	8,880
Sutherland:	797	1,820	128%	2,650
Caithness:	1,213	4,000	230%	5,410

Figures from Ministry of Transport, London, publication Highway
Statistics, 1965.

Thirdly, carriage by Road is well established in the Highlands: this is true despite the primitive state of the roads and Road Haulage has encroached on many traffics formerly carried by rail: the Cameron Kilbrandon Report (Bib 4) shows that fish and potatoes are good examples of such traffic.

Fourthly, because in an area like the one under consideration which has a sparse population there is an absence of bulk consignments, to move goods by rail is uneconomic to either the consignor or the consignee unless the goods fetch a very high price at the market. Thus both are encouraged to use the roads for their means of transport.

Another point to be noted is that while the implication of the proposals is that these lines are uneconomic it is also the case that the Highland Bus services are suffering from a lack of passengers too - due to increasing competition from the private car.

The point however must be made that it is not simply a case of an available substitute encroaching on the ground of a service, and that the elasticity of demand for the rail service is very elastic, but that the schedule of demand is not a strong one and the curve is near to the angle of the quadrant. That is, the marginal loss of one potential rail user(continued overleaf)

one potential rail user to another means of transport is more significant here than in, probably, any other part of the country.

Both factors have combined in a potent, though undesigned alliance: **the private motor car,** an available substitute has made demand for the rail service more elastic, and in an area of sparse population any resulting fall in traffic would be noticed.

That the implications for the area are 'unquestionably drastic' according to Savage (Bib. Article 1) is certain. But this is because the geography, population, distribution and the sparse population all combine to put the Highland Services into precisely those categories of stopping passenger services and low density freight operations involving costly movement of small numbers of wagons which the Beeching Report, ^{Bib. 3} finds so grossly uneconomic. That is the implications all spring from the first one, that the lines are uneconomic.

The lines are uneconomic to such an extent that the report is able to argue that they do not cover even the direct operating costs, and even if improved cost-reducing techniques could be used it seems likely that traffic density will never make them economic. But as I have shown earlier (Validity of Beeching Proposals) it also seems fair to say that the picture is not so gloomy as it is made to appear, and also that little or no attempt has been made up to the time of the Beeching Report, ^{Bib. 3} to attract traffic on to the railways.

Consider this matter in terms of theory. Given a particular volume and pattern of advertising outlay, there are two ways of increasing the quantity of goods sold - by reducing price or by improving the quality and maintaining the same price. Thus two ways are open to the railway of attracting traffic - by using reduced

fare facilities to some or greater extent and/or by improving the service offered.

The first method will not cause a new demand curve to operate and the profitability of the venture will depend upon the elasticity of demand, because if it is inelastic a price reduction will, by definition, only cause a less than proportionate increase in the quantity demanded, while if it is elastic a price reduction will cause a more than proportionate increase in quantity demanded. However, in fact, even if there is an elastic demand it is not certain that an increase in income will result, or be sufficient to offset a smaller income per unit of quantity sold. It seems that when a potential traveller is dissuaded from using the railway he is not very likely to return to use it. This is because he can, in times of economic boom, when credit restrictions are at a minimum, buy a reasonably priced saloon car on Hire Purchase, or through a Bank Loan, and once he has obtained this capital asset, it is economic to use it as often as he needs to travel. Thus one can envisage, not a steady flow of traffic from the railway, but a series of intermittent evacuations, co-inciding with times of economic prosperity. Diagram 4 illustrates the resulting problem from the railway point of view.

This clear practical difficulty will also apply in the second case - but to a lesser degree. In theory it is known that other things being equal a better quality product will sell more at a given price than an inferior one. Thus, if a firm produces a better type of product, the demand curve shifts to the right. The profitability of the venture will depend not on elasticity of demand but

on the ratio of the variable costs incurred in producing the better product to the increased sales and income which it earns. Thus, in practice: the better service the railway may be able to provide - faster, more comfortable and more frequent trains, may or may not attract sufficient traffic. The degree of betterment of service is crucial because to draw back the lost traffic, the new service must be significantly better than, not just the old service, but the service provided by the newly acquired car. (In this respect it would be better policy to advertise the new service in the motoring magazines, than on railway station hoardings). Diagram 5 illustrates this position.

A new development seeks to be just this. It was encouraging to see in September 1964 that the Scottish Region of British Railways had implemented their undertaking to improve passenger services in the area in an endeavour to increase patronage: the trains are faster and there is a new train from Wick and Thurso at 6.00 a.m. which connects at Inverness with a fast train to Edinburgh and Glasgow and again at Edinburgh with the Talisman which reaches London by 10 p.m. This is the first time in history that one can get from the north coast to London in a day.

Whether this, and other potential developments, will cause a sufficient increase in sales and income to offset the variable costs incurred and thus help to reduce the overall deficit of the lines, remains to be seen.

Also, it must be noted that the implication that the lines are uneconomic can only be held to from a strictly financial viewpoint. From a commercial standing, it would have been very surprising if any other result had been shown since there was an overall loss of £87m. on British Railways in 1961. **Beeching Report (Bib.3) page 6.** But when the criterion of opportunity cost is applied in any other or additional way to the financial one then the test of the 'higher return here than in the most profitable alternative employment' becomes very difficult to assess. If the criterion were of social value it would be easy to argue that to provide a link for a person from a remote part provided a higher return than the link provided on the Glasgow Electric services. Also, certainly, to assess this in any terms is impossible. And so whilst there can be no final answer to the question 'do the social returns outweigh the financial losses' the point must be conceded by the Beeching advocates that when every factor is weighed the lines will certainly be operating at less ^{loss} than if only the financial criteria (even on their figures) are applied; and that there might even be said to be a profit from these lines because of their social value; though this could never be ascertained with present techniques.

The second general implication follows directly from this: it is implied that public transport is not a social service, and more particularly, that the railway in the area north of Inverness, though it may be crucial to the Highland economy, is not to be regarded as such.

What validity is there then for arguing that transport is a social service, and therefore its income need not cover its costs ?

The argument has only a very limited validity, according to Professor Savage (Bib. Article 1.), for it ignores the growth of competitive private transport by cars, scooters and 'C' licence trucks and vans, in recent years. This point must be accepted. But it also is possible to argue that public transport (in a region, or over the whole country) is a social service and that people are free to make what they consider a better provision for themselves by owning their own means of transport, and they have chosen to do this more in recent years. Again it can be argued that the railway is a Social Service similar to those provided by the Central Government and Local Authorities to the community in many other respects. For example, electricity and water services are provided to many outlying communities in circumstances where the provision is uneconomic but the social requirements of the people are held to be predominate,

The argument is not able to be resolved, but the Beeching implication must be seen from both sides. It can be argued that this implication is wrong; or it can be argued that it is probably correct. However, in practice it is now more important to consider the validity of arguments for subsidizing transport services. By the implication of the proposals to close the railways in the area, all these arguments are held to be invalid.

Professor Savage sees 4 arguments. The first holds that a subsidy may be needed to prevent unemployment of railway men in an area and to harmonise with the Government policy of distribution of industry. This is a weak argument for it could be used to prevent any form of economic progress, as Savage himself points out.

Presumably, if full employment with no mobility of labour was taken to be the object of economic policy it could only be achieved by: i) foregoing economic growth

ii) foregoing cost minimisation.

This answer does not condemn the arguments for keeping the present population in the Highlands, but it does show that to subsidise uneconomic railway lines will not, probably, be the best way of doing it.

The second argument is that Transport should be subsidized to aid Economic Growth and Development: The Cameron Kilbrandon Report (Bib. 4) implies that the hinge upon which growth and development will depend, is the railways. The argument is well founded and the implication by the proposed closure that it does not hold, is a serious charge against the proposal. However, the case must be more specific if it is to hold completely, since growth in the area may depend very little upon the railway. "Neither the Federation of British Industry nor Scottish industrialists have urged for rail subsidies". Savage (Bib. Article 1) says this is because most modern growth industries tend to look towards the road, not the railway facilities when deciding on a site for location, but this is far too broad and it is more likely to be the case that neither of these institutions have^s urged for rail subsidies because there is no danger of losing the rail links to the areas where their members' factories are placed, and so there has been no need for them to argue this case for subsidies. What is significant about their silence is

that this may reflect an opinion that the likelihood of development in the area north of Inverness is sufficiently remote that removal of the railways there would not be a noticeable loss: the economic climate is so bleak that it is considered to be below a certain threshold anyway with or without its railways, thus to remove them would not be a noticeable loss.

Again it must be admitted that the railways in the area in question do not go everywhere by any means, and tourism for example seems more likely to depend for its future on the private car and the availability of an adequate road than on a subsidised rail service.

The third argument contends that a subsidy for the railway would be acceptable in order to prevent too heavy a burden being put on the roads. This holds good more in urban than rural areas where the roads are lightly loaded and the addition of a few extra buses a day would not make a significant difference between normal usage and overloading. But the argument holds more strongly in the area in question: in summer the roads are, sometimes dangerously, already overloaded, and the interference with them by snow and ice in winter makes them unreliable. It is not a strong argument, but it carries some weight and the implication by the proposal to close the lines north of Inverness that it holds no ground is wrong.

The last argument is that if hardship will result and a heavy social cost be incurred then a subsidy must be provided to prevent this. This argument is completely acceptable. However, as said earlier above, to weigh the actual cost that would be incurred is impossible. However, to be fair to the proposal, it is admitted in

Bib. 3.
the Beeching Report that hardship may be caused, but again it does
^

leave the Transport Users Consultative Committee to put up the cases. Another point must be borne in mind in this particular area of survey. If it is granted that hardship would exist if the railway was closed, it is also true that a subsidy may be arbitrary in amount and then indiscriminately and wastefully used (Savage, Bib. Article 1). The

Bib 3.

Beeching Report shows that it is doubtless more economic to use a bus when loads are small and stops frequent, and so a properly designed bus would be better than a heavily subsidized rail service. This is quite acceptable in general terms, but the vast distances to be covered, and the existing state of the roads, which combine to make road transport at least, uncomfortable, and slow in comparison to rail, and at most impossible to undertake, mean that the buses would probably not answer the needs of the travelling public and the hardship would not be eased.

Thus, though the first argument for a subsidy to the railway holds very little weight, the second and particularly the fourth cases do stand firm in the light of scrutiny, and the third one, whilst not a strong case, carries some validity. Thus, the implication, by the proposal to close the railways in question, is shown to be unfair and wrong.

A further point concerning subsidies. The implication of the proposal to close the Highland railways is that no subsidy can be incurred because the principle of subsidies is wrong; and I have just shown that this is itself wrong. Another third implication now follows. A subsidy which exceeded £1/4 m. in 1961 is made annually by the Government to MacBraynes. The grant is distinct from payments for mail carriage. The bulk of the grant is for sea services since the MacBraynes road services are very nearly working to a profit. "The grant is paid by the

Government for social reasons - because without this help the necessary transport services could not be maintained at rates which the traffic could bear, and if it were not paid, charges for passengers and freight would have to be increased by about 30%"

(Cameron-Kilbrandon Report, Bib. 4)

Thus it is fair to argue that either no consideration was given by the railway when making the proposal to the subsidy made to Mac-Braynes, or if consideration was given and the arguments for this subsidy rejected that the British Railways policy directly clashes with that of their Government.

There is a fourth implication, general in nature, but which has social and economic notions attached. The implication made by the proposal to close the railways north of Inverness is that the area will be able to contribute as much to the country as a whole without its railways as will be required of it.

Consider this first with particular regard to the possibility of a national emergency. In a time of war it may be necessary that large numbers of the population and large amounts of supplies be moved as quickly as possible to another part, and this often at periods of short notice. Therefore it is essential that all means of conveying both civilian and military personnel should be available for this purpose in this area. It is envisaged that the area will be used for evacuation of civilians from devastated areas. This case holds for the area in question - it would hold but be valueless if raised concerning a five mile branch line in the middle west of England where there would be perfectly adequate means of meeting any such need, but in the north of Scotland the railway would be sadly missed in a national

emergency. This is not to contend that a railway line should be kept open simply as a precaution against nuclear war, but seen in conjunction with other points the value of the Highland lines in such an emergency adds a little weight to their defence.

The implication of the proposal is false in that the country would miss the Highland railways in the event of further war.

Consider secondly the implication with regard to the country's economy. The implication is that the railways in question will not pay their way (financially speaking that is) and the implication can be tested in 3 ways.

Firstly: the proposal was made based on figures collected before any economies had been effected on the lines through diesel usage; It seems that there are further economies that could be put into effect. The three most obvious of these are: to reduce further the number of intermediate compulsory stops and make them 'request' stops, thus bringing about a further speed up of the service. (It is gratifying to see that this suggestion has been taken up in a Timetable Amendment from 1st March 1965). To utilise the idea of a 'conductor' to collect fares. This would obviate the need for booking offices at all stations except Inverness, Dingwall, Thurso and Wick. To remove the passing loops at certain stations - this would reduce maintenance costs and make possible the closing of signal boxes, too; there are probably ten cases where this could be done.

But it must be admitted that even if full effect was given to these and all other feasible economies, then it is still virtually certain that these lines will still be a drain on the Exchequer:

the implication holds good here.

Secondly: Could the argument hold if traffic was positively attracted to the lines? This refers to goods as well as passenger traffic.

On the latter possibility, a faster service may encourage extra

(see next page)

On the latter possibility, a faster service may encourage extra travellers and the better timing of trains to meet connections at Inverness has been brought about. Perhaps more could be done on the freight side in the area: there seems to be a blind adherence to the general overall policy of the Railways to discriminate against small loads. The railway policy has thus caused some farmers and fishermen to go over to road haulage, in spite of their preference for the swift transit by train, and quite ludicrous rates have been offered by the railway in this connection. (1)

Here again however, it must be said that it is likely that even if the railway was carrying all the traffic that wanted to be carried, and at reasonable rates, then even with all economies effected there would still be a loss incurred.

Thirdly: ~~It seems likely that~~ If Industry is to be attracted to the area it will be more likely to come if there ^{is} a railway link with the markets it is going to serve. The implication now is that the area north of Inverness can be disregarded as having any role to play in the country's development of its economy: (this point is developed in later arguments) and from this the implication is that there could never be sufficient development in the Highlands to make the railway there a profitable concern.

This seems to be a misconception, and is contradicted by the facts that ^{Private} industry has recently sprung up in the area and that such industry makes a full usage of the railway. ~~Thus it would seem reasonable to hope that,~~ With proper Government action, industry could flourish in the area and bring enough revenue to the railway to make it pay for itself, as well as contribute traffic to parts further

(1) I am reliably informed on this point by the County Development Officer of Sutherland County Council.

south.

In this respect the implication that the area north of Inverness could contribute as much to the country's economic needs without its railways, is ~~seen to~~ ^{certainly} be doubly false: Industry is less likely to go to the Highlands if they lack a railway system, and such industry could over a period bring these lines into the 'profit making' category. (1).

The fifth general implication is concerned with the alternative

(see next page)

(1) The conjectural nature of the last two paragraphs is accepted, but the author considers that the argument has a sound basis; Private Industry found the area acceptable when it had a railway, with positive central planning further industry would be encouraged into the area.

The argument could not be worded more strongly since it has to do with future possibilities.

1. Given in evidence at the Public Enquiry by the Ross-shire County Council.

This is seen to be so when the alternative services are more closely examined.

The buses in question are unable to cope with much luggage, offer no buffet or toilet facilities and have limited space for movement. On long journeys (e.g. Helmsdale to Inverness takes $5\frac{1}{4}$ - $5\frac{3}{4}$ hours) these conditions can only be described as unsatisfactory.

The buses will be required to travel on roads that are subject to blocking and delay by snow and ice, (e.g. On the better of the two roads to Kyle, the A.87, this occurred on 29 days in 1961-2 and on 69 days in 1962 - 3 (1 opposite) Further, the accident rate on the roads to Kyle is rated as "high" by the Superintendent of the Police Department, Ross and Cromarty Division. 576 accidents have occurred between Muir of Ord and Kyle in the last 5 years, and in one-third of these people were injured.

The bus to Kyle via A.890 requires passengers to use the ferry at Strome Ferry. The ferry licence forbids its operation in darkness or in high winds, and it can only take a limited number of people. Two crossings would be required before a full bus could leave, all passengers are required to vacate their seats while crossing and there is no shelter on the ferry.

At present at any rate, no adequate replacement is available for the railway passenger service from a social view point.

The sixth general implication of the Proposals stems from their assumption that a line is a "branch" if it only joins the

railway system at one end. Sometimes this is true - where a line serves only the communities on and near it and at the end of it, and the old Strathpeffer and Lybster lines are excellent examples of such. But if the line is serving communities beyond its local field and links with other transport systems it is not a branch line: severance may cause hardship over a wide area.

Through railheads the whole of the mainland north of Inverness is tied to the transport network of the country, and the railways in question may not rightly be called 'branches'. Nor does the influence of these lines end on the mainland. But lines end at pier heads where traffic connections are made to Skye, Lewis, Harris, the Uists, Applecross Peninsula (from Kyle) and Orkney and Shetland (from Thurso via ^{Scrabster} Kyle).

The argument that the railways north of Inverness are not 'branches' but form a part of an integrated transport system is justified on the evidence of surveys taken on the Kyle line which showed many different kinds of journeys being made. In these surveys, taken by myself and by Ross and Cromarty County Council, over 50% of the journeys were to some.... (see next page)

and Cromarty County Council, over 50% of the journeys were to some extent through routes, either originating or ending (or both) at a place beyond the strict limit of the area served by the railway, and therefore journeys which used the railway as part of a wider network, as a link in a chain of communications, and/or often brought further traffic to other parts of the railway system. Such cases as these were noted: Dingwall to Raasay in Skye; Inverness to Torridon or Ullapool; Stornoway to Inverness; Stornoway to Aberdeen; Aultbea (in Wester Ross) to Middlesbrough in Yorkshire; Strathcarron to Gleneagles; Garve to Glasgow. The last four mentioned journeys extend to points between 100 miles and 350 miles away from the end of the system it was proposed to close: obviously such journeys gleaned by a (presumably) unprofitable line do bring in a net receipt to the Railway Company. Insufficient attention to this fact by the Railway Board has made it possible that closure will cause a lack of mobility of these people. Some at least will be business people and so the business of their firm would be continued at a slower rate than is now possible. It is worth noting here too that at the Dounreay Atomic Research Establishment most of the employed personnel are English⁽¹⁾; should the railway have been closed it is not errant to suggest that some at least would have decided that their current place of work was too isolated and moved South again, to the detriment of the work at Dounreay. Thus the economy of the Highlands, and further afield, could have sagged in these ways if the railways had been closed.

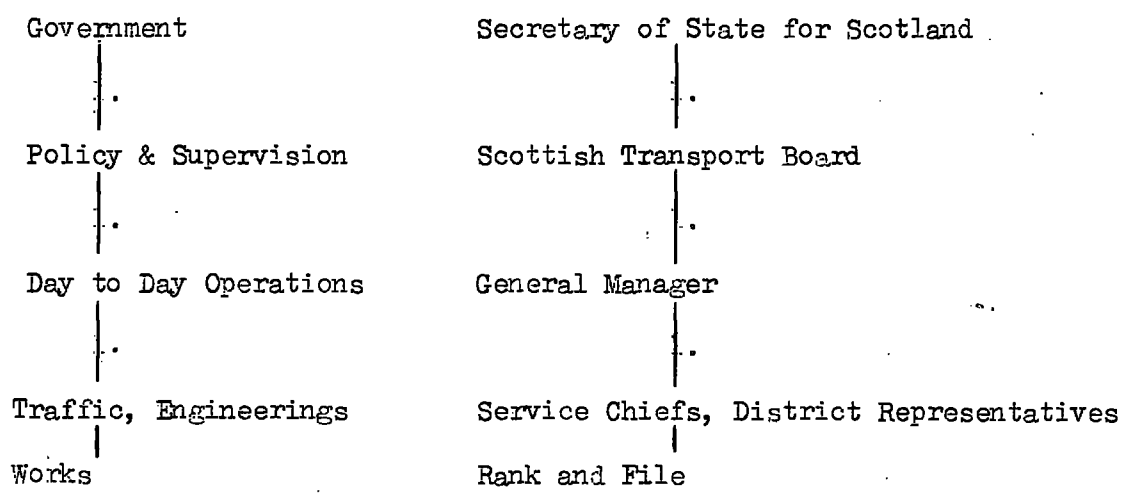
A seventh implication of the proposal is that economy can now ^{best} only be effected in the Railway industry by the pruning of branches

(1) Head of Administration Division, Dounreay.

1. 'This implication is justified by reference to the Beeching Report (Bib. 3) page 3 "Neither modernisation nor more economic working could make the railways viable in their existing form", and pages 54-55 estimate that £34-£41 million per annum would be saved directly as a result of implementing the closures advocated in the Report. This may be compared with an estimated net earning of £12m per annum from liner trains and £3-£4 million per annum saved by administrative economies'.

and that other economies are not able to contribute much towards the efficiency and profit making of the industry. (1 Opp.)

This is absolutely misleading. Professor Hondelink of the United Nations (Bib. Article 10.) reckons that much more could be done in other fields to make the railways pay their way. It seems that a misplaced emphasis is put upon the 'branch lines'. The Professor has advocated that the whole of the Scottish Region should become autonomous and that the present 13-tier system of management then be reduced to 5 tiers. In his view a management structure as follows would bring economies and greater efficiency.



The argument is not that the Railways are purposely blind to economies available in other directions, but that they do not see that a contribution to greater efficiency can come from these sources as well as from pruning lines and stations which they reckon to be un-economic.

This is an effort to reduce fixed costs, and thus also to reduce marginal and average costs per unit of output: the marginal cost and average cost loops are tugged further down a graph. From this it can

CHAPTER 12.

The Implications in the Counties, with some special cases.

SPECIFIC IMPLICATIONS

This section is devoted to the implications for each geographical county and to various institutions in those counties. It concludes with a discussion on the implications upon the Crofting Population and the Salmon Fishing industry, which apply to all the counties but are more readily discussed fully in this horizontal way rather than piecemeal under each county heading.

The counties are taken in order from south to north. There is no significance in this method, although this does happen to represent the descending order of railway mileage - 122 miles of railway in Ross-shire, 70 in Sutherland, and 36 in Caithness, and the number of stations where passengers and in some cases freight facilities are available: 20 in Ross-shire, 12 in Sutherland and 6 in Caithness.

1. ECONOMIC & SOCIAL IMPLICATIONS IN ROSS-SHIRE: Referring particularly to Central Ross-shire and Easter Ross.

Prior to the proposal to put an end to the railway passenger services the Ross-shire economy was quietly expanding. This economy was balanced heavily towards the south east, where the Invergordon-Evanton industrial belt is situated, also the county town of Dingwall and the residential and industrial district around Muir of Ord, though in the North-east at Culrain, forestry was beginning to be developed and on the West Coast the local economy of Kyle and Applecross, and to a smaller extent that of Ullapool were providing a measure of counter balance.

There was no doubt however, that the expansion hinged almost exclusively upon the new giant distillery at Invergordon. Outside of this the advance was anticipated to be in the fields of tourism, forestry and construction. Difficulty was being found in inducing firms into the county - all efforts have failed so far.

It was into this environment that the proposal was made to cease all passenger services in the county. The implications of this proposal are now discussed.

In Central and Eastern Ross-shire economic growth was anticipated through four fields of activity before the Proposals to remove the railway were made. Consider first then the implications of those Proposals on the four aspects of the Ross-shire economy (1)

Grain distilling depends upon the railway freight service to a considerable degree. The giant new distillery at Invergordon was expressly laid out so as to use rail transport, while other small distilleries also use private sidings. The withdrawal of the passenger services in Ross-shire would have no effect upon this traffic, but as emphasised on page 102 once a passenger service is closed there is always the possibility that the freight service will follow. In such an event no great inconvenience would be caused to the smaller distilleries, because they do use road transport to some degree already. The implications for the Invergordon Distillery are taken up on page 169. Adjustment to the new situation would clearly be required, but the progress of the Distillery would only suffer a temporary set-back.

The fish landings at east coast fishing stations are taken to the rail heads of Invergordon, Fearn, Tain and Bonar Bridge where they are loaded on to the passenger trains for transit to Billingsgate. The implication of withdrawal of that service is that the

(1) The factual information contained in this analysis was provided by the Clerk to the Ross-shire County Council in an interview.

fishing stations would have to hire a lorry to take the fish to the railhead now at Inverness, and that would be uneconomic with a small catch. Growth in this sector would be checked by the implementing of the Proposal. (for fuller discussion see pages 216-219)

It seems doubtful if the withdrawal of passenger services in Ross-shire would have much effect upon the Tourist trade. Except at Dingwall the stations are not greatly used by visitors according to British Railways at the Public Enquiry in Inverness.

At Culrain the forestry Commission is developing a centre for forestry. The withdrawal of passenger services could have a detrimental effect upon this project since it may become more difficult to attract men to work there if the area is more cut off. Higher wages may have to be paid than are usually paid in the forestry industry to induce men to work there.

Thus there is seen to be implied in the Proposals, a dampening of the prospects for economic growth in Ross-shire, even if, in view of the projected advance at Invergordon Distillery, the present rate of economic growth is only marginally cut back.

In consideration of the social implications of the Proposals to withdraw the passenger services my own enquiries in Strathpeffer showed an interesting contrast in the incidence of hardship that would be caused.

Strathpeffer is, largely, a tourist centre. The hotels at the Spa get a negligible percentage of their guests coming by rail,

and virtually all of their supplies are brought in by road (1) The local people themselves have little need of a railway either - the business and professional people have cars and there is local employment in forestry, farming, and with the small local firms. But the merchants to whom I spoke were adamant that they would incur extra costs, and delay in receiving materials and orders if the passenger service was withdrawn. With higher costs the profit margin may be narrowed and to the private entrepreneur this would be equivalent to a drop in wages (2) In this case noticeable hardship would be incurred.

Finally consideration should be given to the implications of the Proposals upon the Railway employees. There are 125 men so employed in the County. It is impossible to establish the number of men who would lose their jobs in the event of the passenger services being withdrawn, but certainly if this was followed by the loss of the freight service then all these men would be unemployed if they did not accept the alternative posts, which would be offered, in the South, and the burden of unemployment benefits to be paid to them would fall upon the Exchequer.

(1) From interviews with the Managers of the Ben Wyvis and Highland Hotels, in Strathpeffer.

(2) From interviews with a carpentry contractor, a hardware store, a painter and decorator, and a printer.

IN KYLE AND SOUTH WEST ROSS (1)

The population of Kyle itself is about 650: it is a 'young' community and so has a higher proportion of workers to total population than might otherwise have been expected. (In the summer when the housewives take in tourists it is even higher). The regularly employed people in Kyle make their living because Kyle is a threshold over which a constant stream of passengers, goods and vehicles pass on their way between Skye and the Outer Isles and the east and south: the people make their living by providing the transport for the traffic or by tending the trains and ships by which the traffic comes and goes. About 70 men are employed by the railway: it may be estimated that if the railway was closed down completely then the direct and generated earnings in Kyle would fall by about £150,000 - £200,000 a year.

Thus Kyle depends upon handling through traffic: to withdraw a sector of the traffic can only result in the collapse of the local economy: road traffic passing through may increase somewhat to offset the loss of traffic in part, but road traffic requires little if any handling and even a considerable increase in road traffic would not provide to any real extent, a source of income.

The most obvious implication of the proposal to close the railway line to Kyle is that the 70 men now employed at Kyle on the railway will be without a job. Virtually all these men are local men and would over

(1) I am much indebted to the Clerk of the South Western District for his help with understanding the local position and this discussion is based upon information received from him.

- (1) For the workings of the Multiplier the reader is referred back to pages ~~27~~ 28, 32 Here in Kyle where most of the working population is engaged in manual employment a low propensity to save would be expected, and accordingly the Multiplier would be high. But this would be offset to a substantial degree by considerable leakages due to a high rate of imports to this local economy, and a Multiplier of 4 may be accepted.

This statement is supported by references to the article "Regional Multiplier Effects in the U.K." by G.C. Archibald in Oxford Economic Papers, New Series, Volume 19, No. 1 (March 1967). The article seeks to assess the value of Public or Private Investment in a region. It is a very complex article and any quotation from it, extracted from its context would be dangerous. However, it can be said that Archibald does show that when there is much regional import of goods or services to an area, and much migration of people from that area then the multiplier is small.

When this is applied to the local (NOT regional) economy at Kyle, it is to be noted that migration of people from Kyle rarely occurs and that the expected propensity to save is low. Thus the expected Multiplier in Kyle is considerably higher than "small" and thus the contention that it is about 4 is further bulwarked.

be loth to move away to an alternative post on the railway in the South: they would sooner stay, even if they were out of work for a while, at any rate. This will mean, whether the men stay or not, a loss of income in the town:

The estimate of ^{earnings of} £150,000 a year seems reasonable. If each man earned an average of £12. a week (£2. a week below the average manual worker's pay) this would be £840 a week, or over £40,000 a year.

The multiplier could be expected to ensure that 4 times this amount was actually spent/ ^{(1. opp).} But, the loss would be mostly offset by unemployment benefits when the men choose to stay rather than move away.

It must be admitted that some of the men might get offered a post with MacBraynes to maintain and drive the buses required for the alternative bus service to Inverness via Invergarry, a very small number, just a handful, might be taken on by the Highland Omnibus Company for the services via Dingwall, but it is submitted that this would not account for more than 15 or 20 altogether.

The railway does own an hotel at Kyle - this is not dependent upon the railway services and is unlikely to be affected by the closure of the line.

Implied in the proposal to close the railway is a threat to the employment of the Post Office workers at Kyle. Kyle is the main Post Office for the S.W. district and the southern part of Skye: but if the mail had to be carried by road to the area it would seem reasonable to suppose that a centre on the A.87 would be more convenient: more jobs are placed in jeopardy in Kyle.

Again, there are forty or more men engaged in the district in fishing for whitefish, shellfish and crabs and they are entirely dependent upon the fast service provided by the passenger trains to the markets in the east and south and the ^{complete} closure of the railway would be certain to put all these men out of a job.

The rest of the working population, in Kyle itself, are engaged in the local businesses in the town. These all rely to some extent on the railway for supplies, and also for the money circulating in the town to be spent on their products: a considerable part of which is provided by the railway, directly by railway employees, or indirectly by those who rely on the railway - e.g. fishermen. Thus the small marine engineering and general maintenance firms would be endangered.

I examined one local firm: a hardware store, to see what implications that railway closure would bring about in that business. If the railway were closed then, as I showed, the small fishermen would be without a living: the hardware dealer would lose his direct trade with them, which involved tackle and oil in the main, and amounted to about £3,750 of trade a year. This represents a gross profit to him of about £400 a year. This would be his biggest single loss, but he would be likely to lose much more than this indirectly - through the fall in the purchasing power of the community caused by the loss of 70 jobs at the railway, and probably extending more widely as I have shown.

There is very little agriculture in Kyle, and the surrounding area: what there is is subsistence and perhaps a few early vegetables

for the local market. The implications of the proposed closure are virtually nil here.

The implication of the closures may have had an effect on potential industry and development in Kyle.

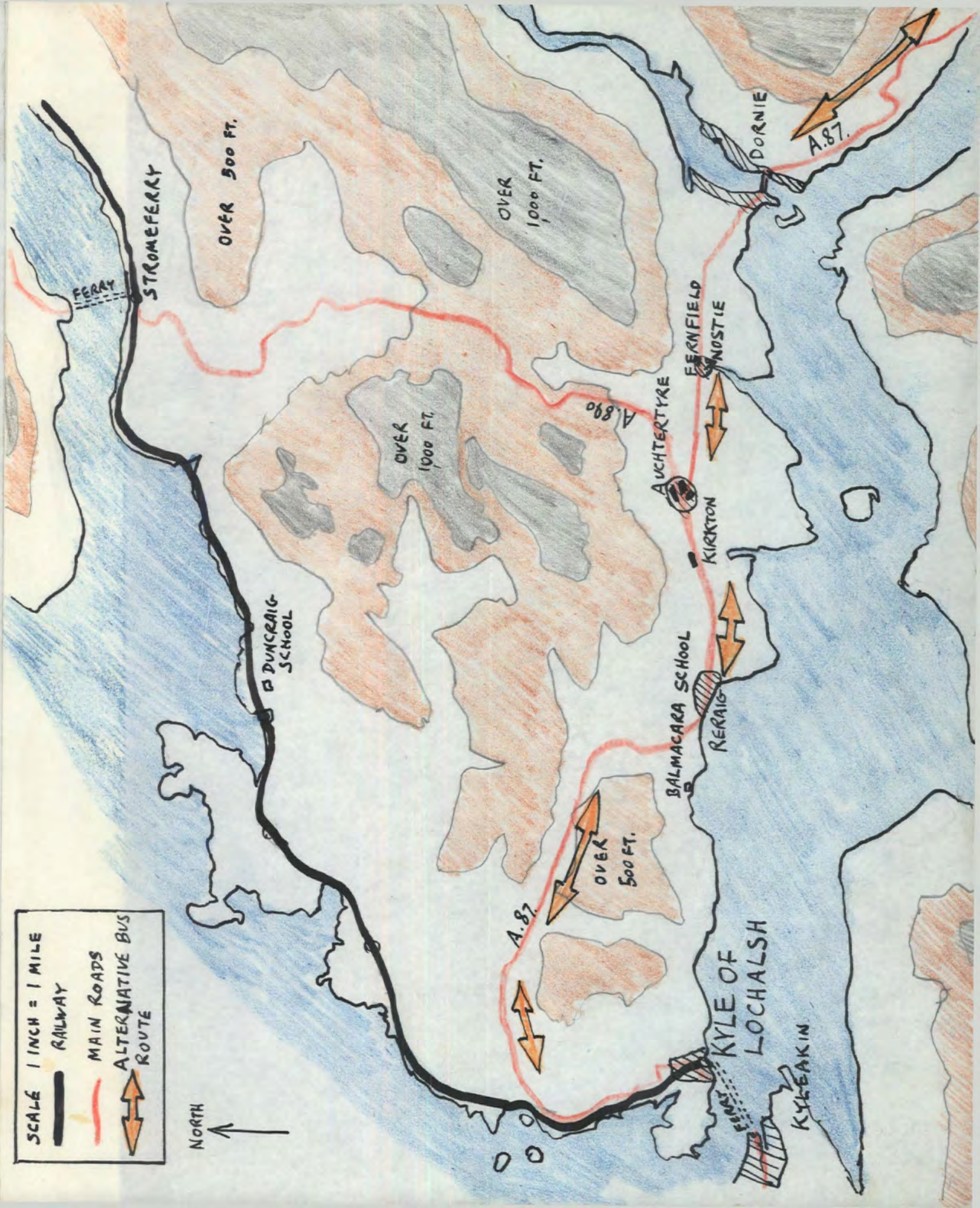
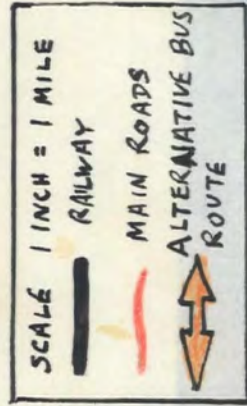
The economy there is still at the stage where development is within the existing firms rather than new firms coming from outside. In the existing firms I examined there was an atmosphere of possible advance being stifled - the uncertainty of the future had caused the entrepreneurs to shelve any plans for expansion. But this attitude may have been exaggerated, and the proposed closure used as an excuse for not advancing when there had been no desire to do so before-hand anyhow. Applications from outside firms are very rare in the north of Scotland: all that can be said is that in Kyle there were 2 proposals from outside firms to come to Kyle (a herring processing factory and a seaweed by-products factory) in the last 5 years, and none since the first intimation by the Railways that they intended to close the line. But this is scanty evidence on its own. But it does seem that the economic outlook for firms existing and potential in that area would be bleaker if the proposal had been approved.

Kyle is a good example of a place where the implication of the proposed closure that social benefits will be claimed at a proportionately high level, holds good. So many men, even in a short term (say 3 months) would be out of work in Kyle that the calls on unemployment benefits would be great. It is probable that the local payments would exceed the loss the local station is apparently making.

Locating the communities that would benefit from rail closure at Kyle because the alternative 'bus service would provide them with a transport service.

.....

Map 5. p. 158



The implication however, that certain settlements will be completely cut off from trunk passenger routes, whilst true in the cases of places like Drambuie, Duirinish, Plocton, Duncraig and Portneara, must also be weighed against the implication for places which were not served by the railway and had only 1 bus a week: the implication for these places is a thrice daily bus service: ^{for example,} Reraig, Kirkton, Auchertyre, ^(see Map 5) Nostie, Fernfield, [^] This will be a great help to those living in these places who can make the journeys by bus, that is generally speaking, the younger people.

But even so there are 2 points to be borne in mind: there is not a net social advantage implied in the proposals, even for the places with the new bus service, because there are likely to be as many in these places who cannot travel on the bus anyway regardless of how often they run. The sick, the old, mothers who must take a pram with them, for example, can only travel by rail. And in the places to lose their rail service there would be a 3 times daily bus service linking them to Kyle where the intending passenger can get a bus to Inverness: though the route will be roundabout, ~~and the journey tedious.~~

A net social advantage was not then, implied, through the advantages to the communities whose bus service is to be so remarkably improved: it does seem overall that because of the loss to other communities a net social cost would be incurred in the area if the railway was closed.

It has been seen that the implications of closure for the Kyle area are decidedly grim: a bleak outlook could have displaced one

of moderate hope in the future. The proposal, if it had been accepted, may have caused the economy of Kyle to collapse and fall apart - such would have been absurd because there is much in Kyle that could be exploited to play its part in the development of the Highlands.

IMPLICATIONS FOR THE WEST COAST SETTLEMENTS

IN ROSS AND CROMARTY

The west coast settlements are at present served by roads, originating at railheads: Ullapool is served from Garve, Gairloch from Achnasheen, and the Applecross peninsular from Strathcarron.

The implications for these places, in the event of the closure of the railway are by no means similar (1).

Garve may act as a railhead for intending passengers to and from Ullapool, but it is not an important point of trans^sshipment for freight. The implication for the Ullapool passengers is that their journey must be entirely by road; but this will not entail much more hardship for them than already exists, because the road is of two carriageways between Inverness, Dingwall and Garve. This is not to say that there will be no extra hardship - there will be because whilst Garve is one hour from Inverness by rail it would be nearer to 2 hours by road via Dingwall on a bus that offers fewer facilities than the train. It also seems certain that passengers from Ullapool to Inverness and vice versa may be dis^suaded from making so many journeys if the railway was closed: thus further hardship is caused.

The situation would be made more acute for intending passengers in Gairloch, and especially so for those in Applecross. The closure of the railway implies for them an additional 47 miles and 65 miles of journey in the bus, on roads which west of Garve are single carriage-way, slow and dangerous. It seems that hardship will be more greatly felt here and that there will be more passengers in the margin of

(1) For the details of this most interesting dichotomy I am grateful to the Planning Officer of Ross & Cromarty County Council.

travellers who will not make their journey if the railway service was discontinued.

The picture with regard to freight usage of the railway and the implication of its closure is similar to the passenger viewpoint. Ullapool does not rely on Garve as a railhead to any great degree: virtually all the fish that are landed at Ullapool are taken by road to Inverness, Peterhead, Fraserburgh or Aberdeen: the reason for this is that once it has reached Garve it is then as quick by road (the distance from Garve to Inverness is shorter by road than by rail anyhow) because the roads are wide, fast enough and safe; it would therefore be pointless to incur handling costs at Garve to put the fish into rail containers.

Limestone for agricultural fertilisers and dolomite for roads is quarried at Ullapool, this goes to market by road - unless it is going a long way south when it is taken by rail but only from Inverness. Thus the general implications are that the withdrawal of the railway would cause no great hardship or inconvenience in Ullapool with regard to freight.

However, this generalisation must be modified because there are undoubted cases where the withdrawal of the railway service would be, at least, a severe inconvenience to certain businesses. One such is a Chemist in Ullapool. All of his goods for sale come to him from outside Ullapool (drugs, photographic materials, chemists sundries) and 95% of it comes by rail to Garve in a goods train, and then by railway lorry or truck. The other 5% comes by carrier service from Inverness. He estimates that if the railway was closed down he would

require a weekly carrier service from Inverness in winter and a twice weekly one from April to September. But if the service was only provided as it is at present this would be impossible. A "very considerable improvement" would be required in the service - at present it is unsatisfactory and unreliable. Railway closure then would result in this concern becoming a less efficient one, through no fault of its own, even assuming that the freight charge per mile/good did not rise. It might follow from this that a poorer service would result and so there would be a social cost to the people of Ullapool from this source too, as well as from the increased inconvenience of the bus travel to Inverness.

Gairloch and Applecross are more dependent upon the railway for freight than is Ullapool: they make use of the advantage the swift rail service has over the poor roads west of Garve: white fish is landed at Gairloch and taken by rail to the markets. Here, railway closure would cause much hardship, because there is no other way available of getting the products to the market. On Applecross the communities are crofting ones usually, and do not generally, reckon to produce for a market - the loss of the railway would mean a social cost to Applecross, but not for economic reasons, rather for social ones. The mail would be delayed, the area more vulnerable to complete isolation in winter.

It seems then, that though there would be detrimental economic and social implications for the places on the west coast of Ross-shire, these differ from place to place according to distance from Inverness, and the nature of the communities.

These cases show clearly how the availability and non-availability of substitutes affects the elasticity of demand for a good or service. The roads from Ullapool have been shown to be adequate, and as such they are substitutes for the rail service and so the elasticity of demand for each means of travel is greater than unity. Thus it is seen that at present prices and the poor level of service, little use of the railway is made from Ullapool: Ullapool did not make any objection to the proposal to close the railway to Kyle.

However, the roads to Gairloch and Applecross are only very poor substitutes for the rail services, and, in the case of the fish landings, no substitute at all and thus the demand for rail travel at these places is more inelastic. Thus it is seen that even at present prices and the poor level of service the people of these places make a greater use of the railway than the people of Ullapool.

SPECIFIC CASE OF HARDSHIP, SOCIAL AND ECONOMIC COST:

DUNCRAIG SCHOOL AND BALMACARA SCHOOL IN WESTER ROSS

Duncraig School is a residential school for girls of 15-17 and there are 60 girls in attendance there. Balmacara House is a residential school for boys of over 13 and there are 32 boys there. (1).

Most of the pupils reach the school by rail - the stations are Duncraig and Kyle of Lochalsh - the exceptions are those boys who come by the ferry from Stornoway in Lewis or from Harris, or by private transport from Fort William: all the girls make part of their journey by the train. Four journeys would be made by each pupil in each direction in each full academic year.

If the railways were closed each of the school children (except those boys who do not use the train at all, mentioned above) would incur hardship in terms of additional travelling time that would be required on the bus service and the difficulties of luggage, lack of toilet facilities and uncertainty in winter must be added to the social cost they would incur.

Further costs would accrue to the County Council, however, if the railways were closed. Both these schools (and several others in the county) are supplied with their fresh meat daily by a firm in Muir of Ord, and it is taken by rail. If the line were closed the council are sure that they would have to lose the contract and go to

(1). The figures were provided by the Educational Officer of Ross & Cromarty County Council and refer to the academic year 1964-65. The rest of the information was provided by the Heads of the Schools through the Education Officer. 159
The schools are located on Maps 4 (page 103) and 5 (page 161)

a butcher in Kyle who is known to be considerably more expensive even when his lower transit costs due to shorter distances, are allowed for.

Certain necessary materials for the school are also taken on the railway - ink, stationery, text books, chalk, but big bulky items of equipment are taken by road anyhow - (desks, blackboards) - and so it seems likely that this matter could be fairly easily adjusted to the loss of a railway as there is no requirement for regular frequent delivery. All that could be said is that, at most, a slight inconvenience will be caused.

But at Duncraig it would be absolutely necessary for the school to own a means of transport and a minibus would be the minimum requirement. The alternative bus services proposed do not serve Duncraig: the school would have to have its own bus to enable the students to get from Kyle to the school at each beginning and end of term and for social reasons during the term, probably once a week. This cost would be considerable - £1,000 approximately - in capital outlay, plus running costs and depreciation. (This figure was reached after discussion with garage proprietors in Dingwall and Inverness. The capital outlay would also need to include a set of chains for use in winter). Balmacara school being beyond Kyle, already has a mini-bus.

However, there would be some saving on rail fares at Duncraig. For the girls travelling from the East there would be little net saving since they would have to take the alternative bus service to Kyle before

being brought up to the School by the mini-bus. And since the new mini-bus may take five journeys to transport the 60 girls from Kyle to Duncraig the net saving on this part of the journey would not be large.

However, considerable saving would occur on the 'social' visits to Kyle, which occur about once a week during term as the following projected journeys will show:-

By Rail Return to Kyle:

Approx. 20 miles at 3d. per mile per girl (all over 14)
= 5/- x 60 girls = £15.

By Road, by School mini-bus:

Allow five journeys each way to get 60 girls to Kyle, and five to bring them back, at 20 miles each journey
= 200 miles. At 20 miles per gallon = 10 gallons.
10 gallons at say 5/6 per gallon = £2. 15. 0.

But I understand that the girls pay for the social visits to Kyle themselves and so this substantial saving would be of no benefit to the school.

Masked costs would be incurred too: it would be expected that if the line was closed and the two schools became more isolated than they are already, it would become more difficult to attract suitable teaching or domestic staff. To attract such staff it would probably be necessary to offer a higher salary or wage than prevailed in other places - a further cost to the schools.

In terms of theory these are two concerns likely to experience a rise in all forms of costs: Fixed Costs and Variable Costs, of which the wages of the teaching and other staffs will form part of both, Total and Average and Marginal Costs per Unit of output will all rise. Diagram 6 shows the position and the effects this will have.

SPECIFIC CASE OF HARDSHIP:

HIGHLAND POULTRY PRODUCTS LTD. AT INVERGORDON

(1)

This firm is a co-operatively owned egg and poultry packing station and depends for its existence, and to meet the high collection costs over the very extensive area it serves, upon selling dressed poultry and graded eggs direct to customers: these customers are virtually all hotels.

The firm is small - 6 employees - but sends despatches to places as far away as Stornoway (via Kyle), Kyle itself, Lairg, Kinlochbervie and Thurso. In 1962-63 the firm made 134 despatches of 214 cases and this produced 10% of its gross profit.

The essential nature of this traffic - which is all carried on the passenger trains, is seen when it is recorded that the net profit of the firm is £16. on a turnover of £32,000 per year.

This is so low because of the great distances the firm's single lorry has to cover to collect the eggs and poultry from the 156 producers in the co-operative.

Not only would the net profit be lost but the co-operative would have to cease operations if it was not able to get the produce to the hotels rapidly: thus if the service provided by the passenger trains was withdrawn the result would inevitably be unemployment for the 6 employees and the loss of a useful income for the small farmers, whose lot would become harder as a result.

(1) This discussion is based upon information given by the Secretary of the Station. The case was heard at the Public Enquiry at Inverness.

In economic terms there would then also be idle capacity in the form of chickens laying eggs that cannot be sold and poultry available for dressing and sale but having no market.

Further, the tourist hotels would perforce have to give their customers deep frozen poultry of less quality which in a marginal case might be insufficient cause to persuade a person to return to that hotel, or even the Highlands for another holiday.

The firm has had "unfortunate" results in the past when it has sent produce by road. The freight carrier from Inverness requires the poultry to leave Invergordon the previous night which means that in summer it is not in peak condition when it arrives at the hotel and so does not command a full price. It would be quite unpractical to suggest the purchase of a further lorry because the loads are so small, and so scattered that physical delivery to all would be impossible and to do it with several lorries becomes even more ridiculous.

SPECIFIC IMPLICATIONS AT INVERGORDON DISTILLERY (1)

This is the biggest distillery in Europe - its production capacity is already 10 million proof gallons per annum and sales will absorb the entire weekly production.

At present the Distillery makes "as much use as possible" of the railway and this is for two reasons - to help to make the railways pay in the area north of Inverness, and because it is more convenient (though probably more expensive) to use the railway in preference to bus or road transport.

(1) The discussion in this section is the result of information obtained from*the Managing Director and one of the other Directors. (and statements made) by

It is thought that it would be cheaper to bring the grain from abroad (U.S.A., Middle Europe or S. Africa) by sea to Invergordon, than to continue, as at present, to unload at Leith or Glasgow, incur high storage costs and pay for the freight movement by railway.

The result of the closure of the railway would it seems, not have caused the company to cease to expand, nor even to check its rate of expansion, but it must be admitted that it would have been caused to wilt a little during a period of adjustment from present rail usage to use of sea and road. For foreign grain to come to Invergordon Harbour by sea, and the building of a silo at a cost of £100,000 there, and investment too in a means of transport from there to the Distillery would, it is estimated, be a profitable undertaking: that is, it would be expected to pay for itself in 3 years, because there would no longer be costs incurred at Leith and Glasgow, for handling and storage, nor in railing the grain north from these ports.

But it does seem likely that higher costs would have been incurred by the Distillery on the marketing side, and the profits of the Company suffer accordingly. Customers of the Distillery in England, Scotland and Wales at least have been persuaded to use the railway as the means of trans^Sshipment: and this would be at a special Preferential Tariff granted by the Railway to the Distillery and its customers. This would be the cheapest way of getting the products to the market, and the economy is added to because the Distillery has built its own Despatch Centre with its own sidings, right in the middle of its estates. In the event of the railway closing, the cheapest way of transit would then have been by road - with no use of the railway even after Inverness, because once the big road

tankers are loaded it is not worth unloading them and incurring the expense of handling a second time. The cost of transport by road would have been more expensive than it is by rail at the preferential rate and with the Distillery's own loading economies.

The Distillery has said that it would not pass on to the customers any increased costs due to the closing of the railway - this is probably necessary because they are competing with distilleries in the south of Scotland who are much nearer to virtually all the inland markets - and so would have borne the increased costs themselves out of their profits.

However, this implication would probably have been masked because the profits of this concern are leaping upwards at such a rate that the greater costs would only mean a reduction in profit increase. In the year ending 31.3.64 profits were (net) £380,000, they are expected to be £ $\frac{3}{2}$ million during this year and to exceed £1 million by 31.3.66. Also it is not the case that the whole of the costs would have been borne by the Distillery; because of the rate of profits tax about half of the costs would have been represented by a loss of exchequer revenue. The shareholders would have 'paid' some too; though this would only mean the dividend would have a less steep increase. The Research at the Distillery would not be affected.

The implications of railway closure for the personnel at the Distillery seem to be slight. Even if the railway had been closed the despatch centre would still have been built, though in a

different form to accommodate road transport vehicles instead of goods wagons, so it is reasonable to suppose the same number of men would have been taken on to build it.

Here was a case of a firm with a perfectly inelastic demand for a means of transport for their product, and as there was available two almost identical means (to the Distillery that is, in terms of costs) their demand for each means was perfectly elastic since each was a perfect substitute for the other. A better example of a perfect market would be hard to find - the sellers knew what prices the other was offering its service at, and the buyer was aware of all the prices: the service was homogenous and so it was left to the buyer to choose freely.

Though once the decision was made to commit the Distillery to rail traffic the market is no longer perfect: a specific pattern and rigidity has been built into the Distillery outlook towards the rail service: its demand now for the rail service is inelastic.

Nor, as output was not going to be affected (and remember all the output is sold) is there evidence to assume that any men would be laid off or fewer extra men taken on each year as a result of the railway closure. The Distillery has brought 350 jobs to Invergordon already and it seems very doubtful that this would have been reduced at all by reason of the railway closing: it may even have increased because additional men would be required to drive the lorries to the markets, and the expected increase of 50 extra jobs each year for the next five years seems unlikely to have been proved wrong. The weekly wage bill is about £5½ thousand gross, but the extent of the influence

of the Distillery is far in excess of this because a local contractor in Tain who employs nearly 300 men is now fully employed in building new warehouses and homes, and several shops in the town have had to take on extra staff since the Distillery began production three years ago. It seems unlikely that there is any reason for this influence to have been reduced by the closure of the railways.

Thus, for the distillery itself, railway closure would not have hampered its policy, or its production; its advance seems unlikely to have been checked, though it must be admitted that considerable inconvenience would have been incurred during the period of re-adjustment to road and sea transport. And the loss of a reliable means of transport in winter would be an inconvenience too.

But there is further implication which affects many people. If the Distillery were forced to use the roads to market its products in the south, it is fair to reckon that about 200 extra lorries a week (heavy 10-ton lorries) would be required. Even given that the road between Invergordon and Invermess is good by Highland standards, it is overloaded by 20%-10% already⁽¹⁾ and is still narrow in spite of having 2 lanes all the way. Even just the additional traffic from the Distillery would cause severe overloading, increased delays, danger, deterioration on the road, so that at any time of year there would be a social cost involved to road users and in summer the prospect is terrifying: and to this picture must be added all the additional traffic thrown on to the roads from further north.

(1) Cameron-Kilbrandon Report (Bib. 4) and see too page ¹⁰⁴ 108.

OVERALL ASSESSMENT OF THE IMPLICATIONS
FOR MAINLAND ROSS-SHIRE

The implication is for a definite sagging in the number of employed persons in the county - due to redundancy at the railway and the closing or reduction in size of the fishing stations. This will aggravate a position that is not regarded as being satisfactory anyway. The impact of this unemployment will not be expected to be great upon the businesses of the county since the social security benefits paid to the unemployed are likely to amount to almost as much as their wages; but if the unemployed people move away from the county the businesses will suffer because of a drop in the purchasing power of the county.

Current industry seems, overall, unlikely to be hard hit - but two provisos to this have been shown. The small sector of industry made up by the Salmon Fishers looks as if it would be very hard hit and there can be no doubt that small firms will encounter noticeable hardship when additional costs incurred in transporting raw materials from the new railhead at Inverness eat into their profits.

Advance in the economy hinging as it does upon current industry growing, and new industry being attracted, reveals an implied dichotomy. Current industry and particularly the Distillery at Invergordon, seems able to cope with railway closure, though advance may not be so fast or widespread as it would otherwise have been. However, there can be no doubt that, in the event of the railway services being withdrawn from Ross-shire, it would have found it even more difficult to en-

courage new firms to the county. Advance from this source would certainly have been bridled, it may even have been stifled.

IMPLICATIONS FOR THE ISLAND OF LEWIS

(1).

The population of Lewis is 22,000, equivalent to that of a medium sized town. That population is scattered fairly evenly over the island, but there is one centre of population, Stornoway, of 5,000. Stornoway is the major point of entry and exit to and from the island, it is from here that the MacBraynes ferry to Kyle and Mallaig sails daily, and there are daily flights to and from Glasgow and 4 times weekly flights to and from Inverness from Stornoway Airport.

The railway line from Inverness to Kyle can be seen to be a vital life line for Stornoway and the island when the figures below are considered. The figures show how much of particular types of traffic come into Stornoway from Kyle and Mallaig. I was not able to obtain figures concerning the traffics brought by air, but it is negligible in comparison with the traffic brought on the ferry. Skewis' (Bib. 2) research confirms this.

Passenger and Fast Freight Service

To Stornoway

	<u>From Kyle</u>	<u>From Mallaig</u>
Milk	70,000 galls. per week	-
Mail	600 bags " "	-
Yeast	10 cwts. " "	-
Sundries (coal, perishable foods, fruit, bread.)	6-7 tons " "	10 cwts. per week

(1) The information contained in this section was gleaned at an interview with the Area Clerk of the County Council.

1. This is the McBrayne service between Stornoway, Kyle and Mallaig and should not be confused with the Strome Ferry service mentioned on page 10⁸ which is not able to operate in darkness.

and page 144

Slow Freight Service

From Kyle

From Mallaig

Sundries - this includes up
to 10 new cars each week 120 tons per week 7-10 tons per week

The passenger traffic between Stornoway and Inverness is heavier than between Stornoway and Mallaig and Glasgow. The reason for this is that business connections are in Inverness, the county town for Lewis is Dingwall, more students go to Aberdeen University than the two in Glasgow, and Inverness is the nearest place affording specialist services.

The Kyle railway line can be seen therefore to be the essential link for Lewis. If it had been closed the only alternative means of getting the freight traffic to Stornoway would have been by road to Kyle and by ferry from there - this would have been an unreliable and slower means of transport (there is only 1 boat a day from Kyle to Stornoway so if the lorry missed it the delay would be of 24 hours) and could only cause a deterioration in conditions of life and in the economy on the island of Lewis.

As to passenger usage - if the railway had been closed the facilities for intending passengers to the east are reduced to the four times weekly plane to Inverness or the night ferry to Kyle and the bus journey from there to Inverness. The second of these would be a long wearisome and sometimes dangerous journey, probably requiring a considerable ~~delay~~ at Kyle (the ferry arrives at ^{Kyle at} 4.00 a.m.) (1 opp.) before the bus departed and is reckoned would take between 12 and 15 hours: (by ferry and train it takes $9\frac{1}{2}$ hours in winter and $7\frac{3}{4}$ hours in summer). The plane is not a daily service; however, it is more

reliable than most inland services since Stornoway Airport benefits from the gulf stream, and rarely is bothered by snow, ice or fog. But Inverness, is not so fortunate so the point is weakened in this respect. The service as a supplementary to the rail-ferry service is most useful: if it were to become one of the two alternatives, as implied by the proposal to close the Kyle line, it most certainly is not adequate. Its lack of reliability and the fact that it is not a daily service make it inadequate.

Clearly, from all the above it is seen that the social and economic life of the Island would be set back (not just not encouraged) if the proposal to close the line to Kyle were to be implemented. Depopulation which might be slowing a little recently, as the figures show, would be accelerated: local feeling is that it would happen at 'an alarming rate'. It may not be an alarming rate to the outsider, but it does seem as if it would be steady. It is seen that the existence of Lewis virtually hinges on the continued existence of the Kyle line.

<u>Population of Lewis</u>		
1921	...	28378
1931	...	25205
1951	...	23731
1961	...	21934

More specific implications can be assessed for the activities carried on, on the Island. Agriculture and fishing were consumption

industries only, until recently. To-day some cattle breeding is carried on, on a small scale. These are sent to Dingwall, via Kyle where the pier is equipped with a special ramp for getting animals into and out of the hold of a vessel, for fattening and slaughter. The animals would arrive in better condition if they go by rail. Second handling must be incurred at Kyle anyhow. If the railway was withdrawn the price received for the cattle in Dingwall would be less and the breeders on Lewis would be hit: some might find it no longer worth their while to continue this exploit and return to their crofting with no production for an outside market. However, there is a possible positive implication for agriculture on Lewis. If the less reliable, slower road transport has to be used to get milk, vegetables and fruit and bread to Lewis, there becomes a definite incentive to local men on the island to produce these things for the local market - if this did happen the island might in the future become more of an economic unit than at present when so much is imported.

The Government has encouraged the ring net fishing industry on Lewis with grants and loans and there is a slow trend being established for young men to go into the industry. The most profitable parts of the island are the northern coasts. The prawns and white fish are sent to markets in the south via Kyle and Mallaig, and to markets in the east via Kyle. The markets in the east could be lost - the slower road transport appears likely to be the crucial point since there is the time already taken to get to Kyle on the ferry. The possibility of using the plane is not a real choice: the transport

charges would be crippling and the plane only goes every other day, ~~in winter.~~

Some of the Southern markets too - e.g. Perth, are not easily accessible from Mallaig (the fish for Perth go from Kyle now via Inverness). Thus railway closure could effectively blight the bright prospects held for development of the fishing industry on Lewis.

As to Industry: there are two small fish processing factories in Stornoway. These would not probably be adversely affected since delay in transit would only cause inconveniences, not the lowering of price or loss of sale. Indeed, if the effect on the export of raw fish as outlines above came about, it is probable that more fish would be processed on the island even if fewer fish were caught and sold overall.

But Harris Tweed is the main industry on Lewis to-day. There are two tweed ~~mills~~ in Stornoway employing 1,000 people, but the industry is a cottage industry where the tweed is farmed out to weavers in their own homes - about 1,500 weavers are to be found. The industry is not dependent upon the railway. The bulk of the imported wool comes by boat from Glasgow and the finished tweed goes back the same way. At present the railway is only used if a very urgent order is required in the North or east of Scotland, and the air link would probably, though not certainly, be able to fulfil such an order if the railway were closed.

'Probably' because it is fairly reliable, but not 'certainly' because the flights are not made daily, and weather hazards can cause can-

cellation. It seems that the industry would not falter if the railway were closed - the proposal to close it merely implies the loss of a service which is found to be useful on rare occasions, and for which a suitable alternative is probably available (1).

Recent attempts have been made to foster the beginnings of a tourist industry on Lewis: but this is only in an embryo stage as yet, as it was impossible before because of accommodation problems and the vehicle ferry from Skye to Harris did not begin to operate until 1964. All that can be said at this stage is that the loss of the railway would certainly not help the development of the industry; (it might deter some tourists from going to Stornoway but it seems likely that the industry will benefit much more from motor tourists and improved highland roads than from the railway line: but it is all conjecture at this stage).

Economic Advance on Lewis seems to be very slow anyhow. There is evidence of advance, but it is at a very slow rate, and there is not any great expectation that could reasonably be made for any speeding up of advance in the near future. But if the proposal to close the railway had been implemented it is clear that at least the very slow rate of advance would have been further restricted, and probable that it would have ceased and the economy sagged: local opinion is that 'economic disaster would be caused'. This view is an exaggerated one, for Tweed is the main industry, and not dependent on the railway: also the time over

(1) This reasonable view is also held by the Provost of Stornoway who owns one of the mills.

when the Lewis economy will become buoyant enough to support
itself is pushed further back. Even with the future of ^{the} Kyle
railway not in jeopardy this time seems a long way off.

2. IN SKYE (Skye is part of Inverness-shire)

Some settlements and communities in Skye might be no worse off from an economic or social viewpoint if the railway to Kyle was closed because such closure would have little or no effect on those places which can make easy contact with the recently new MacBraynes ferry from Mallaig to Armadale on the south coast of Skye: their accessibility to and from the mainland would not be hampered nor would they lose the railway service from Mallaig to the South.

But there would be severe inconveniences for any traffic desirous of going east - to their county capital at Inverness for example. A bus ride of 80 miles is rarely a cheering prospect: it will only serve to deter potential travellers who will have had a long bus ride already (up to 50 miles from the north of Skye) to Kyleakin. It will have to be a very vital matter for passengers from Skye to Inverness and the North and to Aberdeen and the North East promontory to undertake such a journey. This can only be interpreted as significant hardship: and serves to show further the social value of the railway service and its provision of a safe and comfortable means of transport.

With regard to industry on Skye: the two main industries are cattle and sheep rearing and Woollen manufacturing. In the case of the former, the railway provides a useful means of carriage when livestock are sold to a market in the south or east: but it must be admitted that this is only a rare occasion, and, though it would take

longer to transport them by road, the loss of the railway in this respect would only be the loss of a convenient means of transport. At Portree the Wool Mills use lorry haulage on the mainland anyhow; their products not being perishable can wait until a full load is available for transport to market in the east (1).

However, in small industry the loss of the railway would be to raise a critical state of economic affairs. For the small firm it is less easy to obtain credit when this is required, and if only bulk loads of products ^{are} ~~is~~ economical (with no railway service available) then the outlook may become very bleak. Another example of small concerns which would be put in difficulties if the railway closed is the men who deal in the white fish market where loads vary considerably because the daily and weekly catches vary, but even if there are severe fluctuations in the catch, what has been caught must be sent to market immediately or it becomes worthless.

It seems that on Skye the big firms have little real need of the railway - because of the nature of the product, the other main "export" uses the railway largely as a convenience: but the small concerns and one man businesses, because of the nature of their product, may be severely hit by the closure of the railway.

It seems doubtful if the tourist trade of Skye would suffer, to any appreciable degree, if the railway to Kyle was closed. A very small percentage of the tourists who go to Skye for a holiday go by railway. But it must be admitted that in the summer the Observation Car runs from Inverness to Kyle and is always fully booked - these day visitors might not go to Skye if they had to

(1) I am reliably informed on this point by the Manager of the Mills.

travel by bus or in a private car on the busy and narrow roads but when seen in perspective the loss to Skye would be small. Though here again it is likely it would largely be borne at Kyleakin, which is only 4 minutes from Kyle on the ferry, so this place would suffer a loss of income greater than others, it seems.

3. SOCIAL AND ECONOMIC IMPLICATIONS FOR SUTHERLAND (1)

Sutherland has the lowest density of population of any Scottish County: it has 2028 square miles and a population of 13507, and so the density is 6.7 per square mile. However, this population is much more dense in the south east of the county than anywhere else: this shows the very sparse nature of the population density away from the south east corner. There is little industry in the county: it is mainly ⁱⁿ agriculture and in provision of services that the people make a living (shops, hotels, tourists, transport) but there are firms of some size, at Dornoch ^{where} a meat firm employs 30 men, and at Brora the Wool Mill employs 100, although there is nothing in Sutherland to compare with the Invergordon Distillery or the Atomic Station at Dounreay.

Implications: Against such a background it is clear that the future of the economy of the county was not going to surge ahead in any dramatic way, but that it would grow, other things being equal, as the general level of prosperity of the country as a whole grew, and particularly if the rural depopulation could be checked (Sutherland already has the smallest annual loss of the crofting counties) and if the existing firms in the county expanded enough to take up additional labour from the pool of unemployed.

Thus the county was hopeful about its future since plans were afoot to effect these two aims. But most of this advance implies (1) The factual information in this section was provided by the County Development Officer in an interview.

that there was no worsening of the economic climate, and it seems that in Sutherland the removal of the railway would be to negate the efforts that were in hand.

Consider now the extent of the implications of the proposal to remove the railway.

1) Transport The immediate implication for the county in the event of the withdrawal of the railway service is its entire dependence upon the road web (it is not a network) in the county. The sea plays only a tiny role and one which is irregular at that, and there are no airstrips within the county. Now, the present road from Inverness to Sutherland is inadequate for modern needs: the Cameron Kilbrandon report (Bib. 4). notes that its 'alignment is only fair'... 'it is 20% - 10% overloaded in the south ... is very exposed and liable to blizzard, and the short cut in Easter Ross over Struie Hill is sometimes blocked by snow'. To close the railway before road improvements of substantial nature had been completed, at least, on the main roads, would only bring about two unfortunate results. Firstly, there would be a decrease in the efficiency of the firms using the road: firms who used the railway before would find the road to be slower, firms who used the road before would find the road slower now because of the additional traffic using it. The second effect would be to make the road more dangerous and accident prone.

The extent of these two implications is seen when it is noted that over 170,000 tons of freight are carried annually by the railway and half a million parcels and half a million mailbags, and in August

all the seats on the trains (926) are fully taken each day. (From the Cameron-Kilbrandon Report Bib. 4). Also it will be remembered that in winter the severest snow and weather causes delays only up to half a day on the railway (Cameron Kilbrandon Report, Bib. 4.). The only conclusion to be drawn is that the immediate implications of railway closure in respect of alternative transport will be to give rise to conditions on the road which may approach a very unsatisfactory state.

2) Population The county, like all the crofting counties (except Caithness, which is explained by the enormous influx of men to Dounreay) suffers a net depopulation each year. However, the rate of 1.2% from 1951-1961 is the least drop of all the crofting counties (1). The depopulation is an overall figure and in fact in the south east corner the population has risen by about 3%. It is thought that this increase is natural and accounts only little for the decrease from the remoter parts. The loss of the railway will certainly not help the attempts to halt the depopulation altogether and might conceivably aggravate it: the county would at best be no more attractive to those who leave it from the remote parts, whilst it would be less attractive to those in the south east corner. Also it is here where the redundancies will be caused when the railway closed, some at least would move away, and the area become less economically attractive to all those who lived in it.

The termination of the railway service would be certain to have an adverse effect on the potential immigrant to the county: the effect

(1) From a statement by the Sutherland County Development Officer in connection with the Proposed Railway Closure.

might be sufficient to dissuade him from leaving his present circumstances.

3. The implications of the Proposal upon Potential Industry in Sutherland may be considered under three headings.

Amongst several potentially exploitable minerals, there are shales in the north west of the county containing Potash between 8.5% and 11% pure. (compare with British average of 3.7%, and the world's best deposits are 12 - 15% pure) (1) The firms which are hoping to quarry the Potash are certain that their cheapest method of transport would be by rail - with Lairg as their railhead. The Beeching Proposal presents no immediate threat to this plan, but the reader is reminded of the Note on page 102 showing that the freight service is imperilled to some extent by the Beeching Proposal.

Negotiations are at present in progress to establish a shellfish processing factory, somewhere on the east coast, which would employ 20 men (2) The threat to the railway seems unlikely to deter the firm since it has no requirement for a speedy transit of its products to a market. The processed goods can be taken to market in bulk loads in lorries.

(1) From the Interim Development proposals for the County of Sutherland made by the County Development Officer in December 1963.

(2) From the Statement made by the County Development Officer in connection with the Proposed Railway Closure.

The County makes strenuous efforts to attract manufacturing industry to the county from the south. As yet no firms have been induced into Sutherland, and it is valid to argue that the lack of a railway service would hamper the county as it competes with other parts where the railway service is not threatened. Thus, at least, the withdrawal of the railway would cause a lengthening of the time before firms do come to the county, and at worst would prevent any from coming at all.

4. The expansion of existing industry

The two biggest firms in the county - the Brora Woolen Mills which employ 100 men, and a building firm employing 500 men in Sutherland and Caithness - both stated to the County that their business would be "harmed" by the loss of the railway. Upon examination it seems that the reason for this verdict is that the railway provides a useful "fall-back" service for obtaining materials from the south for the Mills at short notice, and for ensuring prompt delivery of pre-constructed items from the building firm. There might then be times when these firms would be inconvenienced by the loss of the railway, but it seems unlikely that they would be "harmed" to the extent of holding back from any future expansion.

The tourist industry is increasing rapidly in Sutherland and the County Tourist Association believe that at least 10% of the tourist industry is dependent upon the railway passenger service. Continued expansion would be checked somewhat by the loss of that service, although perhaps not all of the 10% traffic would be lost

if the Proposal was upheld. Some of this traffic would come by bus, or hire a car, and still come to the county.

Fishing is developing, and so is the export of shellfish and meat from the county (1) but these all depend upon the fast, passenger service to markets in the south. For example there is a meat exporting firm in Dornoch, employing 30 men and it estimates that 90% of its business would be lost if the passenger service was withdrawn. Another firm sends £1,500 worth of shellfish to southern markets by the passenger service. Railway closure would adversely affect the livelihood of 120 full or part time fishermen.

5. Certain Social Implications follow from the Proposal to close the railways.

If the freight service imperilled by the Proposal to withdraw all passenger services in the County, was in fact terminated then any of the 124 persons employed by the railway in the county who chose not to accept a post offered in the South would be unemployed. Alternative jobs would not be easy to find immediately though some jobs would result from the extra buses which would be run.

(1) From the Statement made by the County Development Officer in connection with the Proposed Railway Closure.

Further unemployment would accrue to the fishermen, and those in the meat and shellfish trade as seen above.

Apart from the additional burden placed upon the Exchequer by this upsurge in the numbers of men drawing unemployment benefit, these matters constitute a severe blow to the employment situation in the county. The level of unemployment is already high: in February 1964 (i.e. the month before closure was to have taken place under the original Proposal) 498 people were unemployed in the county and this represented 9.7% of the insured population. Seen in this context the implications of the Proposal upon unemployment in Sutherland are seen to be of a serious nature.

Finally, a measure of hardship will occur to most people in the county in the following way. Given that the withdrawal of the railway service will, at least, hinder the advancement of economic prosperity in Sutherland, then people who could, other things remaining equal, have expected to be living a more comfortable life in, say 2 years time, will now have to wait longer than 2 years to reach that state. Thus, in conditions of life that are hard anyway, an additional period of hardship is caused.

Conclusion on the Implications for Sutherland

From the descriptions of the implications it seems fairly certain that the removal of the railway service from Sutherland would cause the economy a set back, instead of the modest advance it was hoped would take place.

This is because the closure would negative the effort to reduce the number of unemployed in the county and will, at best, not help the policy of putting a brake on the rural depopulation, and, at worst, will definitely aggravate the position. It is not going to cause the economy to be set back because industrialists intending to come to the county would go elsewhere, because there were none of these anyhow, though it is agreed that what is, presumably, a rather unattractive area to industrialists will become, in their sight, even more barren if the railway was withdrawn.

It is particularly noticeable that the effect of closure upon existing firms in the county is likely to be detrimental. This is significant because it is apparent that the economy is at the stage where advance and growth must still come from within the concerns which make up the economy.

It is, perhaps justifiably, easy to allow sentiment to enter into the case of the implications for the county of Sutherland. It seems particularly unfortunate that a county, which by making strenuous efforts of its own and with no effective outside assistance, was able to look towards some modest advance, should have these hopes blighted by the decision of an outside agency.

THE IMPLICATIONS FOR CAITHNESS (1)

Caithness has a population of 27,345 and an area of almost 700 square miles: this makes the population per square mile almost exactly 39. This population is largely centred in Wick and Thurso and it is a rising population because of the immigration at Dounreay.

The basic industries of the county are agriculture and fishing but recently there has been evidence of a small industrial advance which the county had hoped would continue on a growing scale.

IMPLICATIONS

1. Means of Transport: Without the railway link there would be just the two other means of transport available for passengers and freight, the roads or by air. There is no seaborne service from or to the County connecting with the South.

The roads in the county are poor with the exception of the A.9. (see Map 4, page 103). However conditions, even on the A. 9, and especially on the feeder roads are such that the roads are not reliable: the County Surveyor of Caithness reported to me that in 'most years the A.9 is completely blocked for some periods of at least 1 day during the winter months!' In 1955 there were 15 full days of complete blockage, in 1956, 3, in 1957 none, 1958 - 4, 1959 - 6, 1960 - 9, 1961 - 63, none. The range shows the lack of reliability of the road, and this is the trunk road. (2)

- (1) Factual information in this section was kindly provided by the County Clerk at an interview.
- (2) These figures were given as evidence at the Public Enquiry by the Assistant County Surveyor.

Another hazard on the road to be taken into account when travelling from this far north is that of traffic: whilst admitting that traffic is not normally overloading this road, it is rapidly increasing, and over the last seven years has increased 150% (1), and if the requirements for and products from Dounreay Atomic Energy Station and the glass factory at Wick are thrown on to the roads in the absence of a railway link, the position would be 'at least most serious, at worst chaotic' when all factors of distance and conditions are considered. It has been estimated that, for the roads to be improved to a level that could cope properly with the traffic, an expenditure of over £4.million is required. (2)

The other alternative - to travel by air - can only apply to those persons and goods that have to go to Inverness or further south from near Wick - because this is the only airport in the county. Thus even if the service was considerably extended beyond the present one of one plane a day in each direction, it would only be a possible alternative to some travellers (or goods) and then the fare, or size of a family, for example, might preclude its use from some of these.

- (1) This figure is taken from a memorandum prepared by the Councils of the 3 counties in Dec. 1963 in connection with the Proposed Railway Closure..
- (2) The evidence of the Sutherland County Surveyor at the Public Enquiry was that he estimated the cost of reconstructing trunk and classified roads which would be carrying the additional traffic diverted from the railways, at more than £4.million. The only scheme approved was the stretch from Lairg to The Mound which was estimated to cost £600,000 and was due for completion by 1970.

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Also, the Air Service is not reliable either, services are cancelled if the weather is bad, or through other difficulties. From January 1st 1963, until November 30th 1963, 35 services out of Wick were cancelled, a proportion of 1 in 10. (1).

The implication of the proposal to close the railway line to Caithness is therefore seen to be to put all traffic onto either the roads or the air services. These are not properly equipped, nor able to meet the requirements in an adequate manner, either on their own or together.

2. Employment

74 men are at present employed on the railway in Caithness county. For those who choose to reject the alternative posts offered to them in the south there seems little chance that another job would easily be found in the county. Some could no doubt be taken on by Highland Omnibuses to drive the extra buses (assuming that the man can drive a bus), but it seems that the result would be to further aggravate the unemployment rate in the County which is already twice the Scottish average.

The loss of the earnings of the railwaymen would present a blow of no small proportion to the economies of Thurso and Wick: the economies could only sag, even when allowance is made for the propping effect of unemployment benefits. The effect on the economies of the towns would not compare with the effect expected in Kyle - however, the climate would be bleaker.

(1). From a letter from the Council to the Minister of Transport written in January 1964 in connection with the proposed rail closure.

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2. This is developed and proved in terms of known theory and actual occurrence on page ~~222~~ 196

Unemployment might be indirectly brought upon certain fishermen, this is included in a later section.

3. Development and Advance (1).

The future for the county seemed to be bright before the proposal was made. There was evidence in Caithness which was not to be found in Ross or Sutherland, of firms which had been induced to the county. These were only two in number and only small concerns. In 1961 a Plastics Factory was set up in Halkirk and in 1959 a Knitwear Factory was established in Wick. These now employ over 40 and 32 people respectively. Both are growing slowly and providing a useful source of employment for the County. The Glass Factory at Wick was a private venture, and there is another successful example of this in Halkirk where a woman now employs over 150 knitters in their own homes in Caithness and the Islands. It seemed that the economy was beginning to lift itself: evidence was slim, but it all pointed this way.

If the Railway had been closed it seems fair to say that further advance may have been damaged in that further new firms would be more loth to come^(2 opp.) and also that the future for the existing firms ~~(1 opp.)~~ may, but again may not, have been made more difficult.

In the second instance, it seems that railway closure would NOT have restricted further expansion at Dounreay, while the small plastics and knitwear firms would probably only have suffered inconvenience to their marketing arrangements by the busier roads. The nature of the products suggests either that they use road transport or mail their orders out.

- (1). This is an appraisal of points raised in an interview with the County Clerk. No development programme has been published by Caithness County Council.

But as to attracting new firms: it seems certain that the chances of doing this would be blighted and the evidence was that whilst the future of the railway line was in doubt there was a complete loss of interest shown by the two firms which were then considering setting up in Caithness. (1).

This case may be developed and proved in terms of theory. Caithness is the most remote county and may therefore be expected to be the most sensitive to any change in conditions which may attract or repel possible new firms: also as there is evidence of the county already attracting some firms, there must be some attraction in it. For these two reasons this analysis is best considered here.

Three cases may be ~~postulated~~: Caithness with a rail link to the South, a competing locality (say Aberdeen) and Caithness without a rail link.

	1 <u>Caithness</u> <u>with rail link</u>	2 <u>Aberdeen</u>	3 <u>Caithness</u> <u>without rail link</u>
Fixed costs	may be considered as being the same		
Variable costs	N.	N.+1	N.+3
Average Costs	$\frac{N + \text{Fixed costs}}{Q}$	$\frac{(N.+1) + F}{Q}$	$\frac{(N.+3) + F}{Q}$
Marginal costs	$\frac{N + F}{Q1 - Q}$	$\frac{(N.+1) + F}{Q1 - Q}$	$\frac{(N.+3) + F}{Q1 - Q}$
Demand	may be considered as being the same		
Marginal Revenue	" "	" "	" "

(1) The Provost of Wick reports that the firms abandoned negotiations.

It is known that where MR - MC is the best profit point and it is apparent from the graph of Diagram 7 that the biggest profit would be made in case 1. Other things being equal a firm would go to Caithness. But if there was no case 1 the firm would go to case 2 where profit is higher than in case 3.

There is also further projected advance in the county: it is hoped that a new light industry, and an electronics firm may be attracted and also a firm to develop the use of peat. These would almost surely, at least delay their coming and at worst refuse to come if there was no railway link with the south.

It is hoped to develop fishing in the County: in spite of a decline in herring, there has been a turning to white-fishing from Wick, Scrabster and Lybster in particular: if the fast link to southern markets was axed, any development here becomes impossible - this far north reliability counts greatly with the perishable nature of the produce - indeed it is probable that the men concerned would be unable to gain a living and so what may become an advance would, in the event of the railway closing, become a setback, to the economy.

And it is also hoped that fish farming, in the lochs, for Trout and Salmon may hold a further key for advance in the county: but again these fish must be got to the southern markets within 24 hours if the best price is to be gained so if there is to be any advance in this form of industry the railway link must be available. The proposal to close the railways implied that the possibility must be rejected until the roads were such that delivery at the market, within the time limit, was possible.

Caithness is a cattle rearing county: cattle are bred here and then sent south for fattening and slaughter. The fact is certain that the cattle arrive in better condition if they are taken by rail than by road, even though double handling is incurred at the railhead. The loss of the railway would therefore cause the marginal breeders at least to perhaps lose their market and perhaps their livelihood, and the best breeders would suffer lower profits because they would only get a lower price for their beasts.

The tourist industry is a growing one in Caithness. It is estimated by the Scottish Tourist Board that about 10% of the visitors go there by rail. It seems fair to suggest that if the railway service was withdrawn most of these people would not go, as against some in Sutherland and Ross; because of the distance north of Inverness they would have to travel by bus. Caithness would suffer more than Ross or Sutherland in this matter because of the distance factor. The loss the county would incur would be a noticeable one. Further - the implication is that there would never be any holiday specials and extra's to the Far North. It is hoped that this will be implemented soon - without the railway it is obviously impossible.

The problem of Rural Depopulation has been masked in Caithness by the population growth caused by the influx of people to Dounreay. But it is doubtless that it continues here as much as in the other counties. So here again it is valid to argue that, in those cases where the absence of the railway would make life bleaker than there

is more likelihood of the people leaving. Railway closure at least will not help the policy of attempting to halt this emigration and it is very likely that it will only aggravate the matter.

4. Hardship: Road Users.

It is clear that hardship would accrue to all those people who are forced by the closure of the railway to use the roads as their means of transport. It is submitted that, this far north, the lack of reliability of the bus service and the condition of the road would cause 'hardship' because of the doubt put into peoples' minds as to the wisdom and possibility of the journey. Further those who choose to travel in a private vehicle are being forced, in the absence of the railway, to travel on a poor road which automatically becomes more dangerous when extra traffic uses it. This can only be construed as additional hardship. Again, for those who have no access to a private vehicle the conditions which they must endure in a bus will represent considerable hardship. Unless considerable expenditure was outlaid upon bus passengers amenities in the form of proper shelter for waiting passengers, baggage facilities, buses with toilet facilities, the hardship would be enormous. As it is, even if these factors were provided to make the alternative service somewhat more adequate than it is now, much inconvenience and discomfort will be suffered.

The bus takes from 7 to 8 hours from Wick to Inverness, more from Thurso, or north of Wick, and there is no provision for refreshments likely to be made. It seems certain that passengers will suffer hardship, and also that many who would like to travel but who could not face the long exhausting bus ride will be prevented from

travelling. This will mean a worsening of their conditions of life and therefore represents hardship.

Mention has not yet been made, under the implications for Ross or Sutherland of the effect that railway closure would have upon hospital patients who have to travel to Inverness to the hospital there. The point holds good for the cases in the other two counties but holds most firmly in Caithness because this is the furthest county from Inverness. The evidence of a qualified nurse and Midwife was sought and she reports 'the train is by far the best method for conveying patients, particularly pregnant women and those who are seriously ill". The train is steadier and warmer than a road ambulance and the facilities are better (simple e.g. a case requiring exercise can get up and walk the corridor when he wants to) and travel sickness is a problem in the road ambulance but very rarely on the train. Road Ambulances have been stranded or overturned in bad conditions, or had to turn back. It is obvious that the loss of the railway service would cause very much hardship to those patients who must travel to Inverness, even if they could all be taken in the Road Ambulance. The uncertainty of the bus is another factor for those who must make their own way.

Again, there is the potential danger of essential drugs, equipment or blood being needed in Caithness, and the planes being grounded and roads not being able to provide the means of getting them there from Inverness in time to prevent much suffering and perhaps death. (1).

(1) Evidence of this was given by the Chairman of the Northern Region Hospital Board at the Public Enquiry.

This potential danger must be taken to represent hardship, too.

Small Businesses

This is another point which has not been developed before, because the distance factor causes it to apply more in the county of Caithness. In Wick and Thurso there is only one shop that is a chain store - Woolworths, a small one, in each town. The rest of the businesses are small, private ones, and they nearly all rely on the railway service for incoming goods and the railway service is of supreme importance to the efficient running of these businesses. Two cases will illustrate the implications of the proposal to close the railway service.

An engineering firm in Wick, at present expanding fast (employs 20 men now) undertakes emergency repairs for fishing vessels, coastal steamers and road vehicles. This service is frequently dependent upon spare parts being obtainable from places perhaps as far away as the Midlands of England. It is obvious that if the means of obtaining the parts quickly is lost, the business is in jeopardy.

A draper in Wick brings in 96% of the goods he sells by rail and 50% come on the passenger service. Without this service he would be dependent upon the road haulage system which at present lacks co-ordination so that delivery dates are uncertain and ludicrously long (21 days from North of England or S. Scotland). The draper admits that firms, or groups, may deliver goods themselves in the event of the railway closing but of course they may not be so willing to deliver to Wick as to Inverness; anyhow even if they did it would still only be

a second best to the rail service which provides the goods promptly and in good order. It seems that the business would lose in 4 ways if the railway were closed. Firstly, the business depends on giving a first class personal service and the loss of the railway would hamper the giving of this service, and trade may be lost as a result.

Secondly, as goods would be later in arriving the turnover in stock is slowed. Thirdly, a higher stock would have to be kept, and so more of his capital is tied up in stock. Fourthly, the business would suffer a loss of custom, at least from those of the railway employees who are no longer in a job, and probably too from the town in general, through the drop in purchasing power.

The draper estimates that he would lose from one-eighth to one-tenth of his profits in this way. This could not be offset altogether nor even probably very much at all, by an increase in price. With a loss of income the demand curve of the town in general would shift to the left and less would be 'demanded' at the same price, and still less at a higher price.

It seems then that the implication for the many small businesses in the area of the proposal to close the railway, is a cooler economic climate: in the longer run the effect might be one of causing combinations of dealers and businesses to emerge to lessen the competition, though in most of the private concerns to aim for and obtain a monopoly power would not be of much value because the nature of the products does not lend itself to this policy; it could occur and work profitably amongst the bakers and butchers for example, but not amongst the businesses providing the more 'luxurious' goods - like smart shoes or watches. The customers would still buy - but would

probably buy inferior goods at the same old price; in this respect the monopoly might be profitable but it would be more likely to succeed amongst the former example.

IMPLICATIONS FOR CAITHNESS GLASS FACTORY AT WICK

(1).

The factory was sponsored and financed privately and has been operating for nearly 5 years. In comparison to modern firms it is a small concern but it has a valuable role to play in the local economy at Wick and in the Highland economy at large. It employs 75 persons now; this is double the figure of 18 months ago and the number on the pay roll has increased each year since the firm started. Most of the employees are local people, but some of the executive staff, craftsmen and salesmen outside Wick are imported personnel.

At present the firm brings in about a half of its raw materials by the railway: this is mainly the chemicals from the Cheshire and Runcorn areas, but it is impracticable to bring its sand by rail, it comes from Lochaline on Mull and is brought by road.

The firm considers that if the railway were closed they would incur more expense if the chemicals had to come by road anyway, but also and more especially it seems likely that greater expense to this firm would come about because of the inconvenience. This is two-fold. Firstly, for an economic quantity to be brought by road a full 14-ton lorry load would be needed. This would create storage difficulties and extra ground would have to be purchased for this. Also it would mean that more of the firms capital was tied up in raw materials and would not be available for other use, especially investment in new

(1) The information on which the discussion in this section is taken was gleaned in an interview with the Manager.

(1)

It is necessary here to indicate that the Beeching Proposal hereunder discussion, only aimed to remove passenger services.

But the reader's attention is referred back to the Note on page ¹⁰² 10. When a passenger service is closed there is always ^{possibility} ~~the~~ possibility that the freight service will follow. The freight service is imperilled to some extent by the Beeching proposal.

capital which would be more efficient (the firm has reached its maximum size in that its area prevents any more plant being brought in unless other is scrapped). Secondly, inconvenience brought about by the delay in materials would be a source of greater expense to the firm. (1)

The factory sends all its products to the destinations by rail - unless there is a crucial deadline to meet at the Glasgow Docks, when a lorry is hired but this is very exceptional. Railway closure therefore implies much inconvenience in the form of re-organising their distribution methods. Also it implies a heavy loss to the firm. At present the firm's bill to the railways for distribution of finished products is £3,000 per year. With no railway service the firm would require at least 2 new lorries (it takes $2\frac{1}{2}$ - 3 days to get to Glasgow and back) but the capital outlaid there would not be likely to be offset for a long while by profits, since while these have been growing quickly, a levelling off is expected to some degree (i.e. some amount of flattening) since expansion to the firm is now ceased. Again to employ just 2 men to drive the lorries would be likely to cost the firm about £1,000 per year per man (this high because of overtime) and with running expenses and maintenance the original figure of £3,000 incurred to the railways would be well exceeded. The firm delivers free on orders of over £25. (this is about 90% of orders), and so either a change in policy would be needed here (which would be an impetus to inflation in the whole country) or higher costs will be borne by the firm. A further obvious implication to the firm is that any future

economy by the negotiation of a preferential tariff with the railway becomes impossible.

The loss of the railway would be likely to make it more difficult for the firm to attract future staff from outside for executive and craft posts. However, whilst this is true (and it is also true that the loss of the railway might cause existing staff from outside to leave the firm) it could also be an impetus to the firm to begin management training schemes for local labour. If this were done and it proved successful then the local economy would become more bouyant and self reliant than at present.

The implications of the railway closure upon the expansion of the firm is difficult to assess. If executive staff and craftsmen did leave then expansion could be held back since expansion is not sought now in terms of increased plant and floorspace. Secondly, if profits were retarded considerably by the switch to all-road transport, there are two possible effects - a price increase which would be inflationary, and/or, greater efforts towards efficiency in terms of use of by-products, reductions of waste, higher quality goods. Again, if railway closure came about it is clear that some measure of unemployment would be brought to Wick: if this was sufficient there would be a definite incentive created for the employees at Caithness Glass to work hard and well to ensure that they kept their jobs and were not removed to make way for some one else. Thus here, there is a possible implication of a trend towards a greater efficiency per worker.

Implications for the U.K. Atomic Energy

(1) Authority Establishment at Dounreay

The Establishment is a research establishment and as such its products are the ideas and developments of techniques. Thus the implications of the proposal to close the line to Thurso are of a different complexion here to anywhere else in the area.

The loss of the railway would certainly have caused initial difficulties in the supply of materials to the Establishment. About 2,000 consignments of material for Dounreay are made annually and at present about one third of these come by rail, but in overall weight these represent about $\frac{5}{4}$ of the total. The materials come from the South of Scotland or the industrial areas of northern England. However, it is not certain that the consignments previously transported by rail would have to go by road - it would be possible to bring certain of them by sea to Scrabster. At first sight this may appear to be more expensive, since it would require an extra 2 operations of handling, at the Southern port and at Scrabster, but with loads being of such magnitude it is surely likely that a liner service of loads would be developed which might not cost more than the present rail tariff. Also, stockholdings of some items would have to be increased in order to ensure their availability. This would necessitate capital expenditure.

The adjustment to the new conditions would, then, cause the establishment some expense - even 'scores of thousands of pounds', but this must be seen against the investment programme of the industry as a whole and which runs into hundreds of millions of

(1) The facts used in this discussion have been supplied by the Head of the Administration Division at Dounreay, and the location is shown on Map 4 (page 103)

pounds.

However, the effect on Dounreay would extend beyond this adjustment. About 12000 journeys are made annually on the official business of the Authority: about $\frac{3}{4}$ of these are made by air anyhow. It cannot be argued then that the loss of the railway would slow the business of the Authority since all journeys where speed is vital are made by air, but it can be submitted that on the times when such journeys are impossible because the planes at Wick are grounded by weather conditions that the loss of a reliable second best method of transport would be noticeable. But overall, the matter is not judged to be a serious matter: and B.E.A. might have improved their service if the railway had closed and this would have lessened the problems of getting a seat on the plane for officials on urgent business when the planes are full in summer.

The most serious threat to Dounreay from the proposals seems in fact to be that the lack of a railway would make the area less attractive to personnel. Whilst nobody would probably have left the establishment solely for the reason that the railway had closed there was clear evidence during the period when the future of the railway was under discussion that the number of people answering advertisements for posts and the number of speculative approaches for posts both dropped. There may then, have been an unknown loss of potential staff who chose not to come north. Against this it would have been possible for the Atomic Energy Authority to have introduced compulsory tours of service for its officers to include a period at Dounreay, and the Dounreay allowances could

have been increased, and again the effect may be easily over-estimated since it is an investment for a man to have worked for a period of years on this Reactor - it is a definite qualification which he can offer to a prospective future employer. Thus the effect on the quality of labour available to this establishment can be ex³aggerated: it would probably be less than at first may be thought.

There is one further point to be made: a commercial prototype of the reactor at Dounreay is to be established somewhere in Britain. The loss of the railway could have been sufficient reason, even if only because it would add to the cost, for the decision being made against having it at Dounreay. But all that can be said with any certainty on this point, since it is not known where the reactor will be sited, is that the loss of the railway would not have improved the chances of it being sited at Dounreay.

Conclusions on the Implications for Caithness

Caithness county seems likely to be the best equipped county to withstand the detrimental effects of railway closure. This statement is partly based on reasoned argument but also partly on impression.

It must be of some significance that Caithness has succeeded in attracting new firms whereas neither Ross-shire nor Sutherland has managed to do this in spite of being further south and less remote than Caithness. In this respect it is felt that the value of the siting of the experimental reactor in the county was enormous in that it drew attention to Caithness and also the role of the Wick Airport is significant in attracting industrialists. Then again, the economy of Caithness is bolstered to a most useful degree by the Dounreay personnel, against railway closure.

Having argued this it must however, be admitted that the closure of the railway would be a blow to the economy: whether the extent would be such as to put the economy back is a moot point, but it seems that it would not harm Caithness as much as Ross and Sutherland.

However, whilst the economy may not have suffered so much as a result of the closure as those further south, this argument does not hold good for social hardship. There can be no doubt that this will be stronger in Caithness, amongst those who wish to travel, than in the southern counties, and that where the travellers are not normally healthy people, the differential will be even greater.

...
Social hardship^{would} also be experienced by small businessmen in
Caithness as I have shown. To all these cases the availability
of the air service from Wick will only mitigate the position to
a varying small degree, because of the cost of air travel, its
lack of dependability and indeed, its inappropriateness to some.

Thus there is an apparent anomaly in the implications for
Caithness - its economy looks likely to be less hard hit than
those of Ross and Sutherland, and yet for some sections of the
public who make up that economy the implications seem to be those
of hardship in greater measure.

THE IMPLICATIONS OF THE PROPOSALS FOR THE CROFTING POPULATION

The number of registered crofters' holdings in the counties north of Inverness is 5455, made up as follows:- (i)

- 1414 in East Ross (not Easter Ross)
- 1153 in West Ross
- 1253 in Cromarty
- 948 in Sutherland
- 687 in Caithness

—
5455

To this figure must be added 500-600 to account for crofters in North West Ross who are not included in the register, and there are probably about as many again in the islands of Skye and Harris (which are in Inverness-shire) and Lewis. So there are thought to be about six and a half thousand crofters and their families in the area which is served by the railway lines under consideration.

This crofting population is not evenly spread over the area - it is more dense in the east than in the west because the terrain is more sympathetic, and the ground more fertile.

The problem is whether the railway is significant to the crofter and so whether they would be sensitive to its loss if closure had been brought about.

It seems that the answer to both these questions is negative. The evidence is that the individual crofters only use the railway very infrequently for travel themselves, and neither do they use it, except in isolated cases, to transport their sheep to the Lairg Sheep Sales each August, preferring to send their livestock by road -

(i) The factual information contained in this section was provided by the Crofters Commission, Inverness.

- (1). There is no suggestion that these families represent a statistical sample and no statistical significance is attached to their views, but this was the information elicited at interviews and is reported as such.

this is quite understandable since single loading only is then required, and sidings facilities are not now available at every station. Thus it seems that to the crofters, closure would mean little. Of the 6 crofting families I spoke to only 1 used the railway^(1. opp.) - and that was in order to reach the Crofters Commission Meeting because he was an area Assessor.

Now whilst it is true that no case of hardship could be established for the crofters, loss of a means of transport for himself or for his livestock, it is not true that the railway contributes nothing to him. In fact it appears to provide something of some value even if it is intangible.

Strong efforts are being made to halt the depopulation of the Highlands caused by a southward drift of the population. The extent of this drift is considerable: between 1951 and 1961 5% of the population of the Crofting Counties, and 10% of the population of the Islands left Scotland - this does not suggest that all these were crofters, but undoubtedly a significant proportion were crofting families.

The contribution the railway makes to the crofter is difficult to assess - but its absence would be noticeable.

It is a link with the south for him, its reliability counts for much in this respect, and makes the remoteness of his life less of a factor for concern. The kernel seems to be that though he has no wish to use it, it counts for something in his mind that if he did wish to use it he could. His lot would be made harder if this position were withdrawn.

None of the crofters I spoke to said they would leave if the railway service was withdrawn. But it seems clear that, at best, withdrawal would not help the efforts being made to halt the Highland depopulation and is likely to aggravate the problem. Perhaps this might not be felt for a generation or more, but the point is valid.

NOTE The Crofters' Commission was represented at the Public Enquiry but there is no report of any evidence being given or objection being lodged by them.

THE COMMERCIAL SALMON FISHING INDUSTRY (1).

This is a small industry and could really only be described as being of minor importance to the economy, but in the Highlands its significance is realised, because so far, economic development in that area has only been in small matters except at Dounreay and Invergordon.

This industry depends upon the Railway for its life: closure would soon cause it to become extinct.

The annual value of salmon caught in stake nets in the sea at the 35 fishing stations between Inverness and Bettyhill is conservatively estimated at £250,000. Almost all of this is sent by passenger train to Billingsgate: the railway earns £7,000 by this carriage in a year, and it is paid by the consignees in London and deducted from the consignors receipts.

In Easter Ross for example, there are 11 stations and 82 tons of salmon were sold in 1962 - this was called a poor year. The fish are collected from the nets twice a day (sometimes 3 times) and loaded at Fearn in the morning, and at mid-day (if 3 collections are made from the nets then also in the evening). In order to command the full price in Billingsgate the salmon must be there and sold within a maximum of 24 hours in summer.

Now if the railway was closed the nearest railhead would be at Inverness. The managers of the fishing station would have to hire a lorry to get the day's catch to Inverness (40-50 miles south from there stations). However, unless there was a full load for the lorry this would not be an economic proposition, and it is doubtful if a full

(1) The factual material in this section was obtained from a broadsheet from the Ross & Cromarty County Council.

load could be found at the start and end of the season. This implies that the procedure of the fishing would have to be modified - until the run of fish was assured only a sample net would be used, taking only a single boat to work it. At present the season lasts from February to August: the effect would be to shorten it to mid March/early April to July. The effect of this would be to cause some men to be unemployed.

For most of the fishermen their livelihood is precarious enough for them to have to obtain other work in winter anyhow. It seems likely that, besides causing unemployment in the little settlements, a shortening of the season would cause some of the fishermen to abandon their fishing and leave the district. If the balance between income and expenditure in their lives is sufficiently narrow then to shorten the season will make it impossible for them to earn sufficient cash and they will be forced by economic circumstances to leave.

Also, it is fair to argue that the economies of the small settlements are not sufficiently buoyant to withstand a fall in the purchasing power: the incomes of other members of the communities will fall too, and it is likely that in the absence of other factors, the whole community would eventually have to abandon its activities and move away.

When the matter is related to terms of economic theory it is seen that this is a case of an upward and rising demand curve for a means of transport to take the salmon to Billingsgate; a curve showing not an inverse relation between price and quantity, but a direct relationship.

It may be shown in 2 ways. Where price also reflects the quality (i.e. the speed) of the service then the fishermen demand a higher quantity at a higher price and quality than they do when the price and quality is low.

Where the quantity demanded reflects the quality of the service then the fishermen are prepared to pay a higher price for that 'amount' of service than they are where the 'amount', that is, the quality, of the service is low.

It must, however, be noted, that the top of the curve becomes not upward sloping, but perfectly inelastic. Clearly a point will be reached where the service is fast enough and any improvement in it will not matter to the fishermen and they will not be prepared to pay a higher price for the faster service. The marginal increase in the relative quality of the service to the fishermen being nil, the marginal price they will be prepared to pay will be nil.

I was able to obtain details of one salmon fishing station: these details are now given and concern the Salmon Fishing Station at Bonar Bridge: This station sends approximately 12 tons of fresh salmon to Billingsgate between mid-April and mid-August. The station employs 13 men and the fish are despatched daily by rail at a cost of 18/8 per hundredweight from both Bonar Bridge or Inverness or about £240 per year. The local haulage contractor's rate to take the fish to Inverness daily is £8. a day regardless of whether a hundredweight or a ton is sent. Under that method

of transport the station would have to face an additional transport bill of £800 - £820 per year which would be virtually certain to mean the closure of the fishing station and the removal of this source of employment for the 13 men concerned.

CHAPTER 13.

The Economic and Social Implications.

ECONOMIC IMPLICATIONS

1. In the considerations of the Specific Implications of the proposal to close the railway for each of the counties and areas, I have shown that there is a danger that there will be a dampening effect upon existing industry. I propose now to develop this more fully, with the aid of a survey made by the Scottish Development Department to which access was permitted. This survey obtained replies from 31 moderate sized firms (between 20-100 employees) in Caithness, East Sutherland and Easter Ross.

The withdrawals of the parcels service provided on the passenger trains was reckoned by 15 firms to mean a severe loss to their efficiency: and 'almost all' the firms claimed to depend upon this service for obtaining urgent orders from the south, or for getting perishables to markets in the south. The firms spoke highly of the speed and reliability of the service, and concurred that road or air transport was not able to provide the necessary combination of speed and reliability which was required. In this respect then the replies in the survey bear out the implication. Businesses themselves would suffer by the loss of the parcels service: and those which provide a service to the public would be forced to give a service of lower quality.

Twenty-five out of the thirty-one firms made some use of the freight train service: over half used the service 'appreciably' - that is for between 15% and 60% of their traffic in and out, and

nine used the service primarily (over 60%) or entirely. These included the Distillery at Invergordon,⁽¹⁾ the Glass Factory at Wick, and the Atomic Research Establishment at Dounreay,⁽¹⁾ all of which I have previously discussed. Again, the users of the service made note of the speed and reliability of the service, and pointed out in addition that the goods arrived at the destination in better condition, some firms had had unfortunate experiences at the hands of the road hauliers - damaged goods, or goods lost in transit were mentioned. Thus the loss of this service⁽²⁾ would be a cause of difficulty to the firms: the extent of the difficulty of course will depend partly on the amount of use made of the service by the firm, and partly on how it can adjust to using the roads, and/or the sea, and partly on how well it can afford the expenditure required in this adjustment.

Twenty firms used the passenger service, and eight 'relied' upon it.

Another eight used the passenger service equally with other means of transport - presumably private cars or air services and not the buses. And these firms plus another seven used the railway service extensively in winter when road conditions are poor and the Wick-Inverness air service is likely to be postponed. Clearly here the reliability of the railway service plays a very valuable part in the business that is conducted by these firms:

- (1) These two firms have more than 20 - 100 employees. The figure is probably well in excess of 1,000 in each case.
- (2) See Note on page 102.

the loss of this facility would cause inconvenience, and delay to the carrying out of the business and the contention by the Railways that the alternative facilities offered are adequate is seen to be baseless.

The journeys involved are almost without exception to Inverness or further south: thus the inconvenience and delay will be a function of the distance of the firm from Inverness - the new railhead to which all these travellers would have to go.

As to the Tourist industry, six hotels were questioned. They reported that they relied only a little on the railway service for their business - my independent questions in the Spa of Strathpeffer (see pages 152-153) agree with this too - though one hotel reckoned that a third of its tourists came by rail. This bears out that probably closure would not encourage the industry in the Highlands, but that as the roads are slowly bettered and the present trend increases all that this will mean is that the growth is not quite so fast as it might otherwise have been. However, it is wrong to leave the question of tourists here - because the hotels do not take all the tourists by any means. Culrain is the best example here. This is the station used by Youth Hostellers for Carbisdale Hostel. In the season a figure of 20 visitors ^{by the Sutherland Tourist Association.} is reckoned to be a fair average leaving the Saturday evening train from Inverness at Culrain (60 miles north of Inverness) for the Hostel. These visitors might be prepared to walk the last five miles, or to hitch a lift from Inverness, but it is fair to say that some certainly would not and will prefer to spend their

holiday elsewhere; even if that only means in the hostels in Inverness-shire, which has a rail-service, no inconvenience, and is probably nearer to the visitors' homes anyway. Thus there may be a larger loss to the growing tourist industry than is at first envisaged.

The firms all considered that their costs would rise, if the railway services were withdrawn; this is for the reasons just mentioned. This answer in turn means that the cost of production in the area is pushed up, the average cost and marginal cost curves are pulled higher up the graph, and from this it is likely that some firms will have to increase prices to stay in business, which would be a tendency towards inflation, and the price increase may cause total revenue to drop (depending on the degree of elasticity of demand for the product) and some firms may be put out of business in this way - as well as those which folded up with the general increase in production costs without attempting or being able to increase income.

As to the major matter in point here: the survey bears out as fact the suggestion that it is likely that a dampening effect would accrue to existing firms if the railway was closed.

Under the new situation existing after closure it is possible to theorise two possible situations. The first concerns the firm which is already maximising its profit by operating at maximum efficiency. This firm will experience the onset of Diminishing Returns at an earlier point in production than formerly, when a transport variation of the nature here under consideration is imposed upon it.

All other things being equal the optimum point of production is at a lower output. A case of this would operate in the Highland Poultry Products firm which is operating at great efficiency already. Diagram 8a illustrates.

A more refined effect will occur to the firm which can still make economies. If an additional cost is imposed upon it the firm may be able to see its way clear to making economies to offset this extra cost.

Diagram 8b(1) shows the immediate effect: over a period the firm will effect economies and thus pull the cost curves back to (or at least towards) the original position and Diagram 8b (11) shows this.

These curves can be represented another way: by the graphical use of total curves. Diagram 9 shows.

In the second place it seems fair to suggest that the closure of the railways north of Inverness would cause a fall in the value of property in that area. The reason for this is that, just as the economic climate becomes bleaker so the social climate does too. The area to business-man and retired person is not so attractive and potential buyers will only be prepared to buy at a lower price. All properties seem likely to be involved - industrial, agricultural, commercial and private properties within the area. Almost inevitably this would be followed by a fall in rateable values and then there would be a corresponding fall in local revenue.

It must be conceded that this is implied in the proposal to close the railways north of Inverness. But there seems to be no evidence that it happened when the branch lines were closed: however, this is not altogether surprising because these lines were branches. A fall in property values would not be expected in the circumstances that then existed, say at Fortrose where the closing of the line meant little more than the loss of a circuitous route which competed with other means of transport readily available. So a fall in property values would not be expected from the closures of the branches. It must be admitted that it is an implication that could come about if the main lines were closed.

Thirdly, the closure of the railways seems likely to bring about a rise in the cost of living in the area north of Inverness, because it is reckoned that, even given that hauliers' charges do not increase, it is going to cost the retailers more to provide their services, and this may have to be at least partly passed on in the form of higher prices. A second reason may be advanced. A monopoly of freight transport is created if the railways were closed: the monopoly could increase its charges for delivery of essential goods, and it might be obliged to, to some places.

These two points are borne out by past examples, e.g. when

the Dornoch branch was shut the cost of coal rose by 30/^A per ton at Dornoch. (Bib. Article 10).

Nor can the weather, and geography of N. Scotland be excluded from this economic argument: for while the railways are relatively invulnerable the road services as I have shown are very vulnerable and either a prolonged bad spell of weather in winter or a heavy seasonal increase in road traffic in summer, might easily prevent or hinder the regular supply of essential goods to villages if that supply were restricted to the roads.

It does seem that implied in the proposal to close the railways is a tendency for the cost of living in the area to increase: and the arguments are sound and the evidence supports.

Lastly, there is also a threat towards inflation: if the price of essential goods was pushed up, there would at least be wage demands and some of these would be met. Whilst being a turn in the inflationary spiral this would also threaten the existence of many small businesses.

Fourthly, a short word on Profits. Generally the implication seems to be that the margin will narrow with higher costs. If inflation came the situation could be masked and firms might perhaps even notch higher profits. But the forced position would crumble when the spiral was slowed, then stopped. Most of the concerns (all that is except the Invergordon Distillery) which I spoke to reckoned their profits would be shortened for certain, and at the Distillery it was admitted that their advance would be held

back to some degree.

Fifthly, the implication of the proposal to close the railway is that, in the last event, when all efforts have been made to economise, and to attract traffic to the lines, then a capital asset is to be abandoned. It becomes valueless out of its context. This shows how the implication is very drastic in this respect. 225 miles of track and much other equipment - station houses, signalling boxes and equipment, terminal facilities all becoming meaningless if the railway is closed. The financial extent of these assets which would by implication be swept away is not known but it must represent a substantial sum.

I shall now discuss in general terms, the sixth implication of the proposal, that is the effects upon the future development of the area. The proposal implies that either future development in the area will NOT be hampered OR that it will be hampered but that this does not have any significance. Neither of these implications are true - I have shown that development in the counties and regions will suffer a set back (to varying degrees depending on many matters) and propose now to show that the developments so far, and that which is anticipated, are significant.

It would be idle to claim a large and general prosperity in the northern counties: but that only makes the developments more valuable. In some ways however, the counties are better off than they were in the late 1950's, and there is, or was until the Beeching Report/quenched it, (Bib 3)

a modest hope for further improvement in the future: there is evidence of growth, with the exception of Dounreay, locally inspired, and this growth held a promise for the future.

However, if closure came, growth would have been quenched, and a fair prospect for the future dimmed, by the smears of accelerated depopulation, disinterest by potential firms, closing down of existing firms; in general a harsher economic and social environment. The growth that is significant to the area itself and to the country as a whole in a slowly increasing way, would probably become not just non-existent, but turn into a reverse trend. What should have been enlarged and improved by the Government (after all it has been local initiative largely that has bolstered the area so far) will have been destroyed.

I have submitted that it is very unlikely that the figures given by the Railway as to their receipts and expenditure are true figures. I have also agreed that it is virtually certain, in spite of this, that the lines make a substantial loss. The last economic implication of the proposal to close the lines is that the loss would not be continued, and British Railways estimated that the saving would be £162,880 per year:(1).

Elsewhere I have shown that this may not be wise in a long term but it is an immediate implication - the Railways would no longer be burdened by a substantial loss made on Highland lines - the relieving of this burden might mean an improving of

(1) British Railways Heads of Information.

services and facilities in other parts.

SOCIAL IMPLICATIONS

As stated in the parallel section in the Whitby part of this thesis, every effort has been made to be detached and objective in the analysis of social implications, but the reader is reminded of the words of Marshall, already quoted, "The main concern of Economics is with human beings, who are impelled, for good and evil, to change and to progress." (Preface to 8th Edition of Principles of Economics 1920).

It was demonstrated earlier in this thesis that the role of the Railways within the existing Transport Network was a unique and valuable one. The Proposals implied the abandonment of the services that provide this role, and had they been upheld inconvenience and some hardship would have resulted. People living in communities not served by any other form of public transport, and who are unable to afford a car would suffer inconvenience through their ability to travel being restricted. The loss of the reliable transport service provided by the Railway would also mean that people in the area as a whole are less well off than before. The conditions which subscribe to the welfare of the people would worsen, and this would cause hardship.

Secondly, accessibility would be much impaired within the area to a considerable degree. Two instances will suffice to demonstrate the extent of this: Culrain would be deprived entirely of public transport, while Helmsdale, at present $2\frac{3}{4}$ hours from Inverness by train would become $5\frac{1}{4}$ to $5\frac{3}{4}$ hours away by bus.

Thirdly, there is a threat to the health of certain sectors of the population of the area. The Chairman of the Northern Regional Hospital Board illustrated this point in his evidence to the Public Enquiry held at Inverness on March 9/10 1964. He showed that the train was the only conceivable method of transport for some cases, e.g. Abdominal cases, Women in later stages of pregnancy, and there is a boy at Plockton with a 'hole in the heart' who can only be moved short distances by road, and yet who has to attend Inverness Hospital for examination. The Chairman envisaged appalling results if such cases were forced to use an ambulance on the Kyle-Inverness road because of its poor surface.

Fourthly a deterioration in the conditions of life for all the population of the area is threatened by the Proposal because the G.P.O. and newspaper companies at present use the fast passenger services to get the mails and newspapers to the villages on the line and those away from it via the rail heads. The value of a newspaper is determined by the ability of the transport system to deliver it to the reader while its contents remain current news. The Mail is a commodity whose value deteriorates less rapidly. Certain parts of Caithness would probably suffer little by way of delay to mails and newspapers for they could be carried on the daily plane from Inverness to Wick - when that service was not grounded by adverse weather (see page 196 for details). But on Lewis, an arrangement could only be made to get them to the Island via Mallaig and the ferry, but not before the evening of the day of issue of the newspaper.

The fifth Social Implication concerns the Employment in the area of the Railwaymen. It has usually been possible in the past to spread the redundancies caused by closures of stations, or even the branch lines, over a wide area and so natural wastage has largely taken care of the reduction in jobs. But such a policy would be impossible with the large scale closures projected by the Proposals, though the redundancies could be spread over a time, if not over the area, for if the freight service were removed too (see Note on page 102) there would be the track to be taken up, equipment to be dismantled, bridges to be removed and administrative work too. Perhaps this would give up to 2 years work to some of the men; and this itself would represent a new security for these men whose jobs have been uncertain ever since the Beeching Report was first published in 1963.

The sixth Social Implication of the Proposals is that it is "to the best advantage of the nation" (Re-shaping of British Railways p. 1) (Bib 3) to discontinue the subsidy to these lines and to pay the Unemployment and National Assistance Benefits to those in the region who, directly or indirectly, become unemployed as a result of the closure. Probably this implication is true. But it need not

be always true. A much more exciting economic policy could be envisaged (see next page)

be always true. A much more exciting economic policy could be envisaged than this purely destructive one. If the subsidy were continued to the railway and strenuous efforts made to encourage firms to the area it is possible that at least, this would make the railway loss less than the amount to be paid out in social benefits because of unemployment in the area, and at best the time could come when the railways were making a net return. I am speaking now in purely financial terms.

The last implication in the proposal is that when the then Government's regional plan for the Highlands was brought out it would not envisage any role for the railways to play in this. Secondly that the Highland Transport Board's study of transport needs in the area would have no part for the railways to play. This thesis has shown that this is wrong - the railways would have a substantial role to play in the development of the region. It would be better to seek how to provide a more useful positive service on the railways. A more frequent service between Inverness and Dingwall could be attempted with some trains running on to Invergordon. Also a train service between Wick and Thurso could be introduced.

The implementing of such services should however not be undertaken until some form of test for Costs and Benefits implied in such a decision had been made. This undertaking itself would also require a "feasibility enquiry" to determine whether such a test was possible. Even if this was positive and a test was made it would then be necessary for the State to decide if the degree of Benefit is sufficient for the services to be implemented in the light of other priority projects to be tackled with limited resources.

PART 3.

CHAPTER 14.

An Appraisal of the Present Position and a Call for Caution.

AN APPRAISAL OF THE PRESENT POSITION AND A
CALL FOR CAUTION

Much has been spoken concerning the competition that exists in the two areas under discussion between the railways and the other means of transport. It will be valuable now to attempt to relate to known terms of theory the state of this competition.

Some of the conditions observable are those which are present in the state of perfect competition because each of the transport services is aware of the price and the nature of the conditions under which the other services operate. But in spite of this, other ground for holding that the competition is perfect is lacking. The 'Products' of the different operators differ in obvious ways and each 'product' is not available over all the market: the rail, air, and sea routes being severely confined to certain parts. Again, presumably none of the operators can sell as much of their service as they would wish to sell - this is a necessary condition of Perfect Competition: but a qualification is necessary to the statement because there is a short peak season in the summer months when all the seats on the planes, and trains, and all the berths on the ships are fully taken up, and so it seems likely that the operators are selling as much of their products as they wish to sell, whilst to sell more would imply the use of further capital assets and the incurring of additional varying costs which might not bring in sufficient offsetting revenue. Another significant difference between the state of competition in the areas in question

and the state of perfect competition may be stressed, and it concerns the method whereby the price of the 'product' is determined. Under Perfect Competition it would be determined by market forces - that is to say the point where the Demand for the Product at a certain price equalled the amount the seller was prepared to allow on to the market at a certain price would be the point where the price was fixed. Above that price no-one would buy, whilst below it, the suppliers would not bring any goods on to the market. In the prevailing circumstances the transport operators themselves ~~fix~~ propose both the price and the amount of the supply and demand is left to equate itself to the given situation.(1)

By emphasising these points it is clear that the state of Competition is not a perfect state in the terms which the economist understands that phrase to mean. Consider now, then in what sense the competition is imperfect.

Clearly the competition differs from the traditional state of imperfect competition where when a firm puts more goods onto the market the price falls, because when the railway, the bus operators, the air service and the sea service, put on an extra supply of transport in the summer the prices do not fall. Yet here is implied in what sense the competition does equate to known theory concerning imperfect competition.

Each of the transport services may be regarded as a monopolist. Each will be able to determine its costs per unit of service supplied, and each will be able to assess its marginal revenue at various prices. It will determine its output at the point (or at one of the points)

- (1) Any alteration in the fare structure has to be submitted for approval to the Area Traffic Commissioners.

where the marginal cost of supplying a unit of service equals the marginal revenue derived from that service since it is known that this point is the point where profits are highest. However, there is an additional factor to be considered here. Each of the operators will be able to sell a certain amount of its service at the fixed price, but beyond that amount certain selling devices will have to be employed to sell more of the service: thus although the actual revenue from each successive unit of sale does not fall, the marginal net revenue will fall, and a marginal selling outlay is made. This most interesting factor must be accounted for, either knowingly or not, by the operators when fixing their level of service, and Diagram 10 shows this factor in graphic form.

Now whilst all the above paragraph refers to each independent operator and shows them to be monopolists it does not show the state of competition that exists between the operators.

This state of competition is best described as varying from an "oligopoly case" over short distances to virtual monopoly over long distances.

Take the short distance case first. There are, as theory demands for an Oligopoly, few sellers producing almost identical products. In fact the case is of a near perfect oligopoly since the air service does not operate over short distances in Scotland, and is non-existent in the North Riding, and the sea services which only exist in Scotland anyway do not compete with the railway: thus the case, in practice, is of competition between the road operators and the railway. ~~The product~~

The product over a short distance is almost identical. Matters of comfort and facilities are of little importance for a quarter-hour journey though the factors of reliability and safety do cause a differential.

Over long distances the services are much more differentiated, and the air services from Inverness add a further, different, product. It cannot be conceived that the products are similar when it takes a day to go from Inverness to the far North by bus, $4\frac{1}{2}$ hours by train and 35 minutes by plane. Each of the three competes with the other two only to a very limited degree: each has a virtual monopoly of the provision of a type of transport service.

The implication of the approach so far is that of the possibility of analysis in terms of types of demand curves. Over short distances, their product being almost identical, the road and rail operators compete as substitutes for each others traffic and so the demand for each service will be elastic. Over long distances where the means of transport are only able to compete with each other in a very restricted manner the demand for each service is more inelastic.

However, when these theories are related to the two areas in question certain refinements will be called for.

Over vast tracts of the Scottish area, and to the north west of Whithy there is only one means of transport available - namely the bus. This, in itself will not cause the demand for an available transport service to be any more inelastic but it does cause the demand of those who wish to make use of a public transport service

to become a more inelastic demand, even over short distances. The lack of competition aggravates the market situation, and the demand for the bus service in those areas where it is the only transport service is more inelastic, even over short distances, than in the areas where the railway is situated to compete.

Each area is notorious for the poor state of its roads, and thus a modification must be made to the postulation of the distances over which competition between rail and road is effective. The poor roads mean that the distance over which there is little or no difference between the respective services of the road and rail operators must be diminished. Thus the cases of demand being elastic for each means, where the two means compete, will be smaller, and the cases where the demand for the railway, the bus and the plane is inelastic will be greater in these areas than is generally the case.

One further matter must now be taken into account, whilst considering the demand curves for the transport services. In Scotland, though not in Whitby to any significant degree, there are many bus services which act as feeders to the railway at a tailhead. In these cases the demand for both services is complementary and regardless of the distance involved being short or long the demand curves for both the rail service and the feeder bus service of the travellers and would-be travellers will be found to be inelastic.

Consider now the alleged financial position of the railway lines in the two areas under discussion. The graph of Diagram 11 shows how the profit of the lines varies with the degree of use made of the services. It shows how the degree of usage for most of the year causes a small but regular loss to be made; secondly, how on an average day there may be expected to be a breaking even, and thirdly how on a good day a considerable surplus will be earned, but that these days are so few in number that these surpluses are unlikely to offset the smaller but far more frequent losses incurred during most of the year.

The diagram accounts for the deficit which the lines in question are held to make: but it cannot show how this position has come about. This must now be considered and there is a first clear reason for the railways being unremunerative. This is the reason of competition from the Private Motor Car. It has been shown earlier, in this thesis, that it seems likely that once a person is lost from rail travel to the private car he does not come back to the railway except under special circumstances - as for example when the roads are known to be dangerous in winter. This is only a 'fall back' usage and in no way a regular usage. It takes advantage of, or exploits, the railway. This drift from rail to car has been facilitated by the ease with which a car can be purchased in times of economic boom by hire purchase finance or by a loan or overdraft at a bank, and the drift has been encouraged by the car manufacturers growing provision of comfort, speed and dependability in their models and the advent of minicars at prices which ordinary family men can afford, and minivans which are not subject to purchase

tax. It is for an economic reason that once a person has bought a car he does not use the railway any more: it is an analogy of a firm which has idle capacity which it could use, profitably. And it is the case that the more the car is used the cheaper it becomes per mile to run and maintain - that is the average costs continue to taper. Thus it is that this flow of persons from rail to car travel has come about and continued, and these are reasons for there being an almost complete absence of any counter flow.

The second reason for the financial situation alleged to exist is the competition which the railway encounters from the road services available in the area: this has been stern in the Whitby area and over shorter distances in Scotland. The comforts and facilities of coach travel have grown considerably in the past ten years. Add to this the factors of sparse population and the population distribution which have combined to put the railway services of the areas into the category of stopping trains which may be no quicker on the overall journey than a through coach. It is felt that some of the traffic lost to buses and coaches could be wooed back to the railway with a suitable fares policy and the provision of amended services. Some progress in this respect has been noted in the past two summers where cut fares for holiday makers travelling at week-ends and not just at mid-week time, have been offered in the North East Region. In fact the policy seems more applicable to the Whitby area than in the Highlands for three reasons: the area over which buses compete in Scotland is more restricted than in Yorkshire, the available stations and halts are further apart in Scotland, and the coach trips made in Scotland

in summer are very largely from further south than Inverness and the people they contain would not have come at all by rail, whilst strong competition could be offered by the railway for the day trippers and holiday makers going to Whitby.

But since the railway has been unable or unwilling to make use of its advantages of speed and reliability and its facilities, it has not been able to counter the inroads made on its number of travellers by the improved facilities and timings offered by the coach companies.

A further factor to explain why rural railways are unable to cover their costs is found in the known theory concerning diminishing returns. It seems that the point where diminishing returns sets in is at least at an earlier stage than is traditionally the case, and perhaps at the application of the first factor after the first. If this latter case is operative then there is not even existing a time when increasing returns are operating; and the notion of indivisibility of factors enters into the argument at this point. If the first train put on to a line as a service will attract N. passengers, but the second train only (2N - 40) it is clear that the likelihood of the service paying for itself is slim.

When it is remembered that these ^{areas} are sparsely populated anyway and that much of that population will rarely need, or particularly wish, to travel, it is seen that these three points just discussed will have a greater impact on the viability of the lines to Whitby and north of Inverness than on most others. The reasons for this may now be advanced. Lines serving such areas as those under consideration would not be expected to make large profits anyway, and then, secondly, the

points are operating upon a limited number of people, each of whom is more valuable or is potentially more valuable to the railways under discussion than is each person to the railways of a more populated part; the loss of one customer is more crucial to the former cases than to the latter.

These factors, together, have combined to make conditions for the railways in the areas in question, unfavourable.

The body of this thesis has shown that an unfavourable financial position is likely to exist to some degree even if the position is not so dramatic as is alleged. And, rightly, the decision was made to investigate the position so that "the assets vested in the British Railways Board be developed or modified and employed to the best advantage of the nation". (Reshaping of British Railways, page 1)(Bib.3).

Now it is perfectly conceivable that the phrase "best advantage of the nation" could be taken to mean that, should a railway line be making a positive contribution to the well being of the nation and making a social profit that exceeded any financial loss, it would be kept open and that its services would be developed or

modified to the point where the gap between social profit and financial loss was greatest.

But the Report soon made it clear that this was not in fact intended to be the meaning of the phrase: on page 2 of the Report it is stated that "it is the responsibility of the British Railways Board so to shape and operate the railways as to make them pay" (Bib. 3). The first phrase was ambiguous, this one was terse and abrupt, and set a clear objective.

With such an objective in mind it is in no way surprising that the proposal was made to close the lines north of Inverness for these lines will not be made to pay easily, though it is rather more sinister that the proposal regarding the Whitby branches was made since this appears to be a borderline case, and no concerted effort has been made to make these lines pay. But since the remit was self-imposed, the enquiry and the Chairman of its Board, Dr. Richard Beeching must be prepared, and able, to defend themselves against the charges that its findings and actions concerning lines away from major trunk routes were unreliable - in the methods of collecting and using data - and very short sighted - in that the finances of the Railway Board itself were all that was considered, or were considered to be paramount in importance over the well-being of the region in question, or the country as a whole.

But the method of testing the value of a railway line solely on its receipts and expenditure is to discount any other value which it may have. In part this is understandable, because whilst the financial value can be measured with some accuracy if done carefully, it is very difficult to assess, let alone measure, either the social value or the potential value of the line.

Yet these two values may be very high, both independently and together and if this is so then they ought to be included in the 'balance sheet' in some way: at least some means must be found of testing the social and potential value of railway lines that it is proposed to close because they make a financial loss, so that if their social and potential value is significant then this point is fully considered before a final decision is made regarding the future of the line.

It may however be that all this is in fact done; but it is done behind closed doors if it is done, and it would be an improvement if it were considered openly and under conditions where the representatives of the bodies of people who were objecting to the closure, could take up and develop crucial points. Thus, if in fact full consideration is given to all matters, not only to financial matters, and this is not known, then not only should justice be done, but it should be seen to be done.

In fact, this thesis has shown that all the lines within its sphere of reference do have considerable social values, and that

their potential value, to the regions and to the country is of some significance. Without the lines north of Inverness the efforts towards the development of the Highlands would, if not crumble, certainly falter, and in the Whitby case, the lines seem likely to be channels by which the local economy can benefit from the growth and advance of Tees-side and the West Riding even if the benefit is likely to be at a lower level.

This implies that a vital matter must be fully taken up; research must immediately be encouraged into means of developing an analysis of Costs and Benefits concerning transport methods.

Two reasons for this are clear, firstly, it would be a severe indictment if the future condemns the present policy of closing railway lines that are financially unprofitable for that reason only; especially as that policy is based on figures that at best are unreliable and at worst definitely misleading.

Secondly it is certain that, because of present day restrictions on land and planning, the railway assets will never be rebuilt once a line is closed and the track taken up; thus the greatest care must be taken before such action is allowed; when all the significant factors concerning the financial aspects and the social and potential values of the line in question have been weighed in a Cost and Benefit study, a fair decision can be made.

This Study would also have to have a measure of "weighting" applied to certain of its ingredients; for example, a matter which should be heavily weighted is the case of regional development

hinging, perhaps only partly, perhaps largely, upon the line: a matter carrying much less weight would be the potential value of a line in the event of war. When all matters have been weighted and included it can then be decided whether all the values balance the true financial loss of the line. If they do not outweigh the loss then a decision to close a line is fully supported and the policy can then be justified.

It is vital that a policy like this should be adopted. It must become impossible for a decision to be made which will allow any area which depends upon a railway - against using it as a mere convenience - being deprived of it. Where a railway link can be regarded as a necessity in a strict sense because other transport means are inappropriate and unreliable, then that rail link must be regarded as a major route even if it is only a branch line. An excellent case of this is the Haltwhistle to Alston line. The roads are inappropriate in that they do not join the two places and unreliable in that they are blocked by snow in the winter. In spite of the fact that there are only 6 daily trains run on this line it must be regarded as a major route because its significance to the people of the village it serves is so great.

When crucial routes like this one and those in the two areas surveyed in this thesis are threatened with closure it means that the areas become dependent upon secondary routes and their feeders

- routes which may be entirely unable to cope with the needs of the area.

This is not a call for hindrances to be built up which will delay the coming of an efficient transport system in order to satisfy the whims of railway enthusiasts: it is urging that efforts be fully made to ensure that there is no withdrawal of what is a major service to an area until an adequate alternative is available. Thus when the roads of the Northern Highlands can really cope with the traffic needs it would be justified, other things being equal, to close down the rail service if it is making a loss (as assessed by a competent Cost Benefit Study) or is making a greater loss than the road service.

This is an urging ^{of} ~~for~~ careful consideration on the whole matter of railway closures, so that rail routes are not done away with, which have or could have a role in the transport system of the next decade. That system should be an efficient system, in that duplication of road/railway services is only found where demand truly warrants it or where the calibre of the roads is not sufficiently high for them to be dependable in respect of safety and regularity at all times of the year. The system should also be balanced in its aim. Its aim should be to be a profitable service (in its widest sense) a service to the best advantage of the nation in fact, yet admitting that it may be necessary to include in that system lines which do not make a financial profit and yet must be maintained, either because of the poor state of the roads in the area, or because the roads, though perhaps of a

high standard, are unable to cope with the traffic that uses, or would use them. A case to illustrate the former point would be the inclusion in that system of the 3 lines that run to Whitby, whilst the unprofitable suburban lines in London would fall in the second category.

This then is a call for caution - if it is heeded it will improve the complexion of the public transport network of the 1970's.

APPENDIXES

APPENDIX 1AN HISTORICAL INTRODUCTION TO THE WHITBY LINES

Soon after the successful opening of the Stockton-Darlington Railway on September 25th 1825, the bolder spirits in Whitby were suggesting the construction of a railway from Whitby to towns in the interior (1) But it was not until September 1832 that a company was formed following a favourable report by George Stephenson towards a projected railway to Pickering. The work went ahead and the line was opened throughout on May 26th 1836.

One extra-ordinary feature of this railway was that the Act had a clause in it which forbad the use of steam locomotives on the line (2) and this was effective during the whole of the independent history of the Whitby Pickering Railway - until 1845.

At the half-yearly meeting held in Whitby in October 1844 it was urged that a conjoining with the York-Scarborough line would prove profitable. A branch of that line of the York and North Midland Railway, at Rillington, to Pickering was authorised when the Whitby-Pickering Railway was sold to the York and North Midland Company and trains ran up the breach to Pickering by October of 1845.

(1) Whitby Repository. Vol. 2. p.280

(2) Section 134.

It was this company which prepared the track for locomotives and on 4th June 1847 the first steam train made its way into Whitby.

Following a survey made in 1863 the Scarborough and Whitby Railway Company obtained an Act on 29th June 1871 for making a line along the coast. Progress was very slow and the topography of the area required considerable engineering projects, thus the line was not opened till 16th July 1885. The line had cost £649,800 or £27,000 per mile. Largely as a result of this the Company sold out in 1898 to the North Eastern Railway, who had worked the line from the first.

The building of a line between Whitby and Middlesbrough was spasmodic. The portion between Whitby and Grosmont had been opened on May 26th 1836. The next development was on 17th June 1852 when an Act was passed for a line between Middlesbrough and Guisborough. The line opened for mineral traffic on 11th November 1853 and for passengers on 25th February 1854.

The line between Grosmont and Battersby was the next section to be completed. Royal Assent was given on 10th July 1854 to a North Yorkshire and Cleveland Railway Bill for a line from Picton (on the Leeds Northern Line) across the Moors to Grosmont. Problems, centred on Lealholm, held up construction so that the line was not completed till 20th October 1865. Through communication with Middlesbrough was now possible because a link line between Battersby and Nunthorpe (on the Guisborough line) had been opened on 1st June 1864. This line too was built by the

North Yorkshire and Cleveland Company.

Closures on the Whitby Lines are no new phenomenon. The earliest closures occurred when Low Marishes and Black Bull, stations between Rillington and Pickering, were closed in the late summer of 1858 (1). Another early case of closure is the Beck Hole summit line which was closed to passengers upon the opening of the Deviation Line on 1st July 1865. Then on 1st October 1866 the ^curve at Rillington was closed "the points were pulled up and the signalman removed"(2)

The only closures in the region under Grouping were on the lines between York and Malton, and Malton and Seamer.

After Nationalisation the first two closures centred on Pickering. The line to Seamer was closed to all services on 5th June 1950 and closure seems to have been long overdue. The line to Gilling was closed on 2nd February 1953. This line had been built by the North Eastern partly with the intention of forestalling its rival, the Leeds, North Yorkshire and County Durham Railway (3), which was hoping to build a line into Rydale, and the line only paid its way in its earliest years.

(1) Reported by G.W.J. Potter.

(2) Railway Record. October 6th 1866.

(3) This Railway was proposed in 1863 to run from Leeds, via Wetherby, through Thirsk, towards the Cleveland area via Helmsley. However it was never incorporated. Parliament rejected the Bill on the grounds that the estimated cost of £1½ million was impossibly low. (See C.J. Allen, The North Eastern Railway page 134).

Scalby station, about 2 miles north of Scarborough was closed to passengers on 2nd March 1953, but remained open for freight until May 4th 1964.

On June 14 1954 the line from Fickton to Battersby was closed. Difficulty had been encountered when the line was built over the location of villages it was to serve. Some were close to the hills, others lay several miles to the East and the line that was eventually decided upon was roughly midway between. Thus all the villages lay at least a mile from the station designed to serve them.

The last closure to be mentioned concerns Whitby West Cliff. This ^{station} was closed on 12 June 1961 when the coast line to Middlesbrough was closed.

Conclusion

The closure of the lines and stations here discussed were only closures on a small and local scale, and when lines have been pruned there has been a road giving an alternative and more direct service.

The proposals to cease passenger services on all the three lines which radiate from Whitby are different from former closures in that their scope is regional, not just local, and that, in the case of the Esk Valley Line, there is no alternative road. There never has been a road up the Esk Valley of any more than secondary, usually tertiary value.

Books Consulted in this Appendix

G.W.J. Potter. The Whitby and Pickering Railway.

W.W. Tomlinson. The North Eastern Railway (1914 by Andrew Reid & Co.
C. Allen. The North Eastern Railway (1964 by Ian Allen). (Newcastle

1955	January 3rd - 20th February 7th - March 19th December 17th - 22nd	66 days
1956	January 8th - 10th January 22nd - February 24th	37 days
1957	January 13th - 15th February 23rd - 25th	6 days
1958	January 1st - March 22nd	81 days
1959	January 5th - 15th	11 days
1960	January 10th - 31st February 11th - 22nd	34 days

(In Appendix 'F' submitted to the Public Enquiry, United Automobile Services stated that the Goathland service 91 was never delayed, curtailed or suspended. They actually reported to the press at the time that there was delay on January 14th, 17th, 20th, 21st and 30th and February 11th, 12th, 14th and 17th (with drifts 3 ft. deep) and the service was suspended on January 13th and 15th, 18th, 19th, 20th and 21st February).

1961	January 3rd and 4th January 22nd - 25th December 26th - 31st	12 days
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(In Appendix 'F' the Bus Company stated service 91 was never delayed or suspended and was curtailed only three times. The reports to the press in 1961 were delay on 3rd, 4th, 22nd, 23rd and 25th January and cancellation on 29th, 30th and 31st December).

1962	January 1st - 15th February 12th - March 21st December 3rd - 5th December 13th - 25th	69 days
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(In Appendix 'F' the 'Bus Company stated service 91 suffered no delay or suspension and only three curtailments. In fact, they reported to the press in 1962 that the service was curtailed; usually 1 'bus about 10 a.m. or 4 p.m. daily on January 7th, 14th and 15th, February 13th and March 4th, 5th 6th and 7th, November 18th, 19th, 20th and 21st and December 3rd, 4th, 5th, 13th and 26th - 31st; and cancellation of the service to Goathland on January 1st, 2nd, 3rd and 11th and February 13th, 14th, 16th, 24th, 25th, 26th, 27th and 28th, and March 1st, 2nd, 3rd, 8th and 9th).

1963 January 1st - February 21st
 December 13th - 24th

64 days

(In Appendix 'F' the 'Bus Company admitted one day's delay and 26 days suspension. They reported to the press in 1963 20 days delay and 44 days suspension of services to Goathland).

(1) ^{reformation} This ~~data~~ was gleaned from back issues of the Whitby Gazette, by the Secretary of the Chamber of Commerce, and formed part of the written evidence submitted to the Public Enquiry.

NOTE

Out of 22 winters, 7, or 1 in 3, could be called 'mild': that is with less than three weeks of bad weather. Of the other 15 winters, some were as bad as, or worse than the winter of 1962-63. That winter only typified conditions on the North York Moors.

a good season "as many as 50,000 visitors may patronise the town". But if an average season produces 42,000 visitors to Whitby a good season would be likely to bring more than 50,000, though not as many as this method indicates.

The method seems to indicate that as a crude test for the more accurate measure, that measure may be used as representing a true picture, in the absence of further information.

APPENDIX 4

VISITORS SURVEY

Between the hours of 2.30 and 4.30 p.m. on Whit-Monday 1965 a small survey of holiday visitors to Whitby was made.

25 groups of visitors were questioned as to their homes, mode of travel and the length of their visit. The answers to these questions are set out below together with the location, in Whitby, where they were questioned.

<u>Home</u>	<u>Number of Visitors</u>	<u>Mode of Travel</u>	<u>Length of Stay</u>	<u>Location when questioned</u>
Keighley	2	Coach	Day visitor	Brunswick St.
Leeds	3	Car	" "	" "
Middlesbrough	6	Car	" "	West Cliff
Sheffield	6	Car	" "	" "
Redcar	2	Service Bus	Residential 2 nights	" "
Lanchester	2	Coach	Day Visitor	The Spa
Darlington	5	Car	" "	Sands
Swinton	4	Car	" "	"
Stockton	3	Train	" "	"
Bradford	3	Car	" "	"
ShIPLEY	4	Car	Residential 5 nights	"
Trimdon	2	Coach	Day Visitor	Pier
Middlesbrough	4	Car	" "	"
Normanton	4	Car	" "	"
Middlesbrough	8	Car	" "	East Cliff
Stockton	7	Car	" "	" "

<u>Home</u>	<u>Number of Visitors</u>	<u>Mode of Travel</u>	<u>Length of Stay</u>	<u>Location when questioned</u>
Manchester	4	Coach	Residential 7 nights	East Cliff
South Bank	4	Train	Residential 4 nights	" "
Keighley	2	Car	Day Visitor	" " (Abbey)
Stockton	6	Car	" "	" " "
Middle sbrough	5	Car	" "	" " "
Elland	3	Coach	" "	" " (Steps)
Huddersfield	1	Coach	" "	" " "
Bradford	2	Coach	" "	" " "
West Hartlepool	4	Train	" "	" " "

Conclusions from this survey may only be made with considerable reservation but 2 issues are pertinent.

The fact that only 1 group of visitors questioned came from a part away from the West Riding or Teeside and County Durham is significant. The low number of visitors questioned who came to Whitby by train - 3 out of 25 (but 3 out of 13 from places where access to Whitby by train is still possible) is interesting, but any deductions from this would be dangerous. All that can be said with any assurance is that this percentage may not have come to Whitby at all if the line to Middlesbrough had been closed with the other two lines; and that more visitors may have come from the places on these two lines if the rail access had still been available, and finally, that some of those who did come from those places by coach may have come by rail if that had still been possible.

NOTE No suggestion is made that the sample of visitors interviewed in this enquiry could provide a basis for statistical analysis. Rather this enquiry.-(see next page)

Rather this enquiry is along similar lines to that of G.L.S. Shackle where a small roomful of business men answered a question paper to provide some measure of direct testimony on matters which interest economic theorists.

My enquiry, like that of Shackle is plainly far removed from the ordinary procedure of sending a short list of tersely expressed questions by post to a relatively large number of people. However, the value of my enquiry is justified on the same grounds that Shackle uses to convey the value of his own work:-

" Doctors sometimes express a preference for 'clinical evidence' over 'statistical evidence', presumably on the grounds that it is better to have detailed pictures of a few cases than formal cut and dried particulars of many cases. Perhaps a somewhat similar idea may do some-thing to make my experiment seem worth while. What I am attempting to explore, on this exceedingly modest scale is a technique of "systematic impressionism" rather than statistics for there can clearly be no question of applying formal statistical techniques, or indeed of doing anything except the very simplest grouping, tabulation and inspection".

(The Nature of Economic Thought. G.L.S. Shackle
Selected Papers 1955-64. pages 153-4)

APPENDIX 5

A PROPERTY SURVEY

The hypothesis was made in the thesis that the proposal to withdraw the railway services into Whitby would have an effect upon the demand for property in Whitby of people considering retirement to the town.

The testing of this hypothesis rests upon the assumption that the buoyancy of property prices when plotted against rateable values indicates the "attractiveness" of a locality to intending purchasers. Thus figures were obtained from estate agents in Whitby, Scarborough and Harrogate of the prices and rateable values of properties sold by them in the last three months of 1963; that is, the last full quarter before the proposal in question was made, and for the last 3 months of 1964. The Whitby agent also furnished figures for the next quarter - the first quarter of 1965.

Scarborough and Harrogate were chosen as the cases against which any Whitby change could be compared since these are also places to which people retire, and particularly people from the industrial parts of Yorkshire's West Riding.

No suggestion is made that a direct comparison was attempted - it was the change, if any, in property values as measured by plotting price against rateable value and establishing by statistical method of the uniform (in length) for each periods a trend or regression line, which were compared. The lines are plotted in Diagram 12.

The results show that the rise in property values in Whitby over

the 12 months was not so great as the rise in values in Scarborough, and also that even this smaller rise was reduced during the next quarter. When a comparison is made between Whitby and Harrogate however, it is seen that Whitby has fared better, for the values of property in Harrogate has actually dropped in the price range up to £7,500. At least until the end of the first quarter of 1965 Whitby values have not dropped.

The very speculative nature of this enquiry is fully recognised and it is admitted that the cause of the smaller rise in values in Whitby as compared with Scarborough is a matter for conjecture. The proposal to close the railways to Whitby may or may not, have contributed to this. All that can be said is that, if all other things were equal this smaller rise in Whitby may be attributed to the proposal to close the railways to Whitby causing the area to become less attractive. But even so, one must be guarded for it is possible that Whitby property values are never rising at the same rate as those in Scarborough, so that a similar enquiry would show similar results, even if both periods used were before, or after the railway proposal was made known.

Perhaps the most significant feature of this enquiry is that the position in Whitby deteriorated between the last quarter of 1964 and the first quarter of 1965. With all the above provisos in mind it may be that the inference is that the effect of the closure proposals was delayed until the final outcome was made known and the decision to close two of the lines was made public.

The following is the statistical data from which these results have been derived:

1. Whitby

<u>1963</u> <u>Oct-Dec.</u>		<u>1964</u> <u>Oct-Dec.</u>	
<u>Price</u>	<u>Rateable Value</u>	<u>Price</u>	<u>Rateable Value</u>
£1,200	£46	£3,750	£68
£2,300	£98	£5,250	£106
£2,850	£70	£3,450	£66
£1,100	£48	£3,500	£74
£2,600	£64	£3,100	£70
£3,500	£102	£2,900	£98
£3,100	£58	£450	£25
£2,500	£58	£9,000	£178
£1,800	£48	£1,175	£36
£1,700	£78	£1,250	£78
£2,300	£52	£2,725	£52
£2,500	£82	£2,900	£54
£2,800	£60	£950	£40
£3,600	£86	£450	£30
£950	£48	£1,800	£38
£3,250	£64		
£3,350	£58		
£2,700	£56		

Whitby (continued)

1965

Jan.- March

<u>Price</u>	<u>Rateable Value</u>	<u>Price</u>	<u>Rateable Value</u>
£875	£23	£1,600	£54
£2,400	£54	£3,750	£70
£1,000	£98	£750	£25
£1,600	£40	£250	£30
£1,600	£62	£2,800	£52
£1,500	£36	£2,850	£50
£1,850	£56	£950	£34
£2,750	£126	£2,700	£62
£750	£42	£2,700	£90
£2,650	£52	£3,150	£66
£2,600	£52		

Whitby (continued)

1963
Oct.-Dec.

sum x = 44100.000
 mean x = 2450.0000
 sum of x squares = 1.194₁₀+08
 sum y = 1176.0000
 mean y = 65.333333
 sum of y squares = 81864.000
 standard deviation of x = 793.55039
 standard deviation of y = 16.719915
 correlation coefficient = .50329590
 t = 2.3297658 for df = 16
 lines of regression
 y on x y = .01060432x + 39.352742
 x on y x = 23.887122y + 889.37466

1964
Oct.-Dec.

sum x = 42650.000
 mean x = 2843.3334
 sum of x squares = 1.881₁₀+08
 sum y = 1013.0000
 mean y = 67.533333
 sum of y squares = 89449.000
 standard deviation of x = 2111.1700
 standard deviation of y = 37.450174
 correlation coefficient = .91938824
 t = 8.4273298 for df = 13
 lines of regression
 y on x y = .10163090x + 21.161171
 x on y x = 51.828461y + -656.81539

1965
Jan.-March

sum x = 41075.000
 mean x = 1955.9524
 sum of x squares = 98840625
 sum y = 1174.0000
 mean y = 55.904761
 sum of y squares = 77974.000
 standard deviation of x = 938.58762
 standard deviation of y = 24.242632
 correlation coefficient = .49617363
 t = 2.4910305 for df = 19
 lines of regression
 y on x y = .01281559x + 30.838077
 x on y x = 19.210060y + 882.01853

2. Scarborough

<u>1963</u> <u>Oct.-Dec.</u>		<u>1964</u> <u>Oct.-Dec.</u>	
<u>Price</u>	<u>Rateable Value</u>	<u>Price</u>	<u>Rateable Value</u>
£1,700	£78	£2,600	£118
£2,500	£78	£850	£27
£1,600	£44	£900	£42
£1,880	£106	£3,100	£82
£3,600	£106	£1,985	£48
£1,950	£56	£1,825	£44
£3,500	£104	£3,250	£90
£4,900	£130	£4,250	£178
£3,895	£102	£1,550	£66
£1,700	£70	£1,675	£42
£495	£29	£2,695	£82
£700	£32	£5,400	£154
£2,000	£74	£2,225	£66
£2,050	£94	£1,250	£54
£2,685	£82	£4,000	£106

Scarborough (continued)

1963
Oct.-Dec.

sum x = 35155.000
mean x = 2343.6667
sum of x squares = 1.025₁₀+08
sum y = 1185.0000
mean y = 79.000000
sum of y squares = 105633.00
standard deviation of x = 1156.8080
standard deviation of y = 28.305476
correlation coefficient = .86682539
t = 6.2681696 for df = 13
lines of regression
y on x $y = .02121001x + 29.290816$
x on y $x = 35.426028y + -454.98952$

1964
Oct.-Decr.

sum x = 37555.000
mean x = 2503.6667
sum of x squares = 1.179₁₀+08
sum y = 1199.0000
mean y = 79.933333
sum of y squares = 122233.00
standard deviation of x = 1262.7331
standard deviation of y = 41.946739
correlation coefficient = .89114167
t = 7.0815050 for df = 13
lines of regression
y on x $y = .02960284x + 5.8176866$
x on y $x = 26.826259y + 359.35435$

3. Harrogate

1963

1964

Oct.-Dec.

Oct.-Dec.

<u>Price</u>	<u>Rateable Value</u>	<u>Price</u>	<u>Rateable Value</u>
£6,500	£154	£3,000	£110
£3,550	£110	£5,900	£118
£6,500	£186	£12,300	£347
£6,300	£160	£1,925	£66
£4,700	£194	£2,850	£106
£5,800	£178	£3,650	£86
£1,425	£66	£3,200	£94
£5,500	£146	£3,225	£86
£1,400	£34	£2,850	£94
£1,850	£70	£1,850	£58
		£3,525	£82
		£2,850	£70

Harrogate (continued)

1963
Oct.-Dec.

sum x = 43525.000
 mean x = 4352.5000
 sum of x squares = 2.302₁₀+08
 sum y = 1298.0000
 mean y = 129.80000
 sum of y squares = 197060.00
 standard deviation of x = 2018.4911
 standard deviation of y = 53.459891
 correlation coefficient = .90568091
 t = 6.0422032 for df = 8
 lines of regression
 y on x $y = .02398703x + 25.396457$
 x on y $x = 34.195895y + -86.127212$

1964
Oct.-Dec.

sum x = 47125.000
 mean x = 3927.0833
 sum of x squares = 2.730₁₀+08
 sum y = 1317.0000
 mean y = 109.75000
 sum of y squares = 209477.00
 standard deviation of x = 2706.7904
 standard deviation of y = 73.561907
 correlation coefficient = .96563206
 t = 11.748538 for df = 10
 lines of regression
 y on x $y = .02624279x + 6.6923716$
 x on y $x = 35.5314833y + 27.503105$

NOTE TO APPENDIX 6

There is now provided a detailed history to the lines north of Inverness. I believe this to be necessary because the area is so little known and also to ensure that the reader is provided with a balanced description of the area, and the transport services that have been grafted into it.

"Economic Evolution is gradual. Its progress is sometimes arrested or reversed by political catastrophies, but its forward movements are never sudden".

"The mecca of the economist lies in economic biology rather than in economic dynamics".

A. Marshall Preface to 8th Edition of
Principles of Economics 1920

"My aim is to emphasise the notion that economic problems are not mechanical but concerned with organic life and growth".

from the 9th (Variorum) edition of Principles of Economics
by Alfred Marshall.

Edited with annotations by C.W. Guillebaud, Volume 2 (Notes)
1961, and quoted by Guillebaud on page 63 from an article by
Marshall in the Economic Journal, Volume 8, 1898,

"Distribution and Exchange".

APPENDIX 6

HISTORICAL INTRODUCTION TO THE SCOTTISH LINES

If the Minister of Transport had agreed, in April 1964, to the proposals to close the railway lines north of Inverness, such closure would have brought to an end railway services some of which have been in existence for between 90 and 100 years. Indeed, the earliest section of the lines in question was opened over 103 years ago in June 1862.

Simple and straightforward as the railways from Inverness to the Far North and West may appear in outline on a map of Scotland these two lines were actually built, and opened in sections, by no fewer than six different railway companies and by one private individual.

1. To the Far North Taking the route to the North first: the preliminary section from Inverness to Invergordon (31 miles in length) was built by the Inverness and Ross-shire Railway Company, incorporated for this purpose by the Inverness and Ross-shire Railway Act of 3 July 1860. It was hoped to open the line as far as Dingwall on 1st April 1862 but unforeseen delays must have occurred because it was not opened until the 11th June. The line had been inspected on the previous day by ^{Colonel} ~~Colonel~~ Yolland from the Board of Trade, who had expressed himself entirely satisfied with all the works. The Directors decided to open the line on the following day and a special train was run on the evening of June 10, carrying all the officials who were dropped off at their respective stations in readiness for the opening the next day. There were 3 considerable engineering works in this section.

the Ness Viaduct, the swing-bridge over the Caledonian Canal at Clachnaharry and the viaduct over the River Conon.

It had been hoped to open the line as far as Invergordon on the earlier date mentioned above of 1st April 1862: in fact the Dingwall-Invergordon section was not opened until 23 March 1863. This delay was largely due to the opposition of Mr McKenzie of Findon - he claimed that his tenants would be endangered if they had to use a proposed level crossing at Ferry Road and it was after much discussion that a bridge was built by the Company. By this date the Inverness and Rosshire Company had been absorbed by the Inverness and Aberdeen Junction Railway Company and it was this company which obtained powers on 11 May 1863 to extend the line beyond Invergordon to Bonar Bridge, (a distance of 26½ miles). The extension was opened as far as Meikle Ferry (a temporary terminus about 3 miles west of Tain) on 1st June 1864 and to Bonar Bridge four months later.

The next section north of Bonar Bridge was built by the Sutherland Railway Company - incorporated by the Sutherland Railway Act of 29 June 1865 for the construction of a railway from Bonar Bridge to Brora. However, in spite of a contribution of £15,000 by the Highland Railway, the promoters were unable to carry out the whole of their scheme: works were heavy and expensive - notably a long bridge over the Kyle at Bonar Bridge which had 5 masonry arches and a span of 230 feet, and rock cuttings in the hills near Lairg. So it was that the line was only opened as far as Golspie (26 miles from Bonar Bridge) on 13 April 1868. Now coaches were run, in connection with the trains from Golspie to Wick and Thurso - but this was not under the auspices of the Railway Company.

The next advance was made possible by the generosity of the Duke of Sutherland: indeed as soon as the line had reached Golspie the third Duke projected a privately owned line along the coast for 17 miles as far as Helmsdale and construction was begun before powers were obtained on 20 June 1870: this act also authorised the transfer to the new undertaking of the six miles of the Sutherland Company's line from Golspie to Brora. Engineering difficulties again occurred - so that the section between Dunrobin (about 2 miles north of Golspie) and a point $\frac{3}{4}$ -mile short of Helmsdale was finished by the autumn of 1870: and the Duke decided the railway should be opened forthwith. An engine and some coaches were purchased, but since there was as yet no working connection with the Sutherland Railway at Golspie the stock had to be placed on wagons and hauled along the road. Princess Christian opened the line for the Duke on 1st November 1870 and for the next $6\frac{1}{2}$ months a service of two trains a day in each direction was provided. By the summer of 1871 the works were completed and on 19 June the railway opened throughout and the Highland Railway took over the working.

The completion of the line from Helmsdale to Wick and Thurso (67 miles in all) was carried out by the fourth separate Railway Company concerned in the construction of the line to the North; the Sutherland and Caithness Railway Company which was incorporated by an Act of Parliament on 13 July 1871. There had been earlier proposals for a railway between Thurso and Wick and a line had been authorised in 1866 - but it was only a local undertaking and of course isolated from the railway system of the rest of the country. Funds in fact were not

forthcoming in spite of efforts by the local landlords and the whole scheme was in abeyance for many years. The new concern took over the local one (called the Caithness Railway Company) and adopted the same routes as that Company had had authorised. The railway however, was obliged to take a long detour because of the highland round the Ord of Caithness: this prevents a railway from keeping to the shore and forces it inland, principally because of a precipitous drop into the village of Berriedale and a corresponding rise on the other side. So it is 60 miles by railway from Helmsdale to Wick - the coast route is 35 miles: but the railway was opened on 28 July 1874, the Highland Railway had subscribed £50,000 and the Duke of Sutherland, £60,000, towards it.

A point to be borne in mind when considering the construction of the line to the Far North is the fervour of the men involved and the efficient way in which construction was undertaken: this is mirrored in the speed of construction - 12 years to bring a line from Inverness up the east coast to the extreme north - and is emphasised when it is remembered that these areas have such very hard winters, the ground being under snow for very long periods and construction being temporarily halted.

All these lines - although separately built and owned were worked by the Highland Railway Company from their inception and were amalgamated into that Company on 28 July 1884 - exactly 10 years after the opening of the last stage in the route to the Far North. ~~(1)~~.

2. To Skye The westward line from Dingwall to Kyle of Lochalsh was promoted by the Dingwall and Skye Railway Company incorporated by an Act of 5 July 1865 to construct a railway between these points - 63 miles apart.

But two difficulties arose. The landowners in the Strathpeffer district put up most determined opposition; they were led by Sir William MacKenzie. The proposed railway passed through his lands for four miles and came to within a quarter of a mile of his house. At the meeting of the Company in October 1866 it was reported with regret 'that the difficulties in arranging with certain landowners on the line still exist' ⁽¹⁾At the meeting one year previously the Directors 'thought it right to state to the Shareholders that no steps will be taken (towards the construction of the line) until the difficulties are removed' ⁽²⁾It was not until 29 May 1868 that the impasse was solved: an act of this date sanctioned various deviations to the north of Strathpeffer but this gave the railway a four mile climb at gradients mostly of 1 in 50. It is interesting to note that Sir William died shortly before the line was finished.

The second difficulty was at the western end of the railway. Because of the enormous costs of construction anticipated between Strome Ferry and Kyle of Lochalsh, as deep rock cuttings would be required it was decided to abandon that section: there can be no doubt that this step was justified on financial grounds at that time. The railway was opened in 1870 - for goods on 5th August, for passengers on 19 August. The new railway opened up a quicker route from the islands of Skye and Lewis to the south, but Strome Ferry is not an ideal place for a pier owing to strong currents in Loch Carron.

(1) Dingwall and Skye Railway Company Minute Book. p.36
(2) Dingwall and Skye Railway Company Minute Book. p. 28.

Probably partly because it feared that the West Highland line might soon have been extended to the west coast from Fort William to the Sound of Sleat, the Highland Railway sought powers to extend its Western branch to Kyle of Lochalsh and to provide a pier there. ~~(4)~~ These powers were granted on 29 June 1893.

The engineering works were very heavy - for example, the station at Kyle had to be blasted out of the solid rock. The extension was opened in 1897 on November 2: the decision to extend was again undoubtedly correct because the anticipated extension by the North British Railway came about - to Mallaig - and a considerable share of Hebridean traffic must have passed into their hands. But the Highland retained the valuable mail contract and of course monopolised traffic from the islands to Inverness and North east Scotland.

The Kyle extension was another illustration of the zeal of the Highland Railway - and again here the work was hampered by the vagaries of the weather: "for nearly 5 months (during the winter 1893-4) it was so wet and stormy that very little progress was made" ⁽⁵⁾ and, as was the case in virtually every railway construction, by the vagaries of the labourers' dispositions. "Many left to work on the Mallaig line, and quite one half of the remainder left three weeks ago for harvesting the crops at their Crofts". ⁽⁶⁾

The Dingwall and Skye Company was absorbed by the Highland Railway Company as from 2nd August 1880 and so it was under the auspices of the latter that the Kyle extension was built.

- (1) Highland Railway Minute Book 8. Engineers Report at Meeting 25.4.1894.
- (2) Highland Railway Minute Book 9. Engineers Report at Meeting 27.10.1897.

So the lines that appear so very simple on the map have had a patchwork type of history: yet these lines do not represent the entire extent of the railway system that once existed north of Inverness. Several branch lines must be considered.

3. Branches.

To facilitate traffic between the head of the Caledonian Canal and the town of Inverness a branch was constructed, about 1/2 mile long to Muirtown from Canal Junction about 1 mile from Inverness. It was opened ^{for goods traffic} on 9 April 1877 but official sanction ^{for passenger traffic} was not obtained until 4 July 1890 (i) It was extensively used by goods trains but the proposed passenger service was never provided.

As Strathpeffer grew in popularity the need for a better facility than the existing station 1 1/2 miles from the town became apparent. A central terminus was projected, powers were obtained on 28 July 1884 and the line opened on 3 June 1885: it left the Skye line at Fodderty Junction and the old station was renamed Achterneed.

The Black Isle branch was built to tap the sources of revenue provided in that rich farming region and the fishing centre of Fortrose: a line was proposed from Muir of Ord on the North main line to Rosemarkie, powers were obtained on 4 July 1890 and the line opened as far as Fortrose on 1st February 1894 but the extension to Rosemarkie was never begun. It was an indirect journey from Fortrose to Inverness but it was the best route possible, short of a costly bridge over Beaully Firth.

Coach Services connected Dornoch with the Far North route at The Mound: but towards the end of the century desire for a railway link grew in the district. The Highland Railway supported the scheme and obtained powers on 13 August 1898 for a standard gauge light railway,

(i) H. A. Vallance 'The Highland Railway' page 39

its route following the coach road closely. The Highland Railway worked the line but the local Company remained nominally independent until grouping. The line was opened on 2nd June 1902.

The last passenger branch to be opened was the Wick-Lybster branch: with no means of high speed road transport the need was acute for a means of disposing of the fish (the means of livelihood of the inhabitants) and so £72,000 of capital was subscribed, partly by local subscription, partly by a Government grant of £25,000, and partly from the Highland Railway itself, ^{and} funds were raised to complete the branch. Powers had been granted on 27 November 1899 and the railway was opened on 1st July 1903, as a light railway and the Highland Railway undertook to work it at cost price. In spite of the circuitous route to the south the line was of great service to the district - especially the fishing industry at Lybster. This line also remained nominally independent until the grouping.

It must be noted that all this railway system north of Inverness was only part of the Highland Railway System. In fact the Lybster branch was the penultimate extension made to the system. The last was the Inverness Harbour branch, ~~mentioned in the Supplement~~ ^(p. 230). The total mileage of the system was 505½ miles of which 269½ miles were in the area to the north of Invefness, thus just over half of the system is in the terms of this enquiry. The mileage is made up as follows:-

<u>Branch</u>	<u>Miles</u>	<u>Branch</u>	<u>Miles</u>
Inverness-Wick	161½	Muir of Ord-Fortrose	13½
Dingwall-Kyle	63½	Georgemas-Thurso	6½
Fodderty Junc.-Strathpeffer	2½	Muirtown Branch	1½
Wick & Lybster Light Rlwy	13½	Dornoch Light Rlwy	7½
			269½

The Highland Railway Company became part of the London Midland & Scottish Railway Company as from 1st January 1923 under the 1921 Railway Act and on 1st January 1948 passed into British Railways under the Nationalisation arrangements of the 1947 Transport Act.

Of the lines in question, north of Inverness, except for a short section of double track between Inverness and Beaully, the system was single track throughout.

Early Closures

Closure and the threat of closure is not a new experience to the railway system north of Inverness. Though no lines were closed down before grouping, there were closures of stations and the reducing and curtailing of the steamship services run by the Highland Railway.

1. Stations

When the railway was extended north of Invergordon to Bonar Bridge a station known as West Fearn was provided to serve Fearn Lodge: it was between Edderton and Bonar Bridge. It remained open for a little more than 6 months after which it was withdrawn from the public time tables, but was apparently still used as a conditional stopping place for the lodge and for wives and families of local railwaymen. Its closure is mentioned in a minute from the Board Meeting of the Inverness and Aberdeen Junction Railway on 28 March 1865: "the Manager submitted a Statement of Traffic for three months amounting to £17. 4. 0. whereupon it was resolved to discontinue the station from 31st inst".

The temporary terminus at Meikle Ferry provides the second case of a closed station. When the railway was completed past Meikle Ferry to Bonar Bridge, coach connections were still maintained to Sutherland via the ferry but soon they began to operate from Bonar Bridge: thus traffic at the Meikle Ferry station dwindled almost to nothing and it was closed on 31st December 1868. (e).

In 1878 a platform was opened to serve Borrobol shooting lodge: this was about 2 miles north of Kildonan. For some years the platform

(1) Highland Railway Minute Book, I. p. 457.

was closed during winter (when presumably there were no visitors to the lodge) ^{From available timetables the platform was probably closed in winter, 1878-79, 1879-80 and 1880-81.} (9). Later it was kept open throughout the year.

The Duke of Sutherland's railway provides two more illustrations of closed stations: when the Duke decided that the railway should begin operations in spite of the engineering difficulties that prevented it from any physical connection with the line at Golspie he built a temporary terminus at Gartymore known as West Helmsdale, and after 19 June 1871 as the works were completed as far as Helmsdale, the temporary terminus was no longer used. At the Golspie end the temporary station became a private station serving the castle: its name is Dunrobin.

Another illustration of closure refers to the pier at Strome Ferry - when the Kyle extension was opened on 2 November 1897 the old pier at Strome Ferry was closed and the ships (not owned or worked by the Railway Co) transferred to Kyle: however, the station itself was not closed, it remains open to the present day. The last closure of a station effected by the Highland Railway was in 1913. It was Clachnaharry station and it was situated close to the swing bridge over the Caledonian Canal. It remained in continuous use from the date of its opening in 1869 until it was closed. The reason for closure is unknown - it was resolved to close it at a meeting of the Traffic and Way and Works Committee of the Highland Railway on 25 February 1913, to take effect on the 1st April, but no mention is made of a reason for the closure. (10).

These seven cases show clearly that closures, at any rate of stations, are no new experience to the region, and, that even before grouping, the Highland Railway had closed stations. A further snippet (1) Highland Railway Annals Book 21, p. 216.

of information on Highland Railway Closures is given in the minute of the Board meeting on February 1st 1870 when it was "resolved to close the Refreshment Rooms at Invergordon Station from Whitsunday next".¹ (~~11~~) The reason for this is not stated, but it seems unlikely that it was financial since it was let to "Catherine Fraser at £25. per year, the tenant to pay her own gas". (~~12~~)²

2. Steamships Services (~~13~~)

A daily passenger service had been maintained from Strome Ferry to Portree in Skye and a weekly service to Stornoway from the date of the opening of the western branch on 19 August 1870. But traffic returns were unsatisfactory and in the winter of 1870 the Portree service was reduced to 3 a week and the Stornoway sailings were suspended, though a private boat went from Portree to Stornoway on certain days. So it was reported to the next annual general meeting of shareholders on October 27 1871 that 'receipts from the Steamers have not equalled their expenses and a sensible reduction has been effected by ceasing to go to distant places where the traffic was inadequate to meet the outlay'. Services were continued to Portree until 1880 when the railway company withdrew in favour of MacBrayne.³ (~~14~~) He took over from 1st May 1880.

But the Steamer service to Skye was not the only maritime venture of the Highland Railway. On 24 April 1877 it was empowered to own and work its own ships between Thurso and Kirkwall and Stromness in Orkney, and a service was opened on 27 July 1877 and continued regularly until the summer of 1882. But the service was not withdrawn until the Company

- (1) Highland Railway Minute Book, 1. p.557.
- (2) Highland Railway Minute Book, 1. p.124
- (3) Highland Railway Directors Report. April 27, 1880.

was sure that an independent company would maintain a service: this service was provided by The North of Scotland and Orkney and Shetland Steam Navigation Company. (16).

So, in fact, it is in the steamship routes of the services between points on the Highland Railway that the earliest closures is found: though, as shown above, the services were in fact maintained by other enterprises. Both closures were for financial reasons: but it seems from the evidence that the Company made efforts to see that services would be maintained to prevent hardship to those who used them: there is however, no evidence that if no other company had undertaken the service the Highland would not have terminated this service.

Closures under Grouping

The lines and stations north of Inverness were not pruned at all during the period 1.1. 1923 until the second World War. Then on April 1st, 1944 the Wick and Lybster Light Railway was closed completely and subsequently dismantled.

The road between Helmsdale and Lybster had been much improved - the gradients had been greatly reduced over the Ord of Caithness - and this obviously put the Lybster line at a serious disadvantage. It is only 20 miles from Helmsdale to Lybster on the road; by rail via Wick it is 74. (General discussion on the branch line closures follows later). Then on 2nd March 1946 passengerservices were withdrawn from the Strathpeffer branch.

Since Nationalisation The changes brought about since Nationalisation have been irregular - but it would be wrong to suggest that they have all been negative. In fact there is one example of an additional station to be found in the region north of Inverness: it is at

Duncraig on the Kyle line. Its name first appeared in the Bradshaw for June 1949 - it had no advertised service before this. Also on the Kyle line there is a case of a re-siting of a station because the line was reconstructed: the case is Lochluichart and the line was raised to enable the level of the loch to be raised in connection with an H.E.P. project. The new line and station came into use on 3 May 1954.

But there have been considerable closures brought about under the new regime: the branch lines have all been pruned now. The Lybster line as indicated above was already closed and had been dismantled prior to nationalisation, and passenger services withdrawn from the Strathpeffer line.

In 1951 that line was closed completely and immediately dismantled. Passenger services were withdrawn from the Black Isle branch on 1st October 1951, though it remained open for goods until 13 June 1960. But on the Tuesday before 13 June 1960 the line again had a passenger train up it - about 100 members of 2 leading railway enthusiasts organisations had a special train to take them from Inverness to Fortrose and back. ⁽¹⁹⁾ This latter date also saw the complete closure of the Dornoch Light Railway. Also on this date passenger services were withdrawn from 20 stations between Inverness and Wick i.e. the number of stations halved, though it was found that this was just a little too drastic because in April 1961 Rogart Station was re-opened, though only as a halt.

Such are the bare facts of the closures - and the facts show that closure has been spasmodic and represented only about 1/10 of the
(1) Ross-shire Journal. Friday 17 June 1960.

route mileage; also that there have been activities in the other direction though there are only 3 very small illustrations of such activity as I have shown.

Consider now what the reasons for these closures were. It was seen that developments and improvements on the roads put the Lybster line at a serious disadvantage, and it was similar reasons, allied to the peculiar topography of the coast north of Inverness which meant that lines provided only a circuitous route to the south that caused the Black Isle and Dornoch branches to lose their traffic.

Even before the 2nd World War the railways in North Scotland were facing growing competition. After 1918 many private men - men with some driver and business acumen - set up as Private Hauliers. They were encouraged to do so because there were many Army trucks being sold off cheaply as they were no longer required. The road haulier also had the advantage of being able to deliver to and take up goods from the customers' doorsteps. And he was able to scrutinise the railway rates because both Standard and Exceptional rates were open to the public. Thus it was easy for him to fix a cut price to encourage traffic away from the railway.

Also after the 1914-18 War the Highland bus companies developed - slowly at first and acting partly as rail feeders but later into competitors over longer distances, and, especially where the railway took a circuitous route - as from Lybster, Dornoch and Fortrose.

So it is not surprising that branch lines in the Highland system succumbed: actually south of Inverness the first closures were earlier than in the highlands, e.g. Orblison to Fochabers closed 14 September 1931.

It is of interest and significance here to attempt to gauge and measure the extent of public opinion aroused by the closures of the branches to passengers. In a word this may be summed up as being "slight".

The Ross-shire Journal does not even mention the closure of the Strathpeffer branch, and the issue following the Black Isle closure only has a single small paragraph on page 6, where the closure is referred to, and this stated that "The County Council were not objecting to the withdrawal of the service in view of the small number who travelled on the railway". Two notes on this closure were made in a September issue, before the closure was implemented, where it was stated that "the Fortrose Town Council and the local branch of the National Farmers' Union were making a vigorous protest".

Although time prevented detailed study of the extent of opinion over the Dornoch and Lybster closures I am reliably informed that protests were made and that the localities were genuinely sorry to lose the railway amenity.

This extent of opinion is a mirror of the amount of discomfort which the localities would suffer. The closure of these branches did not cause hardship though a period of adjustment had to be made.

It is very significant to compare this small extent of opinion with the high quality articles and the letters which besieged the Ross-shire Journal from the time the proposal was made to close the lines north of Inverness until after the rejection of the proposal. Only 1 issue in that period was without mention of the matter in the whole $3\frac{1}{2}$ month period.

It seems that the outcry towards the branch line closures was significant to this extent - one would expect this amount at the removal of a minor part of a body. It in no way resembled the outcry that met the proposal to remove an entire limb.

Figures for the revenues of the branch lines are not available. If they were it is likely that they would show that from the end of the 1st World War there was a decline in revenues: this would probably have been gradual at first but accelerating into a steep and steady decline as competition from hauliers and bus companies built up. Then the fall would flatten somewhat as the revenue drained off.

It seems unlikely that before the 2nd World War the decline in rail revenues and traffic could be attributed to road improvements in themselves: though this would play an important role after the War, when extensive construction and improvement has taken place.

In some cases there appear to have been local reasons for the uneconomic nature of the branch lines:

At Lybster - early improvement of the road to Helmsdale as mentioned before, and the circuitous rail route.

At Fortrose - the circuitous rail route again: but a through road would take the same route. It remained worthwhile keeping the line open for goods until 13 June 1960.

Dornoch Light Railway - light railways do not usually have to be fenced, or gated at level crossings. But the Board of Trade had imposed regulations

that the line be fenced and gated throughout (there were numerous level crossings). Thus a much heavier expenditure was required than might have been necessary.

All branch lines are required to be maintained at the same high level of maintenance as a mainline and this is a very heavy drag on their finances.

The question next to be posed is "Why were these lines not closed before they actually were" .

Given that there were certain local difficulties and overall disadvantages as I have shown, one might have expected to see these lines closed somewhen before the 2nd World War broke out.

Broadly two answers present themselves: and the first is that by the time the lines were closed, the closures were long overdue. Revenues had tapered right off almost to nothing and on this fact it would be fair to say closure could have been brought about 15 or 20 years before and deficits not carried for so long and built up as they were.

But the real answer probably is that the closures were delayed because of the extremely severe winters which may make roads impassable for weeks at a time. The railway is more easily kept open when there is heavy snow.

To these answers it could also be added that, in fact some other lines, south of Inverness, were closed earlier: the Orbliston - Fochabers branch I have mentioned, another was the Alves-Hopeman line, also closed on 14 September 1931. ~~(17)~~ The Keith-Portessie branch was closed in August 1915, but it was to be re-opened in 1924, though this was then decided to be unfavourable.

By the time the branches were closed there seems to have been no warrant for a railway anyhow: other means of transport were readily available for those who required them (private car or buses - both by then very reliable) and nor was there any 'commuting' traffic, as perhaps might have been expected from Strathpeffer or the Fortrose line to Dingwall or Inverness, requiring fast, reliable-all-through-the-year transport to the county towns.

But all the closures so far mentioned can easily be regarded as minor in comparison with the closures that were projected by Dr. Beeching. The route mileage closures amounted to $37\frac{1}{2}$ miles after all the branches were closed - the Beeching proposal threatened the remaining $231\frac{1}{2}$ miles. (~~20~~).

So, whilst the threat of closure of railway services is no new thing to the Scottish Highlands; this much is new: a threat to abolish ALL railway passenger services in the area.

- (1) $37\frac{1}{2} + 231\frac{1}{2} = 269$ miles. On the following page a figure of 270 miles is quoted. The 1 mile discrepancy is made up of 2 half-mile branches in Inverness, the Harbour Branch and the Caledonian Canal Branch. No record exists of the closure dates of these Branches so I have not included them in my figures of $37\frac{1}{2}$ miles of branch-line closure.

Book Consulted for Appendix 6: H. Vallance. "The Highland Railway" 1963, by David and Charles, Dawlish, and McDonald

THE RELEVANCE OF BENEFIT - COST ANALYSIS
TO THE PROBLEM OF RAIL CLOSURES

During the preparatory work for this ^{appendix} ~~chapter~~ it became clear to the writer that the ^{appendix} ~~chapter~~ itself was going to open more issues than it was going to settle.

Since its aim is to show the relevance of the analysis, known as Benefit Cost Analysis, to the problem of rail closures and to show the extent to which present analytical techniques fall short of the refinements required of them if they are to meet the needs of transport economists and planners, certain issues must be discussed, even if no answer to a point can be given.

The Aim of the Analysis

The aim of Benefit-Cost analysis is to provide criteria for evaluating the benefit and cost of individual projects (probably but not necessarily projects which involve the Public Sector), and to provide a guide for applying the criteria. Thus the ultimate objective of the analysis is to enable determination of the relative merits and demerits of alternative courses of actions to be they a choice between doing something or refraining from it, or between two or more possible positive courses.

Now this clearly is a formidable task, and as yet provision of meaningful criteria has not been attained.

It is valuable to note here, as J.V. Krutilla (Bib. Article 4) points out that the nature of this aim is not different from the

economic analysis employed in reaching decisions with respect to production, or other policies of the firm. But there is a factor in the nature of the aim of the analysis which causes it to be different from any cost and gains calculus of a private firm. Any divergence between private and social costs and gains is neglected in private firms' policies, but benefit cost analysis seeks to take account, in full, of such divergencies. "Speaking loosely, while the decision rules of the theory of the firm aim at profit maximization, the decision rules of benefit cost analysis seek to maximise public benefits or general welfare within the orbit of responsibility". (Krutilla - Bib. Article 4).

It must be made clear that this analysis is no magical formula, which, if brought to fruition, will miraculously mean that all future advance and policy will include no mistakes, or encounter no delay. Yet, if the aim of the analysis was satisfied, then, in a classical or perfect situation it could be used. "In an efficiency-orientated mold, where there are no barriers to the flows of funds or resources, where benefits and costs are correctly determinable, it is evident that appropriate policy is to build every project for which benefits exceed costs and to develop every project to the point where Marginal Benefits equal marginal costs" (P. Steiner, Bib. Article 7).

However, away from this perfect situation, there are found to be some potent reasons which could, and certainly would, restrict the number of occasions when the application of the meaningful criteria could be made. These reasons are those which restrain the volume

of Public Expenditure. Besides the pure efficiency criteria, other significant determinants of the volume of Public Expenditure are Cyclical Stability, Economic Growth and Income Distribution: these bands of criteria are, and should be, dominant in determining the volume of Public Expenditure.

Whilst admitting that there are limitations imposed upon the practical application of the meaningful criteria which the technique aims to provide, two matters are seen clearly. First, in spite of having limited application the analysis may still be applied, even if in a crude way. Two extreme cases may be taken to show that, even with the present deficiencies in the techniques, the method is indeed already being applied. It is, for example, apparent that the costs incurred by the country in the removal and absence of the main line from London to Edinburgh would outweigh the benefits the country might gain in redeploying the resources at present employed on that line. Or again, it is clear that the benefit to be gained by the nation as a whole by the construction of a line between two remote villages in Cornwall will not amount to the cost to the nation of building that line. Thus, the concept is seen to be applied in a crude form already. In issues which are border-line cases, the excess of benefits over costs or costs over benefits however, will depend on value judgements, but in matters as extreme as the two illustrations, even the application of value judgements does not lead to doubt as to the correct policy.

Secondly, in spite of limitations, there can be no doubt that it is worth pursuing (after) methods of techniques that will enable all benefits and costs to be weighed correctly since the availability of such a technique would be an aid in ascertaining optimum policy, and enable an assessment to be made of the validity of previous policies. It is unfair and unrealistic to argue that since other more potent forces determine the level of Public Expenditure there is no role for Benefit Cost Analysis to play. The fact that the current economic climate may prevent the sponsoring of an issue shown by analysis to have benefits which exceed costs, is in no way an argument for neglecting the analysis. This has been seen for a long while now in fact. In America (where most of the work in this field has been done) the Flood Control Act of 1936 adopts welfare principles for Public Services by stating that the Government should sponsor those projects where "the benefits to whomsoever they accrue, are in excess of the estimated costs".

(As a note here it is worth showing that Cost-Benefit Analysis may be regarded as a natural corollary of a growth in decision making in the Public Sector).

There are also two points of practical significance which add further to the difficulties to be encountered and overcome before Benefit-Cost Analysis may be regarded as having a role to play in policy formulation over the issue of rail closures. Whilst it may be possible to assess the issues concerned when deciding whether to begin a project or not, or which of two or more projects will be sponsored (much work has in fact been done in analysis of projected

water resource developments), it is certain that it will include more detailed work and perhaps further refinements of technique, to assess the issues pertaining to the removal of a presently existing facility.

The second point may be simply stated. At the present time, it seems likely that a fundamental factor to be included in the analysis is unknown, for the railways themselves under their present accounting system, do not appear to be aware of the true financial losses of their lines.

It may be gathered from the material above that the issue of Benefit Cost Analysis is relevant to the problem of rail closures. But, it has been suggested that at present the techniques still fall far short of the level required of them for the analysis to play a role in any but the most obvious cases. Its potential value is high, but its present value seems not to be significant to the problem.

For the rest of this ^{appendix} ~~chapter~~ the writer is assuming that a common factor has been found whereby all the costs and benefits may be made meaningful to each other.

It was previously argued that the analysis would be helpful in deciding on the validity of a policy to close railway lines - therefore, presuming that a technique is available to make use of the information which would be gleaned, there now follows a possible "Programme for a Study of the Benefits and Costs incurred on a Railway Line".

The first matter to be determined would be the Benefits and Costs of the existing lines, and Costs may be considered first.

The costs are 3 in number. The actual financial loss incurred by the Railway is the easiest to assess, even though this will involve a re-organisation of the Railways accounting system. The second cost is an intangible cost: it is made up of the inconvenience and delay caused on the roads of the area in question by the non-availability of this amount of cash for spending on road improvements. A third cost is the cost of 'Unserved Communities'. These are those communities which the bus operators would be able to serve (or serve better) if they were operating in the area without any competition from the Railway. This cost is in fact a benefit withheld: it would be equal to the amount the communities would be prepared to pay to get rid of the railway and this itself would be equal to the amount they would have to pay to use the newly acquired

bus. It may be likened to an overhead incurred in setting up a new business. There are examples of such communities in the South West District of Ross-shire. They have a weekly bus service at present - if the railway had been closed Highland Omnibuses were going to provide three buses a day to these villages. The places in question include Renaig, Kirkton, Auchertyre, Nostie and Fernfield, shown on ~~the~~ Map 5 (page ¹⁵⁸ 167)

When assessing the Benefits of the line it is important to note that it is the benefit the line has over the next best available overall situation which must be accounted.

It is not proper to argue that the railway provides N. units of benefit to the area, but it is proper to argue that while the present situation, which includes the Railway provides N. units of benefit, and the next best situation would provide only K. units of benefit and therefore the benefit of the railway is N - K units. This will necessitate a highly complex study of every sector of the community and the economy. Benefits would accrue in three ways: to those who make physical use of the railway either for personal transport or for goods, social benefits would be derived by any person who receives a commodity via the railway - for example newspapers brought by rail to parts of Sutherland arrive at lunchtime while by road they would arrive at about 4 p.m. - and thirdly, benefit is received by any person whose hardship is eased by having the rail service available - an example here would be old folk who might be needing to go to hospital or to receive medical attention in their homes and who could not depend for this at all times if the railway

was not there.

Consider these cases of benefits in one particular sector of the community, the school children who travel by train to school in Whitby and in Ross-shire.

Under the first class of benefits each of the 255 Whitby school children receive a benefit from travelling to school by rail, since if this was not the safest, and most convenient mode of travel they would clearly use another method. The benefit to each child, over the next best situation, would differ, and in some cases might be nil. For example, it is doubtful if the 89 children who travel from Sleights and Ruswarp (3 miles and $1\frac{1}{4}$ miles from Whitby respectively) would suffer any measurable loss if they had to travel by bus or car over this short distance.

There seems little likelihood of benefits accruing to the children in Whitby in the second way spoken of above: but social benefits to the children at 2 schools in Wester Ross seem likely to be lost in that increased remoteness may cause a deterioration in the quality of teachers at the schools and a consequent drop in teaching standards.

Benefits to the children under the third category would be assessed in two matters: the possibility that a bus journey, in some cases a long bus journey, may be inconducive towards aptitude for homework would be explored thoroughly. It is clear that this will be true of cases of children travelling from Comondale (7), Castleton (34) and Danby (20), even if not for the children joining

and leaving the train nearer to Whitby: the benefit of the faster less fatiguing train journey over the slower and more tiring bus would then be accounted for. Also the benefits to each child, of being able to stay for after-school activities while the railway service enables them to catch a later train home, over the situation where they must leave immediately in order to catch the contract buses must be assessed here. The benefit may be nil, as in the case of children who live in Whitby, or who can catch a service bus to Ruswarp or Sleights. I can only presume that the assessment of these benefits would necessitate extensive psychological testing of each child in order for the assessment to be accurate.

In each of the two cases considered in this thesis there is a further benefit received from the lines in question. It is a benefit to the country as a whole from the strategic position of the lines in the event of an emergency such as another war. The Highland lines would have a value in aiding evacuation from the south, and the line from Whitby to Pickering would have a role in the defence systems so long as Fylingdales is in operation, even if that role was only the certainty that personnel could be got in and out of the Early Warning Station at all times of the year.

This fourth benefit would not count strongly in the weighing up of total benefits, but it would be taken into account.

But even when all the costs and all the benefits have been measured, and are made relevant to each other by a common factor there yet remains further work to do before the matters can be weighed.

Onto the situation just described must be superimposed the advance projected for the area in question. This will be highly complex, and more so if the advance involves a Government Subsidy too.

The significant data in this respect would be the difference between the advance with the railway there to aid in it, and the advance possible without it. The method would be to measure each advance programme up to the date when the subsidy would be no longer required: though this may produce another difficulty because the subsidy may be expected to end at a different time if the programme with the railway is adopted from the time if the other programme is sponsored.

One point is clear from this projected Programme. It is that analysis of benefits and costs would be, at least, of some help in the controversy that surrounds the issues of railway closures; but until such a state is reached, marginal cases, like those which form the subject of this thesis, will have to be settled in a more arbitrary way.

DIAG. 1. Weekly totals of Selected Receipts of Whitby U.D.C. 1964. Showing Rhythm and Extent of Peak Season in 1964.

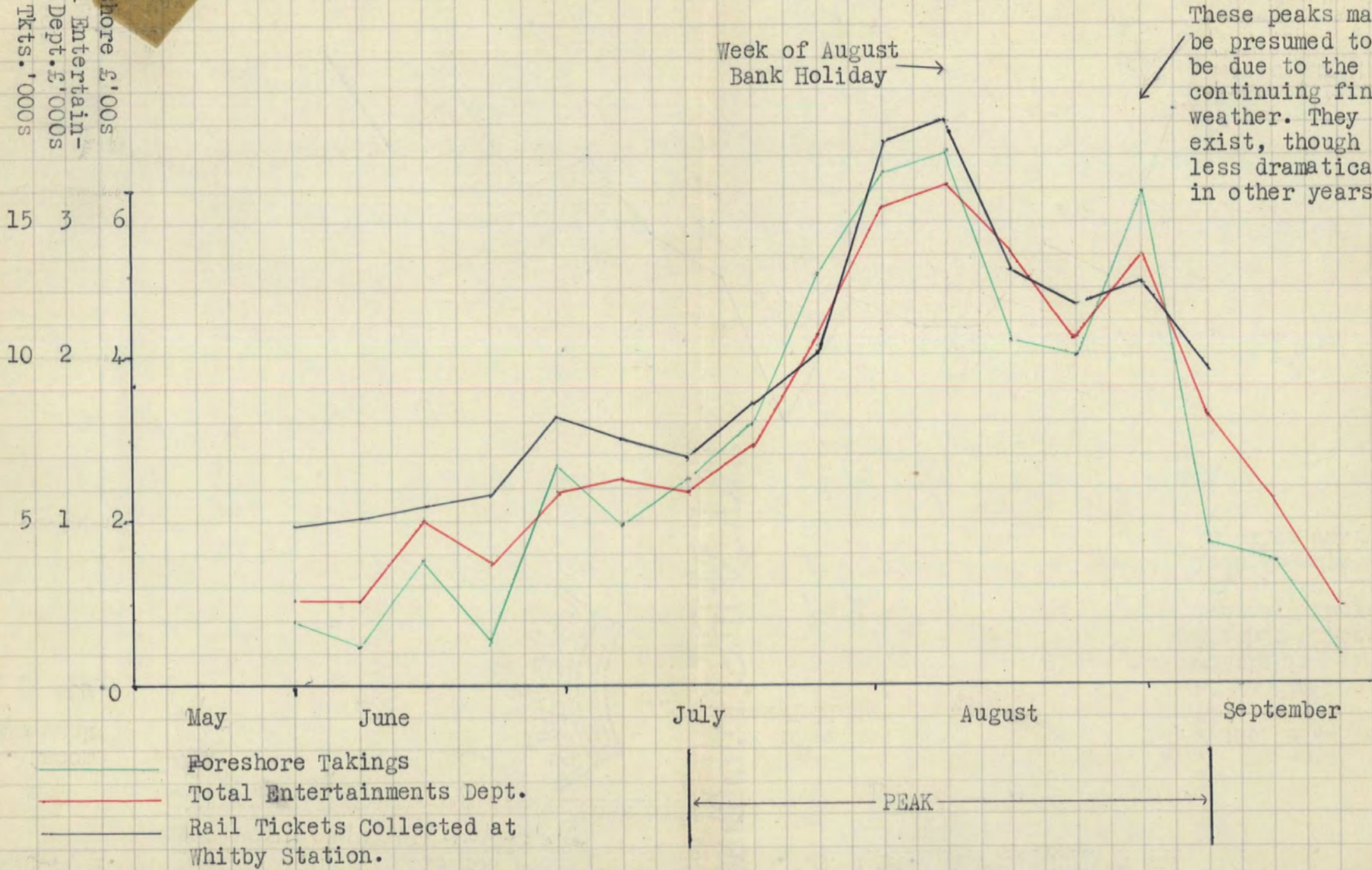


DIAG. 2

Weekly Totals of Selected Indicators at Whitby; showing Rhythm and

Extent of Peak Season in 1964.

Rail Tkts. '000s
Total Entertain-
ment Dept. £'000s
Foreshore £'00s



These peaks may be presumed to be due to the continuing fine weather. They exist, though less dramatically in other years.

Week of August Bank Holiday →

← PEAK →

— Foreshore Takings
 — Total Entertainments Dept.
 — Rail Tickets Collected at Whitby Station.

DIAG. 3 A Graph to show the number and extent of Accidents reported to the Police in the Urban District Area of the Whitby Police Division 1963 and 1964

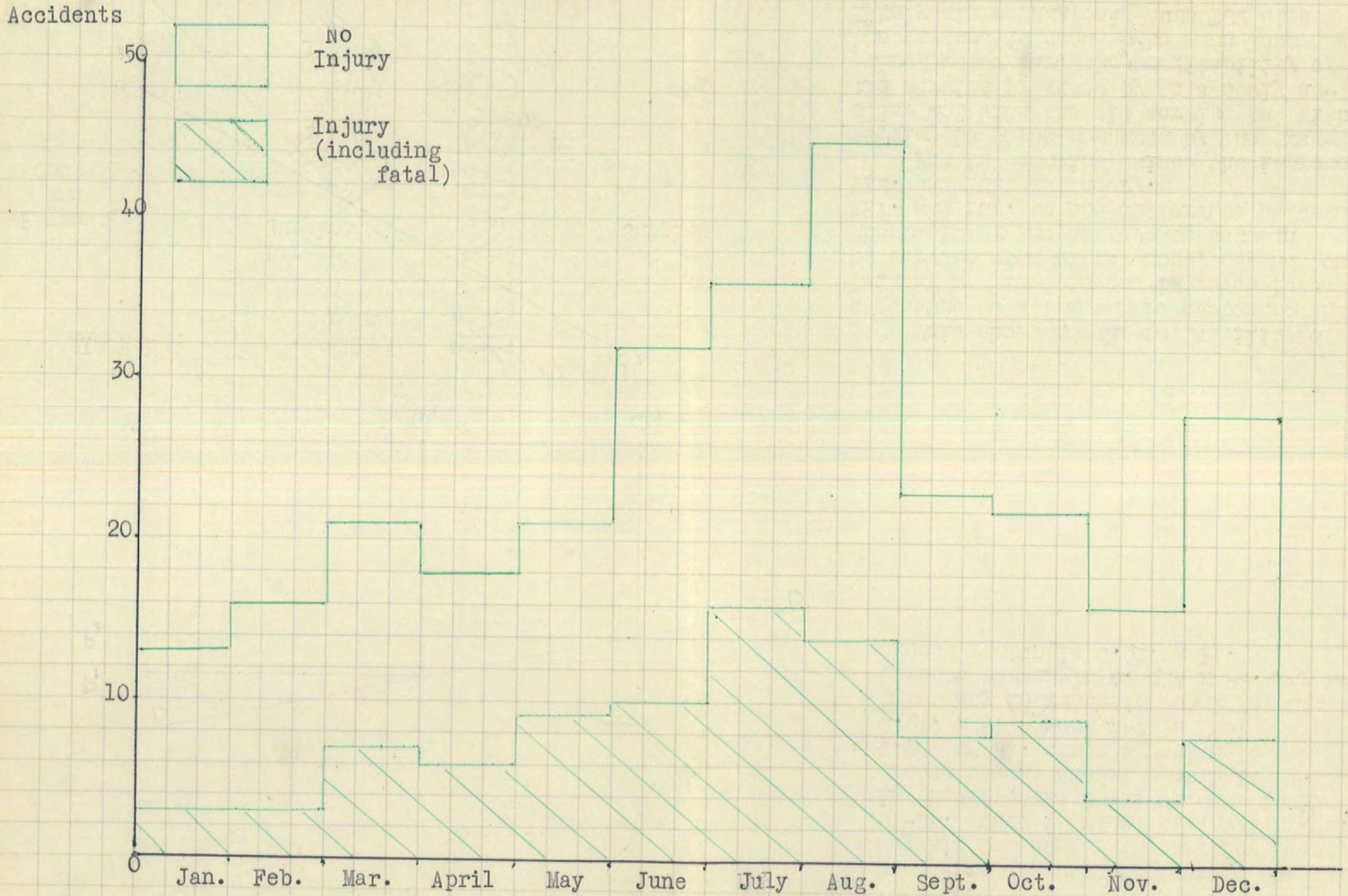
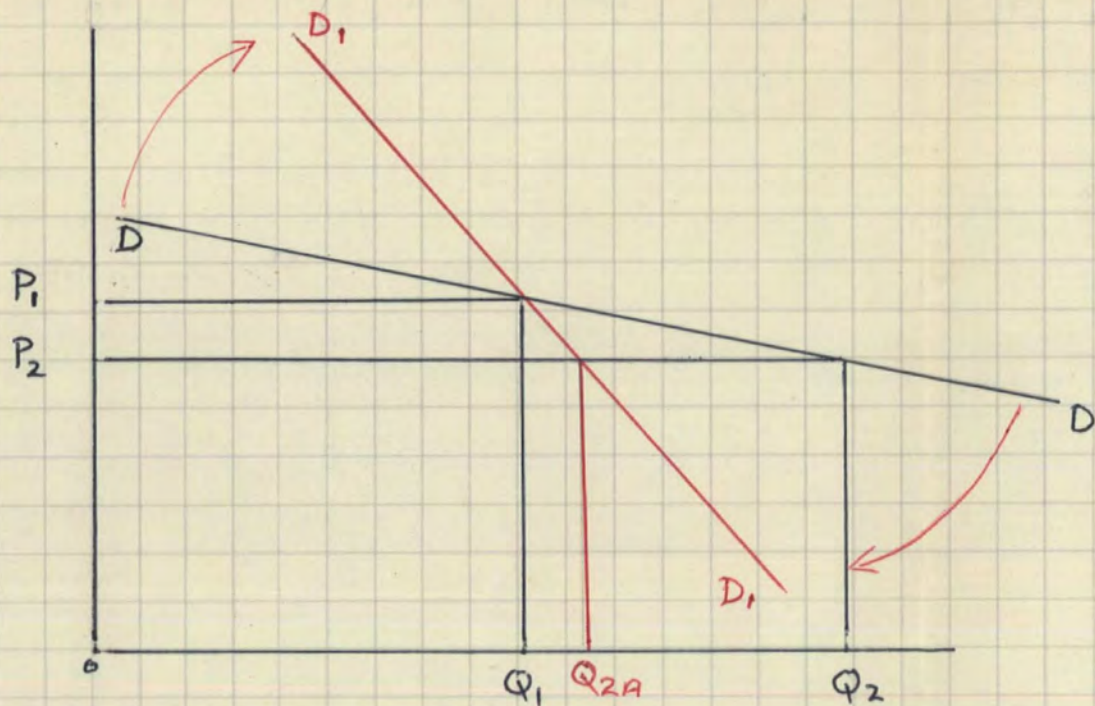
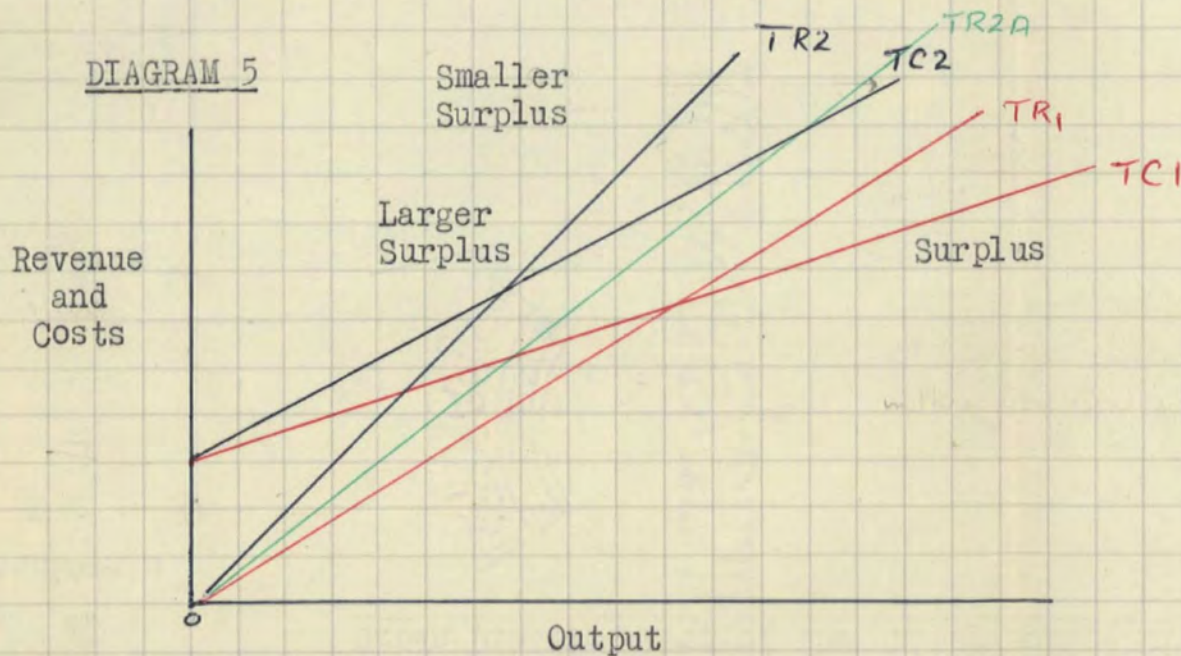


DIAGRAM 4.



When a person is lost to the railway his Demand for the service becomes D_1-D_1 . Thus a price fall, which would in theory cause total revenue to increase by the amount rectangle $0.Q_2. \times P_2.$ exceeds rectangle $0.Q_1. \times P_1.,$ need not in fact bring any increase in Total Revenue because rectangle $0. Q_2A \times P_2.$ may not exceed rectangle $0.Q_1. \times P_1.$

DIAGRAM 5

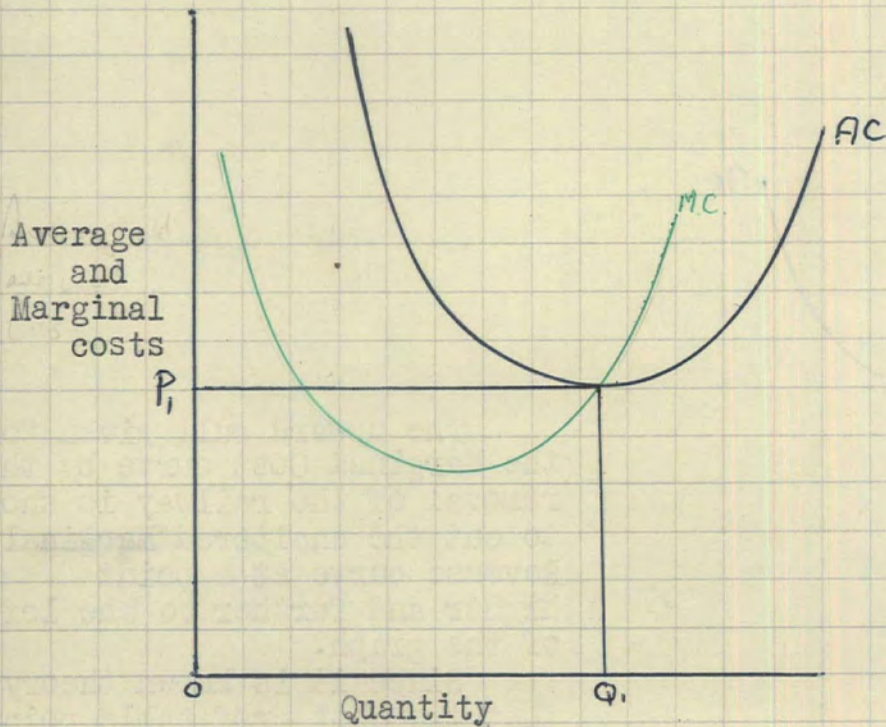


This shows how the profitability of a venture to attract more custom to the Railway by providing an improved level of service at a higher cost, depends on the ratio of the difference between $TR_1.$ and $TC_1.$ to the difference between $TR_2.$ and $TC_2,$ in theory.

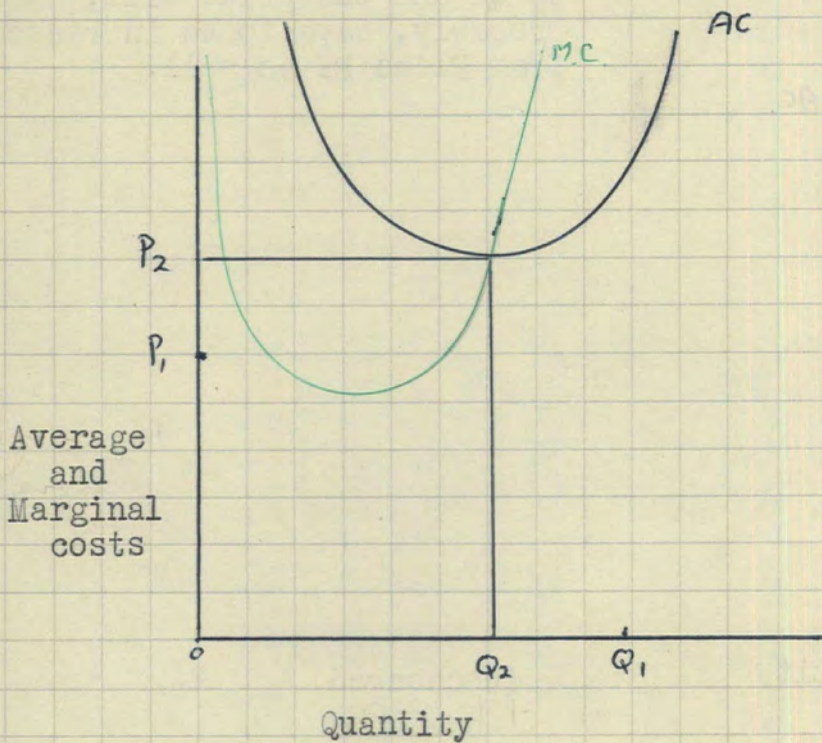
But in practice, since the improved service is to be compared by the traveller not with the old service but with the service provided by his newly acquired motor car, the profitability of the venture is seen to be much less likely since TR_{2A} only cuts TC_2 at a higher point and at a smaller angle (it need not cut it at all) because some travellers find even the improved service less attractive than the service of their recently acquired cars.

DIAGRAM 6A

1) Before Closure



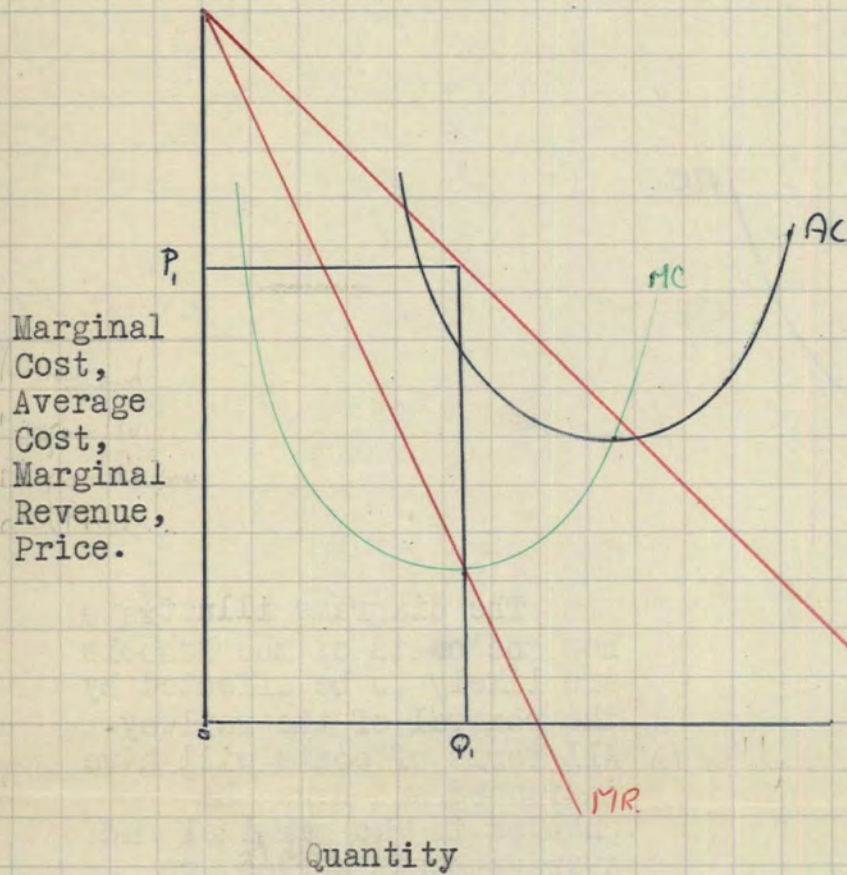
2) After Closure



The diagrams illustrate how the costs of the Schools are likely to be affected by the removal of the railway. All forms of costs will have increased and here the changes in the marginal and average costs curves are shown to have been pulled upwards and to the left. The significance of this pull is seen in Diagram 6B.

DIAGRAM 6B.

1) Before Closure



The upward pull given to the Marginal Cost curve by the removal of the railway is shown to cut the unaltered Marginal Revenue curve at a point higher and further to the left of the graph.

Since it is known theory that the most profitable point of production is where $MR = MC$, the effect of the upward pull is to make the most profitable point of "output" for the Schools fall from Q_1 to Q_2 and the price will, probably, have to be increased from P_1 to P_2 as well.

2) After Closure

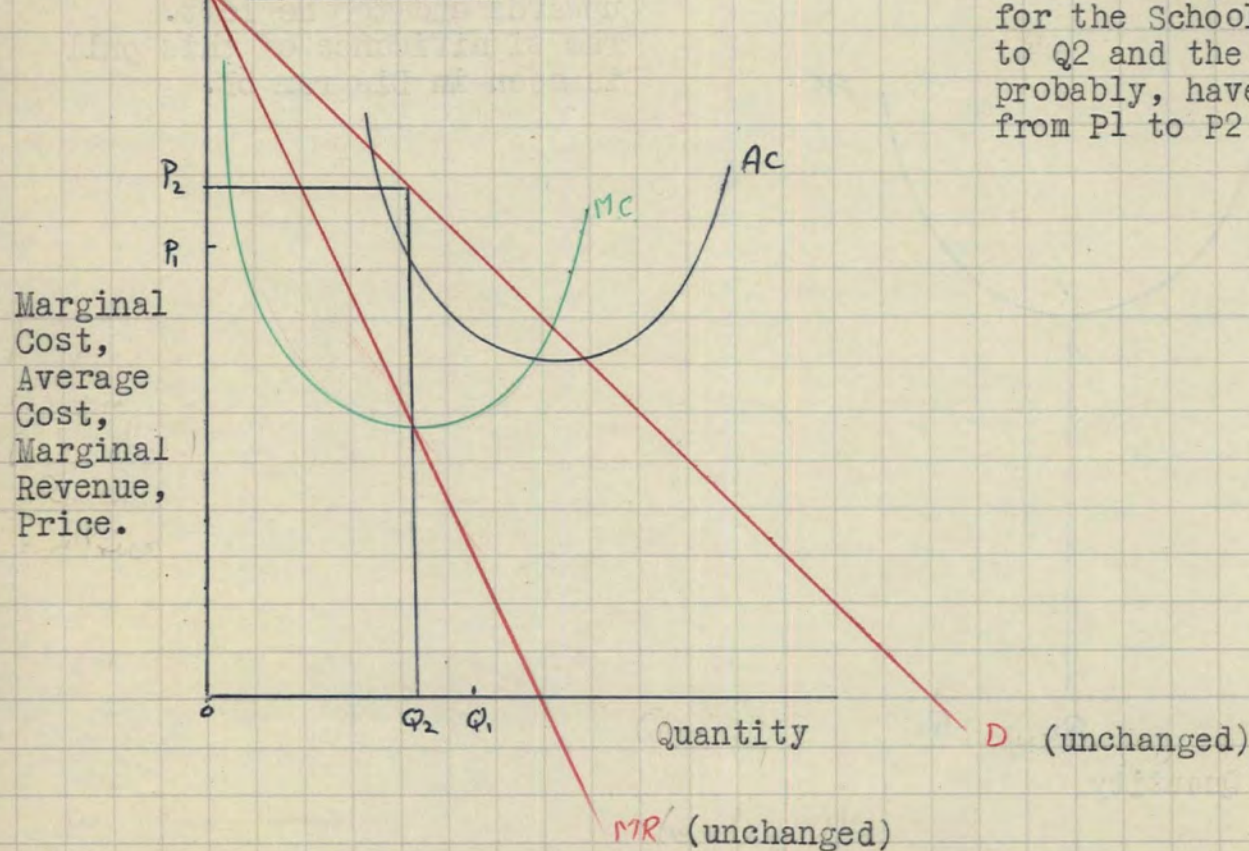


DIAGRAM 7

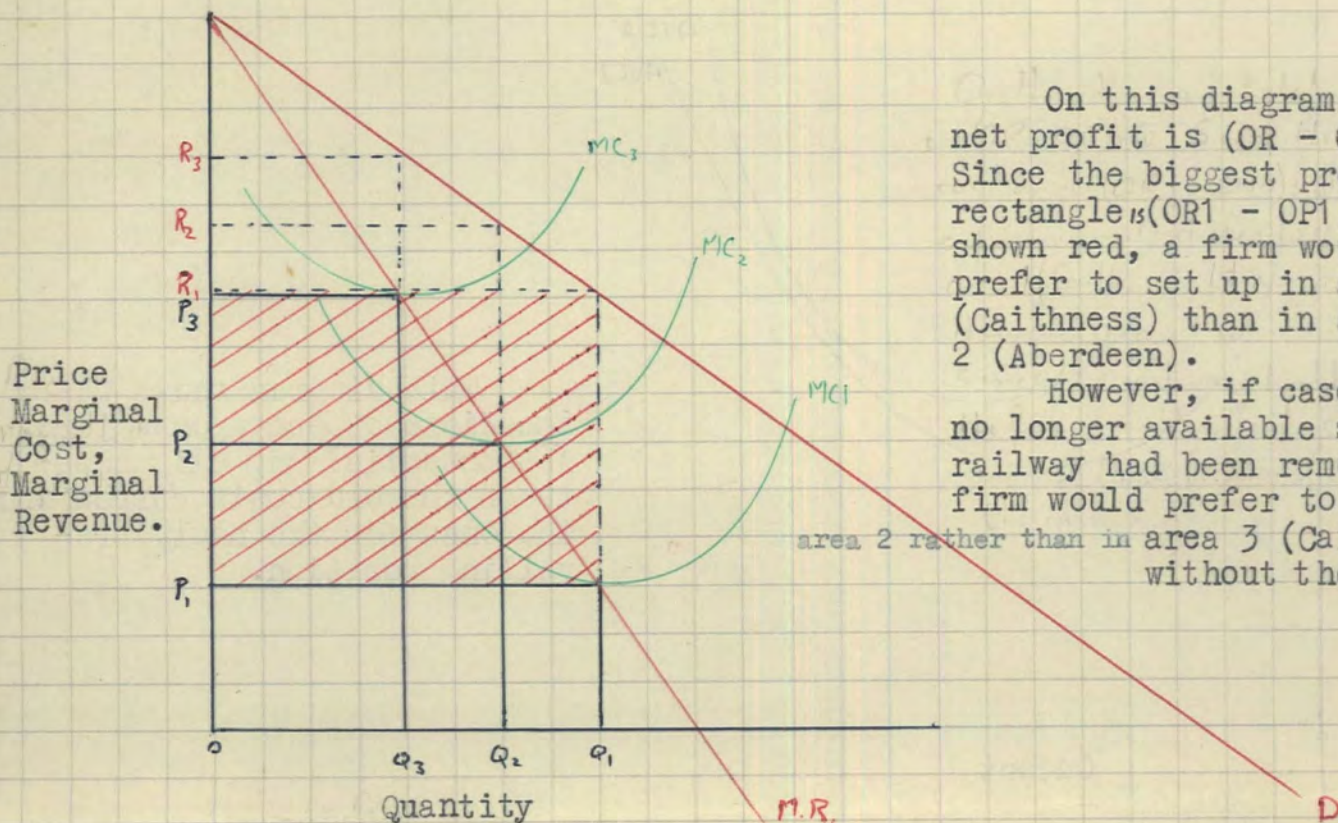
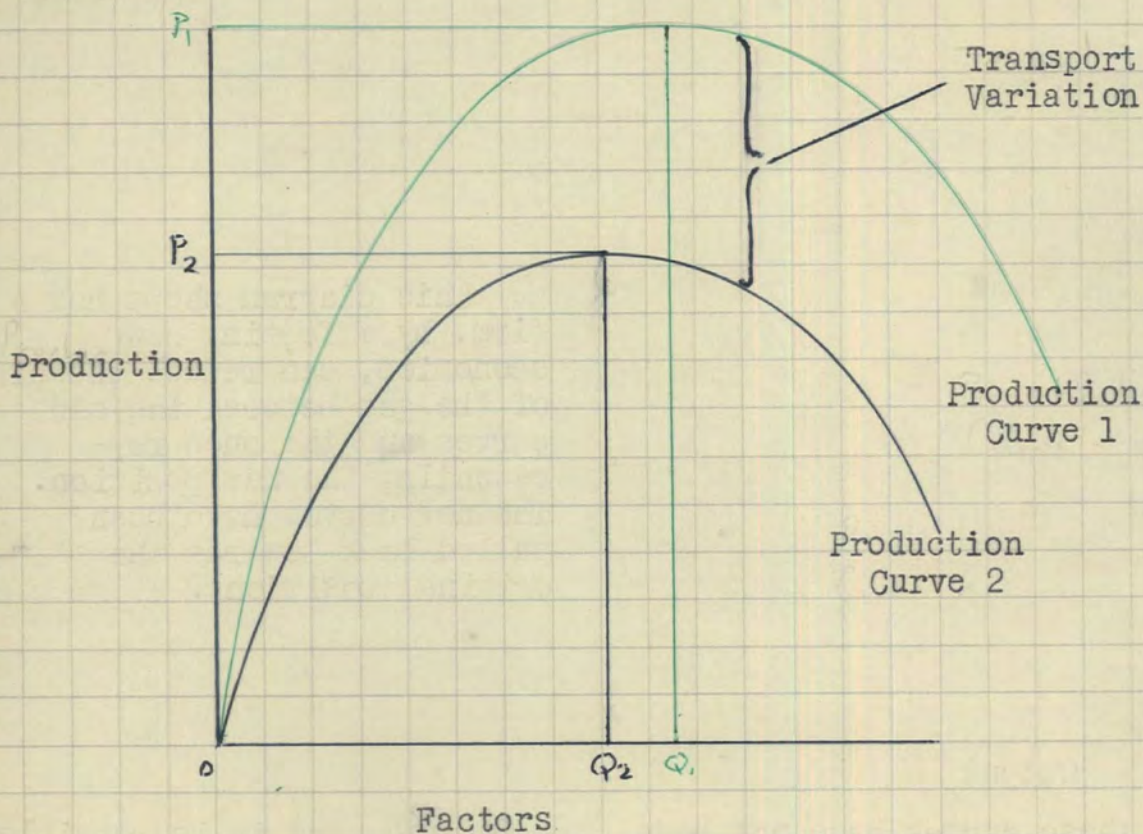
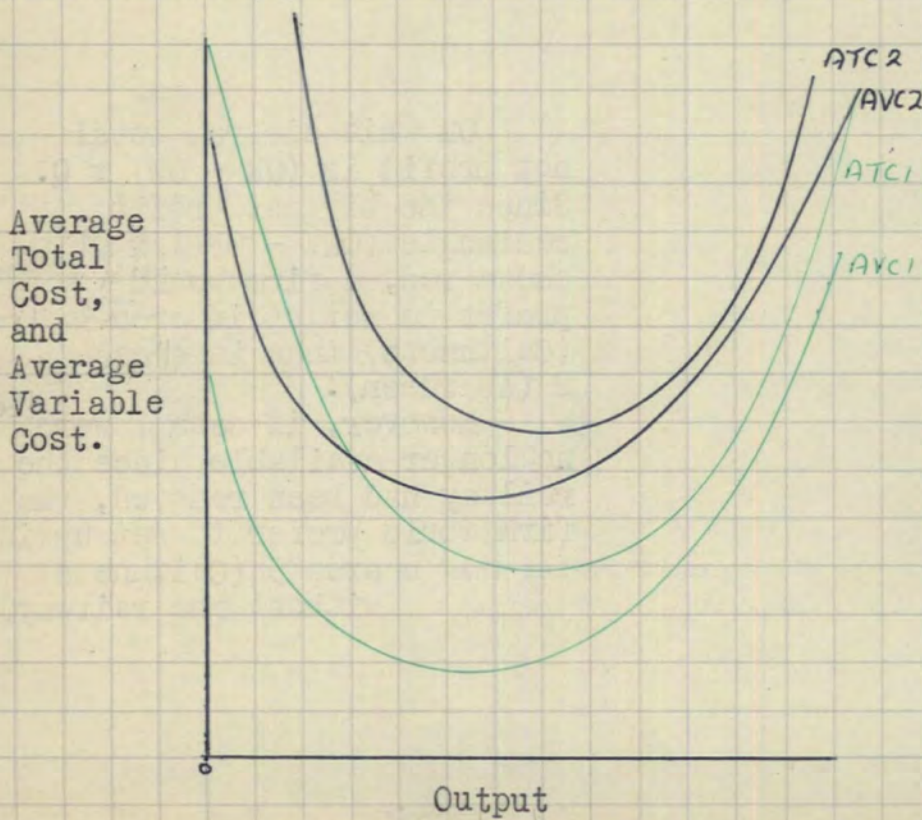


DIAGRAM 8A



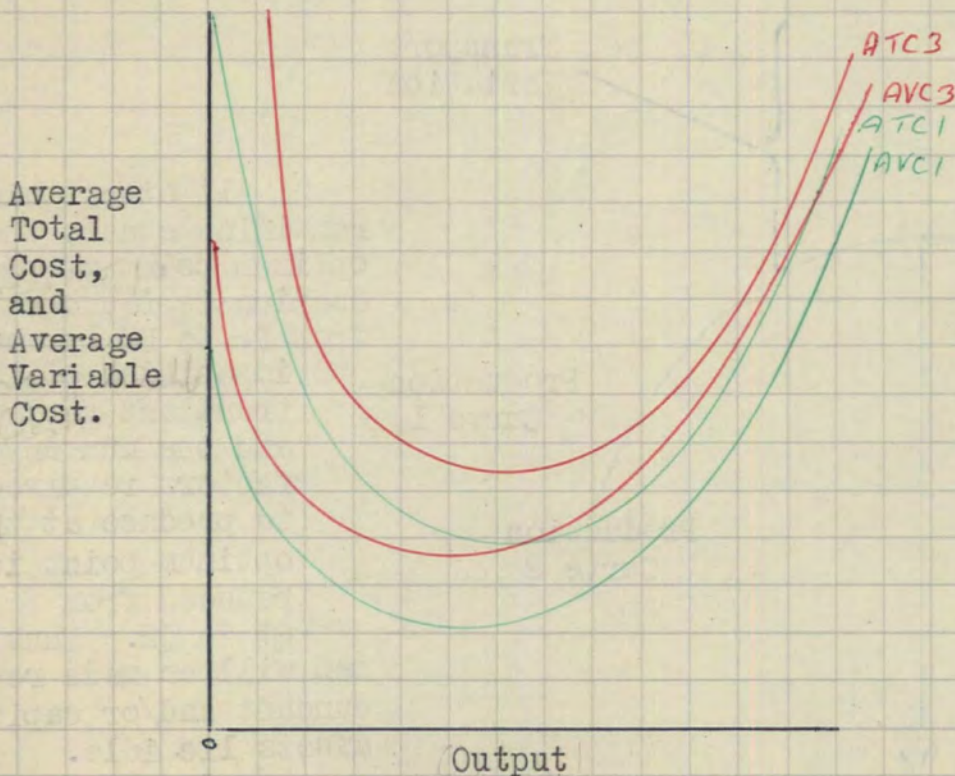
All other things remaining equal, the optimum point of production is reduced from $P1$ to $P2$ by the imposition of the transport variation and the number of factors required to produce at that optimum point is reduced from $Q1$ to $Q2$. Thus men will be made redundant and/or capital assets lie idle.

DIAGRAM 8B i) Immediate effect of higher transport costs



This diagram shows the immediate effect upon a firm. A substantial gap exists between the old costs curves and the ones for the newly prevailing position.

DIAGRAM 8B ii) Eventual effect of higher transport costs

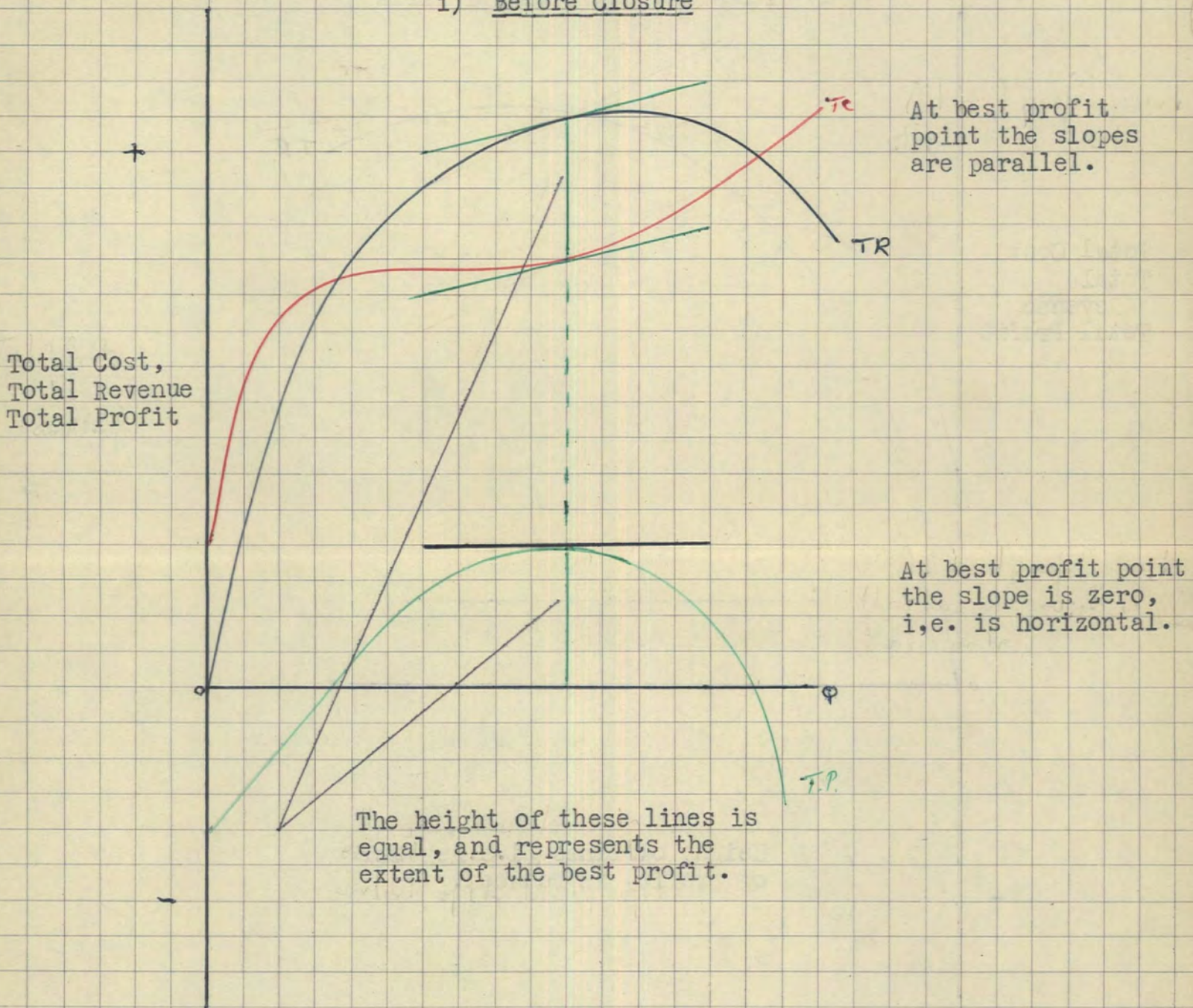


This diagram shows how a firm, by effecting new economies, can reduce the size of the gap between the old curves and the ones representing the new position. The new curves have been pulled back towards the original positions.

NOTE: For clarity these curves have not been superimposed, but it is possible that such a position could be reached.

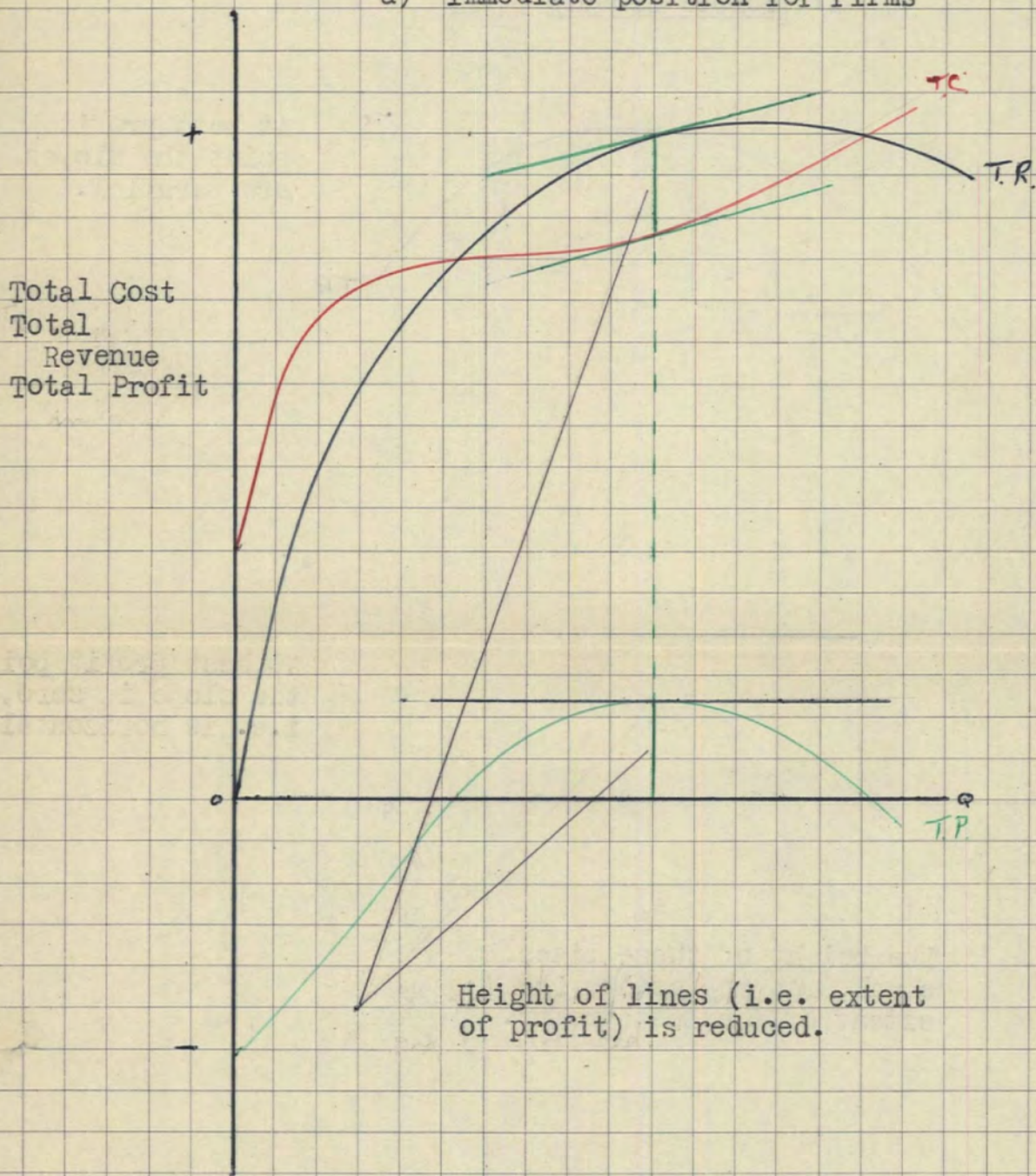
FIRMS AS SHOWN BY TOTAL CURVES

i) Before Closure



ii) After Closure

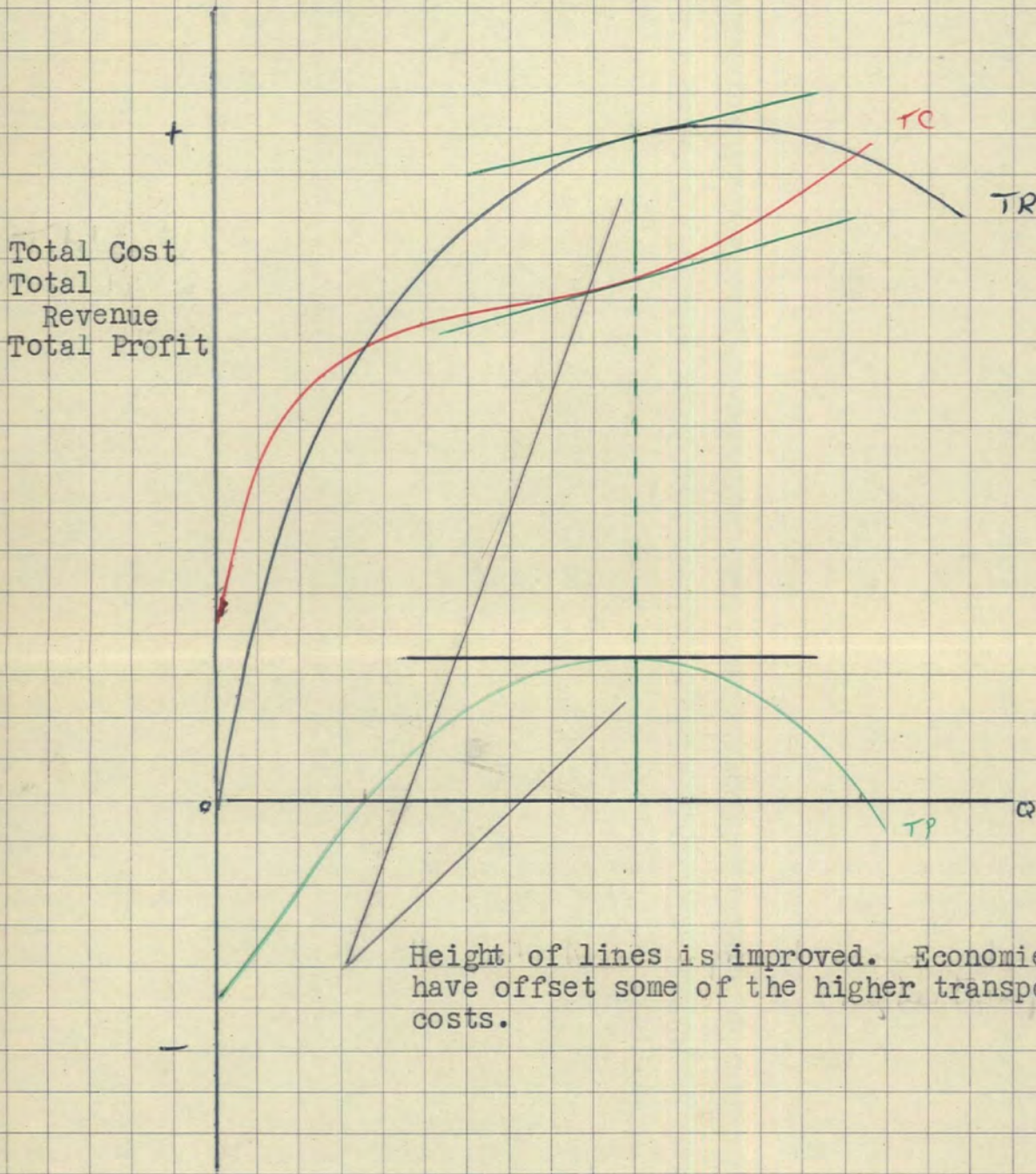
a) Immediate position for firms



For firms already operating at maximum efficiency this will be the final resulting state.

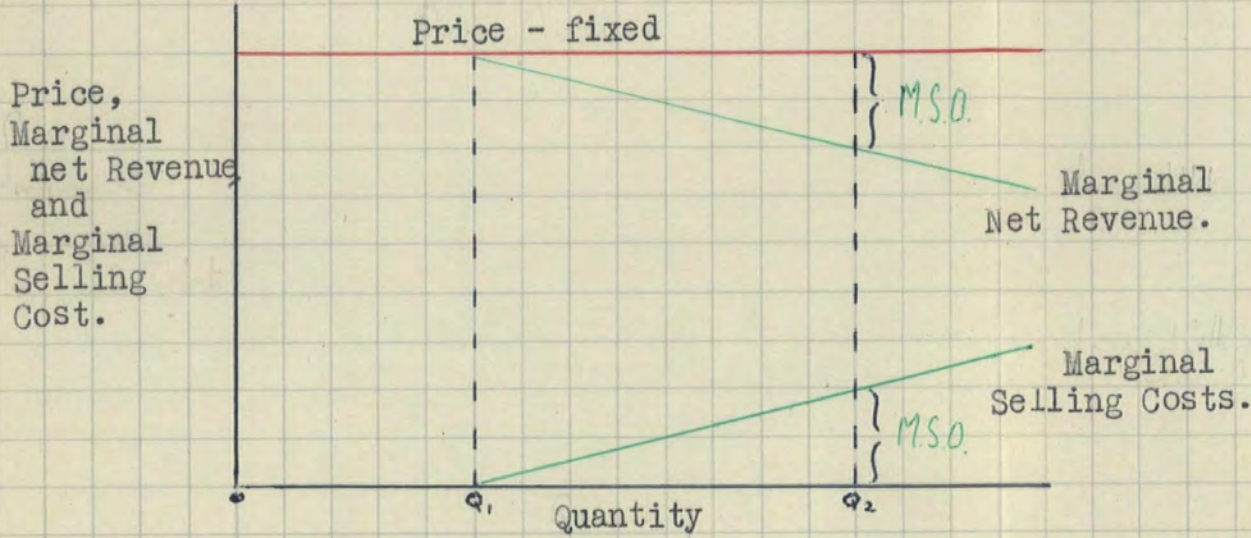
ii) After Closure

b) Eventual position for some firms.



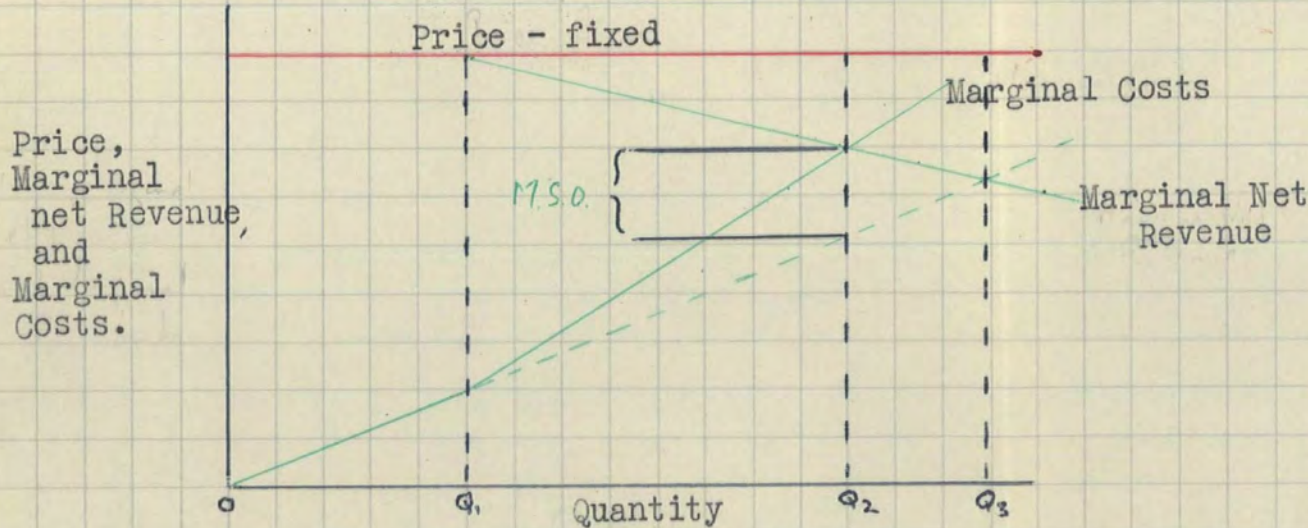
Those firms which can make further economies are seen to be able to push their costs curve away from their revenue curve towards its original position.

DIAGRAM 10



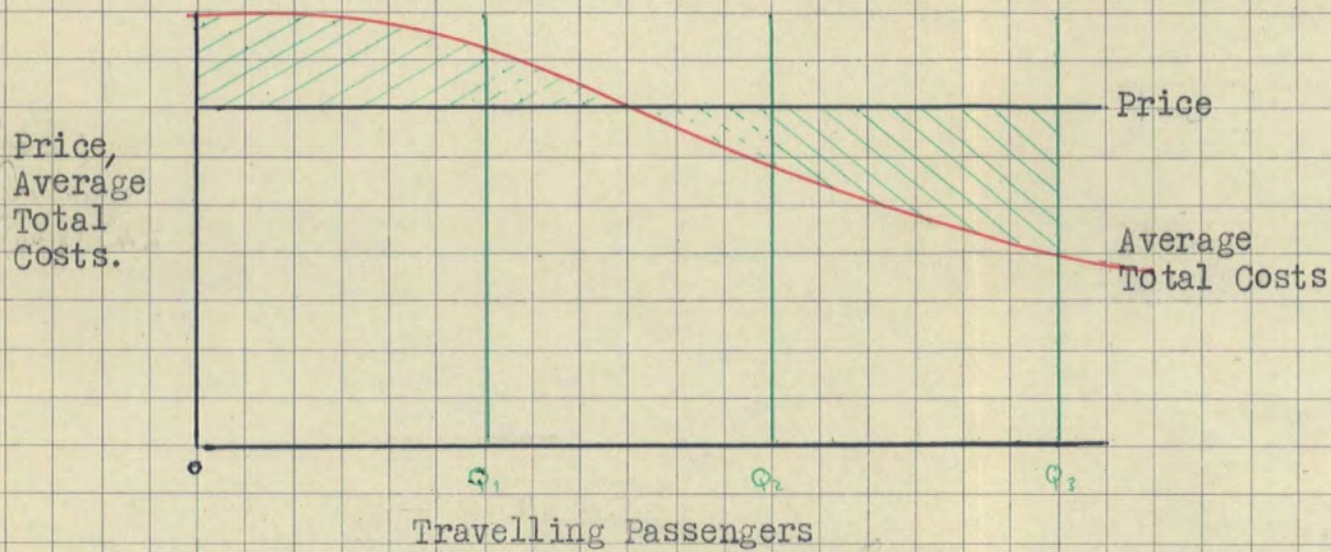
This diagram shows how a transport service is able to sell a certain amount of its service at the fixed price, but beyond that amount selling costs are incurred as devices are employed to sell additional units of service.

The cost of selling an additional unit may be described as a Marginal Selling Outlay.



This diagram shows how the transport service determines its "output". It is known that the best profit will be made where Marginal Cost equals Marginal Revenue, but because of the Marginal Selling Outlay incurred in selling Units beyond Q_1 the output is pulled back from Q_3 to Q_2 .

DIAGRAM 11



	Travelling Passengers		
	Poor Days	Average Days	Good Days
Frequency	$\frac{9}{12}$	$\frac{1}{12}$	$\frac{2}{12}$

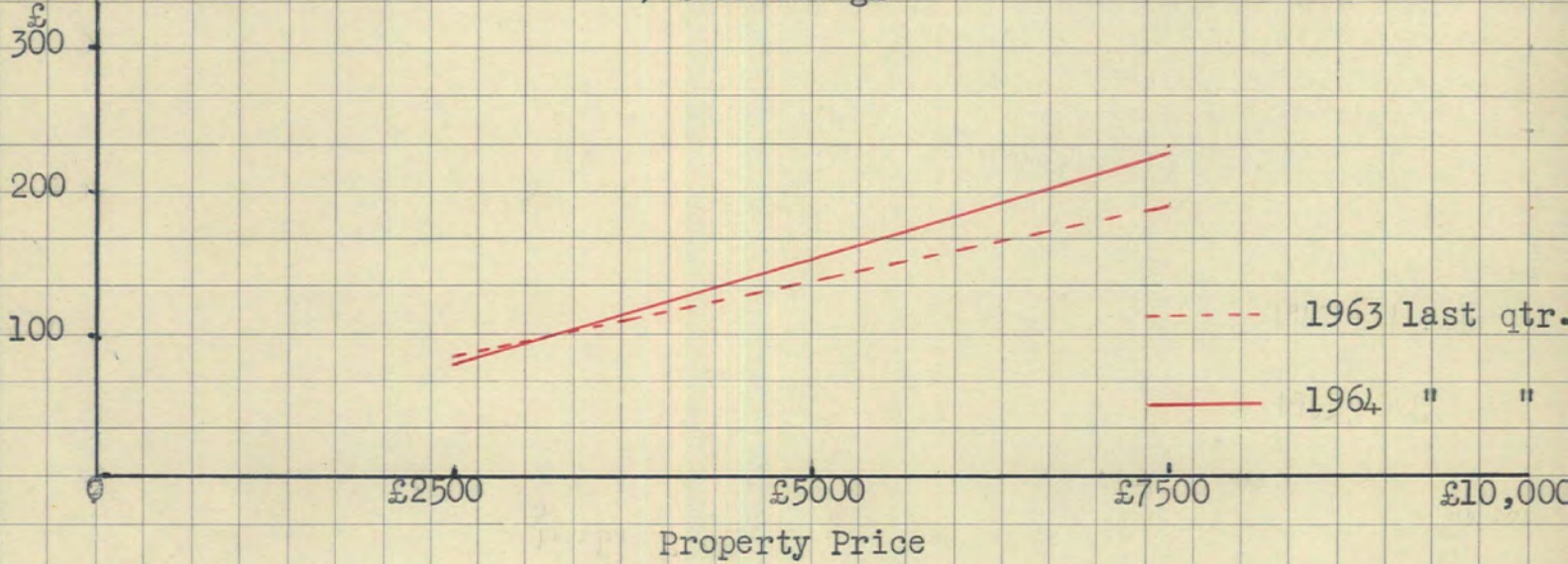
This diagram accounts for the alleged financial position of the railways.

A small, but regular loss is made on about $\frac{9}{12}$ of the operating days, where, because only 0- Q_1 passengers use the service, the costs per passenger always exceed the fare paid. On average days there is a breaking even, whilst on good days a substantial profit is made because costs per passenger are lower than the fare paid. However since these good days are limited to the summer months and only represent about $\frac{2}{12}$ of the operating days the profit is insufficient to balance the steady losses in the rest of the year.

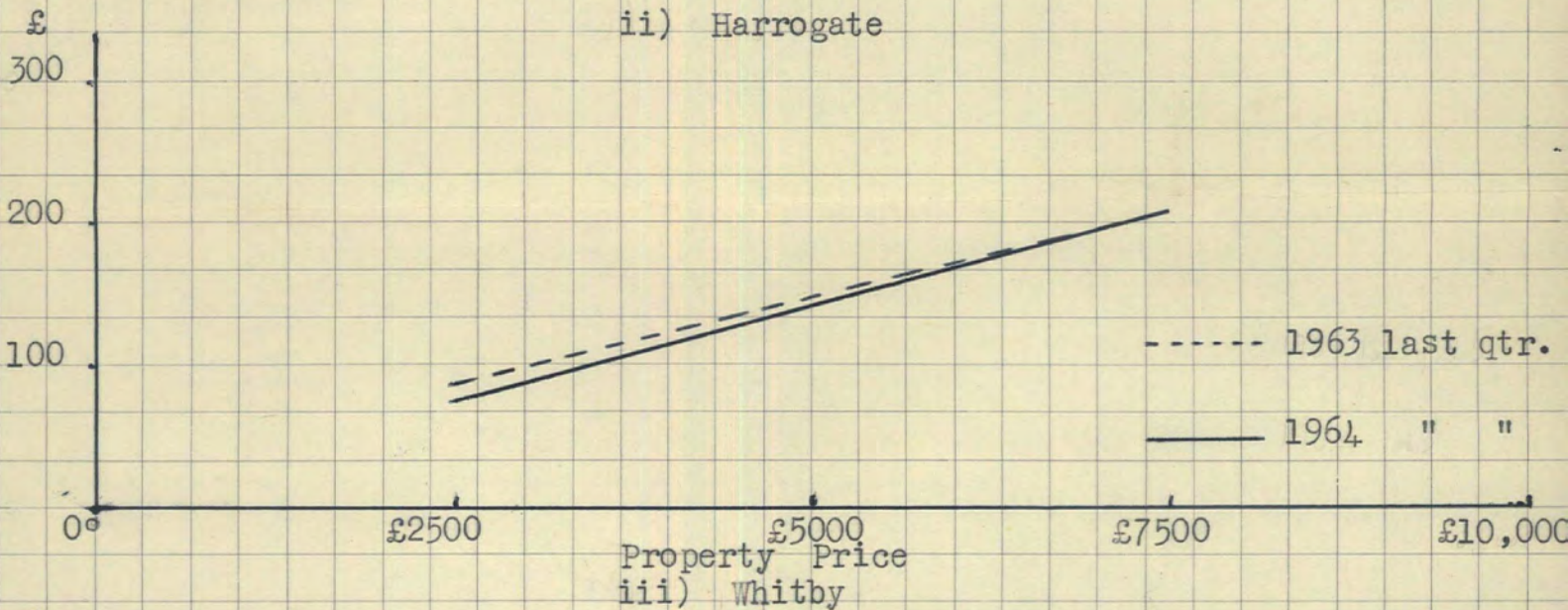
Comparison of Property Values in
Whitby, Scarborough and Harrogate, 1963 with 1964

Rateable Value

i) Scarborough



ii) Harrogate



iii) Whitby

