Scottish Government

Assessment of the Impacts of the Road Equivalent Tariff Pilot

Final Report

July 2011

Halcrow Group Limited

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1.1 ***Background***

1.1.1 Ferry services are integral to supporting Scotland's island communities. The remote islands of Scotland suffer the inherent disadvantage of distance from mainland markets, public services and social and cultural facilities, making them amongst the most peripheral communities in Europe. The Scottish Government recognised concern within these fragile communities that they were further disadvantaged by the expense of ferry travel and the impact this has on islanders' lives, the local economies and the wider national economy. It therefore decided to introduce a Pilot scheme to explore the effect of lower ferry fares on island communities. This report considers the impact of this Pilot.

1.2 ***Road Equivalent Tariff – the pilot scheme***

1.2.1 The Road Equivalent Tariff (RET) is a theoretical means of setting ferry fares based on the cost of travelling an equivalent distance by road. The intention behind RET is that it reduces the economic disadvantage suffered by remote island communities, and that it will therefore enable the islands to make a bigger contribution to the economic prosperity of Scotland. In August 2007 the Scottish Government announced its intention to establish a pilot scheme to investigate the most effective and sustainable structure for RET, which was subsequently introduced in the Western Isles, Coll and Tiree.

1.2.2 The RET Pilot Project comprised a number of stages:

- A review of approaches to fare setting for public service ferries in other countries;
- A consideration of definitions of RET that could be applied to all categories of passenger and vehicular traffic;
- The design and implementation of a Pilot study on one or more of the routes connecting the Scottish mainland and the Western Isles;
- Develop a framework for evaluation of the Pilot; and
- Gathering baseline information gathering in advance of the Pilot, and then further data throughout the first two years of Pilot fares scheme for subsequent evaluation purposes.

1.2.3 Further background on the approach adopted in the setting of the RET fares can be found in the *RET - Phase 1 Stage 2 (2008) report* [1].

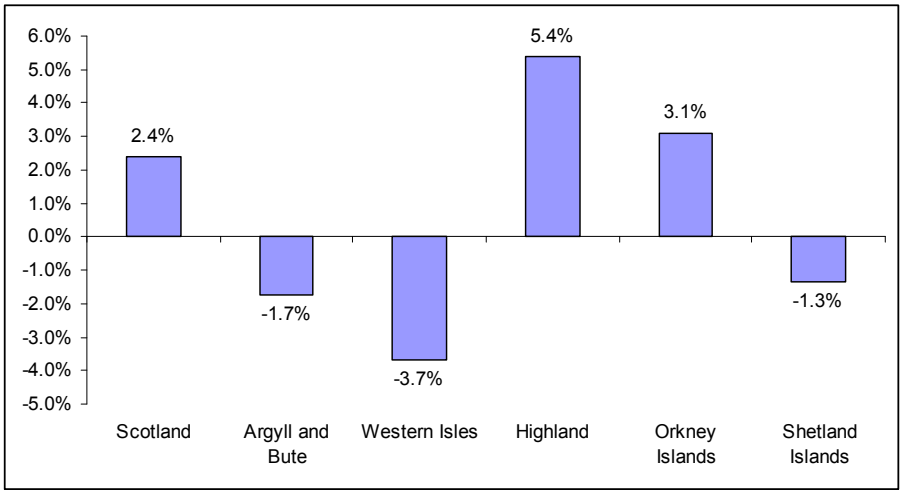
1.3 *The Pilot area*

1.3.1 The location for the RET Pilot was determined by the Scottish Government after consideration of the evidence of economic problems arising within different island communities, but also bearing in mind the need for a self-contained area in which the concept could be piloted and monitored.

Economic Context

1.3.2 Figure 1.1 shows population change in principal island groups of the Western Isles, the Shetland Isles, Orkney Isles, Highland, Argyll and Bute and in Scotland as a whole over the period 1999-2009.

Figure 1.1: Population change 1999 – 2009



Source:: NOMIS

1.3.3 Historically the Western Isles have experienced a declining population and, as Figure 1.1 shows, the Western Isles experienced a greater decline in population relative to other areas between 1999 and 2009. Population projections estimate the

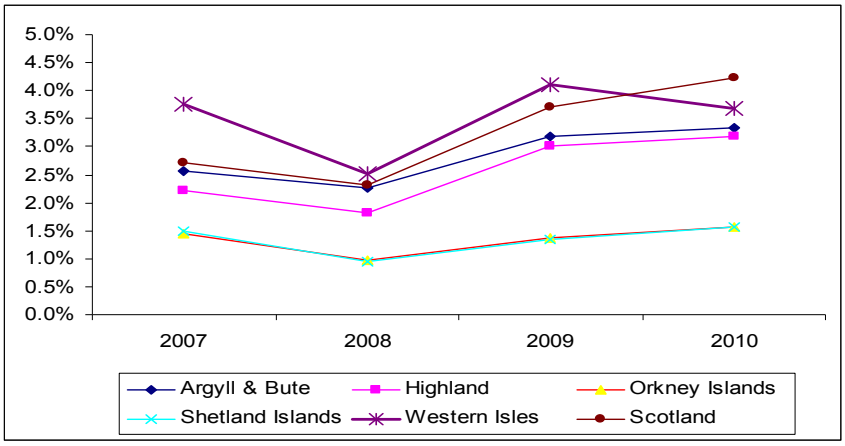
[1] Available on the Scottish Government website at www.scotland.gov.uk/Topics/Transport/ferries-ports-canals/14342/TARIFF. Reports for Stage 1 and Stages 3 – 5 can also be found at this link.

population of the Western Isles will decline further over the next 15 years, from 26,200 (2009 estimate) to 22,410 in 2024 [2], a drop of 15%

1.3.4 The Western Isles economy has also experienced higher rates of unemployment compared to other parts of the Highlands and Islands as illustrated in Figure 1.2.

1.3.5 The working age population on the Western Isles experienced a rise of 4.2% over the period 2007 to 2009 despite a small drop in the total population over the same period. However, this compares with larger rises elsewhere in Highland (6.4%), Shetland (6.2%), Orkney (5.7%), Argyll and Bute (4.5%) and Scotland as a whole (5.8%).

Figure 1.2 : Unemployment claimants as a percentage of working age population



Source: NOMIS. Notes: Data are for March each year.

1.3.6 Table 1.1 presents a comparison of Gross Value Added (GVA), a key economic statistic, between the Western Isles, other remote island economies and Scotland as a whole. GVA provides a measure of the income generated from the production of goods and services. GVA per head provides a measure of the relative prosperity of different communities. The data show that the Western Isles have lower per capita wealth than Scotland as a whole or either of the Northern Isles.

[2] Comhairle nan Eilean Siar – Population Projections (www.cne-siar.gov.uk/factfile/population/projections.htm)

Table 1.1: Key economic statistics

Economic factor	Western Isles	Shetland	Orkney	Scotland
Mid-year population estimate (2009)	26,180	22,210	19,960	5,194,000
GVA (2008) (£ million)	358	429	317	103,532
GVA per head* (2008) (£ per head)	13,669	19,507	15,958	20,031

Source:: General Registers Office for Scotland and Scottish Government

Ferry Routes

1.3.7 The ferry routes to the Western Isles also constituted a relatively self-contained area of sufficient scale to enable the impact of the reduced fares Pilot to be evaluated.

- The area is served by four ferry routes and with no land route alternative (unlike some peninsular ferry services);
- These are medium range ferry crossings (though including routes of varying length), neither representing the shortest nor the longest routes in the Scottish network;
- The area is diverse in economic characteristics; and
- The Western Isles is a significant geographic unit for which historic and secondary data would be available.

1.3.8 In summary, the Western Isles have been historically characterised by higher levels of declining population and poorer economic performance in comparison to other parts of Scotland served by the ferries network and also Scotland as a whole. For these reasons the Western Isles are regarded as a particularly fragile economy and in view of concerns about the impact of ferry fares on island economies and communities the routes serving the Western Isles were identified as those on which a pilot should operate.

1.4 ***Road Equivalent Tariff - the detail***

1.4.1 The RET Pilot began operation on 18th October 2008. The Pilot was initially due to operate until spring 2011, however the Scottish Government announced in August 2010 the Pilot would be extended by one year and continue operating until spring 2012.

1.4.2 The Pilot is operating on all services between the Western Isles and the Scottish mainland, namely:

- Ullapool – Stornoway;
- Uig – Tarbert/Lochmaddy; and
- Oban – Castlebay/Lochboisdale.

All the routes in the Pilot are operated by CalMac.

1.4.3 The Oban – Castlebay/Lochboisdale service includes a sailing between Oban and Castlebay via Coll and Tiree in the summer. The introduction of RET on the longer Oban – Castlebay/Lochboisdale route would have resulted in fares falling below the current fares on the Oban – Coll/Tiree route and thereby provide an incentive for passengers travelling to Coll and Tiree to purchase through tickets for Castlebay/Lochboisdale. There was therefore a risk anomalies with the through fares on this route would distort demand and as a result the RET fares were also applied to the route between Oban – Coll/Tiree.

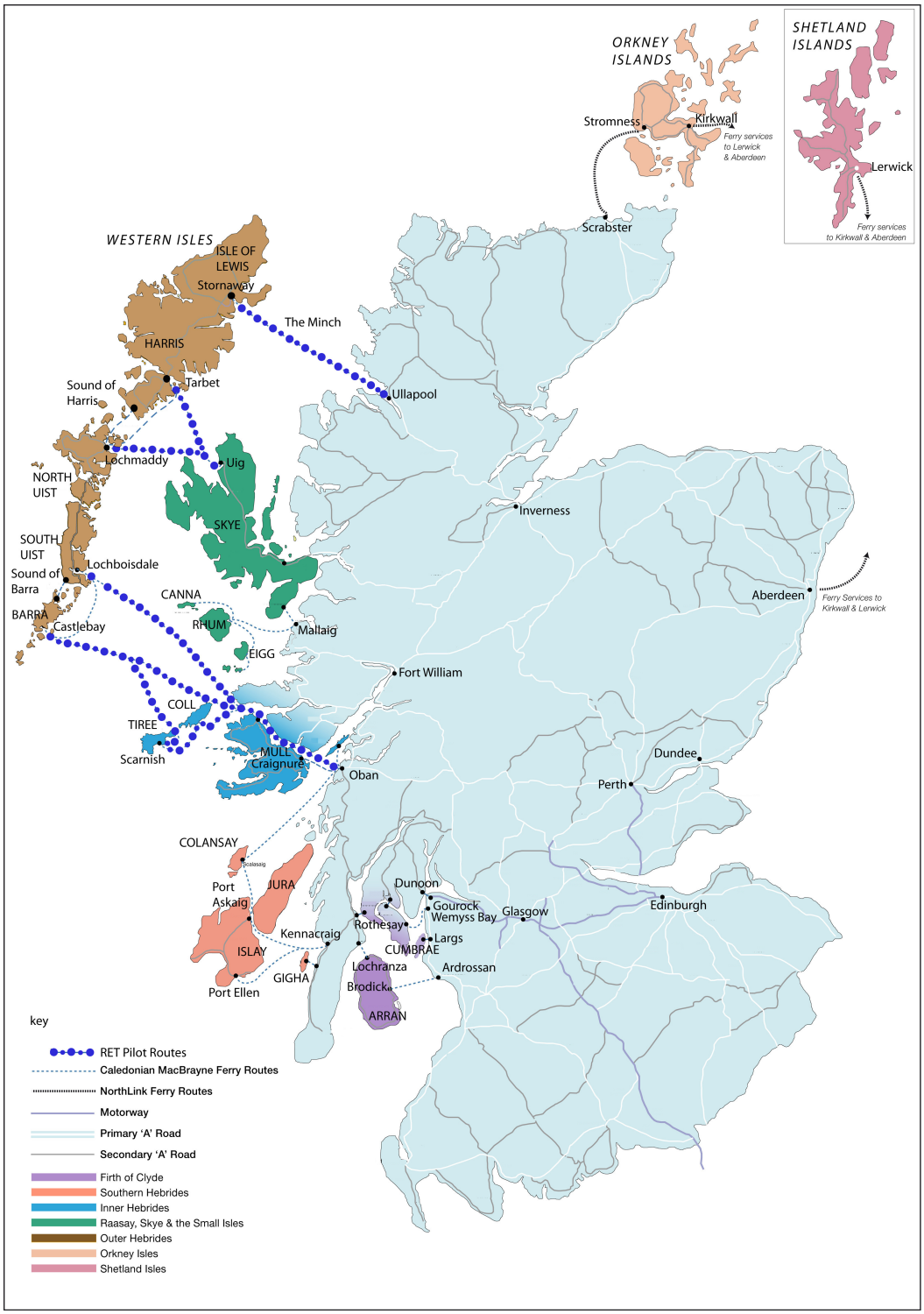
1.4.4 The length of RET routes are exceeded only by the services to Orkney and Shetland from Aberdeen. The frequency of sailings ranges from two crossings per day on the Ullapool – Stornoway service to one per day on the Oban – Castlebay / Lochboisdale crossing in the summer. In the winter the frequency on a number of the routes (Oban – Coll / Tiree and Oban – Castlebay / Lochboisdale) reduces to approximately three sailings per week.

1.4.5 Inter-island trips are possible on parts of the mainland services i.e. Lochboisdale – Castlebay and Tarbert – Lochmaddy, but the fares on these sections of route are not included in the Pilot. Neither are the inter-island routes between Leverburgh and Berneray (Sound of Harris) and Eriskay and Barra (Sound of Barra). The Western Isles Council currently provides a subsidy of 30% of the fare for commercial vehicles travelling on these routes.

1.4.6 A dedicated freight ferry service also operates between Ullapool and Stornoway on a daily basis and enables freight goods from the mainland to reach Stornoway by 8.30am. This service provides an alternative for commercial traffic to the passenger service and in doing so helps to manage demand on this route. The RET fares do not apply to the freight service between Ullapool – Stornoway.

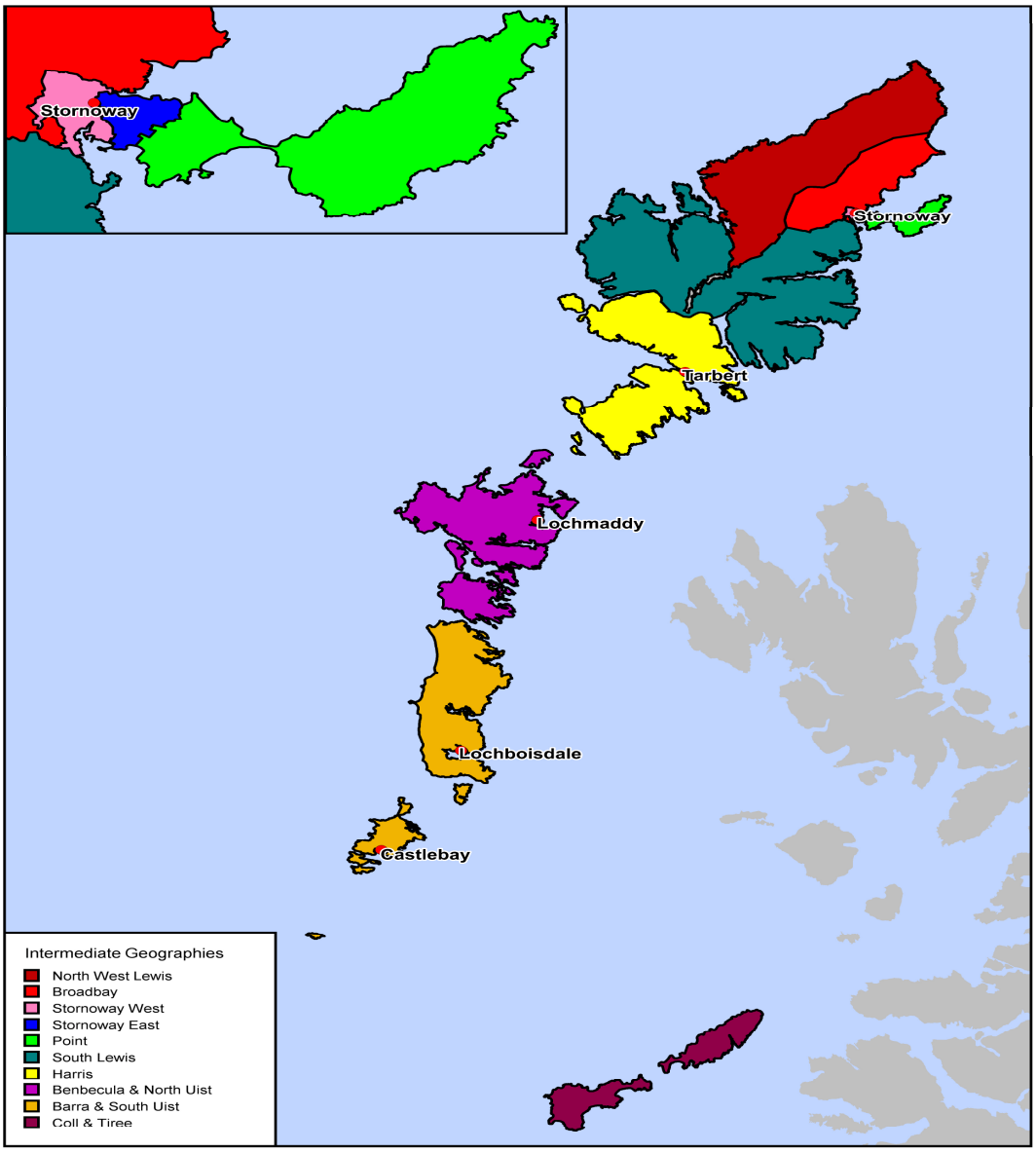
1.4.7 Figure 1.3 illustrates the Clyde and Hebridean routes across Scotland and also the routes to the Northern Isles. The RET routes are highlighted in dark blue.

Figure 1.3: RET ferry routes



1.4.8 Figure 1.4 shows the local geography of the Pilot area and identifies the local areas used for some for the data [3] later in this report.

Figure 1.4: RET Pilot area showing local geography



[3] *Coll and Tiree are grouped together with Mull and Iona and form one Intermediate Geography Area, therefore all secondary data for Coll and Tiree is for Coll, Tiree, Mull and Iona combined.*

1.4.9 For RET the vehicle fares were based on prices which reflected the cost of driving the equivalent distance. The passenger fare was calculated with reference to the fare per mile on other public transport modes in Scotland, and as a share of the fare for a passenger vehicle, with consideration given to experience in other countries.

1.4.10 From this analysis it was concluded that the structure of the fares adopted should be that of a core fare added to the fare per mile. This structure is commonly found in the fares for other transport modes, including the costs of car ownership and operation, and fares typically applied to both bus and rail services. The core fare reflects the need to pay a fixed cost element for each route, such as (in the case of ferries) the cost of maintaining the harbour infrastructure at both ends of the route and the cost of maintaining the vessels. The basis of the fares structure for the RET Pilot was the core fares and rates per mile presented in Table 1.2.

Table 1.2: RET Pilot fares structure

	Passengers	Cars	CVs/Buses
RET fare per mile	£0.10	£0.60	£0.18 per metre
Core fare per route	£2.00	£5.00	£20.00

1.4.11 Based on the fares structure presented in Table 1.2, the fares applied to the RET ferry services are those shown in Table 1.3, which also shows the fares which applied immediately before the RET Pilot was introduced.

Table 1.3: Sample fare comparisons before and after RET was introduced

	Oban - Coll / Tiree	Oban - Castlebay / Lochboisdale	Uig - Tarbert / Lochmaddy	Ullapool - Stornoway
Passenger Fares				
Fares pre-RET	£11.40	£18.75	£8.55	£13.25
RET fares	£7.97	£10.95	£4.92	£7.22
percentage reduction	30.1%	41.6%	42.5%	45.5%
Car Fares				
Fares pre-RET	£67.00	£68.50	£41.00	£63.50
RET fares	£40.83	£58.69	£22.52	£36.32
percentage reduction	39.1%	14.3%	45.1%	42.8%
Commercial Vehicle Fares				
Fares pre-RET	£241.82	£323.83	£181.42	£257.56
RET fares	£149.79	£212.75	£85.26	£133.90
percentage reduction	38.1%	34.3%	53.0%	48.0%

2008 fares based on half summer 5 day saver return ticket

1.4.12 The fare reductions ranged from 14.3% for a single car fare on the Oban – Castlebay/Lochboisdale route to 53% for a commercial vehicle (CV) fare on the Uig – Tarbert/Lochmaddy route. Passenger fares fell by on average 40%. In introducing the RET fares, all previous discounts were removed. These had included discounts for multi-trip tickets and off-season discounts for island residents. However the Scottish Government made a commitment that no subsidised ferry fares would increase under the new structure. Where the RET fare would be higher then the lower fare remained in place. For example the RET vehicle fare on the Oban – Castlebay/Lochboisdale route was only £48.50 for island residents in the winter months, and this became the fare throughout the year under RET rather than £58.69 suggested by the formula.

1.5 Structure of the Report

1.5.1 The remainder of the report is structured as follows:

- **Chapter 2** – describes the approach taken to the evaluation of the Pilot Scheme and sets out the monitoring programme and work undertaken to gather data to asses the impacts of the Pilot. It includes information on the approach to the assessment and data analysis presented and discussed in later chapters, including the wider context within which RET has operated;
- **Chapter 3 –** examines the changes in passenger, vehicle and freight carryings across the RET Pilot services and compares this experience with the rest of the Scottish ferry network over the initial two-year period of the RET Pilot;
- **Chapter 4 –** explores the impact of changes in carryings of peak period demand and capacity;
- **Chapter 5** – assesses the effect of the Pilot on the level of tourist traffic and the impact on tourist business;
- **Chapters 6** – explores the effect of the lower fares policy in relation to other business sectors;
- **Chapter 7 –** examines the changes wider economic impacts of the Pilot;
- **Chapter 8** – presents an assessment of the impact of RET on the quality of island life;
- **Chapter 9** – explores the environmental impact;
- **Chapter 10** – presents a discussion of the issues surrounding a national roll-out of the RET scheme; and
- **Chapter 11** – concludes with a summary of the key findings of the analysis.

2 Approach to Evaluation

2.1 ***Introduction***

2.1.1 This Chapter describes the approach to the assessment of the impacts of the RET fares and the monitoring programme to gather the data which underpins the analysis reported in subsequent chapters.

2.1.2 The RET Pilot Project set out to understand through a real-life pilot how a change in ferry pricing can influence transport decisions in remote islands and, more importantly, the consequent impacts on the island economies and communities. This study therefore examines the change in travel demand following the price change, the impact that this has had on the economy of the islands, and the impact this has had on the perceived quality of island life.

2.1.3 The assessment comprises a qualitative evaluation supported by a quantitative analysis as far as possible to understand how and the extent to which RET has impacted on the Western Isles, Coll and Tiree. Ultimately this assessment will provide the Scottish Government with evidence of the overall range and extent of the economic, social and environmental impacts of RET.

2.1.4 This approach to assessment can be referred to as 'goals free evaluation' where the focus is on the *"actual effects or outcomes of some policy, programme or project, without necessarily knowing what the intended goals might be."* [4] Goals free evaluation is interested in exploring a range of consequences (both positive and negative) of a policy, programme or project rather than focusing on whether the outcomes meet predetermined objectives. Goals free evaluation is particularly appropriate to a Pilot which aims to explore a wide range of impacts from an experimental approach.

2.1.5 The assessment goes further than analysis of traffic effects and examines the economic, social and environmental impacts of RET. It has been structured largely around a series of hypotheses, informed by discussions with the Scottish Government and discussions with a Stakeholder Group during earlier phases of the study, to understand the impacts (both positive and negative) of RET.

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[4] *The Magenta Book: Guidance Notes for Policy Evaluation and Analysis* (Cabinet Office, 2003).

2.1.6 The assessment will primarily allow the opportunity to consider the short-term impacts of RET over the first two years of the Pilot. While it is of importance to monitor and assess the short-term impacts of RET for island communities, it is also important to recognise that medium to longer term impacts (e.g. population and housing and land prices) may also emerge beyond the period of this Pilot.

2.2 ***Wider context***

2.2.1 In assessing the impacts of RET it is of importance to try and isolate the impact of RET from other factors that could potentially influence any changes identified in the Pilot area.

2.2.2 Since the RET Pilot commenced in October 2008 there have been a number of external factors affecting ferry traffic that need to be taken into account when drawing conclusions from this evaluation.

2.2.3 Key factors which require consideration in this context include:

- **The wider economy** - As a result of the global financial crisis most economies worldwide, including the UK, fell into recession late in 2008. This continued for 18 months covering most of the RET Pilot period. The Scottish unemployed claimant count averaged 3% of the working age population during 2007, and fell to around 2% over 2008, but then rose sharply toward 4% by 2010.
- **Tourism** - The world recession has had a major impact on leisure travel during the Pilot period. One impact of the UK recession has been that there has been an increasing trend towards UK residents holidaying at home. In 2009, the weak pound relative to other currencies, most notably the euro also contributed to increasing the attractiveness of the UK and Scotland for visitors from overseas, and from the Eurozone in particular. VisitScotland data [5] show an increase of 6% in domestic UK overnight visitors to Scotland during the first six months of 2009 compared to the same period in 2008. Over this period, Scottish domestic tourism increased by 6.8% or 173,000 trips. VisitScotland data show that as well as an increase in UK holiday visitors, there was a 3.4% increase in the volume of European tourism in Scotland during the first six months of 2009 compared to the same period in 2008. This was particularly notable in a large growth in non – serviced accommodation i.e. self catering, camping and caravanning rather than hotels and guest houses. Short stays

[5] http://www.visitscotland.org/research_and_statistics.aspx

of 1-3 nights were also increasingly common (increase of 6% compared to the same period in the previous year), but stays of 4 nights or more were slightly down by 1%. According to VisitScotland, the shorter average stay was reflected in a decline of 6.1% in average tourist expenditure when compared to the same period in 2009

- **Homecoming Scotland 2009** - The first year of the Pilot coincided with Homecoming Scotland 2009, a campaign and programme of special events which served to boost Scottish tourism during an otherwise difficult economic period. VisitScotland research indicates that the programme of events generated £44million of extra tourism revenue to the Scottish economy. In an economic survey by VisitScotland, 65% of businesses questioned stated Homecoming had had an impact on tourism in Scotland.

2.2.4 A combination of factors mean the first year of the Pilot was not a particularly characteristic year with a number of unique circumstances occurring in addition to the launch of RET. Data gathered for areas outside the Pilot area were used to help to isolate potential impacts which may not be attributable to RET but result from other factors, such as general changes to economic conditions across Scotland.

2.3 ***Data collection***

2.3.1 The principal sources of primary research included a telephone survey of local businesses, face to face interviews with local hauliers and distribution companies, a household postal survey and face to face surveys undertaken with ferry passengers. This information has been supplemented by data from secondary sources, including data on ferry traffic, employment, business and tourist activity.

2.3.2 To support the assessment, data relating to other Scottish islands and the Scottish rural mainland were also gathered. This will help to identify trends occurring in the Pilot area that diverge from trends experienced elsewhere and in turn help to isolate the impact of RET from other economic and social factors. Baseline information was also collected in advance of the Pilot to allow a before and after comparison and help determine the impact of RET.

2.3.3 The different monitoring activities undertaken, with collection of data before and after the Pilot commenced as well as for non-Pilot areas, provides a dataset on which a robust assessment can be undertaken.

2.3.4 While the Pilot will continue through to spring 2012, the data on which the assessment is based cover the first two years of the Pilot. This in turn provides the opportunity for the results of the RET Pilot to inform a wider ferries review and also sufficient timescale for consideration of the long-term future of fares policy in Scotland in advance of the end of the current Pilot.

2.3.5 The following sections of this chapter provide an overview of the key areas of the monitoring and evaluation programme in turn:

- Ferry traffic data;
- On-board surveys;
- Residents' surveys;
- Business surveys;
- Tourism sector data;
- Haulage company interviews; and
- Economic data.

2.3.6 Full details about the monitoring programme and data gathered can be found in a separate report, *The RET Monitoring Programme – Method Report (2011).* [6]

2.4 ***Ferry traffic data***

2.4.1 The rationale for measuring ferry traffic is that, as RET has reduced the cost of ferry travel, it might be expected to see an increase in patronage on the RET affected routes relative to the rest of the network.

2.4.2 Ferry traffic data were supplied by CalMac and NorthLink throughout the first two years of the Pilot, covering routes within and outwith the RET Pilot. Historical data were also supplied to enable a comparison in trends across the network prior to the introduction of RET.

2.4.3 Ferry traffic data cover all sailings operated by CalMac from traffic ticket sales sources. It is therefore a 100% data count. Commercial vehicles are classified by vehicle size, and the amount of goods traffic is recorded by vehicle meters. Small vans however are treated as cars and thus the data does not distinguish between cars and vans. Small motor caravans are also classed as cars and will not be separately identified.

2.4.4 For the purpose of comparisons between ferry routes and services, ferry routes have been grouped as shown in Table 2.1.

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[6] Available on the Scottish Government website at www.scotland.gov.uk/Topics/Transport/ferries-ports-canals/14342/TARIFF.

Table 2.1: Grouping of Ferry Routes for analysis

RET Routes	Oban - Castlebay/Lochboisdale	Uig - Tarbert / Lochmaddy
	Ullapool – Stornoway	Oban – Coll/Tiree
Northern Isles Routes	Scrabster – Stromness	Aberdeen – Kirkwall
	Aberdeen – Lerwick	Kirkwall – Lerwick
Firth of Clyde Routes	Gourock – Dunoon	Wemyss Bay – Rothesay
	Ardrossan – Brodick	Largs – Cumbrae
	Colintraive – Rhubodach	Tarbert – Portavadie
	Claonaig – Lochranza	
Inner Hebrides Routes	Oban – Craignure	Lochaline – Fishnish
	Fionnphort – Iona	
Skye Routes	Mallaig – Armadale	Sconser – Raasay
Southern Hebrides	Kennacraig - Islay / Colonsay	Tayinloan – Gigha
Inter Island Routes	Berneray to Leverburgh	Barra to Eriskay

2.4.5 Capacity utilisation data were also gathered for CalMac sailings operating at 65% capacity on the basis that very few sailings across the network operate at full capacity. It was however recognised there is also a need to fully establish whether there is a capacity problem and data for all sailings operating across the network were also provided by CalMac in commercial confidence, from which some general conclusions have been reported.

2.4.6 It would have been informative to be able to monitor the level of unmet demand where prospective passengers were unable to secure the sailing they sought. However a high proportion of enquires are made through CalMac's website where it is possible to see which sailings are available. In such cases it is impossible to identify whether prospective passengers had been unable to book the sailing of their choice, and what action they may have taken if this occurred. It is also the practice of regular users to telephone local staff to enquire if there are short notice vacancies and similarly no record would be made if they were advised that a sailing was full. In either circumstance there would be no record trail to enable unmet demand to be assessed.

2.5 ***On-board surveys***

2.5.1 Two baseline on-board surveys were completed on all the ferry routes between the Scottish mainland and the Western Isles in May and August 2008. On-board surveys were subsequently undertaken every three months from November 2008 through to August 2009. In the second year of the Pilot surveys took place in February 2010, May 2010 and August 2010. During each survey period, surveys were completed on a representative day in mid-week and two weekend days (Monday were there was no Sunday sailing).

2.5.2 At the request of the Scottish Government the surveys from May 2009 onwards included the Oban – Coll/Tiree sailing.

2.5.3 The number of surveys undertaken was limited by the number that could be conducted during the sailing by a single surveyor, especially on the shorter crossings from Uig, and the interviews were therefore supplemented by self-completion questionnaires for those who were not interviewed.

2.5.4 To increase the number of responses achieved in each period, the survey used in 2010 was refined with separate (shorter) versions developed for residents and visitors. This also enabled residents to be asked specific questions about expenditure on the Scottish mainland and the impact of RET on their travel behaviour, whilst the visitor questionnaire allowed specific questions to be asked concerning expenditure in the Pilot area and impact of RET on the decision to visit the Western Isles, Coll or Tiree. The re-design of the survey was undertaken with consideration of the need for the data gathered to be comparable with the original survey to ensure all data gathered up to 2009 were still of relevance and made a contribution to the monitoring programme overall.

2.5.5 Table 2.2 summarises the number of on-board surveys completed by route over the nine survey periods. The number of completed surveys as a proportion of the number of passengers on each sailing ranged from 28% on the first peak-season in August 2008, to 72% in late surveys in the winter period. However since the survey aimed only to interview one person in each party of people travelling together, on many off-peak sailings this represented interviews covering 100% of passengers carried.

2.5.6 The August 2008 survey included questions relating to the Scottish Government Ferries Review resulting in a longer questionnaire for this specific survey period, and consequently fewer interviews completed on each sailing. From August 2009 separate questionnaires were used for island residents and for visitors to the islands which reduced the length of the interview and improved the sample rate.

Table 2.2: On-Board Surveys: number of responses

Ferry Route	May 2008	Aug 2008	Nov 2008	Feb 2009	May 2009	Aug 2009	Feb 2010	May 2010	Aug 2010
Ullapool to Stornoway	38	49	33	86	38	106	62	79	60
Stornoway to Ullapool	25	42	36	53	50	98	58	52	73
Uig to Tarbert	33	18	31	14	68	44	8	77	37
Tarbert to Uig	30	30	5	7	63	64	17	86	39
Uig to Lochmaddy	0	18	14	17	62	46	35	61	58
Lochmaddy to Uig	0	25	17	10	65	39	26	80	29
Oban to Castlebay / Lochboisdale	58	33	25	28	35	82	53	44	71
Castlebay / Lochboisdale to Oban	57	22	18	18	45	88	34	44	76
Oban to Coll	N/A	N/A	N/A	N/A	11	22	15	31	31
Oban to Tiree	N/A	N/A	N/A	N/A	43	57	45	17	44
Coll to Oban	N/A	N/A	N/A	N/A	17	16	9	34	6
Tiree to Oban	N/A	N/A	N/A	N/A	14	46	33	45	37
Total	**241**	**237**	**179**	**233**	**511**	**708**	**395**	**650**	**561**
Average sample rate	N/A	28%	30%	52%	42%	60%	72%	55%	45%

2.5.7 Although the sample rates as a proportion of passengers on each sailing were generally robust, it must nevertheless be borne in mind that surveys covered only one representative week in each survey period and only three survey periods in each year. On-board surveys thus covered only around 5% of sailings and captured only around 2% of total ferry users. A number of cross checks were therefore undertaken to check that responses to the on-board surveys from residents in 2008 and again in 2010 were consistent with the data acquired from the Residents' survey and a good correlation was obtained.

2.6 ***Residents' survey***

2.6.1 A self-completion residents' survey was distributed by post to all households in the Pilot area in Autumn 2008 and a follow up survey was distributed in Autumn 2010. A total of 2,965 Western Isles residents and 144 Coll/Tiree residents responded to the 2008 survey, response rates of 21% and 25% respectively. There was an increase in the response to the 2010 survey with a total of 3,985 Western Isles

residents and 161 Coll/Tiree residents responding (28% response rate in each case). The geographic variations in response were judged not to be statistically significant.

2.6.2 Overall these response rates provide a robust sample. However younger people aged 16 to 24 were significantly under-represented in the responses. Table 2.3 shows the age breakdown of the achieved samples. The survey responses were therefore weighted to increase the representation of younger people, although the small numbers responding from this age group means that further disaggregation of their responses would not provide robust data.

Table 2.3: Residents' survey responses by age group

Age Group	2008 Survey	% of population aged 16 and over	2010 Survey	% of population aged 16 and over
16-24	0.9%	10.6%	1.0%	10.7%
25-34	6.6%	11.5%	6.0%	11.0%
35-44	16.7%	17.4%	14.2%	16.7%
45-54	20.7%	17.8%	19.1%	18.2%
55-59	12.3%	9.1%	12.5%	8.9%
60+	40.6%	33.5%	44.1%	34.7%

2.6.3 The surveys covered issues concerning journey purpose, frequency of travel and expenditure on the mainland for comparison with future surveys and to identify changes in travel behaviour.

2.6.4 The survey used in 2008 was reviewed in advance of the second survey being undertaken in 2010 to allow for the inclusion of additional questions to understand the actual impact of RET to date on the quality of life of residents such as:

- Access to family and friends on other islands and mainland;
- Access of family and friends living elsewhere to residents of the islands;
- Access to specialist services and facilities on the mainland that are not available on the islands – e.g. health care services and also leisure and entertainment facilities; and
- Cost of living reductions for those living on the islands – either through a reduction in the costs of goods and services (because transportation costs are now lower) and/or the extent to which the reduced costs of ferry travel impact positively on their disposable income.

2.7 ***Business surveys***

2.7.1 Initially it was intended to gain 'before-and-after' survey data from businesses through an internet-based questionnaire. Although 546 businesses for which email addresses were available were asked to participate, unfortunately the response was very limited and the size of the sample of participating businesses would have been too small to enable valid conclusions to be drawn. Instead a telephone interview survey was designed which sought the views of businesses towards the end of the Pilot, including information about changes in business circumstances since the Pilot began.

2.7.2 A total of 160 telephone interviews were undertaken in September 2010 by NEMS Market Research. The sampling frame was obtained from a commercial database and augmented by desk-based research to help ensure the inclusion of small businesses, particularly in the tourism and art/craft sectors. The selected sample was chosen using random sampling from all available business telephone numbers within the defined survey area. Quota controls were applied to geographical and business sectors to ensure that all areas and all significant trades were represented in the selected sample. These are shown in Table 2.4 and Table 2.5 respectively.

Table 2.4: Business surveys: Geographic breakdown

Location	Record Count	Sample
Stornoway	252	44
Lewis	130	33
Harris (inc. Scalpy)	64	20
North Uist	36	13
South Uist	36	12
Barra	16	7
Benbecula	38	12
Coll	8	1
Tiree	53	18
Total	**633**	**160**

Table 2.5: Business surveys: business sectors

Business Sector	Record Count	Sample
Wholesale & Retail	115	30
Hotels, restaurants and other accommodation	174	49
Transport, storage and communication (excluding haulage companies)	43	15
Art, crafts & textiles	63	11
Agriculture, hunting, forestry, fishing, mining & quarrying	34	15
Manufacturing	39	6
Other (Utilities; construction; financial; property, renting & business activities; education; health & social work; other community, social & personal services)	165	34
Total	**633**	**160**

2.7.3 The sample represented 25% of the relevant businesses and all 160 businesses selected participated in the survey.

2.7.4 The interviews covered a range of issues, including whether or not RET has reduced costs for island businesses, or enabled them to increase sales on the mainland. The interviews also allowed the opportunity to research in further detail some observations made over the course of the Pilot to date, for example anecdotal comments in relation to an increase in white van traffic, and to understand any underlying changes in transport activity resulting in this change. It will be important for the evaluation to place any such changes within a wider national context.

2.8 ***Tourism***

2.8.1 The telephone-based survey of businesses undertaken in September 2010 included the tourist sector, covering both accommodation providers and other leisure businesses. The interviews with accommodation providers included some additional questions concerning occupancy, operating season, origin of visitors etc.

2.8.2 Initial efforts to gain additional information about the tourism sector from Tourist Information Centres provided some results, but the information was patchy in coverage and anecdotal in nature and these interviews were discontinued.

2.8.3 Secondary tourism data were gathered through Visit Scotland and the Inter Departmental Business Register (IDBR) database compiled by the Scottish

Government. A review of the Visit Scotland data identified that the appropriate indicators for the purposes of RET were:

- Occupancy rates.
- Visitor numbers (based on the number of visitors to visitor attractions).

2.8.4 The IDBR provides further details on the following indicators for the tourism sector at the local authority level (due to disclosure issues, data are not reported at a more local level) [7]:

- Registered business sites.
- Total employment at business sites.
- Total turnover.

2.9 ***Haulage and distribution companies***

2.9.1 The telephone interviews did not include businesses engaged in haulage and distribution. Instead face to face meetings were arranged with businesses in this sector in order to explore in greater depth the impact of RET on business costs and operations, and market trends. Businesses were identified through the Freight Report [8] published in 2010 as part of the Scottish Government Ferries Review, knowledge gathered through other survey work completed as part of the RET monitoring programme and also information provided by other businesses during the discussions.

2.9.2 In total ten interviews were completed. This included interviews with larger freight operators previously entitled to discounts through the Traders Rebate Scheme (TRS) prior to the introduction of RET, smaller freight operators and also firms whose activities primarily focus on the movement of small consolidated or part loads such as parcels and pallet carriers. Operators were selected for interview from each island within the RET Pilot area, and also based on the mainland but with a significant operation in the study area.

2.9.3 Key topic areas explored through the interviews can be summarised as follows:

- Operations – frequency of use of RET routes, change in use, change in demand for services.

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[7] The IDBR data provides a snapshot of the economy in March on an annual basis. Updates are published in October.

[8] TRi Pantrak – Freight Report: http://www.scotland.gov.uk/Topics/Transport/ferries-ports-canals/14342/Pantrak

- Capacity – changes in availability of deck space, changes in booking arrangements, implications on business where capacity may be a constraint.
- Markets – opportunities which have arisen within the Pilot area and / or mainland, competition from new entrants to the market.
- Savings – cost savings generated through lower fares, approach to passing on savings down the supply chain.
- General Business Performance – taking account of general business performance over the past two years.
- Future – implications were the RET fares structure removed and also new opportunities that might arise were a RET fares structure introduced on a permanent basis.

2.10 ***Economic data***

2.10.1 Local economic data were tracked through a number of high level indicators both for the Pilot area and non-Pilot areas to monitor any impact from RET and to provide the appropriate context within which RET is operating. Data were gathered for a range of indicators including turnover; employment; number of business sites at local authority level and also intermediate geography level within the Pilot area.

2.10.2 Fuel price data were sourced from Experian Catalist who monitor fuel prices across the UK through actual fuelcard sale transactions, and is therefore totally reliable. A single transaction at any sample site on the selected day is sufficient to record the price being charged at that time. Even so occasional gaps in the data from small outlets did occur where no fuelcard transactions occurred on the selected day, and consequently a complete data series for Orkney was not secured.

2.10.3 An initial survey to gather retail price information through sampling prices of grocery and household items in stores both in the Pilot area and at selected other rural locations was discontinued. The sample size was very small, but the limited data gathered indicated that supermarket prices were substantially the same in all areas surveyed and the data added no useful material to this study.

2.10.4 A database was created to record the following information:

- **Labour market indicators** - Employment; Unemployment rates; Median gross weekly earnings for full time employees; People of working age claiming social security benefits; and Employee jobs by industry.

- **Business performance indicators** - Total business sites; Total turnover; Total turnover by employee and Business Start ups.
- **Price data** - Fuel price data for the Pilot and also non-Pilot area filling stations.

Data were gathered at the local authority level

2.10.5 The database includes baseline data from the Pilot and non-Pilot area to enable a comparison against any changes which have occurred over the Period of the Pilot.

2.11 ***Monitoring programme - summary***

2.11.1 The programme of monitoring activities is summarised in Table 2.6.

Table 2.6: Monitoring Programme

Data	Source
Ferry traffic data Carryings: passengers; cars & commercial vehicle Revenue Capacity utilisation	Quarterly until October 2010 – CalMac and NorthLink.
On-board surveys	On-board surveys on RET routes – May 2008; August 2008; November 2008; February 2009; May 2009; August 2009; February 2010; May 2010 and August 2010.
Residents' survey	Self-completion postal questionnaire -Autumn 2008 and Autumn 2010.
Economic data Employment Unemployment Business sites Turnover Price data	IDBR. - March 2006 to March 2010. Experian fuel price data - August 2008; November 2008; February 2009; May 2009; August 2009; February 2010; May 2010 and August 2010.
Business Local businesses Haulage and distribution businesses Accommodation providers	Telephone interviews with businesses in the Pilot area. - September 2010 One to one discussions with the haulage firms in the Pilot area - October 2010
Tourism Occupancy data Tourist business employment	Visit Scotland data – monthly occupancy and visitor numbers (to August 2010). IDBR tourism indicators – March 2006 to March 2010.

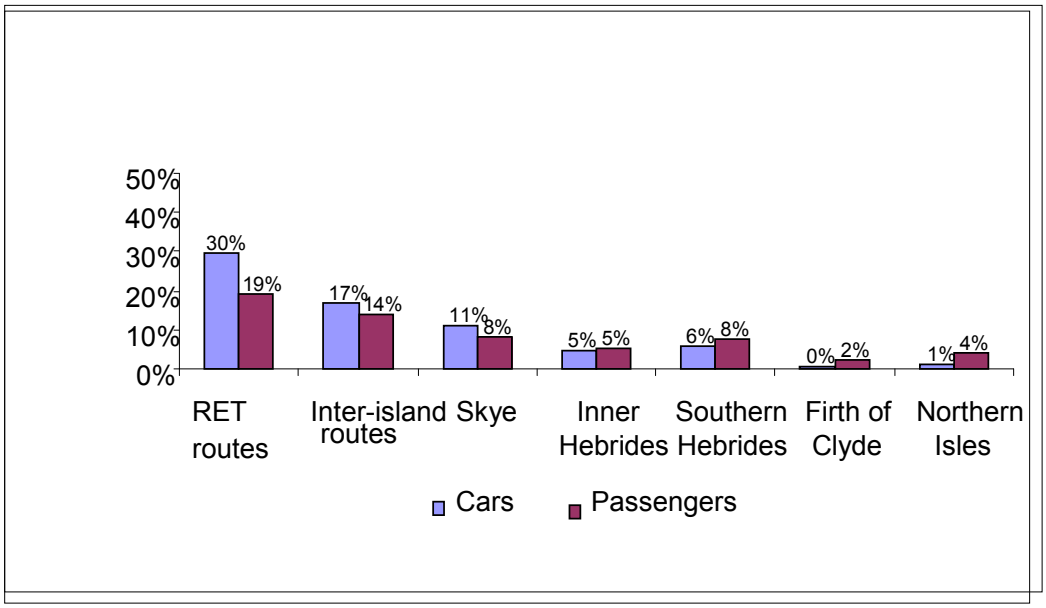
3 Changes in Ferry Traffic

3.1 ***Review of ferry patronage across the Scottish ferry network***

3.1.1 This chapter examines the changes in passenger, car and commercial vehicle carryings experienced on each of the RET routes over the period of the Pilot and compares this with the situation prior to the introduction of the RET. It also examines how these changes compare with non-RET routes.

3.1.2 There was an increase in passenger and vehicle traffic between 2007-2008 [9] and 2008-2009 across the whole Scottish ferry network, but this has been most pronounced on the RET routes (Figure 3.1).

Figure 3.1: Change in patronage across ferry network, 2007/2008 to 2008/2009



Source: CalMac Data

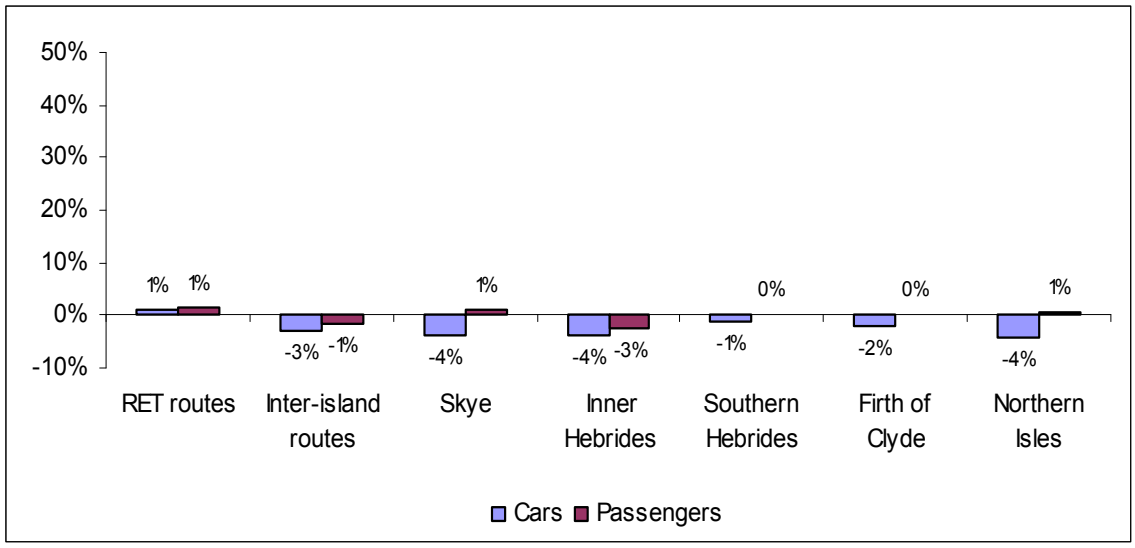
3.1.3 The increase in traffic on the RET routes equated to nearly 84,000 more trips by passengers and 40,000 more cars carried during 2008/2009, the first Pilot year, compared to the same period during 2007/2008. There have also been increases

[9] Years for data comparisons run from November to October to align with the anniversary of the introduction of RET

across the other adjacent ferry routes, particularly the inter-island routes, and the routes to Skye, Raasay and the Small Isles and routes in the Inner Hebrides. On the other hand growth was far less pronounced on the Southern Hebrides, Firth of Clyde and Northern Isles routes when compared to the year prior to the introduction of RET.

3.1.4 Year two of the Pilot (2009/2010) had just under 7,000 more passengers trips and 1,600 more cars compared to the first year of the Pilot, a further increase of 1% (Figure 3.2). By comparison over that period there were decreases in both passenger and car ferry traffic across most of the non-RET routes, with a particular fall in car carryings up to 4% on the routes to and from Skye, Inner Hebrides and the Northern Isles.

Figure 3.2: Change in car passenger traffic across the ferry network 2008/2009 to 2009/2010



Source: CalMac Data

3.1.5 The average increase in passenger demand (car drivers, car passengers and foot passenger combined) across the non-RET network was 8% from 2007-08 to 2008-09, but declined by almost 4% in the subsequent year. Over the two years overall traffic on the RET routes increased by almost 20% whilst the traffic on the rest of the network increased by 3%. The implication of this is that RET routes carried around 12% more total traffic in year one of the Pilot, and a further 5% in the second year in comparison with the pattern presented by other routes.

3.2 ***Passenger traffic on RET routes***

3.2.1 The distribution of passenger traffic changes between the four routes in the Pilot is shown in Table 3.1.

3.2.2 In the first year the overall increase in passenger trips in the RET area was 19%, and ranged from 15% on the Oban-Coll/Tiree route [10] to 25% on the route from Oban to Castlebay/ Lochboisdale.

Table 3.1: Change in annual passenger patronage on RET routes

Passengers	Nov 2007 to Oct 2008	Nov 2008 to Oct 2009	Nov 2009 to Oct 2010	2007/2008 to 2008/2009		2008/2009 to 2009/2010		Over two years
				Absolute change	%	Absolute change	%	%
Ullapool – Stornoway	181,038	217,134	230,524	36,096	20%	13,390	6%	27%
Uig – Tarbert/Lochmaddy	159,355	187,251	182,977	27,896	18%	-4,274	-2%	15%
Oban – Castlebay/Lochboisdale	45,682	56,946	58,348	11,264	25%	1,402	2%	28%
Oban – Coll/Tiree	56,328	64,789	61,193	8,461	15%	-3,596	-6%	9%
All RET routes	442,403	526,120	533,042	83,717	19%	6,922	1%	20%

Source: CalMac Data

3.2.3 Over the second year the overall increase across the whole RET area was a modest 1%. Ullapool to Stornoway ferry crossing saw the greatest increase in patronage which was 6%. The Oban to Castlebay / Lochboisdale saw an increase of 2%. However, the Uig to Tarbert / Lochmaddy crossing saw a decrease of 2% and Oban to Coll and Tiree also recorded a decrease in patronage of 6%. A factor during 2010 was the introduction of Sunday sailings on the CalMac ferry route between Stornoway and Ullapool. CalMac say that the introduction of this additional sailing has eased capacity issues on the weekday sailings which could frequently experience sailings where vehicles carried exceeded 85% of capacity during the summer months. This additional sailing and capacity could have

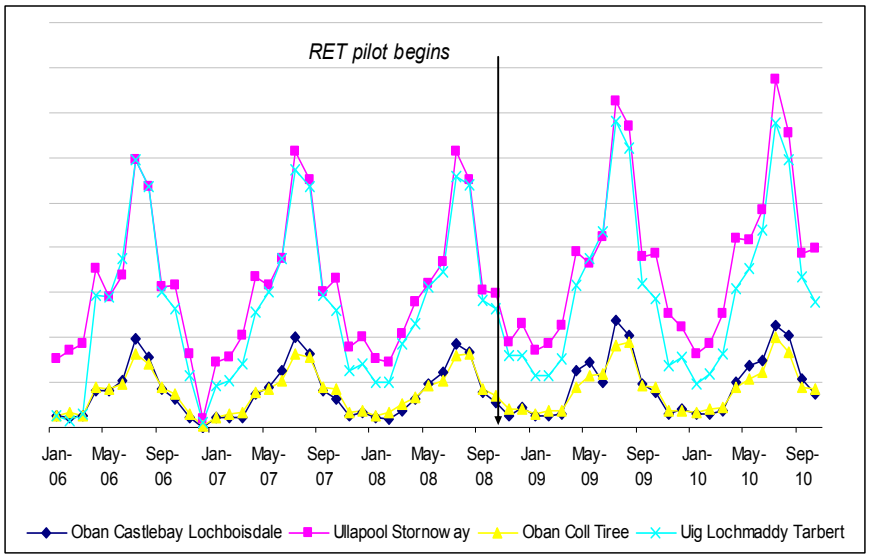
[10] *During the summer the Oban – Coll/Tiree route includes a sailing which operates to Barra via Coll and Tiree once a week. The figures for this sailing are included in the figures for Oban – Coll/Tiree.*

contributed to the increase in passenger carryings on the route. However the provision of the Sunday sailings from Stornoway may also have resulted in trips switched from other routes, especially Tarbert.

3.2.4 Over the two year period of the Pilot there was net growth in passenger traffic on all RET routes, but markedly less on the Oban-Coll/Tiree route than the others.

3.2.5 The monthly trend in passenger carryings over the past five years, as shown in Figure 3.3, demonstrates the highly seasonal nature of demand with carryings peaking during July and August. However the increase in traffic in each year in May/June and in September compared with the years prior to RET may also be noted. This overall summer peak was notably higher on all the Pilot routes following the introduction of RET, when compared to the previous three years.

Figure 3.3: Monthly passenger carrying by RET route



Source: CalMac Data

3.3 ***Car traffic on RET routes***

3.3.1 Table 3.2 shows the change in annual car patronage on RET routes. The pattern of change was similar to that observed for passengers, but the percentage increase in car traffic was even higher than the percentage increase in passengers across all four routes. The increase was highest on the Stornoway to Ullapool and Oban to Castlebay /Lochboisdale routes where the number of cars travelling on each route increased by 35% during the first Pilot year 2008/2009 compared to 2007/2008.

Table 3.2: Change in annual car carryings on RET routes

	Nov 2007 to Oct 2008	Nov 2008 to Oct 2009	Nov 2009 to Oct 2010	2007/2008 to 2008/2009		2008/2009 to 2009/2010		Over two years
				Absolute change	%	Absolute change	%	%
Ullapool – Stornoway	48,174	65,152	69,011	16,978	35%	3,859	6%	43%
Uig – Tarbert/Lochmaddy	55,626	70,301	68,523	14,675	26%	-1,778	-3%	23%
Oban – Castlebay/Lochboisdale	13,440	18,152	18,112	4,712	35%	-40	0%	35%
Oban – Coll/Tiree	15,319	18,542	18,162	3,223	21%	-380	-2%	19%
All RET routes	132,559	172,147	173,808	39,588	30%	1,661	1%	31%

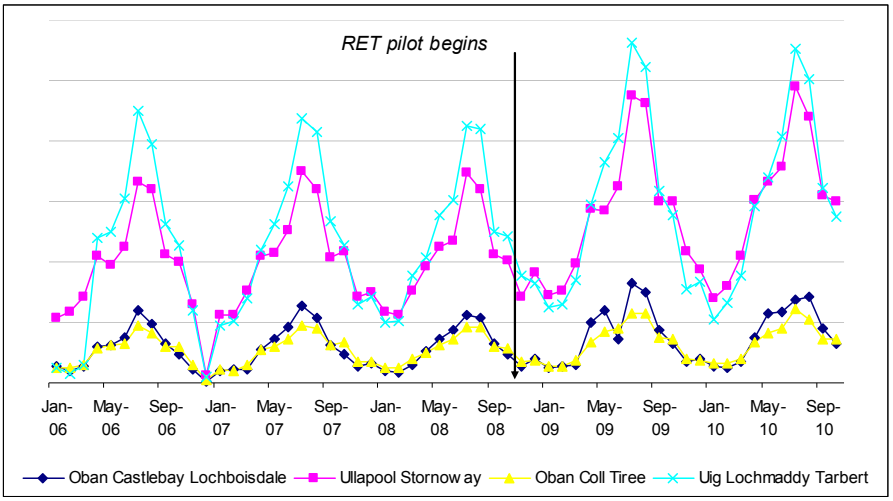
Source: CalMac Data

3.3.2 There was a further small increase of 1% overall in car traffic between the first and second year of the Pilot. The largest increase in vehicle patronage recorded was on the Ullapool to Stornoway crossing (6%), which like passenger numbers, may have been in response to the introduction of the Sunday sailings on this route, rather than RET, with some traffic switching from the Uig to Tarbert / Lochmaddy ferry crossing. Small falls were also observed on the Oban to Coll and Tiree and Oban to Castlebay / Lochboisdale ferry crossings.

3.3.3 Because the growth in car traffic exceeded the growth in passenger numbers, the ratio of passengers travelling per car transported fell on all four routes after the introduction of RET, with the greatest fall on the ferry service from Ullapool to Stornoway, from 3.8 to 3.3 passengers for every car transported on the route. The evidence shows that the response to RET has been much more marked amongst those travelling with a car than it was amongst those without. This has implications, discussed later in this report, for vessel capacity and for the environmental impact of RET.

3.3.4 The increase in annual car carryings in the year subsequent to the introduction of RET has emphasised the summer peaks in car carryings, which have been considerably higher following the introduction of the RET Pilot on these routes, when compared to the previous three years (Figure 3.4).

Figure 3.4: Monthly car carryings by RET route: 2006-2010



Source: CalMac Data

3.4 ***Commercial vehicle traffic on RET routes***

3.4.1 Overall, a total of 867 more commercial vehicles were carried on the RET routes during the first full year (2008/2009) of the Pilot compared to the previous year and a further increase of 936 when comparing the first and second years of the Pilot. This is shown in Table 3.3. This growth represents 4% more commercial vehicles in each year of the Pilot.

3.4.2 The Ullapool to Stornoway route constitutes the largest proportion of commercial carryings, amounting to 57% of the total during the first Pilot year, followed by the Uig - Tarbert/Lochmaddy route which amounted to 29%. However over that year, the greatest proportional increase was on the two southern routes from Oban to Castlebay/Lochboisdale and Oban to Coll/Tiree where commercial vehicle carryings rose by 21%. Although these routes only constitute a very small proportion of the overall commercial vehicles carryings on the routes, amounting to 5% and 8% respectively during the first Pilot year, these two routes combined accounted for 60% of the overall increase in commercial vehicle carryings in the first year. By contrast in the second year there was no further growth on these two routes, but similar numerical growth then occurred on the Stornoway and Lochmaddy/Tarbert routes. The divergent patterns of change on different routes suggest that fares are not the only factor driving changes in patronage on the various routes within the Pilot area.

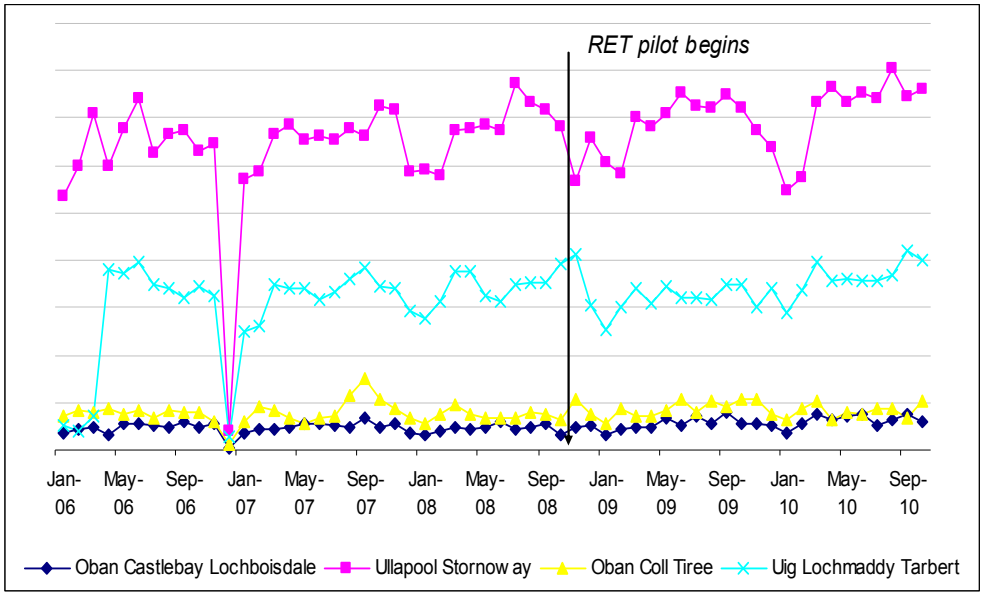
Table 3.3: Number of commercial vehicles on RET routes 2007/2008 - 2009/2010

	Nov 2007 to Oct 2008	Nov 2008 to Oct 2009	Nov 2009 to Oct 2010	2007/2008 to 2008/2009		2008/2009 to 2009/2010		Over two years
				Absolute change	%	Absolute change	%	%
Oban – Castlebay/ Lochboisdale	963	1,166	1,251	203	21%	85	7%	30%
Oban – Coll/Tiree	1,576	1,902	1,785	326	21%	-117	-6%	13%
Ullapool – Stornoway	12,542	13,000	13,460	458	4%	460	4%	7%
Uig –Tarbert/ Lochmaddy	6,762	6,642	7,150	-120	-2%	508	8%	6%
All RET Routes	21,843	22,710	23,646	867	4%	936	4%	8%

Source: CalMac Data

3.4.3 Figure 3.5 illustrates the trend in monthly commercial vehicle carryings on each of the Pilot routes.

Figure 3.5: Monthly carrying of commercial vehicles (vehicle metres)



Source: CalMac Data

3.4.4 In contrast with passenger and car patronage, commercial carryings on the ferry routes do not exhibit any seasonal pattern of demand apart from a modest drop in December/January each year.

3.5 ***Motorhomes and campervans***

3.5.1 Data from CalMac in Table 3.4 show that the 2009 and 2010 summer seasons exhibited strong growth in the number of campervans across their whole network. However the Western Isles experienced a particularly large increase of 125% growth over two years, compared with an increase of 28% on non-RET routes.

3.5.2 It may be assumed that the growth in the campervan holiday market across the network is a consequence of factors such as the recession and increase in domestic holidays previously discussed. However it is the reduction in ferry fares as a result of RET, combined with the restricted capacity of the existing accommodation stock on the Western Isles, which is most likely to have contributed to the exceptional growth in this particular market.

Table 3.4: Change in motorhome carryings 2007/2008 to 2009/2010

	Oct 07-Sep 2008	Oct 2008-Sep 2009	Oct 2009 – Sep 2010	2007/2008 to 2008/2009		2008/2009 to 2009/2010		Over two years
				change	%	change	%	%
Oban to Castlebay/Lochboisdale	119	209	238	90	76%	29	14%	100%
Oban to Coll/Tiree	148	328	264	180	122%	-64	-20%	78%
Uig to Tarbert/Lochmaddy	649	1,328	1,379	679	105%	51	4%	100%
Ullapool to Stornoway	291	751	838	460	158%	87	12%	188%
RET routes	**1,207**	**2,616**	**2,719**	**1,409**	**117%**	**103**	**4%**	**125%**
Non RET routes	5,786	7,107	7431	1321	23%	324	5%	28%

Source: CalMac data

3.6 ***Travel by visitors and residents***

3.6.1 Analysis has been undertaken of the visitor and resident split from the on-board surveys across survey periods. Although these are only small sample surveys, the combined summer figures are broadly consistent across the survey periods in May

and August in each year 2008, 2009 and 2010. The surveys will be less representative of the out of season periods. The baseline survey was not undertaken out of season and (as will be explained below) the survey during the initial month may be unrepresentative of long-term resident trips. There is therefore an issue about how representative the February/ November surveys will be of the off-season period as a whole.

3.6.2 The on-board surveys [11] provide a limited sample from which the approximate numbers of trips by residents and visitors can be estimated. From the baseline in 2008 it is estimated that 63% of trips were made by visitors and 27% by residents. The on-board surveys in 2009 and 2010 indicate that, on the summer sailings, around 30% of the additional travel occurring since RET is by residents and 70% by visitors. In the winter season, 60% of the additional traffic is by residents whilst 40% is by visitors. Applying these ratios to the overall increase in ferry traffic, the estimated change in resident and visitor travel is shown in Table 3.5.

Table 3.5: Additional trips by residents and visitors

	Residents		**Visitors**		**All**	
	Number	% change	Number	% change	Number	% change
Baseline estimated totals						
Cars	47,100		87,800		132,800	
Passengers	157,100		280,000		437,100	
RET year one compared to 2008 baseline						
Cars	11,300	24%	28,300	33%	39,600	30%
Passengers	22,000	14%	61,600	22%	83,600	19%
RET year two compared to 2008 baseline						
Cars	14,500	31%	26,700	31%	41,200	31%
Passengers	30,100	19%	60,500	21%	90,600	20%

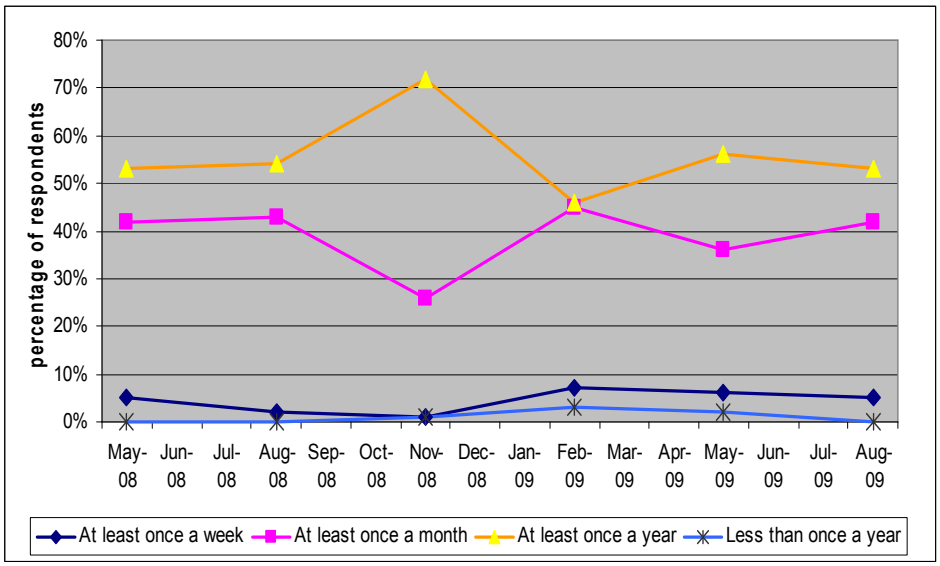
Source: On-board surveys

[11] Since the on-board surveys provide only a very small sample of annual ferry traffic and these figures should be taken only as a broad indication of trends.

3.6.3 In each year approximately 60,000 more visitor trips were carried. As each journey will be half of a return trip, this represents around an additional 30,000 people visiting the islands. The figures suggest that visitor travel increased particularly strongly in the first year of the Pilot (by 22% for passengers and 33% for cars), compared with resident traffic growth of 14% and 24% respectively. The initial visitor growth was possibly linked with Homecoming campaign, as it did drop off slightly in the second year. Resident traffic on the other hand continued to grow in the second year so that by the end of the Pilot period resident and visitor growth was very similar at around 20% for passengers and 31% for cars.

3.6.4 The frequency of travel by residents was recorded in the on-board surveys and is shown in Figure 3.6.

Figure 3.6: Frequency of ferry travel by residents 2008 - 2010



Source: On-board survey

3.6.5 The proportion of travellers who use the ferry more than once a week is only 7% of all passengers both before and after the RET Pilot was introduced. Over the period of the Pilot as a whole the proportions of travellers making frequent, infrequent and only very occasional trips has scarcely changed. However the survey of November 2008, which coincided with the first full month of the introduction of RET, shows a much higher proportion of infrequent travellers. We suggest this isolated observation reflects a number of journeys that had been deferred from previous months in order to benefit from the anticipated introduction of lower fares, and does not represent a continuing pattern.

3.6.6 It is possible to conclude that the increase in the numbers of residents travelling over the whole RET period is drawn in equal proportions from the whole population, and not specifically from either occasional or frequent ferry users.

3.6.7 Since resident travel by ferry was still increasing at the end of the Pilot monitoring programme, it is of course possible that growth will further increase in the third year and has not yet stabilised. In contrast visitor traffic did slightly decline in the second year. This may be a reflection of wider economic circumstances rather than any indication that the impact of RET had diminished.

3.7 ***Air travel***

Personal air travel by residents

3.7.1 The onboard surveys undertaken in 2008 and 2009 asked respondents to indicate whether using the ferry service on which they were travelling was their first choice as their mode of transport. Of those respondents that stated they were a resident of the Western Isles in each of the five survey rounds, the great majority indicated that travelling by ferry was their first choice (range between 84% and 100% of respondents). A similar question in 2010 again revealed that the majority of respondents indicated that ferry travel was their preferred mode (range from 84% to 90%). These results give no indication of a change in residents preferred choice of mode when making personal trips.

3.7.2 When asked to give reasons as to why they decided not to fly (where air services are available), the highest proportion of all respondents across the three 2010 survey periods cited that the main reason for not flying was because they needed to use a car at their destination (38%, 32% and 38% respectively).[12]

3.7.3 A separate analysis was also conducted on foot passengers' reasons for deciding not to fly (where air services are available). The highest proportion of foot passengers across the 2010 survey periods in total cited that the main reason for not flying was because the price of air fares was too high (16%). Another 3% stated that the destination of air services was not suitable or that the timing of flights was not convenient.

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[12] *It was too difficult to split out residents' reasons for choosing not to fly (where there were air services available to them) in the survey's conducted in August 2008-August 2009.*

Air travel by businesses

3.7.4 Since the introduction of RET, just over half of the businesses surveyed indicated that they had made some journeys using the ferry service which would have previously been made by flying. The majority of businesses based on all islands indicated that this was the case, with the exception of firms based in North Uist and on Coll and Tiree, where the proportion was much lower.

3.7.5 For virtually all of the businesses that were now choosing to make more use of the ferry in place of air travel, the frequency of their trips had also increased. Half of these firms indicated that there had been a marginal increase in frequency while, for the remainder, the frequency had increased more substantially.

3.7.6 The majority (89%) of businesses across all of the locations who had switched some trips from air to ferry said that they had made this change because it is a lot cheaper (Table 3.6). This was followed by the ability to take the car, which was cited by just under a quarter of these businesses. This second reason was particularly important for businesses on Tiree and Barra, where it was cited by 75% and 50% of businesses respectively.

Table 3.6: Business reasons for switching from air to ferry

Reason	percentage
A lot cheaper	89%
Can take the car	23%
Convenient	11%
Other	7%
Availability	2%
Can carry more	2%
Quicker	1%

Source: Business Interview surveys

Air fares

3.7.7 The average cost of travelling by car and ferry from Stornoway to Inverness prior to the introduction of RET was just under £190. This includes a return ticket for a car and driver between Stornoway and Ullapool, as well as the vehicle operating costs for the 127 mile return journey between Ullapool and Inverness. The cost of this journey fell to just under £140 after the introduction of RET, a fall of 26%.

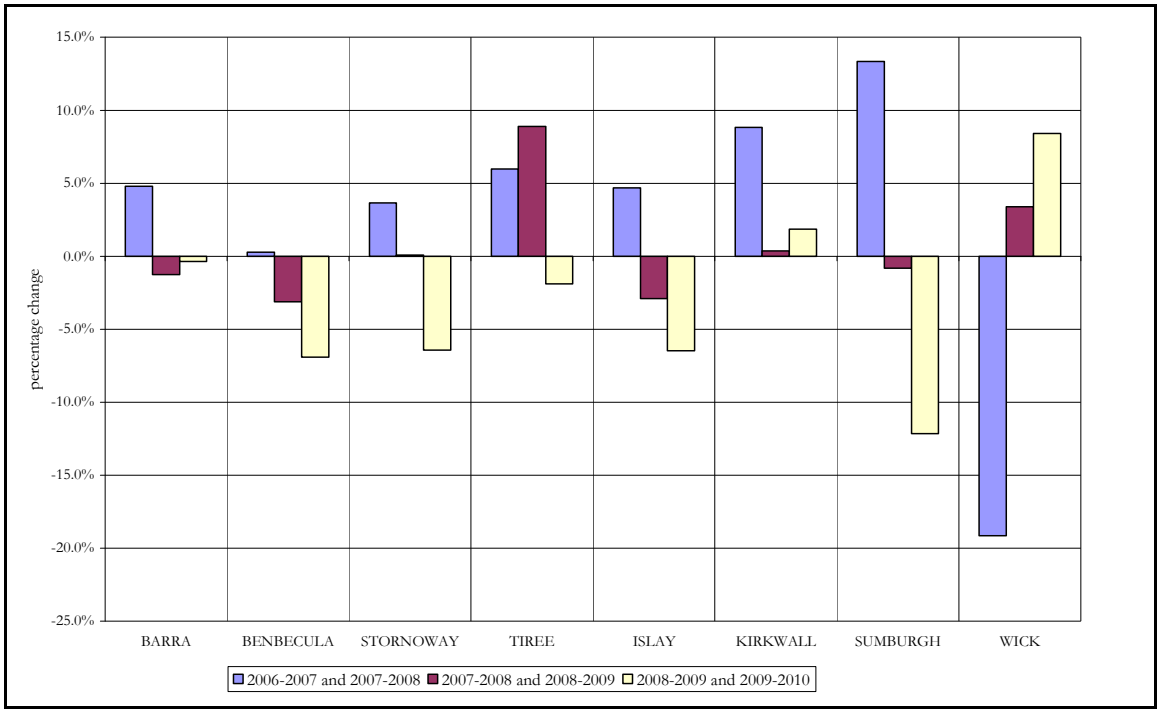
3.7.8 The equivalent return air fare between Stornoway to Inverness can vary in price between around £75 and £200. Residents of the Western Isles do also currently qualify for the Air Discount Scheme which would reduce the cost of these fares for islanders by a further 40%. This would amount to a discounted air fare of between £45 and £120.

3.7.9 Overall, this suggests that air travel is still less expensive for a journey from Stornoway to Inverness compared to travel by car and ferry, and especially for residents of the Western Isles given the existence of the Air Discount Scheme. This may not however be the perception of all travellers.

Air traffic

3.7.10 Air traffic data were collected throughout the monitoring programme and Figure 3.7 shows data for the percentage change in passenger movements during the period 2006 to 2010, for Pilot area airports relative to other remote airports around Scotland. These data will include business and non-business travel.

Figure 3.7: Annual change in air passenger trips 2006/2007 – 2009/2010



Source: Highlands and Islands Airports Limited. Notes: Data are for annual passenger movements to March each year.

3.7.11 The period between 2006/2007 and 2007/2008 – the two years before RET - shows an increase in passenger movements in Pilot area airports and also other

remote airports across Scotland, with the exception of Wick which recorded a substantial decrease in passenger movements (19%). Between 2007/2008 and 2008/2009 (the first full period of RET) traffic further increased at Tiree (9%) within the Pilot area, as it did also at Wick and Kirkwall, whilst in that year air passenger numbers fell at Barra and Benbecula within the RET area, and also Islay and Sumburgh outwith the Pilot.

3.7.12 In the second year of the Pilot, all Pilot area airports recorded a decrease in passenger movements. This was also the case for other remote airports across the UK, apart from Wick and Kirkwall who recorded an increase in passenger movements.

3.7.13 Overall air travel numbers changed erratically over the period before and during the RET Pilot, both in the Pilot area and at other remote island airports in Scotland. Despite both businesses and residents saying they had substituted the ferry for some air trips, there was no discernable impact of RET on overall air travel from within the Pilot area.

3.8 ***Summary***

3.8.1 There have been substantial increases on the level of car and passenger traffic across all four of the RET Pilot routes compared to the year prior to the introduction of RET. Car travel has increased by nearly one third over the two year period, while there are now 20% more passenger journeys. Motorhome and campervan traffic increased by 117% on the RET routes, There was however an increase in travel across the whole ferry network as a consequence of wider economic changes, and not all of this growth can be attributed to RET.

3.8.2 While the second year indicated a small decrease in patronage on two of the routes, continued growth in patronage on the Stornoway to Ullapool route resulted in overall growth of 1% in passengers and 1% more car traffic for the second year of the Pilot. This was in contrast with non-RET routes where there was a fall in traffic.

3.8.3 Discounting the initial growth and subsequent fall in traffic on non-RET routes, the indication is that RET gave rise to around 14% more passenger traffic in year one of the Pilot, and a further 5% in the second year (a cumulative increase of 20% over two years) in comparison with the pattern presented by other routes.

3.8.4 It is estimated that the RET routes carried approximately 30,000 more visitors to and from the islands in each year of the Pilot. Whilst visitor traffic increased rapidly in the first year, and then marginally declined in the second year, the

increase in travel by residents of 20,000 additional trips in the first year continued through the second year (a further 8,000 additional trips) and it may be that the change in resident travel behaviour in to RET is still ongoing and has not yet stabilised.

3.8.5 Within the overall level of growth, car traffic increased proportionately by almost 50% more than passenger numbers, implying that car users were more responsive to the change in the fares regime than foot passengers. This has potential implications for the vehicle capacity of the network and the environmental impact.

3.8.6 A consequence of the change in travel patterns is that the peak has become more marked as a proportion of the annual traffic, with implications for coping with peak period demand, especially for car traffic.

3.8.7 Although both residents and businesses claimed to make some ferry trips which would previously been made by air, the scale of this mode switch appears to be very limited and there is no evidence that air services have lost significant volume of business.

4 Capacity Issues

4.1 ***Introduction***

4.1.1 The RET Pilot reduced the fares on the selected ferry routes in the expectation that this would increase the number of ferry trips being carried. However although it was recognised that the services did already operate at or close to capacity in short peak holiday periods, no provision was made for additional capacity to be provided. This would in any case generally be difficult to achieve at short notice. Ships have a long working life, cannot readily be altered to increased capacity and on long routes, there is little scope to increase the number of daily sailings unless overnight sailings are added, which itself has considerable staffing implications. It was therefore to be expected that the issue about increased problems of securing the preferred choice of sailing route and time would arise.

4.1.2 As described in section 2.4.6, it proved impossible to measure the level of unmet demand where prospective passengers were unable to secure the sailing they sought. This analysis therefore is principally based upon the perception of the ease of securing the sailing route and time of choice, and the impact that this has upon the intending traveller. These views were obtained through the interviews with hauliers, the business surveys and the residents' survey. The significant group omitted from this information is potential visitors who were unable to visit the islands when they found no suitable sailing was available – by definition these people could neither be identified nor interviewed.

4.1.3 Although it was not intended to increase capacity during the RET Pilot, for reasons unconnected with RET CalMac decided to introduce Sunday sailings on the route between Ullapool and Stornoway from 9th Jun 2009. This resulted in one additional sailing in each direction, effectively increasing the overall capacity of that route by 17%. Although anecdotal evidence suggests that the effect has been, in part, a transfer of trips from the Uig to Tarbert / Lochmaddy route, it will also have made more weekend travel from Stornoway possible by providing the option of a Sunday return to or from the mainland. Unfortunately the impact of adding this additional journey has not been systematically monitored, either by CalMac or by the RET monitoring programme.

4.2 ***Assessment of ferry capacity utilisation***

4.2.1 Limited information relating to capacity utilisation has been received as part of the ferry traffic data supplied from CalMac. In reviewing capacity utilisation data it is important to note that changes in capacity utilisation can be influenced by a

number of factors in addition to the level of patronage on each of the routes. For example, the size of ship used for each ferry route may change from one season to another to match demand and to allow for maintenance and repair work to be undertaken. CalMac have reported that this was a significant issue during the 2010 season with a number of changes in vessels across routes as a result of maintenance requirements.

4.2.2 In addition, a reduction in crewing levels in the winter can result in a reduction in passenger capacity on some routes to comply with health and safety regulations without any change in the vessel deployed. Also, the cancellation of sailings due to bad weather can result in a change of passenger capacity on particular routes. As a result of these additional factors, it is difficult to draw any clear conclusions from comparing the average monthly capacity utilisation figures before and after the introduction of RET.

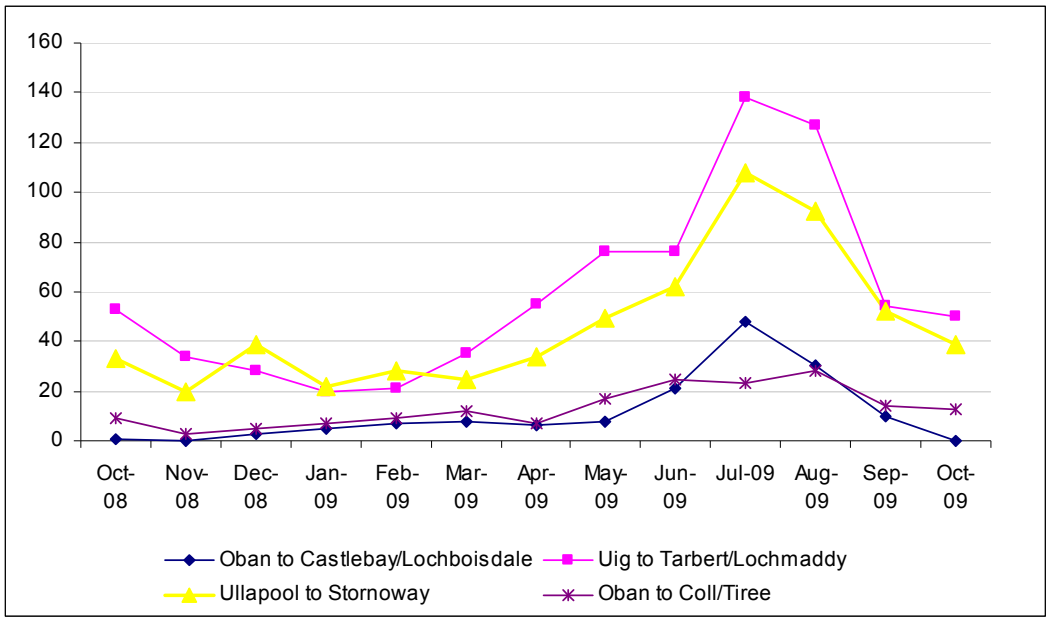
4.2.3 The principal rationale for assessing capacity utilisation is to examine the extent to which the introduction of RET has resulted in passengers and vehicles being unable to travel due to insufficient capacity on any of the routes. This would tend to relate more specifically to those individual sailings at particular times which are more popular than subsequent sailings on the same day.

4.2.4 CalMac has supplied some data [13] relating to the number of sailings in each month during the RET pilot when capacity utilisation has been greater than 65%. This demonstrates that there were only three occasions when passenger demand was above this level on any of the routes. This related to two sailings in July 2009 on the Ullapool to Stornoway and Uig to Tarbert/Lochmaddy routes and a further sailing on the Ullapool Stornoway route in July 2010.

4.2.5 The number of sailings where vehicle capacity was over 65% was much higher throughout the season, peaking in July each year, and is shown in Figure 4.1. It is evident that it is vehicle capacity which is the most limiting factor. Even in the off-peak months sailings at the most popular times did exceed 65% of available capacity, albeit that did not necessarily mean that the vessel was physically full. In view of the high levels of growth in car traffic this has had a particular impact on the ability to take both cars and commercial vehicles on the preferred sailing. This affected all routes but occurred most frequently on the Uig to Tarbert/Lochmaddy route, and also on the Ullapool and Stornoway route

[13] The limited data which CalMac supplied for the purpose of this report was supplied in commercial confidence and is not reproduced in full detail here.

Figure 4.1: Number of sailings during RET where vehicle capacity utilisation exceeds 65%



4.2.6 CalMac has advised that the frequency of sailings when vehicle capacity was over 85% was much less frequent with only a small number of sailings experiencing this level of capacity throughout the summer season. The most severe problems arose during a period in 2010 on the Oban routes when the regular vessel, 'The Clansman', was out of service for unplanned repairs and a smaller vessel, 'Lord of the Isles' was deployed in its place.

4.3 ***Booking ferry services***

4.3.1 Peak capacity problems on ferry routes in the RET Pilot area existed prior to the introduction of RET, and it was to be expected that without additional capacity this problem would increase. In Chapter 3 it was shown that there have been substantial increases in the level of car and passenger traffic across all four of the RET Pilot routes compared to the year prior to the introduction of RET. A consequence of the change in travel patterns is that the peak has become more marked as a proportion of the annual traffic, with implications for coping with peak period demand, especially for car traffic.

4.3.2 The increase in the numbers of commercial vehicles carried was far lower than for cars and passengers, although commercial vehicles are competing for capacity with cars and bookings are therefore affected by the increase in car traffic.

4.3.3 The survey of businesses suggests that a substantial proportion of firms using each of the four RET routes have experienced an increase in problems with booking travel. This appeared to be an issue for the Ullapool – Stornoway route in particular, and less of an issue on the route between Oban and Castlebay / Lochboisdale (Table 4.1). Actual growth in commercial vehicle traffic was highest on the Oban routes, and least on Ullapool to Stornoway (Table 3.3). These findings corresponded with feedback from the interviews with haulage companies.

Table 4.1: Ability to book ferries by route - businesses

Route	Firms using route	Firms citing problems booking	
		Number	percentage
Ullapool - Stornoway route	87	61	70%
Uig - Tarbert/Lochmaddy route	81	52	64%
Oban - Coll/Tiree route	28	15	54%
Oban - Castlebay/Lochboisdale route	30	11	37%

Source: Business Interview surveys

4.3.4 Most of the businesses sending freight on the Ullapool – Stornoway route used the freight service and only on occasion used the passenger service, and this helps to manage demand. Even so this was and remained by far the busiest ferry route for commercial vehicles. One business specifically stated they did not use the freight service, despite costs being 10% cheaper than the passenger ferry, due to infrequency of sailings and a higher incidence of cancellations.

4.3.5 None of the haulier businesses consulted which used the Oban – Lochboisdale / Castlebay route reported any issues in terms of capacity in normal operational circumstance, supporting the feedback from businesses that problems with booking were less common on this route. Some businesses reported an increasing preference for this route as a result of easier booking of the sailings they required, although others did not consider this route as Oban was not a suitable mainland port for their business.

4.3.6 Table 4.2 explores whether residents' ability to travel on the Pilot ferry routes of their choice has changed over the past two years due to services being fully

booked. Overall there was a strong view that the ability to travel on the preferred sailing had got worse [14], particularly on the Oban to Coll/Tiree route.

Table 4.2: Opportunity to travel on RET routes - residents

	percentage of respondents using route	Views of users (percentage of those who use the route).					
		Got better	The same	Got worse	Don't know	TOTAL	Balance – better v. worse
Ullapool to Stornoway	62%	8%	50%	40%	2%	100%	-32
Uig to Tarbert/ Lochmaddy	45%	5%	45%	46%	4%	100%	-41
Oban to Castlebay / Lochboisdale	12%	5%	40%	49%	6%	100%	-44
Oban to Coll / Tiree	5%	4%	13%	54%	29%	100%	-50

Source: Residents' Questionnaire

4.3.7 The balance of those who felt the situation was worse than before RET was highest on the Oban to Coll / Tiree route. This is significantly at odds with the experience of businesses and hauliers, although the increase in the capacity taken by campervan traffic on the Oban – Tiree/Coll route during the summer months was claimed to be a particular problem by one haulier businesses which served these islands. Residents' views on this route may have been affected by a period shortly before the residents' survey when the regular vessel, 'The Clansman' was out of service and a smaller vessel was deployed to the route.

4.3.8 The Ullapool to Stornoway route attracted the least concern about ability to book the desired sailing, again at odds with the views of hauliers that this was the route of most concern to them. This was the only route where capacity had increased during the course of the Pilot through the addition of Sunday sailings.

4.4 ***Consequences of capacity constraints***

4.4.1 All of the haulage businesses consulted tended to reserve space via the block booking system operated by CalMac. However, one haulier noted that they had not been successful in securing a regular booking on the Uig – Lochmaddy service

[14] Those who perceived no change in the ability to book ahead were not reporting that they had no problems, but rather that the problems were considered to be no worse than before RET

and as a result were on the wait list for the next six months. In the meantime the firm had to make day-to-day arrangements wherever he could find space, which impaired his ability to plan schedules and to give customers reliable delivery times.

4.4.2 All haulier businesses noted they experienced problems when a sailing is cancelled. In these circumstances block bookings are not carried over to the next sailing with freight traffic grouped together with all other stand-by traffic. In the period from May to October 2010 it was claimed that there had been a 10 day period when they could not get large vehicles off the Western Isles via Lochmaddy due to there being no deck space available. It was also reported that in early October 2010 the two petrol stations on Tiree were without fuel for two days due to the lack of deck space on the ferry to transport the tanker from Oban. Haulier businesses engaged in the transport of time critical loads such as chilled / frozen goods, medical supplies and livestock noted this was a particularly serious problem. There were always consequent staff costs and increased costs in terms of storage or vehicle down-time. On occasion much more substantial losses arise, for example where perishable goods have to be destroyed or a requirement arises for care and feed for livestock. Such problems are therefore not insignificant, and delays have major implications for both the hauliers concerned and the businesses which rely upon them. It was recognised this was a problem prior to RET but one which has been exacerbated by the lowering of fares and corresponding increase in demand.

4.4.3 It has been suggested by some tourist businesses that it is the unknown number of potential visitors who are unable to access the islands, especially on weekends for traditional Saturday-to-Saturday holidays which represents the largest group of lost trips due to capacity constraints. As the extent to which sailings are fully booked has clearly increased, the numbers of visitors affected will also have increased, although the numbers cannot be stated.

4.4.4 It is difficult to assess the personal hardship incurred by residents when they are unable to make a planned journey. Specific examples of people being unable to make appointments, or to visit family in hospital on the mainland because they could not travel when they required to do so emerged in anecdotal evidence, and there is no doubt that, although this cannot be quantified, it is a serious issue for the individuals concerned on some occasions.

4.5 ***Summary***

4.5.1 Before RET there were acknowledged to be peak season capacity constraints, especially at weekends. The additional traffic attracted by RET has occurred throughout the year, but in particular the summer peak car traffic has increased the pressure on peak capacity as shown in Table 3.2. No additional capacity was

provided as part of the RET Pilot scheme, although additional Sunday sailings between Ullapool and Stornoway were introduced in July 2009.

4.5.2 Unsurprisingly survey respondents report that capacity problems, and consequent difficulties with booking the preferred sailing, have become worse during the RET Pilot. CalMac data suggest that the busiest routes (Ullapool to Stornoway and Uig to Tarbert/Lochmaddy) are most often operating at high loadings. Commercial vehicle operators identify the greatest increase in problems on the Ullapool to Stornoway route, but residents are proportionally more discontented with the Oban to Castlebay/Lochboisdale route.

4.5.3 An inability to secure the sailing of choice frequently increases costs for the passengers and businesses concerned. On occasion the consequences of vessels being fully booked have been serious not just for the individuals involved, but for the businesses which depend upon the delivery of supplies and for the wider community. It has not been possible to quantify how many potential visitors go elsewhere because the route or sailing that they require is fully booked.

5 Effects of RET on tourism

5.1 ***Introduction***

5.1.1 This chapter of the report focuses on how the lower fares policy delivered through the RET Pilot has impacted on the tourist economy across the Western Isles, Coll and Tiree. It was anticipated that a major effect of the lower fares policy would be to make the Pilot area more attractive to tourists and visitors through the reduction in the costs of ferry travel. The increase in tourism was expected to result in additional employment and increased investment in the tourism sector. It will also be important to assess how performance compares with other areas, which will be analysed through the traffic data, with supporting evidence from the onboard visitor survey and national accommodation occupancy data.

5.1.2 In order to assess this, a number of key hypotheses or questions have been proposed, these include propositions that the lower fares will:

- attract more visitors and extend the tourist season;
- contribute to an increase in business performance in the tourism sector, and encourage investment; and
- will have a stronger effect on those visitors with limited budgets.

5.1.3 The assessment has been based primarily on the results of the on-board visitors' survey which has provided detail on visitor travel patterns and where the visitors stayed during visits to the Western Isles, Coll and Tiree.

5.1.4 Business surveys included interviews with tourist accommodation providers which, taken together with Scottish Government IDBR data and Visit Scotland occupancy data, provides information on the opening seasons, occupancy and capacity of tourist accommodation. The data also help to understand the impact of RET on tourism related businesses such as arts and crafts, restaurants etc. and informs an understanding of changes relative to the tourism sector outside the Pilot area.

5.2 ***Tourism – the national context.***

5.2.1 The world recession has had a major impact on leisure travel during the Pilot period as described in section 2.2. There has been an increasing UK trend towards taking holidays in the UK whilst the weak pound relative to other currencies, most notably the euro has made the UK and Scotland an attractive tourist destination for visitors from overseas. The first year of RET also

experienced the Homecoming Scotland 2009 campaign and special events which boosted Scottish tourism during an otherwise difficult economic period.

5.2.2 The upward trend in tourism within Scotland by Scottish residents has continued into 2010 - the second year of RET. VisitScotland data showed that, in the first 6 months of 2010, there was an increase of 3.8% in this 'domestic' tourism compared to the same period in 2009. However, at the same time trips from the residents of the rest of the UK and from Europe to Scotland declined by 9%. The overall 2010 total was 6% lower than the same period of 2008. This could be due to a number of external factors such as the eruption of the volcano on Iceland, industrial action affecting European air travel and air traffic control, as well as financial austerity measures in Ireland and Greece.

5.2.3 The RET area is not immune to these wider issues, and the analysis of the effect of RET is concentrated on differences between the RET area experience and that of comparable areas, in particular other Scottish island groups.

5.3 ***Hypothesis: The lower fares policy will attract more visitors and extend the tourist season***

Numbers of visitors

5.3.1 As reported in Chapter 3, and shown in Table 3.5 across the RET Pilot routes approximately 30,000 more visitors were carried each year than in the year prior to the introduction of RET. The number was slightly lower in 2009/2010 than in the first year, but this probably reflects national trends outlined in section 2.2.

5.3.2 The onboard surveys of visitors to the Pilot area, undertaken in 2010 suggest that 20% of all visitors would not have travelled to the Pilot area without the introduction of RET (Table 5.1). This corresponds closely with the overall increase in ferry passengers on RET routes of 20% by the end of the second year of the Pilot, compared to the year before RET was introduced, and contrasts with an overall rise in traffic of 3% across all non-RET routes.

5.3.3 The findings from this survey provide an indication of what those visitors who would not have travelled to the Pilot area would have done otherwise. Visitors from Scotland were most likely not to have travelled at all while visitors from other parts of the UK and overseas were most likely to have stayed on the Scottish mainland. Travel displaced from other islands amounted to 5% of all visitors and was most common among overseas visitors at 7%.

Table 5.1: Influence of RET on visitors' decision to travel

Origin of visitors	No influence	Travelled to another Scottish island	Stayed on Scottish mainland	Not have travelled at all	Total
Scotland	80%	4%	7%	8%	100%
Rest of UK	78%	5%	12%	4%	100%
Overseas	80%	7%	11%	1%	100%
All	80%	5%	9%	6%	100%

Source: On-board surveys

5.3.4 Overall we have tentatively estimated that approximately some 30,000 additional visitors came to the RET Pilot area by ferry during each year of the Pilot (see section 3.6.2). One fifth of all visitors say they would have not travelled to the area without the lowering of fares through RET which is close to the overall increase in travel recorded. 5% of all visitors (equivalent to about 8,500 people) claim they would have visited another island and 9% (15,000 people) would have made a visit to another mainland destination. Only 6% (10,200 people or one third of the additional visitors) say they would not have travelled at all and some of these may have been visiting friends or relatives resident on the islands.

Origin of visitors

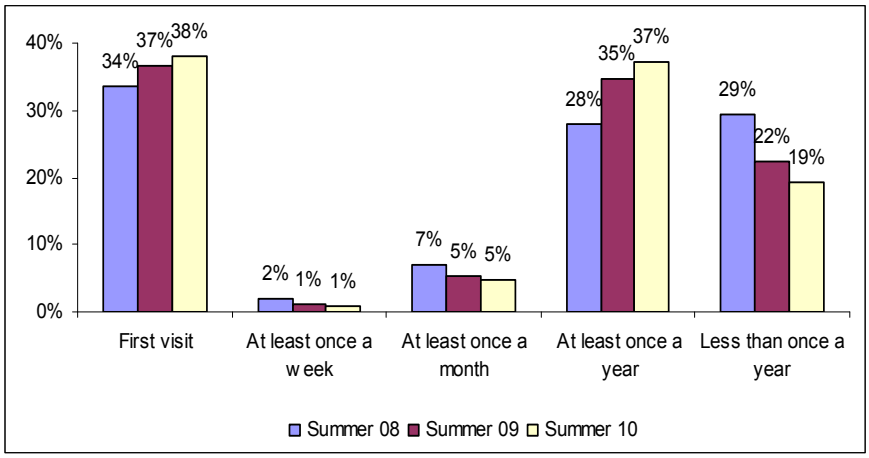
5.3.5 Of the fifty accommodation providers interviewed as part of the business telephone survey, two out of every five indicated that there had been a change in the origin of their guests since the introduction of RET. The most commonly cited change was more guests coming from the rest of the UK and from overseas. There were a range of factors which were cited as contributing to these changes including the wider economic climate and local marketing campaigns but the introduction of RET fares was the most frequently cited response by 10 of the 20 accommodation providers citing a change in origin. However this trend in the origin of visitors is comparable with the national picture and there is no firm evidence that RET has affected tourists from different origins in different ways.

5.3.6 Overall, the findings from the primary and secondary research indicates an increased propensity for visitors to travel to the Western Isles, Coll and Tiree as a result of the RET fare structure; an increase which is greater than that experienced in Scotland as a whole or on other ferry routes. However the greater part of the increased visitor numbers is made up of people who say they would have otherwise visited another destination in Scotland.

New and repeat visitors

5.3.7 The pattern of travel of visitors using the ferry routes has been monitored throughout the RET Pilot. The data illustrated in Figure 5.1 indicate that the profile of travel has changed gradually among visitors with a growing proportion travelling at least once a year to the Pilot area, rising from 28% in the pre-Pilot summer of 2008 to 37% by the summer 2010. On the other hand, the proportion of visitors travelling less than once a year has fallen by 10% over the same period.

Figure 5.1: Frequency of travel by visitors, summer seasons



Source: On-board surveys

5.3.8 There is also an increase in the proportion of visitors for whom this is their first visit to the Pilot area. This has grown gradually from 34% in the summer 2008 to 38% in the summer 2010. Overall, these figures suggest both a significant number of new first time visitors, and also increasingly frequent visits by those who have been before. Although the underlying increase in short-break domestic tourism will account for some of this growth (as evidenced by the VisitScotland data in section 5.2) the 19% growth on the RET routes exceeds the national growth rates of 6% (section 2.2.3). This will also include those who are visiting friends and family on the islands as an increase in visits is reported in the household survey (section 8.3.1) where 10% of households reported that they now received visitors more than once a year where previously it was once a year or less.

5.4 ***Hypothesis: RET will contribute to an increase in business performance in the tourism sector, and encourage investment***

Tourist accommodation occupancy rates

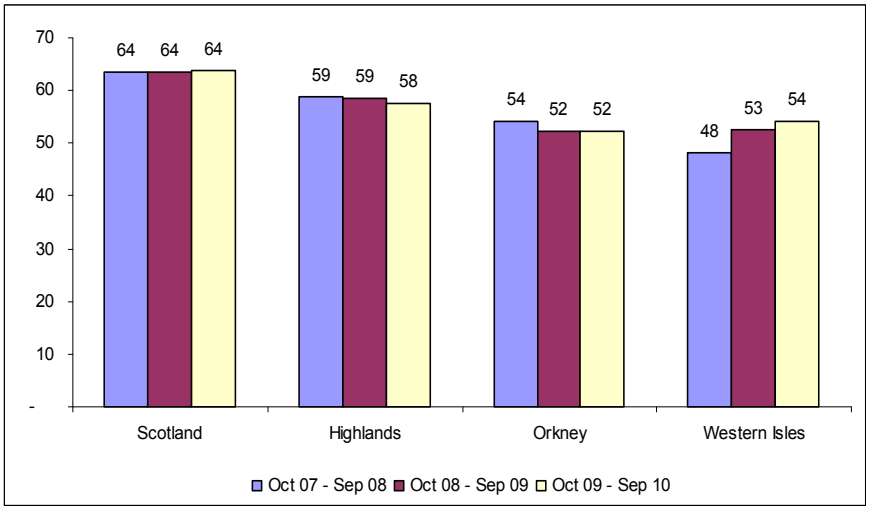
5.4.1 More visitors are expected to increase the occupancy of accommodation. Furthermore alongside the expectation that lower fares will specifically encourage more repeat visitors is an expectation that this will lead to a greater spread of visitors through the year outside the peak holiday season. The significance of spreading the peak is that it makes more efficient use of the premises and provides more extended employment opportunities to the staff.

5.4.2 Visit Scotland accommodation occupancy data suggest that there have been higher rates of occupancy following the introduction of RET in the Western Isles, which is indeed spread across the whole season.

Hotel sector

5.4.3 The hotel accommodation average occupancy levels rose consistently in the Western Isles since the introduction of RET, while in other comparator areas they either remained static or fell slightly (Figure 5.2).

Figure 5.2: Average annual hotel room occupancy across Scotland

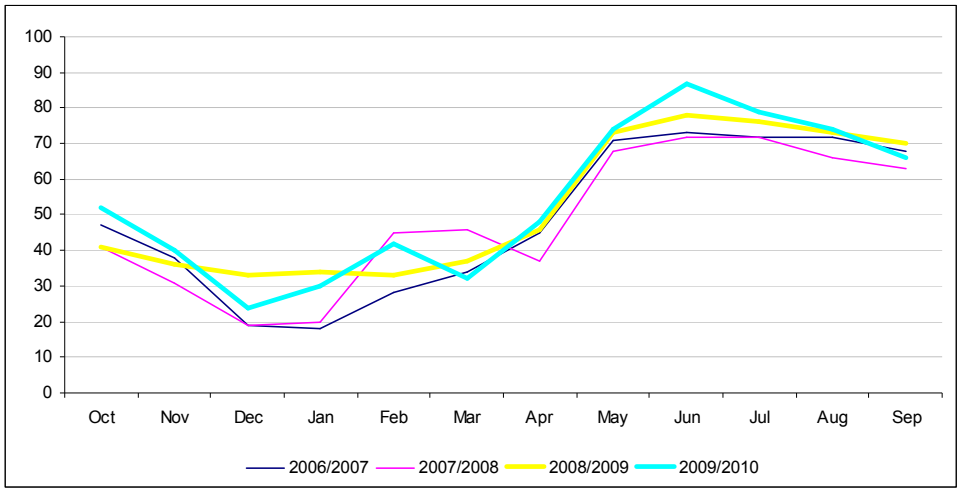


Source: VisitScotland

5.4.4 In the hotel sector room occupancy was higher in every month in the second year of the RET Pilot compared to the baseline year in 2007/2008, with the exception of February and March (Figure 5.3). Easter was in March in 2008, which will have

boosted levels of occupancy in that month compared to 2009 when Easter was in April. However June, historically the busiest month, was also the month where occupancy rates increased the most, and in 2010 June was the busiest month in the year for the hotel sector. Additional off-peak demand was comparatively modest.

Figure 5.3: Monthly average hotel room occupancy in the Western Isles



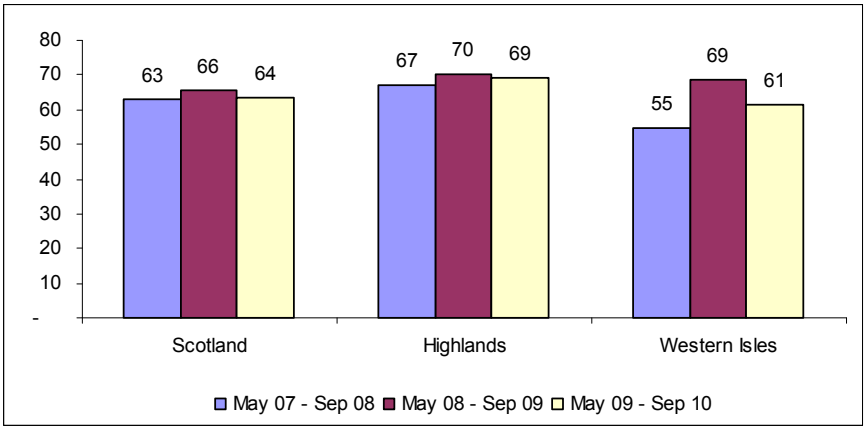
Source: VisitScotland

Bed & Breakfast sector

5.4.5 In the Bed & Breakfast (B&B) sector, monthly figures are only available for May to September and so it is not possible to assess the impact in months across the whole year. There was a particularly large increase in average B&B room occupancy in the Western Isles in the first season (May to September) after the introduction of RET, which also rose in the Highlands and Scotland as a whole. In the second year of RET, average occupancy was lower in all three areas, although in the Western Isles it still remained higher than before RET had been introduced, while it was lower in the other comparator areas [15] (Figure 5.4). The Homecoming festivities in the summer of 2009 may have provided a particular boost to the tourism season in the Pilot area and across Scotland during that year.

[15] Data is not available for Orkney for all periods, so that comparisons with this area are not possible.

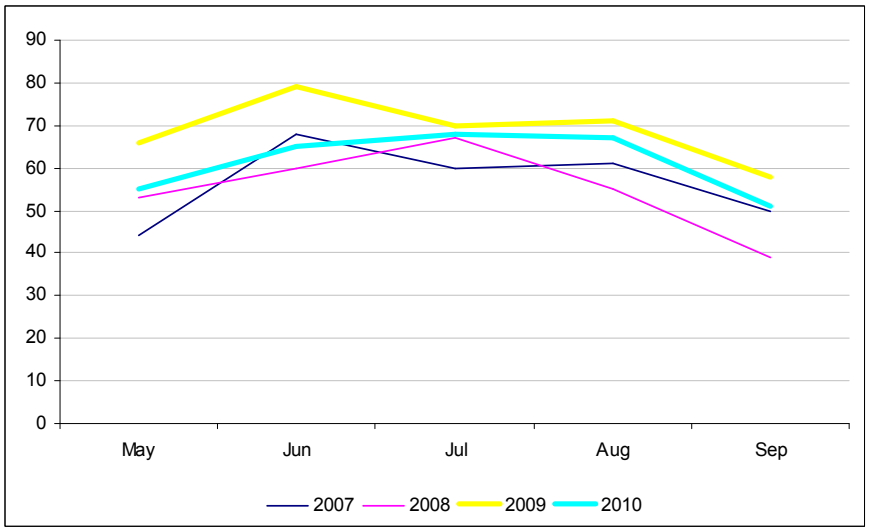
Figure 5.4: Average Bed & Breakfast occupancy across Scotland



Source: VisitScotland

5.4.6 The largest impact on B&B occupancy over the two years of RET appears to be more in August and September when compared with the 2008 season (Figure 5.5).

Figure 5.5: Monthly B&B Room occupancy in the Western Isles



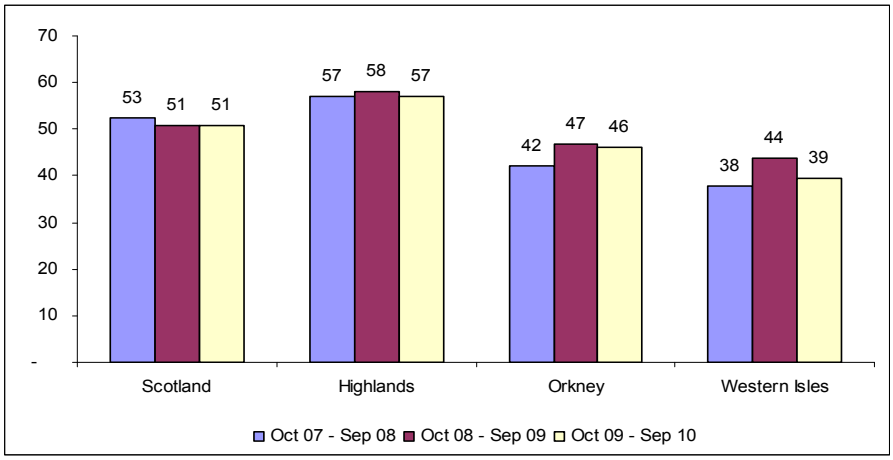
Source: VisitScotland

Self-Catering sector

5.4.7 In the self catering sector, there was less evidence to suggest that occupancy rates had increased since the introduction of RET. Average occupancy through the first

year of the RET Pilot increased by 6% points to 44%, but fell by 5% points in the following year (Figure 5.6).

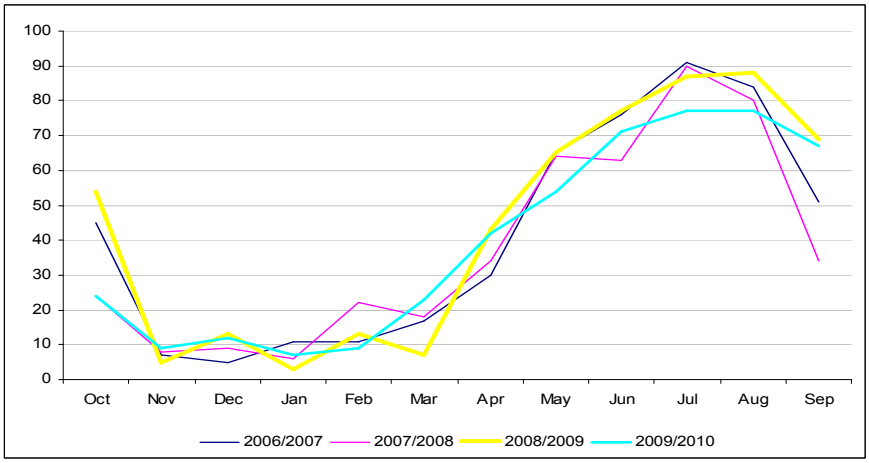
Figure 5.6: Annual self-catering occupancy across Scotland



Source: VisitScotland

5.4.8 While occupancy was consistently higher in most months during the first year of the RET Pilot, this was not sustained during the second year (Figure 5.7). The one month which was consistently higher was September when occupancy levels had been substantially lower in the two years prior to the launch of RET. It is not clear that RET has influenced this observed increase in the level of tourist demand in this one month at the end of the main tourist season.

Figure 5.7: Monthly self-catering occupancy in the Western Isles



Source: VisitScotland

5.4.9 Feedback from accommodation providers surveyed as part of the businesses survey indicated that nearly three quarters had experienced increased levels of occupancy since the introduction of RET, which is confirmed by VisitScotland data. There is some evidence that the season has been extended and this outcome is consistent with the increased seasonal travel demand on the ferries described in section 5.3. Although the improvement is spread across the whole year, it was nevertheless greatest in the traditional peak period from June to September. 75% of accommodation providers claimed to have experienced increased occupancy, and 47% claimed an increase in the portion of the year in which they were operating at full capacity. A small number (8%) had extended their operating season to cater for higher demand outside the peak summer. One in five tourist businesses claim this is a result of RET although other factors such as Homecoming Scotland cannot be discounted.

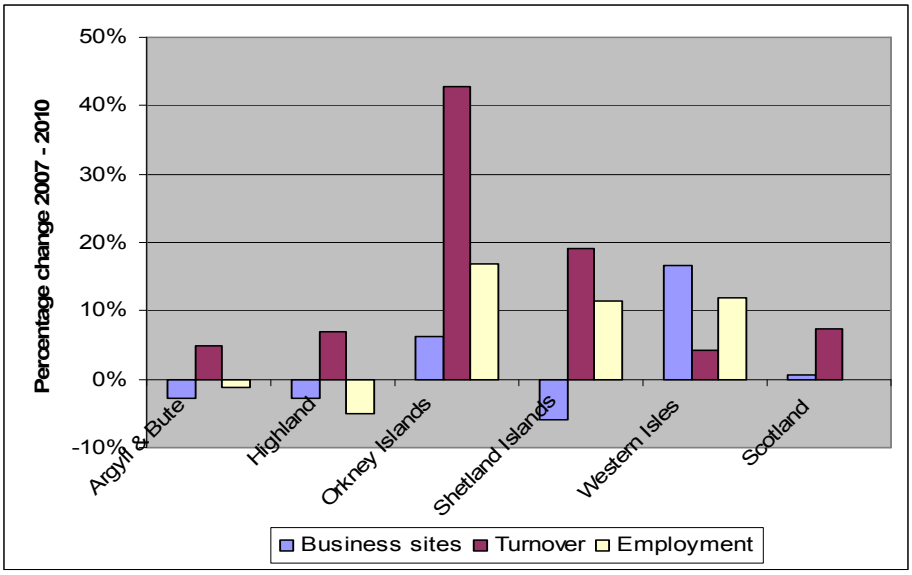
5.4.10 Overall, the Western Isles has recorded a greater increase in hotel accommodation occupancy than the other comparator locations and Scotland as a whole across all accommodation types, although starting from a lower baseline. These areas are equally affected by worldwide economic changes and by the Homecoming Scotland promotion so that differences may reflect the impact of RET itself. Increases in the year subsequent to the introduction of RET were particularly marked in relation to serviced accommodation including hotels, and were least evident in self-catering accommodation.

Tourist business numbers and turnover

5.4.11 Data from the IDBR indicate that, in comparison to other areas of the Highlands and Islands and Scotland as a whole, the Western Isles and Orkney were the only two areas to experience a rise in the number of hotels and restaurant businesses over the period of the Pilot (Figure 5.8).

5.4.12 Only the islands of the Western Isles, Orkney and Shetland recorded increases in employment in the hotel and restaurant sector compared to 2008. However the increase in the numbers of businesses and in employment in the Western Isles was not reflected in turnover which rose only by 4%, and was lower than any comparator area.

Figure 5.8: Percentage change in performance in hotel and restaurant sector March 2008 to March 2010



Source: IDBR

5.4.13 Overall, business turnover in hotels and restaurants in the Western Isles to the year ending March 2010 was £25m, a slight increase of £1m when compared to the year prior to the introduction of RET (Table 5.2) and no more than could be attributed to inflation.

Table 5.2: Performance of hotels and restaurants in Western Isles 2008 - 2010

	Year ending			**Year on year change**	
	Mar-2008	Mar-2009	Mar-2010	2008 - 2009	2009 - 2010
Total turnover £m	**24**	**27**	**25**	**+3**	**-2**
Total employment	**670**	**730**	**750**	**+60**	**+20**
No. of business sites					
Lewis	50	55	65	+5	+10
Harris	10	10	10	0	0
Benbecula and North Uist	20	15	20	-5	+5
Barra and South Uist	15	15	10	0	-5
Total no. of business sites	**95**	**95**	**105**	**0**	**+10**

Source: IDBR

5.4.14 Notwithstanding the modest recorded increase in total turnover, there has been a marked rise in the both the total number of employees and number of businesses in the sector since the introduction of RET, rising by 80 employees (12%) and 10 business sites (11%) over the two years subsequent to the year ending March 2008. The increase in the number of hotel and restaurant establishments was entirely in Lewis.

5.5 ***Hypothesis: The lower fares policy will have a stronger effect on low budget sectors***

5.5.1 RET is a fare reduction scheme and economic theory will suggest that this is likely to have a bigger impact on those sectors of the tourist market which are most price sensitive - i.e. those on a budget. This can be explored through looking at the relative changes to the markets for different accommodation sectors.

5.5.2 The comparative growth in different tourist sectors in the Western Isles cannot be identified from a single data source, but Table 5.3 draws together indicators of change from various sources.

Table 5.3: Comparative change by accommodation sector

	2008	2009	2010	Change 2008-2010
No. of Hotel sites	95	95	100	+5%
Hotel occupancy percentage	48	53	54	+12%
B&B occupancy percentage	55	69	61	+11%
Self-catering occupancy percentage	38	44	39	+3%
Camping No. of sites	15	15	20	+33%
Motorhome ferry traffic	1207	2616	2719	+125%

5.5.3 The data appear to show that the growth in motorhome and camping activities very substantially exceeds that in other sectors. Motorhome and campervan traffic has increased by a remarkable 28% on all CalMac routes (Table 3.4) but the increase in such traffic on the RET routes of 125% is very substantially more than this. Motorhome users are not necessarily 'on a budget', but probably do spend less than those who stay in hotels, guest houses or self-catering premises as they are not paying for accommodation services.

5.5.4 It must be borne in mind that growth which requires capital investment – for example new hotels or guest houses - is only likely to emerge in the medium to long term. Nevertheless the figures lend support to the hypothesis that it is those sectors of the tourist market which bring limited expenditure to the islands which have responded most strongly to RET during the first two years.

5.6 ***Summary***

5.6.1 An estimated 30,000 additional visits to the Pilot Area were made by ferry during each year of the Pilot. Although one fifth of all visitors say they would have not travelled to the area without the lowering of fares through RET, the greater part of the increased visitor numbers is made up of people who say they would have otherwise visited another destination in Scotland. Some of these will have been visiting friends and family and not using tourist accommodation.

5.6.2 Over the two year Pilot period the majority of existing tourist businesses claimed that they had experienced higher demand and a longer season. The actual increases in occupancy were modest and some of this can be attributed to wider economic events, such as the rise in domestic tourism which followed the onset of recession and the Homecoming Scotland events. Nevertheless the tourist expansion in the RET Pilot area has modestly exceeded performance elsewhere.

5.6.3 The secondary data support the assertion that businesses performance has improved within the tourism sector with rates of occupancy higher than before the introduction of RET. However, this was particularly the case for 2009, and average rates have dropped for B&Bs and self catering accommodation in 2010 though remain above those before the RET scheme. The Western Isles experienced the highest proportional increase in the number of tourist sector businesses, and also increased gross turnover and employment in this sector, though greater growth in these factors were recorded in Orkney without the benefit of RET.

5.6.4 The growth in motorhomes and camping, together with the modest 4% increase in turnover in the accommodation sector which was below any comparator area, suggests that the additional visitors are spending less than the average on accommodation on the islands. This may be a further indicator that the additional tourist business attracted by RET has been comparatively low value, although it has not been possible to measure tourist expenditure directly.

6 Impact of RET on other sectors of the economy

6.1 ***Introduction***

6.1.1 Tourism was recognised as a key economic sector in the Pilot area - 64% of ferry traffic comprised visitors even before RET was introduced (Table 3.5). However it was also anticipated that other island businesses would benefit from lower ferry charges. In particular it was suggested that the high costs of accessing mainland markets made island businesses uncompetitive, thus limiting their ability to create employment. It was envisaged that RET could therefore reduce the costs of both supplies and deliveries, improving the competitiveness of island businesses.

6.1.2 It has been suggested that lower ferry fares would feed through to lower prices on the islands, particularly fuel prices. This might arise by two mechanisms: through lower distribution costs of supplies; and easier access to the mainland increasing competition between mainland and island suppliers.

6.1.3 It is possible that access to lower priced goods and services on the mainland would reduce retail prices for island residents but, as explained in paragraph 2.10.3, the study has not secured the data necessary to test this hypothesis. However an analysis of fuel price data over the Pilot period compared to the period before the Pilot commenced has been carried out.

6.1.4 Whilst RET would increase the opportunities for residents on the island to visit the mainland and to spend more of their earnings off the island, this could have the effect of reducing income for island retailers and other services industries.

6.1.5 This chapter therefore looks at the hypotheses that:

- Lower Ferry charges will reduce freight costs for businesses which will
    - Be reflected in a lower cost of supplies;
    - result in more freight traffic moving between the islands and the mainland; and
    - result in lower prices, specifically for fuel.
- Businesses will make more passenger use of ferry services; and
- Residents will buy more goods and services on the mainland.

6.2 ***Hypothesis: Lower ferry charges will reduce freight costs for businesses***

6.2.1 This section of the report focuses on how the lower fares policy has changed the volume of freight travelling between the islands and the mainland, and how freight costs to local businesses in the Pilot area have changed.

6.2.2 In section 3.4 and Table 3.3 the ferry traffic data showed that the increase in commercial vehicle traffic was 8% over the two years of the Pilot, which was very much less than the increase in either passenger or car traffic. This is not unexpected. Freight transport operates only where there is a product to be carried and a customer for that product. It is likely therefore that the increase in freight traffic will be a secondary effect arising from increased trade of island businesses and not a direct first order response to lower fares.

6.2.3 The assessment has been primarily based on data provided from the telephone business survey and face to face interviews with transport and distribution firms. The reduction in transportation costs is also explored in terms of any resultant increases in competitiveness and sales on the mainland. Conversely, the lower fares policy has the potential to encourage more mainland firms to compete within the Pilot area. The relative magnitude of these competing effects will determine the overall net impact of the policy on island and mainland businesses.

6.2.4 In addition changes in the retail price of petrol and diesel fuel has been monitored as a potential indicator of the change in distribution costs.

Cost of transporting goods for businesses

6.2.5 RET has reduced the costs of carrying freight to and from the Westerns Isles, Coll and Tiree by ferry. The amount of reduction is very variable as there were previously different discounts for various commodities and also frequent users could previously secure fares' discounts which are not available under RET. A key issue in assessing the impact of the RET Pilot is whether or not lower fares for transporting goods have been passed on to customers. One argument is that if the cost of transporting goods either by businesses themselves or through freight operators is reduced then lower costs will in turn be passed on.

6.2.6 Discussions with haulage and distribution businesses revealed there are a number of wider factors which have been taken into account when considering the relationship between ferry freight fares and distribution costs. All of those haulage firms directly involved in the transportation of freight to and from the Pilot area which were consulted acknowledged their costs had decreased, although there was a wide range of savings reported. Larger haulage firms were previously entitled to a discount through the Traders Rebate Scheme (TRS) and they had also previously

made extensive use of discounted multi-journey tickets. Such firms experienced lower levels of savings arising from RET than smaller businesses and others making only infrequent use of the ferry, who could not previously secure such discounts.

6.2.7 Overall feedback from a number of haulage companies indicated a reduction of up to 50% in ferry charges compared to the situation prior to RET. A total of 19 firms putting commercial vehicles onto the ferries were able to quantify the level of savings passed on to them as a result of RET. This aggregates to total savings among these firms worth £110,000 per annum, but ranged from just £200 per annum to £25,000 per annum, with an average value of £5,800. In terms of the value of these cost savings as a proportion of total turnover, the value of savings ranged from 1% to 40%, with an average of 10% of annual turnover.

6.2.8 A key issue in assessing the impact of RET is the extent to which lower cost of transporting goods has been passed on through the supply chain. Only just over one fifth of the 160 firms in the sample of firms in the business survey claimed that savings in haulage costs had always or sometimes been passed on to their business customers (Table 6.1). While some haulage firms reported that they had passed on all savings in some circumstances, this appeared to be particularly evident where contracts had been renegotiated with national businesses with outlets in the Pilot area.

Table 6.1: Extent to which lower transport costs have been passed on (2010)

	Frequency	Percent
Always	14	9
Sometimes	21	13
Rarely	13	8
Never	98	61
Don't know	14	9
Total	160	100

Source: Business Interview surveys

6.2.9 The predominant view amongst hauliers was that the reduction in ferry fares provided additional support to cover other costs such as fuel, wages and vehicle maintenance. This implies that their prices were lower as a result of RET even though they had not separately identified and passed on RET savings and the extent to which these savings were passed on to customers tended to be obscured. With ferry fares accounting for only 10% of haulage costs on average (and far less

in many cases) there has been no objective evidence available either to support or refute this claim. Others cited the difficulties in passing on very small savings to individual customers: as one remarked *"the saving from RET is insignificant in relation to the price of a single packet of cornflakes. The difference that RET makes is that we can continue to provide a viable service on the islands".*

6.2.10 Out of the 48 firms not in the haulage and distribution sector that indicated that they had noted some cost savings passed on to them from their hauliers, 48% indicated that they had in turn passed these on in full to their own customers, and a further 33% claimed that they had passed some of the savings on; only 19% claimed they had not passed on any savings.

6.2.11 Overall just 7% of firms in the sample of businesses indicated that the savings had been passed on in full throughout the supply chain from both their suppliers and on to their customers. Overall, this suggests that in 93% of cases, the reduction in ferry fares arising through the RET Pilot have been wholly or partially absorbed at some stage in the supply chain, without being fully passed on to customers.

Fuel prices on the islands

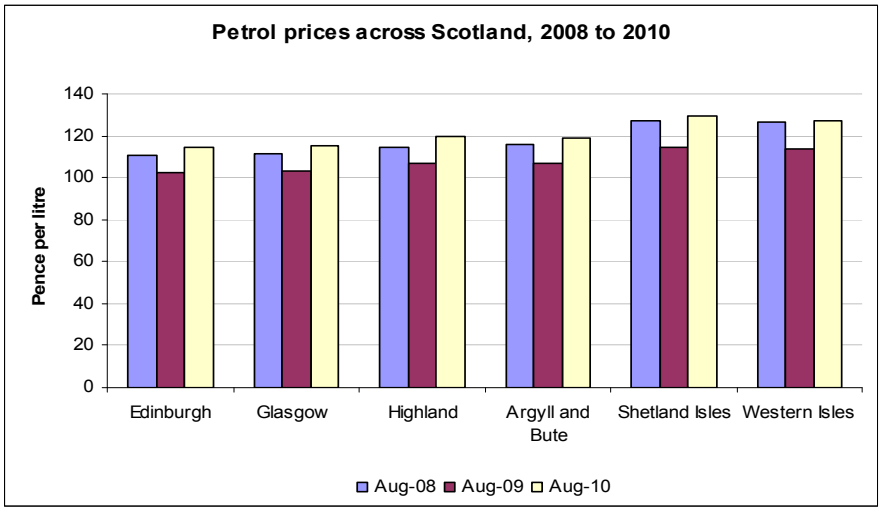
6.2.12 Fuel prices are a specific and measurable example of a product where lower distributions costs might be reflected in lower end user prices.

6.2.13 With the exception of Coll and Tiree, road fuel supplies to the islands are delivered by a fuel supply vessel operated by Scottish Fuels, and not by ferry services. Only on Coll and Tiree are road tankers used to stock filling stations. There is therefore no direct connection between RET and the delivery costs of fuel to retailers. However the residents might use cheaper ferry services to access mainland fuel sources and this could increase the competitive pressure on island filling stations, which could have an indirect impact on fuel pricing.

6.2.14 Figure 6.1 shows the average price per litre for petrol across Scotland collected from Experian. The data indicate that average petrol prices are higher in Shetland and Western Isles, relative to the other mainland and island locations [16] and that, since the introduction of RET, this has continued.

[16] Insufficient observations were acquired on Orkney for a reliable comparison.

Figure 6.1: Change in average petrol prices across Scotland, 2008 - 2010



Source: Experian

6.2.15 Average petrol prices declined in all areas from August 2008 to August 2009. The largest fall was on the Shetland Isles at 13%, while the Western Isles also recorded a large fall of 12%. From August 2009 to August 2010 all areas saw an increase in petrol prices. The largest increase was for the Shetland Isles at 13%, while the Western Isles experienced an increase of 11%. Overall, the Western Isles remained the second most expensive local authority in Scotland to purchase petrol throughout the period. However, the differential between the price in the Western Isles and the price in Edinburgh has decreased over the period of the Pilot as shown in Table 6.2.

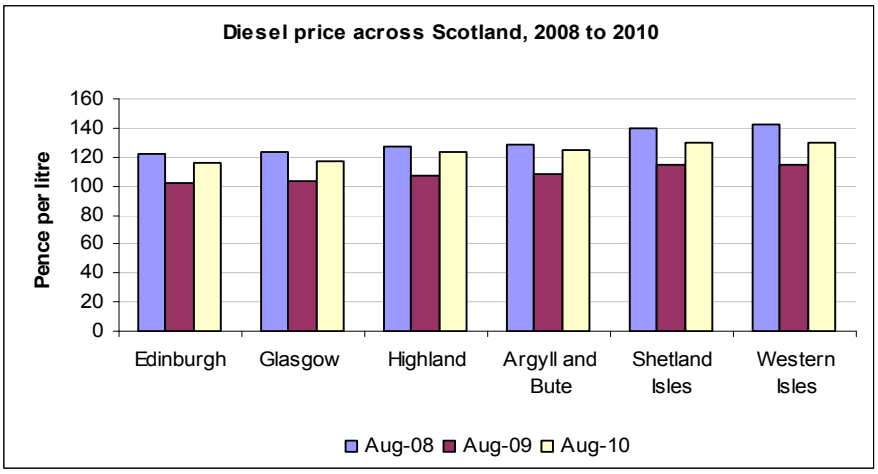
Table 6.2: Relative Petrol Prices (Edinburgh = 100)

	Aug-2008	Aug-2009	Aug-2010
Western Isles	114	111	111
Shetland Isles	115	111	113
Highland	104	104	105
Argyll and Bute	105	104	104
Glasgow	100	100	101
Edinburgh	100	100	100

Source: Experian

6.2.16 The trend in diesel prices is shown in Figure 6.2 and Table 6.3.

Figure 6.2: Change in average diesel prices 2008 - 2010



Source: Experian

Table 6.3: Relative diesel prices (Edinburgh = 100)

	Aug-2008	Aug-2009	Aug-2010
Western Isles	116	112	112
Shetland Isles	114	112	113
Argyll and Bute	105	106	107
Highland	104	105	107
Glasgow	101	101	102
Edinburgh	100	100	100

Source: Experian

6.2.17 Although the Western Isles diesel prices in 2008 were (on average) the highest recorded, the price differential did reduce in the first year of the RET Pilot and in 2010 prices were higher in the Shetland Isles. However it is not evident that this modest relative improvement in the price of diesel fuel in the RET area can be attributed to RET as it is within the range of price fluctuation observed in other areas.

Activity by island businesses on the mainland

6.2.18 The introduction of RET provides an opportunity for export orientated businesses based in the Pilot area to lower their transportation costs, providing these firms with the opportunity to be more competitive and increase their presence in mainland markets. The Business interviews suggested that 40% of businesses outside the tourist sector used ferries to export products from the islands to the mainland, though the value of this business has not been estimated.

6.2.19 One business indicated they were now competing with mainland businesses in Mallaig in the fish processing market, and had also been able to transfer some processing activities from the mainland to the Western Isles which would previously have involved prohibitive transport costs. They were clear that in this case RET had made operating on the mainland from an island base a lot more viable and allowed them to offer the same price for their services as mainland businesses when previously their costs were 25% higher. Whilst the benefit to the Western Isles might be seen to be to the disbenefit of Mallaig, the lower end cost of the product may be seen as a productivity benefit to all.

6.2.20 The primary research among businesses has highlighted a very small number of examples of businesses based within the Pilot area capitalising on export opportunities as a result of RET. However there did not appear to be a particular beneficial impact on exporting businesses when compared to other businesses in the Pilot area in terms of increases in turnover. Table 6.4 shows that a total of 60% of firms indicated that their turnover had increased since RET had been introduced, but that this was similar for firms that exported using the ferry and those firms that did not.

Table 6.4: Change in turnover by exporting category

Business turnover	Firms exporting via ferry	Firms not exporting via ferry	All businesses
Increased a lot	27%	27%	27%
Increased a little	31%	33%	33%
Stayed the same	19%	25%	23%
Decreased a little	13%	7%	9%
Decreased a lot	6%	4%	5%
(Don't know / varies)	5%	3%	4%
Total	100%	100%	100%
Sample	64	96	160

Source: Business Interview surveys

6.2.21 10% of firms in the business survey sample had changed their transport methods since RET had been introduced, and 80% of these stated that they were now transporting more goods and supplies themselves because of the cheaper tariffs. This corresponds with the observation of the haulage businesses themselves that more of their customers were using their own transport. It also underlines the anecdotal evidence that the volume of commercial freight transported by smaller white van traffic has increased, which has become more viable since the introduction of RET. Nevertheless, the findings also indicated that so far, 90% of firms have not changed their transport methods. This would support the feedback from established haulage firms that, while there may have been increased use of smaller commercial vehicles to transport goods to and from the Pilot area, most commercial freight has remained unaffected.

6.2.22 The majority of the haulage and distribution businesses reported they were using the ferry services at the same level of frequency as before. This was broadly consistent across different types of business and areas of the Pilot. However, of the businesses consulted which particularly specialised in the delivery of parcels it was noted there had been an increase in national carriers contracting out work in an effort to save costs, although this had no direct bearing to RET. Two businesses reported a drop in terms of the volume of their loads but that frequency remained the same and, whilst lower ferry charges might support a greater number of trips with smaller loads, in one instance this was specifically driven by the guarantee of a next day delivery service instead of accumulating deliveries over several days. Another haulage business commented they had experienced a modest change in the structure of their deliveries with more goods being

transported direct to homes rather than shops on the Western Isles. This too is likely to be a consequence of a national increase in the use of internet-shopping - a national trend not connected with RET.

6.2.23 Two hauliers did report an increase in the use of services over the period of the Pilot. One considered this to be a reflection of increased business as a direct result of RET whilst the other felt it was more a reflection of general background growth and not attributable to RET.

6.2.24 The consultations with haulage and distribution firms suggested that these firms were not generally inclined to look into new markets either in terms of goods transported and geographic coverage on the back of RET, if it was thought that this would take business away from other haulage and distribution businesses based on the islands. However a small number of firms were identified which had expanded into mainland markets. For example, one business directly attributed the development of a mail delivery service to RET - *"As a direct consequence of RET our business has introduced a mail service which charges £4.59 to post a small package (up to 15kg) anywhere in the UK. This offers a cheaper rate compared to the Royal Mail."*

Mainland businesses in the island markets

6.2.25 The impact of RET in enabling mainland businesses to compete within the Pilot area was also explored in discussions with haulage and distribution firms. It was highlighted that the flattening of the fares structure has made serving the Western Isles more attractive to mainland hauliers, who might previously have been unable to take advantage of the multi-trip discounts that were utilised by island based businesses.

6.2.26 One example of a mainland haulier entering the island market was a major contract to a mainland haulage company which is now undertaking beer deliveries to the Western Isles. This specific contract was not however related to the introduction of RET, but arose from a change in the contractual arrangements for transport by the brewer who sought a single haulage contractor for the whole highlands and islands area. Having established a toe-hold, RET has provided an additional opportunity to compete in the Western Isles market for other delivery contracts which they have exploited to a limited degree.

6.2.27 Another example cited was that of a mainland oil distributor who started to bring heating oils into Stornoway on the ferry. There was publicity suggesting that this move was a result of RET, and discussion with the business concerned does suggest that the publicity surrounding RET was the catalyst to their decision to

expand into the Western Isles. However the business went on to undertake similar expansion in areas not benefitting from RET so that it appears that the lower fares themselves were not critical to their business case.

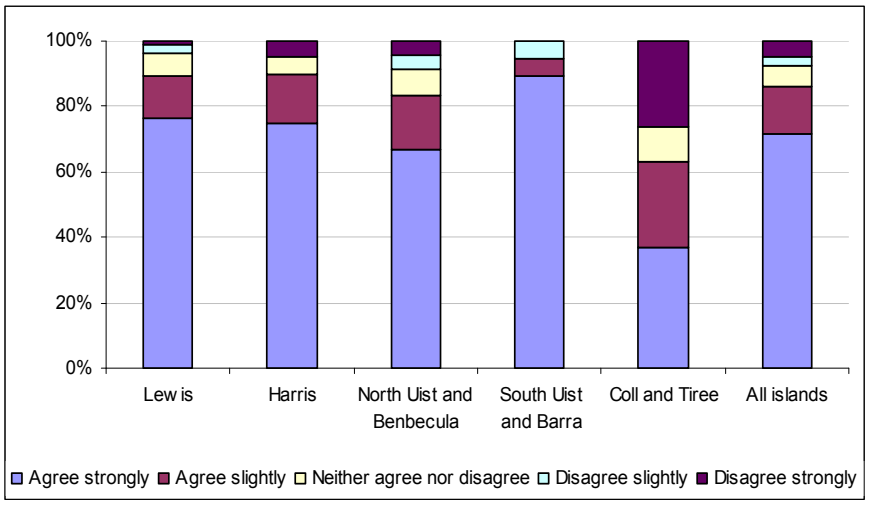
6.2.28 Hauliers across the Pilot area reported hearing that there were examples of mainland vehicles from non-haulage businesses now bringing materials into the area. It was suggested that lower fares made it more attractive for companies to undertake their own transport. Examples included the company undertaking the shot-blasting on the Pier area at Castlebay. It was however acknowledged that the wider economic conditions may also have a role to play in terms of a downturn in work, meaning that staff are now available to undertake transport activities and removing the requirement to sub-contract it out. Therefore this trend may not be a direct consequence of RET.

6.2.29 There were different views in terms of RET generating competition from mainland hauliers to serve Tiree and Coll. Businesses transporting goods to these islands did not report any new entrants to the haulage market from the mainland. Reasons suggested included the costs of staff and accommodation incurred in serving the islands. There were also logistical considerations such as the inappropriate size of mainland vehicles when there is often a need to off-load goods for distribution into smaller vans of more suitable size for island roads. However, one business serving Tiree and Coll did indicate that, with the reduction in fares and loss of multi-trip discounts, it is now more attractive for local businesses to move their own goods instead of using a haulier and this has been a factor in a decline in the volume of goods transported by that haulier.

Impact of lower fares on overall businesses performance

6.2.30 Despite a lack of specific evidence, there appears to be overwhelming view amongst the businesses in the Pilot area that RET is beneficial to the performance of business generally within the Pilot area. A total of 85% agreed that businesses performance had benefited from the introduction of RET (Figure 6.3). While the majority of firms across the Western Isles strongly agreed with this statement, particularly in Barra and South Uist, this was not the case in Coll and Tiree. One in four of the businesses surveyed there disagreed strongly that RET had made a positive impact of their businesses performance.

Figure 6.3: Firms citing a positive impact of RET on business performance



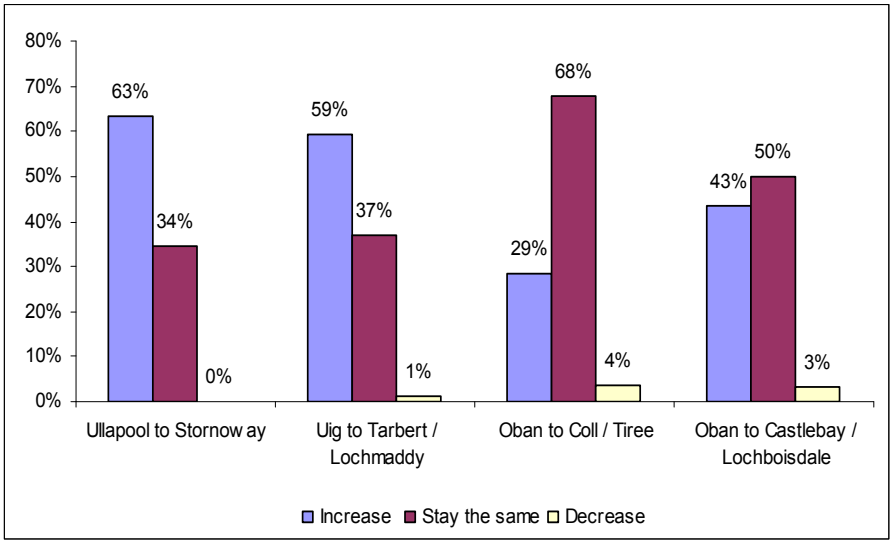
Source: Business Interview surveys

6.3 ***Hypothesis: The lower fares policy will encourage an increase in business travel to and from the mainland***

6.3.1 This section of the report focuses on how the lower fares policy has impacted on the passenger use of ferry services by island businesses. The assessment has been based primarily on data from the business survey which provide information on which route businesses use, for what purpose and how ferry use has changed since the introduction of RET.

6.3.2 Feedback from the businesses survey indicates that the frequency of use for business travel has increased for a proportion of businesses on all RET routes. The increase was most pronounced for users of the Ullapool to Stornoway route, where 63% claimed to travel more and over one fifth indicated that they were now travelling a lot more. The least impact appeared to be on the route from Oban to Coll/Tiree, where the majority indicated no change in travel use, while just over one in four firms were using this ferry route more frequently (Figure 6.4).

Figure 6.4: Change in business use of ferry routes



Source: Business Interview surveys

6.3.3 Over 90% of businesses citing an increase in their use of ferries attributed this to the lower fares arising through the RET Pilot. This was consistent across all four ferry routes. A small number of respondents highlighted other factors such as location of customers and suppliers. Those respondents who indicated that their frequency of use had decreased since the introduction of RET all claimed that this was due to difficulties booking the sailing on the route and at the time they required.

6.4 ***Hypothesis: Residents will buy more goods and services on the mainland.***

6.4.1 Lower fares increased the use of the ferry services by residents as well as by visitors and businesses. Residents may therefore make greater use of mainland retail outlets to purchase goods and services, potentially with a loss of custom for island based retailers. This section therefore explores these economic effects of expenditure by residents.

6.4.2 The household survey conducted in autumn 2010 asked respondents to state how their use of ferry services had changed since the introduction of RET for a variety of journey purposes including shopping.

6.4.3 The highest proportion of respondents across all islands (49%) stated that they did not use the ferry at all for shopping as shown in Table 6.5. Of those who did use the ferry for this purpose, 68% stated that they travel more now because of RET, while 28% stated that their travel had not changed. Only a small proportion stated

that they travelled more now for other reasons (3%), and an even smaller proportion stated that they travelled less now (1%).

Table 6.5: Frequency of resident visits to the mainland for shopping 2010

	I travel more now because of RET	I travel more now for other reasons	My travel has not changed	I travel less now	Don't use the ferry for that purpose	Total
Lewis	36%	1%	12%	1%	49%	100%
Harris	28%	1%	13%	0%	58%	100%
Benbecula and North Uist	35%	2%	16%	1%	46%	100%
South Uist and Barra	35%	1%	17%	1%	47%	100%
Coll and Tiree	25%	1%	35%	1%	38%	100%
All islands	34%	1%	14%	1%	49%	100%

Source: 2010 Residents' survey

6.4.4 The use of ferry services for shopping was highest from Coll and Tiree, probably due to more limited retail opportunities on those smaller islands. A higher proportion on these islands (35%) stated that their travel had not changed, compared to the other island groups which ranged between 12% and 17%. It is clear that RET has induced more shopping trips to the mainland across the whole Pilot area, but with the least impact upon Coll and Tiree.

6.4.5 Respondents to the household survey in 2010 were asked to compare their spend on food shopping and other goods on the Scottish Mainland, compared to before the RET Pilot.

6.4.6 Table 6.6 shows that, overall, around 28% of those residents who do visit the mainland for shopping were now spending more on the mainland for food than before the introduction of RET, including 9% who said it was a lot more. These are subjective statements and are not quantified. The proportion claiming to spend more was highest on Barra and South Uist at 43% and lowest on Lewis at 25%. The most commonly cited reason for this change was cheaper fares as a result of RET. Around one third of these residents indicated that their spend on food shopping was the same as two years ago, while 8% indicated it was less.

Table 6.6: Resident spend on food shopping on the mainland

	A lot more	Slightly more	The same	Slightly less	A lot less	Not applicable [17]	TOTAL
Lewis	8%	17%	34%	4%	4%	32%	100%
Harris	8%	19%	31%	5%	3%	34%	100%
Benbecula and North Uist	9%	26%	25%	2%	5%	27%	100%
South Uist and Barra	16%	27%	24%	3%	4%	26%	100%
Coll and Tiree	16%	19%	33%	3%	3%	25%	100%
All islands	9%	19%	32%	4%	4%	31%	100%

Source: 2010 Residents' Survey

6.4.7 Of those residents that indicated that they undertook non-food shopping on the Scottish Mainland, 30% indicated that their spend was the same compared to around two years ago, while 26% stated that it was now higher, including only 7% who said it was a lot more (Table 6.7).

6.4.8 While Barra and South Uist also exhibited the highest proportion of residents that had increased non-food shopping on the Scottish mainland, the variation between island groups was less pronounced when compared with food shopping, where the increase was less in Lewis and Harris compared to the other islands. The presence of several major supermarket chains in Stornoway, means that there is less incentive for residents of Lewis and Harris to travel to the mainland for food shopping compared to the other islands.

[17] Not applicable here is those who say they do visit the mainland for shopping but do not purchase food.

Table 6.7: Resident spend on non-food shopping on the mainland since RET

	A lot more	Slightly more	The same	Slightly less	A lot less	Not applicable [18]	TOTAL
Lewis	7%	20%	30%	4%	3%	36%	100%
Harris	8%	17%	28%	2%	3%	41%	100%
Benbecula and North Uist	6%	19%	35%	5%	3%	33%	100%
South Uist and Barra	9%	19%	30%	4%	3%	34%	100%
Coll and Tiree	8%	16%	36%	3%	1%	35%	100%
All islands	7%	19%	30%	4%	3%	36%	100%

Source: 2010 Residents' Survey

6.5 Summary

Haulage and Distribution businesses

6.5.1 RET has made a positive impact on haulage businesses by lowering costs, but a large proportion of the reduction in ferry costs have been absorbed by haulage businesses and not specifically passed on throughout the supply chain. In a few cases lower ferry fares have given island firms an opportunity to increase market share in mainland markets. During the Pilot period there has been little evidence of mainland businesses responding by competing on the islands as a specific consequence of RET. Hauliers have however seen an increase in other businesses transporting their own goods instead of contracting hauliers, and this is partially attributed to the RET fares structure where regular ferry freight loads no longer obtain a frequent user discount and the fare is the same for all commercial vehicle trips. It is likely to be necessary to assess the business impacts over a longer timeframe to understand how investment and levels of market competition have been promoted by the introduction of RET.

Non-haulage businesses

6.5.2 The overall results from the business survey indicate no measurable impact on firms which use the ferry for exporting in terms of enhanced business performance relative to other firms which do not make direct use of the ferry for supplies or products. Nevertheless, there appears to be a small number of examples of

[18] Not applicable here is those who say they do visit the mainland for shopping, but do not purchase non-food items.

specific firms using the opportunity of RET to compete more effectively in mainland markets and increase their level of exports from the Western Isles. The extent to which this occurs will depend to a large extent on the level of entrepreneurialism and dynamism within the local business base. It is to be expected that competition may increase in the medium or longer term if RET becomes permanent which would support the business case for capital investment.

6.5.3 The fuel price data provide some evidence to suggest that the differential between the price of fuel in the Western Isles and in the central belt has reduced subsequent to the introduction of RET. This appeared to be the case with both petrol and diesel prices. In August 2008, the Western Isles was the most expensive place in Scotland to purchase diesel, but this was no longer the case in 2010, with diesel prices falling less in Shetland. Whether this relative reduction in the price can be attributed to RET is however unproven, bearing in mind that road fuel is only delivered by ferry to Coll and Tiree and the other areas are supplied by a dedicated tanker vessel.

6.5.4 63% of businesses claimed to make increased use of ferries for business travel to meet with suppliers or customers and over 90% attributed this to the lower fares arising through the RET Pilot.

Residents' expenditure

6.5.5 Overall RET has induced the frequency of visits by residents to the mainland by ferry to purchase goods and services. Although roundly half of all residents do not shop on the mainland, around one third of those who do now claim to make more trips to the mainland for shopping since RET than before. There was little difference between food and non-food shopping. This was also consistent across island groups, although in the case of residents of Coll and Tiree, a higher proportion indicated that their travel was unchanged since the introduction of RET.

6.5.6 It is clear that both the number of trips and the level of spend on the mainland has increased following the introduction of RET. The surveys do not permit a value to be placed upon the retail trade that has transferred from the islands to the mainland. Fewer than 10% of those who do shop on the mainland, which is less than 5% of all residents, claim to have increased mainland shopping expenditure 'a lot', so the overall change in shopping spend does not appear to be substantial.

7 Wider economic impacts of RET

7.1 ***Introduction***

7.1.1 A significant purpose of RET is to improve the economic performance of the islands. If this is achieved it may be expected to have an impact on job opportunities within the island communities. [19] These employment effects may also lead to increased incomes of those in work and contribute towards increased population retention or in-migration because of improved employment prospects.

7.1.2 The chapter explores how the lower fares policy has impacted on the labour market. The assessment of labour market effects is based on analysis of high level data from the Inter-Departmental Business Register (IDBR) and Nomis in relation to the Western Isles [20] and benchmark area.

7.1.3 There was also stakeholder concern at the outset of RET that house prices might rise as the islands were seen as more accessible and therefore more attractive as a place to live, work and retire. An increased interest in second-home ownership from people on the mainland might also arise.

7.1.4 The impact on the housing market has been assessed through analysis of secondary house price data over the Pilot period compared to the period before the Pilot commenced. Primary data gathered through the consultations with estate agents have also been used to explore whether the lower fares policy has had any impact that the housing market in the Pilot area compared to other island and mainland locations.

7.1.5 The key hypotheses considered in this chapter is that the lower fares will:

- Increase job opportunities in the RET area; and
- Increase pressure on housing and increase house prices.

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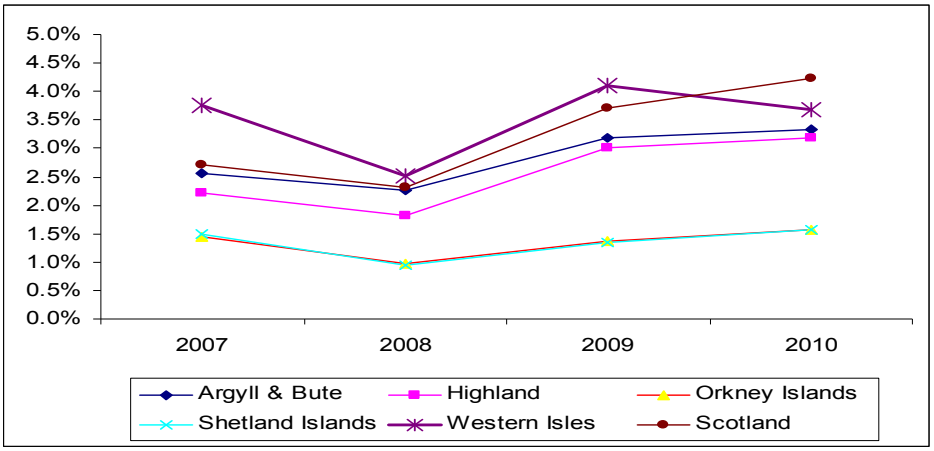
[19] It has been suggested that lower fares may enable residents to access employment opportunities on the mainland which were previously unaffordable, although the distance and time involved will always limit the number of people who seek to take this option. The study has found no significant change in numbers travelling to work by ferry or any significant effect of RET on access to mainland employment.

[20] Data are available for the Western Isles, but Coll and Tiree is included with Argyll and Bute and cannot be separately analysed.

7.2 ***Hypothesis: RET will increase employment opportunities on the islands***

7.2.1 The Western Isles economy has traditionally suffered higher rates of unemployment compared to other parts of the Highlands and Islands. Figure 7.1 shows that the Western Isles has had a higher rate of claimant count unemployment than other island and mainland areas, as well as Scotland as a whole until 2009. However in 2010 the position in the Western Isles improved distinctly in comparison with these other areas and against the national trend.

Figure 7.1: Unemployment as percentage of working age population



Source: NOMIS. Notes: Data presented are for March each year.

7.2.2 Data on total employment by local authority area over the period 2007 to 2010 are shown in Table 7.1. Although between 2007 and 2010 total employment on the Western Isles improved by 1.5%, this was at a lower rate than Scotland as a whole (4.2%) or any of the other benchmark areas except Argyll and Bute.

Table 7.1: Total employment by area

	March 2007	March 2008	March 2009	March 2010	Change 2007 to 2010
Western Iles	6,810	6,790	7,090	6,910	1.5%
Argyll and Bute	25,920	26,390	26,420	26,080	0.6%
Highland	74,700	77,590	80,900	79,760	6.8%
Orkney Islands	6,870	7,240	7,260	7,380	7.4%
Shetland Islands	8,060	7,960	8,050	8,460	5.0%
Scotland	1,762,500	1,807,520	1,836,330	1,836,290	4.2%

Source: IDBR

7.2.3 Table 7.2 shows the trend in employment on the Western Isles over the period 2007-2010 by industrial sector [21]. The table shows that the largest increase in total employment over the period was in the Wholesale, Retail and Repairs sector (260 additional jobs - 20%). Other sectors also saw an increase in total employment over the same period: Transport, Storage and Communications (70 jobs - 11%) and Hotels and Restaurants (60 jobs - 9%). These significant increases were however off-set by decreases in other sectors. The largest proportional decrease in total employment was in the Manufacturing sector (250 jobs lost, 36%). The Agriculture, Forestry and Fishing sector also lost 130 jobs (19%).

[21] The data collected by IDBR is derived from sample surveys and consequently there is a significant risk of sample error in the data for sectors represented by only a small number of local businesses.

Table 7.2: Changes in employment by sector on the Western Isles

	March 2007	March 2010	Change 2007 - 2010
Agriculture Forestry and Fishing	700	570	-19%
Manufacturing	690	440	-36%
Construction	770	780	+1%
Wholesale, Retail and Repairs	1,260	1,510	+20%
Hotels and Restaurants	690	750	+9%
Transport, Storage and Communication	660	730	+11%
Property, Renting and Business Activities	740	760	+3%
Health and Social Work	510	530	+4%
Community, Social and Personal Activities	270	240	-11%
Total [22]	6,810	6,910	+1.5%

Source: IDBR.

7.2.4 The changes in economic activity by sector can also be examined through data on the numbers of recorded business sites and turnover.

7.2.5 Table 7.3 shows the change in the number of recorded business sites by sector. Several of the sectors recorded no change between 2007 and 2010. Of those that did, the largest changes were a reduction in the number of manufacturing sites by 30 (30%) and 30 fewer sites engaged in Agriculture Forestry and Fishing (10%), whilst Hotels and Restaurants sector sites increased by 16%, as did Property, Renting and Business Activities.

[22] Due to small numbers existing in other miscellaneous sectors, the totals exceed the sum of the sectors listed.

Table 7.3: Changes in no. of business sites by sector, Western Isles, 2007-2010

	March 2007	March 2010	Change 2007 – 2010
Agriculture Forestry and Fishing	310	280	-10%
Manufacturing	100	70	-30%
Construction	125	125	0
Wholesale, Retail and Repairs	230	225	-2%
Hotels and Restaurants	90	105	+16%
Transport, Storage and Communication	95	95	0
Property, Renting and Business Activities	125	145	+16%
Health and Social Work	75	70	-7%
Community, Social and Personal Activities	85	80	-6%
Total	1,290	1,250	-3%

Source: IDBR. Notes: Data unavailable for Mining and Quarrying; Electricity, Gas and Water Supply; and, Financial Intermediation.

7.2.6 Table 7.4 shows the change in turnover by sector. An apparently volatile picture is at least partially due to the effect of small samples in a small geographic area. Overall the increase over three years at 15% is ahead of CPI (the Consumer Prices Index) inflation over the period which rose by 8.9% (ONS data) and suggests 6% real growth over three years.

Table 7.4: Change in turnover by sector, Western Isles, 2007-2010

	March 2007 (£.million)	March 2010 (£.million)	Change 2007 – 2010
Agriculture Forestry and Fishing	56	47	-16%
Manufacturing	49	34	-31%
Construction	50	61	+22%
Wholesale, Retail and Repairs	187	265	+41%
Hotels and Restaurants	24	25	+4%
Transport, Storage and Communication	58	70	+21%
Property, Renting and Business Activities	46	48	+4%
Health and Social Work	20	19	-5%
Community, Social and Personal Activities	20	18	-10%
Total	564	647	+15%

Source: IDBR.

7.2.7 The largest increase in turnover by sector on the Western Isles between 2007 and 2010 was recorded in the Wholesale, Retail and Repairs sector (+41%), with significant increases recorded in Construction and in Transport, Storage and Communication. The largest decrease was in Manufacturing, and in Agriculture Forestry and Fishing, mirroring the reported reduction in the numbers of jobs in these sectors.

7.2.8 All the data show a consistent story: that overall the change in economic activity on the Western Isles has been modest, but within the total Wholesale, Retail and Repairs have shown growth, ahead of Hotels and Restaurants and Transport Storage and Communication. The growth in these latter sectors can, logically, be related to lower ferry fares as they include sectors which are dependent upon the movement of people (tourists) and goods. The expansion of wholesale and retail activities was however less predicted as there was a concern that purchasing might be transferred from island businesses to mainland outlets if ferry travel became cheaper. There is no evidence of this outcome and, on the contrary the data suggest that these sectors may have profited indirectly through increased tourist

business in the area. The fall in manufacturing and in agriculture, forestry and fishing is unlikely to be related to the reduction in the cost of ferry traffic as, if anything, lower transport costs should benefit these sectors rather than undermine them. It appears likely that these changes are related to wider economic forces during a period of recession.

7.2.9 It is also conjectured that RET might, through the improvement to employment opportunities, have an impact upon the wealth of the community, and have an impact upon the opportunities available to work on the islands. These might be measured in terms of both an increase in the GVA of the island communities and in the numbers of people living and working there. There is not yet however any data available for the period since the RET Pilot was put in place, so any change cannot yet be measured. In any event it is to be expected that these effects will emerge over the medium to longer term and indeed, if RET does have any affect on the total working population, this is only likely to emerge after the Pilot is seen to be a permanent and dependable element of the islands' economy.

7.3 ***Hypothesis: The lower fares policy will lead to an increase house prices***

7.3.1 Telephone interviews with estate agents in both the Pilot and other island and mainland locations were conducted in October 2008, February 2009, November 2009 and November 2010. These explored trends in housing and land sales and prices. Generally, the feedback indicated that the conditions in the financial markets and wider economy were having a pronounced impact on housing markets across both Pilot and non-Pilot areas. Results were consistent across both the RET Pilot area and other island and mainland locations and no specific impact of RET could be identified. On the whole respondents did not think that RET would have an impact on house prices whilst it was still only a Pilot project.

7.3.2 Secondary house price data were collected from the Registers of Scotland (for residential property sales) on a monthly basis over the period October 2007 to October 2010 [23]. Data have been analysed at local authority level and the Western Isles has been compared to Argyll and Bute, Highland, Orkney Islands, Shetland Islands and the whole of Scotland.

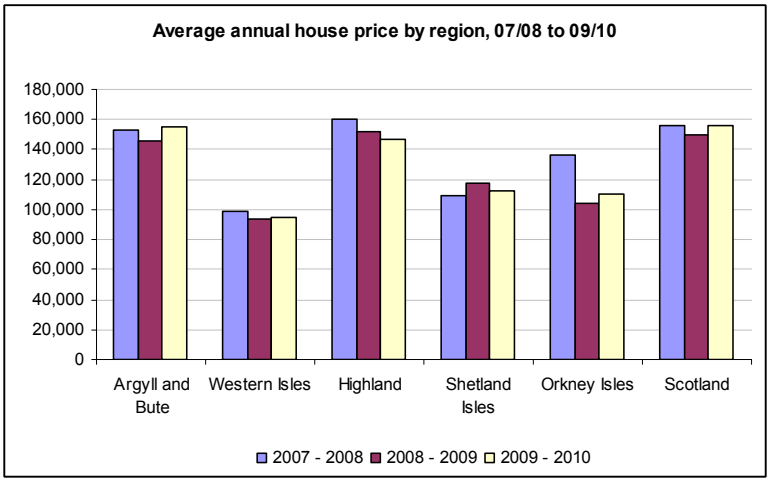
7.3.3 Average residential property prices in the Western Isles have been lower than the Scottish average over the entire period. They have also been lower than average

[23] House price data covers all sales of residential properties where applications are received for registration with Registers of Scotland in the period. The data includes both cash sales and properties being bought with a mortgage, and right to buy sales of council houses to sitting tenants. The analysis excludes single sales of blocks of properties.

prices in the comparator local authorities. Figure 7.2 shows the average house prices across all areas for the period October 2007 to September 2008 (baseline), October 2008 to October 2009 (first year of RET) and November 2009 to October 2010 (second year of RET).

7.3.4 In the Highlands, Western Isles and Orkney average prices in 2009-2010 were below those of 2008-9, whereas across Scotland as a whole prices were virtually unchanged. The differences however were small and it is not possible to conclude that RET has had an impact on house prices during the Pilot period.

Figure 7.2: Change in average house prices 2008 - 2010



Source: Registers of Scotland

7.3.5 The small increase in the number of Property, Renting and Business sites, employment and turnover in this sector reported in Table 7.2 to Table 7.4 appears to represent an increase in business activity across this sector, which includes land and property management services as well as estate agencies. The records do not show the emergence of any new estate agencies selling residential or commercial property and it has not been possible to connect the upturn in this sector to RET.

7.4 ***Wider Economic Impacts - Summary***

Employment

7.4.1 The analysis of economic data show a modest increases in activity in the Wholesale, Retail and Repairs, Hotels and Restaurants and in Transport sectors which might be attributable at least in part to the RET Pilot. However other sectors have faired less well for reasons not evidently connected with cheaper ferry

fares so that, overall the Western Isles has fared less well than Scotland as a whole, and less well than most comparator areas.

7.4.2 That said, it is to be expected that, if RET has had any impact upon employment, this will lag behind other impacts as the initial response of businesses to an increase trade will typically be to make better use of existing staff, and it will take time for businesses to gain the confidence that market conditions will support the costs of taking on more staff. For these same reasons any impact on individual incomes, and any consequent impact upon the numbers of economically active residents, are only likely to emerge in the long term if RET becomes an established and permanent element of the island economies.

House Prices

7.4.3 The consultations with estate agents on the Western Isles and in other mainland and island areas suggested that external factors taking place in the wider economy had more of an effect on people's ability to buy than any local factors. House price data showed no evidence that the RET area was in any way different from the rest of the Scottish housing market. Consultees felt that RET would not have an impact on their housing market area in the short term, or whilst RET remained a trial scheme with no certainty of permanence.

8 Quality of Life Impacts of RET

8.1 ***Introduction***

8.1.1 The remote islands of Scotland suffer the inherent disadvantage of distance from mainland markets, public services and social and cultural facilities, making them amongst the most peripheral communities in Europe. RET aims in a small way to reduce the disbenefits of physical remoteness.

8.1.2 This chapter presents an assessment of the social impacts of RET upon residents. It explores both the extent to which lower ferry fares have generated additional trips to and from the mainland for social purposes, and the consequent impact on residents in terms of increased connection with friends and family and better access to public services, including healthcare and leisure activities. It also explores whether there has been any change in satisfaction with a range of aspects of residents' lives following the introduction of RET, and considers residents' views of the impact of RET on island life and upon the community.

8.1.3 A key area which has been considered as part of this analysis has been the extent to which any benefits have been experienced across social groups equally or whether some groups have benefited more than others. In particular there is an interest in the extent to which low income households, older people, younger people, and people with disabilities have benefited from the policy intervention [24]. Similarly we are also interested in establishing whether the impacts of RET have been the same across all the islands in the Pilot.

8.1.4 In gauging the perceived quality of life, however, it is difficult to separate the effects of RET from wider issues such as the economic situation. Similarly changes in individual personal circumstances, such as in health, work status or family situation, will have an impact.

8.1.5 The main mechanism through which the social impacts have been assessed has been a comparison of the residents' surveys undertaken at the baseline period in October 2008 with the second survey undertaken in October 2010. In addition to

[24] Low income households are defined as those with an income of less than £20k per annum and high income households are those households with an income of £60k or higher. Older people are respondents aged over 60 and younger people are aged 16 – 24. People with disabilities are those who consider that their day to day activities are limited because of a health problem or disability

the residents' survey, the on-board surveys of travel by residents, and secondary data sources, have also contributed to the analysis.

8.1.6 The key hypotheses, arising from discussions with stakeholders, explored as part of this chapter are that the lower fares will:

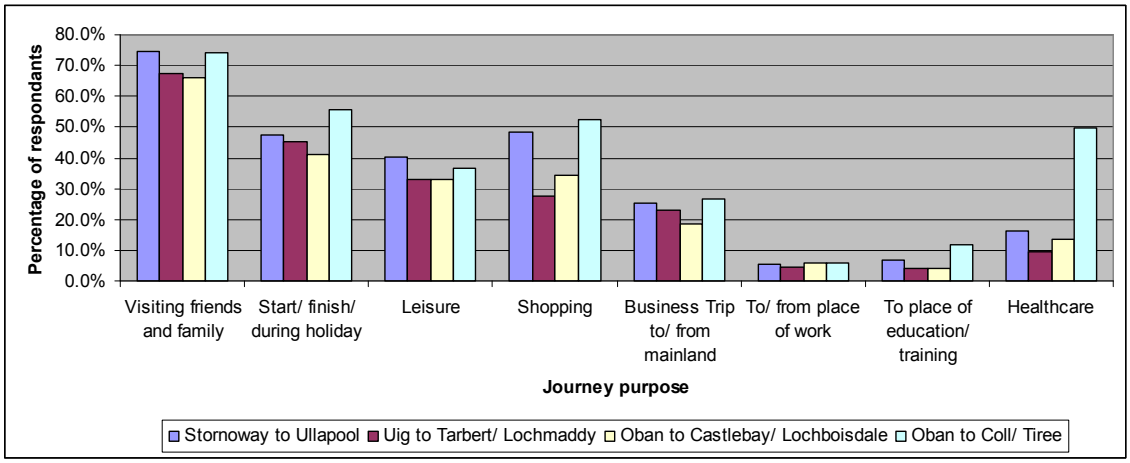
- Encourage more visits between friends and family;
- Improve access to services and facilities including healthcare and leisure; and
- Have positive impacts on the perceived quality of life for islanders.

8.2 ***The use of ferry services***

8.2.1 To provide a context for the following analysis, the use of the four ferry services in the RET Pilot by residents of the study area has been assessed from the 2010 residents' survey.

8.2.2 The survey asked residents to report for each ferry route what purposes of trip they made on that route. For geographic reasons of course most residents used only one or two of the four RET routes. They will also have combined more than one trip purpose into a single trip, so that this analysis does not correspond with the number of trips undertaken and totals on each route will exceed 100%, but it does illustrate the purposes for which ferry trips to the mainland are being undertaken by residents.

Figure 8.1: Purposes of travel by route: all ferry users



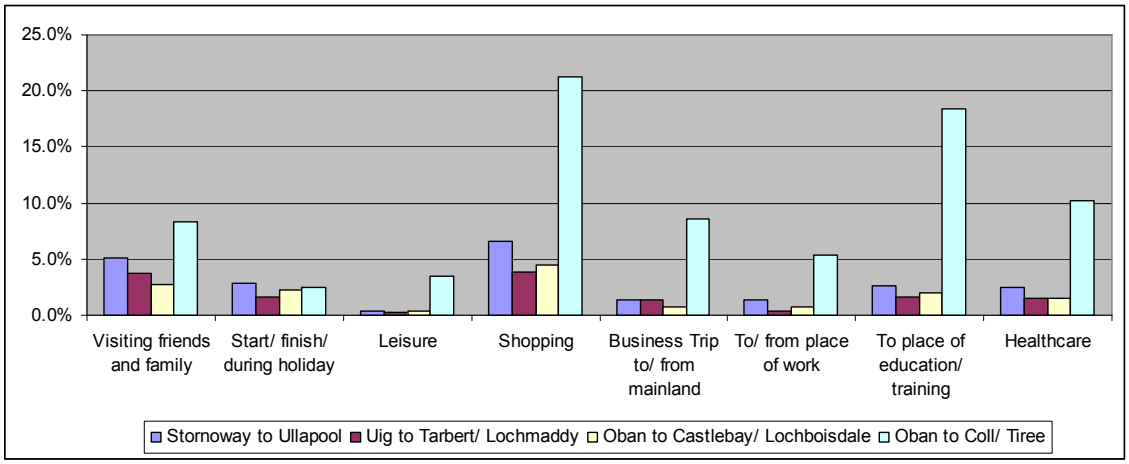
Source: 2010 Residents' Survey

8.2.3 Figure 8.1 shows that residents identified a range of journey purposes, with many more people reporting social purposes (visiting, leisure or holiday trips) for their

travel than functional activities such as work, education, shopping or health. Visiting friends and family is the most common purpose of travel across all ferry routes, with over 65% of ferry users saying this was a reason for some or all of their trips. Other common purposes for trips include holidays, leisure and shopping, although shopping is more prevalent as a reason for trips on the Stornoway to Ullapool and Coll/Tiree to Oban routes. The Coll/Tiree service includes many more residents who are accessing health services than the other routes.

8.2.4 Figure 8.2 shows the purpose of travel only for those who are frequent ferry users – i.e. they travel by ferry more than once a month. As was shown in Figure 3.6, these users comprise a little over 40% of all users, but account for over 80% of all journeys by island residents. This shows far less dominance by trips to visit friends and relatives amongst frequent ferry users – for them shopping is the predominant purpose of travel across all routes. But whereas shopping is marginally more significant to frequent users across the whole network, it is very substantially more important to those using the Coll/Tiree route, as is access to education, health care and business travel.

Figure 8.2: Purpose of travel by ferry route: frequent ferry users



Source: 2010 Residents' Survey

8.2.5 The converse implication is that those who are only infrequent users of the ferry services do so predominantly for visiting friends and family, leisure and holiday travel.

8.3 ***Hypothesis: RET will encourage more visits between friends and family***

Residents visiting friends and family on the mainland

8.3.1 As shown in Figure 8.1, in 2010 visiting friends and family was the most commonly cited journey purpose. The 2010 residents' survey asked respondents to state whether their travel on ferry routes had changed since the introduction of RET for a variety of trip purposes and Table 8.1 shows the response relating to trips to visit friends and family. Whilst 22% of respondents did not use the ferry for this purpose at all, half of all residents indicated that they now travelled more for this purpose since the introduction of RET. Only around a quarter indicated that their frequency of travel for this purpose had not changed. The results were similar across all island groups with the exception of Coll and Tiree, where only around a quarter indicated that they now travelled more to visit friends and relatives compared to 51 - 57% across all other areas.

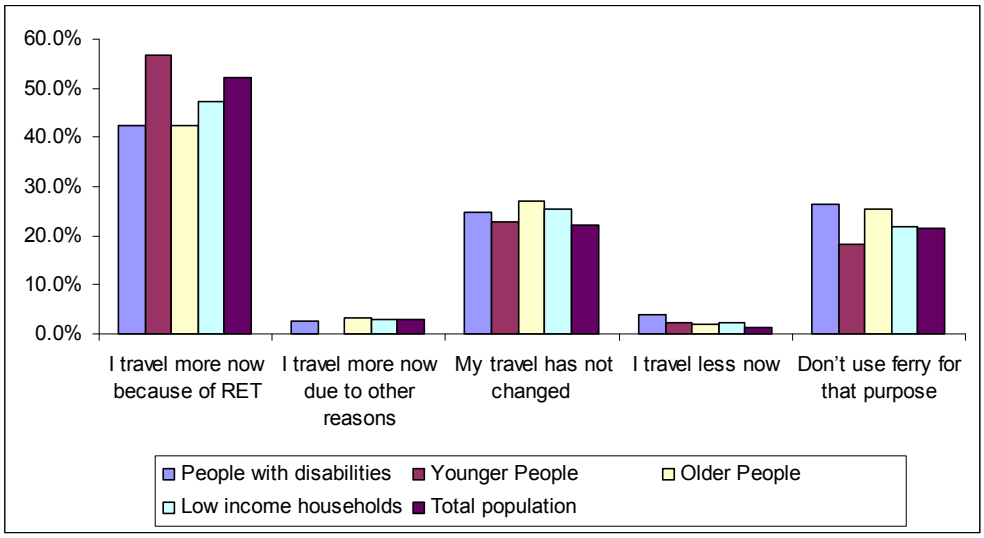
Table 8.1: Percentage citing increased travel to visit friends and family

	I travel more now because of RET	I travel more now due to other reasons	My travel has not changed	I travel less now	Don't use the ferry for that purpose	Total
Lewis	53%	3%	22%	1%	21%	100%
Harris	54%	2%	20%	1%	21%	100%
Benbecula and North Uist	51%	3%	21%	2%	23%	100%
South Uist and Barra	57%	4%	18%	1%	21%	100%
Coll and Tiree	28%	3%	41%	1%	27%	100%
All islands	52%	3%	22%	1%	22%	100%

Source: 2010 Residents' Survey

8.3.2 Analysis of residents travelling to visit friends and family on the mainland by social group is shown in Figure 8.3. People with disabilities and older people were less likely to use the ferry to visit friends and family than the population as a whole. Although a large proportion of older people, low income households and people with disabilities were now travelling more frequently for this purpose (40% - 45%), the proportion of these groups travelling more was also lower than for residents as a whole (52%). By contrast a higher than average percentage of younger people (57%) cited increased travel after the introduction of RET and a smaller proportion than other groups claimed never to use the ferry for this purpose.

Figure 8.3: Impact of RET on visits to friends and family by social group

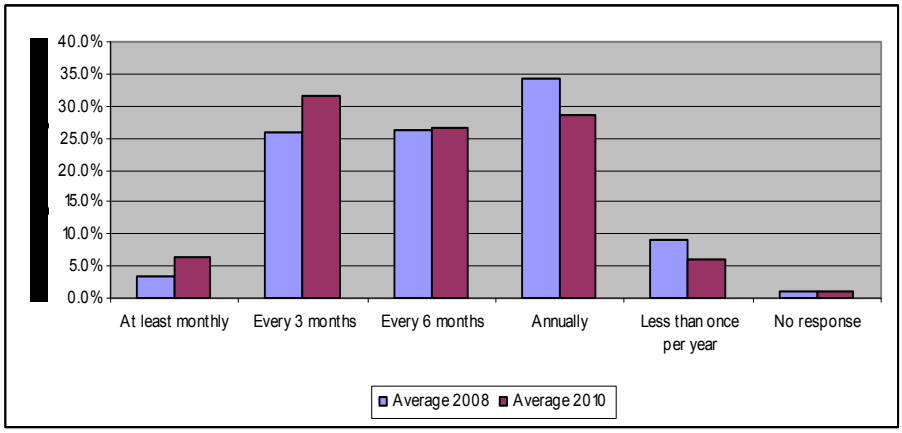


Source: 2010 Resident's Survey

Family members and friends visiting residents in the Pilot area

8.3.3 The residents' survey also asked respondents to state how often friends and family from the mainland visited them. Figure 8.4 shows the results for 2008 compared to 2010. It shows that residents are receiving visitors more frequently than before. In 2008, over 54% of residents stated that friends and family visited from the mainland at least every six months or more frequently; in 2010, this had increased to 64%. The responses were similar from all geographic areas.

Figure 8.4: Frequency of visits from friends and family, 2008 and 2010

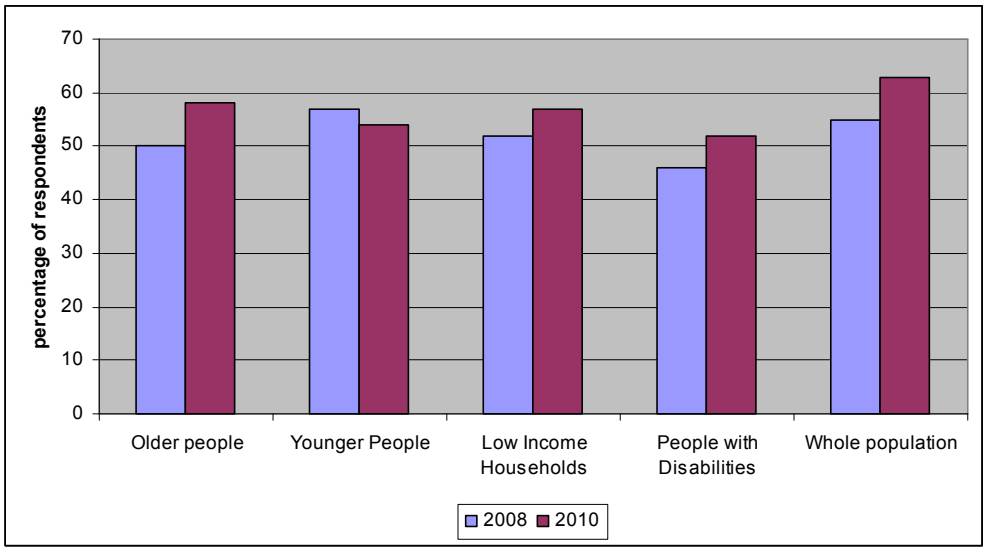


Source: Residents' Surveys

8.3.4 There is support for this reported increase in visits by friends and family from the on-board visitor survey which showed that the increase in visitors (22%) exceeds the growth in bookings in tourist related businesses, and infers an increase in visitors staying with friends and family.

8.3.5 Figure 8.5 shows the proportion of residents in the different social groups receiving visits from friends and relatives every 6 months or more in 2008 and 2010.

Figure 8.5: Visits by friends and family by social group



Source: Residents' Surveys

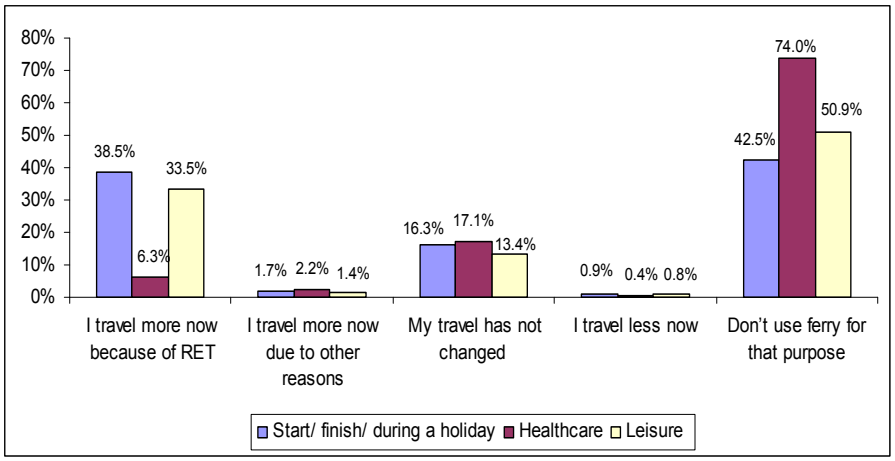
8.3.6 50% of older people in 2008 claimed that friends and family visited them every six months or more often, and in 2010 this had risen to 58%. This compares with 54% of the population as a whole in 2008, rising to 62% in 2010. People with disabilities and low income households also recorded an increase in the frequency of friends and family visiting every 6 months or more often. It is noticeable that, although the frequency of visits had increased for all of these groups, they nevertheless received fewer visits than the overall population average both in 2008 and 2010.

8.3.7 Younger people, on the other hand, received slightly fewer frequent visits over the course of the RET period, down from 57% to 53%.

8.4 ***Hypothesis: Lower fares will improve access to services and facilities including healthcare and leisure***

8.4.1 The 2010 residents' survey asked respondents to state whether their travel on ferry routes had changed for various trip purposes, including healthcare, shopping, education and leisure trips to the mainland and start or finish of a holiday or short break. Chapter 7 highlights the increase in shopping trips made by residents since the introduction of RET.

Figure 8.6: Change in travel to the mainland since RET for services

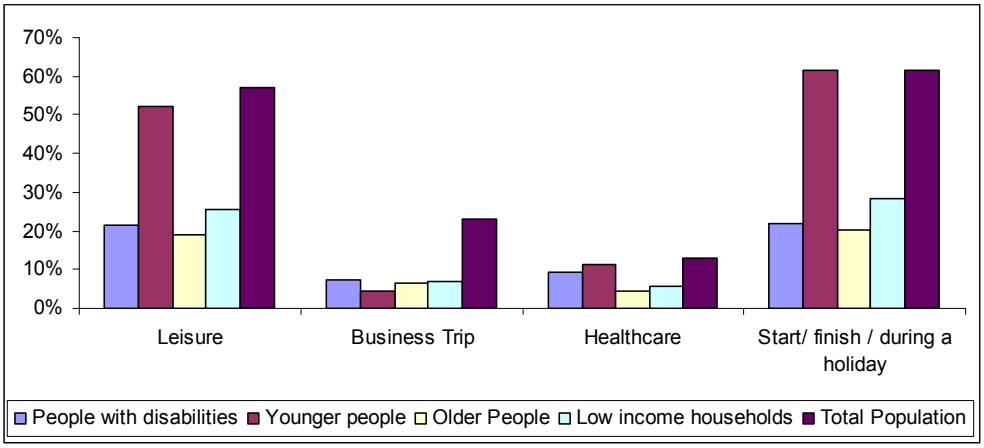


Source: 2010 Residents' Survey

8.4.2 Just 6% of the total number of respondents stated that they travelled more for healthcare purposes due to RET with almost three quarters saying that they do not use the ferries for this purpose (Figure 8.6). On the other hand around a third of the total number of respondents (34%) stated that they travelled more now for leisure purposes. 39% of respondents stated that they travelled more now for start/end of a holiday.

8.4.3 Figure 8.7 shows how different social groups have changed their travel behaviour.

Figure 8.7: Percentage citing increased ferry travel by trip purpose and social group



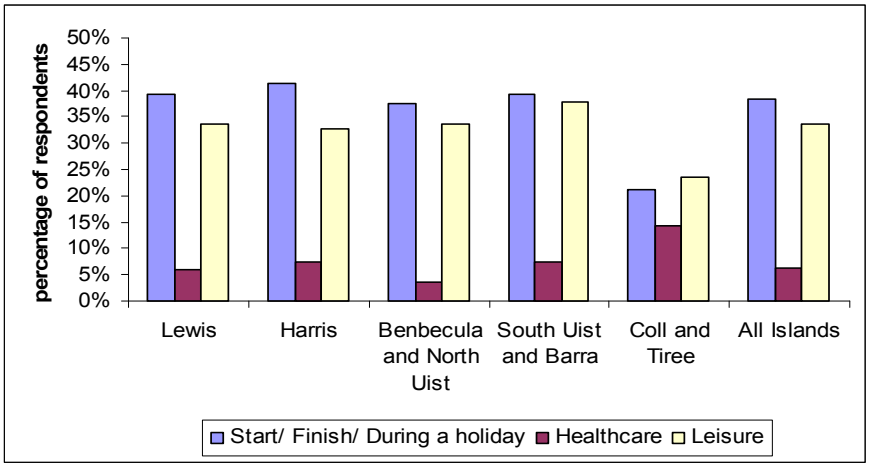
Source: 2010 Residents' Survey

8.4.4 Younger people were particularly likely to report an increase in trips for leisure (52%) and holiday (62%) purposes. People with disabilities, low income households and older people on the other hand were substantially less likely to report an increase in trips for these purposes than the population as a whole, though even so around 20% of each of these groups did claim to make more trips.

8.4.5 Only 13% of all residents, and 18% of younger people used the ferry for access to education. However around 5% of all younger people – which is 25% of those who do use the ferry to access education - now travel more due to RET, implying that many of those who study on the mainland are making more trips back home since the introduction of RET.

8.4.6 Figure 8.8 shows the proportions of residents who reported having increased their travel for healthcare, leisure and holiday related purposes are broadly the same across all the island groups, with the exception of Coll and Tiree. On Coll and Tiree the proportion travelling more for leisure and holiday purposes was lower when compared to islands in the Western Isles. On the other hand, residents of Coll and Tiree were more likely to cite increased travel for healthcare purposes due to RET compared to all of the other island groups, probably due to more limited facilities in these smaller islands.

Figure 8.8: Residents using ferries more for various trips purposes by island group



Source: Residents' Surveys

8.5 ***Hypothesis: RET will have positive impacts on the perceived quality of life for islanders.***

8.5.1 In earlier chapters of this report it has been highlighted that the Western Isles has suffered a prolonged period of population decline and higher rates of unemployment relative to other island communities. This reflects the economic performance of the Western Isles. The RET Pilot was introduced to aid these fragile communities. In particular it was expected that lowering the cost of their ferry services to the mainland would improve access to goods and services, social and cultural activities which, taken together, might reduce any sense of isolation and make island life more attractive. In the long run such improvements might also stem population decline.

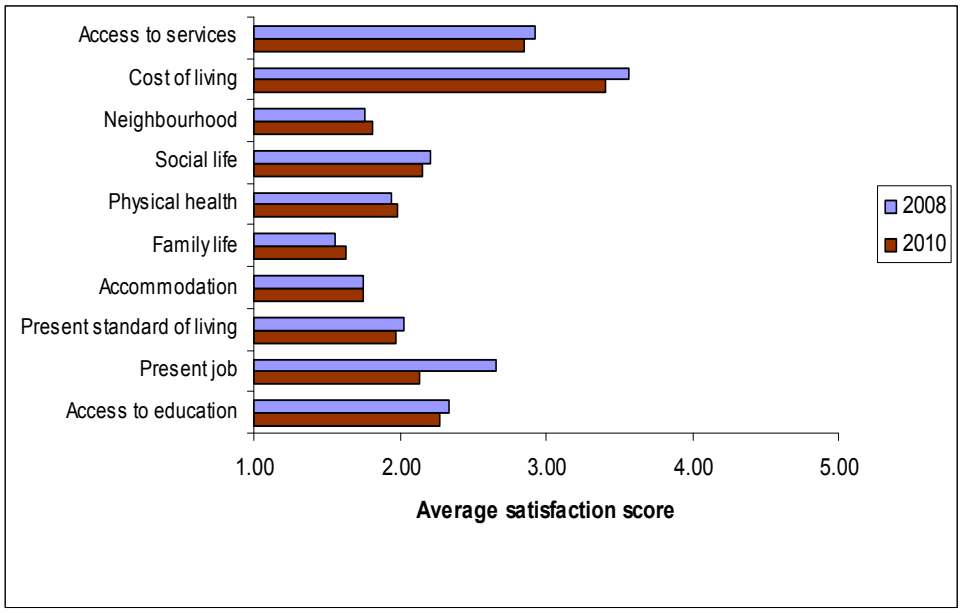
8.5.2 There is a counter theory that those who have chosen island life may actually value remote living which represents a degree of independence, notwithstanding the relative economic disbenefits that may go with that. In particular an increase in tourists, which has been a significant impact of RET as outlined in chapter 5, may be considered by some to be one of the negative aspects of RET.

8.5.3 To test perceptions of quality of life, the residents' survey undertaken in 2008 and again in 2010 has been analysed and results broken down by island and by social groups. Analyses of different aspect of islanders' quality of life are presented below.

8.6 ***Satisfaction with different aspects of life***

8.6.1 Residents were asked to rate how satisfied they were with various aspects of their lives on the island where they live in the 2008 and 2010 residents' survey. Figure 8.9 outlines average satisfaction ratings in 2008 compared to 2010. A score of 3 or less indicates general satisfaction, and the lower the score the greater the contentment.

Figure 8.9: Satisfaction ratings, 2008 and 2010



Average Scores: 1= very satisfied, 2= satisfied, 3= neither, 4= unsatisfied and 5= very unsatisfied
Source: Residents' Surveys.

8.6.2 Satisfaction is not necessarily attributable to specific changes, and RET will be but a very small part of overall satisfaction ratings. Nevertheless since a part of the purpose of RET is to make island life less isolated from mainland activities and opportunities, it is relevant to explore whether residents feel that life has improved over the Pilot period.

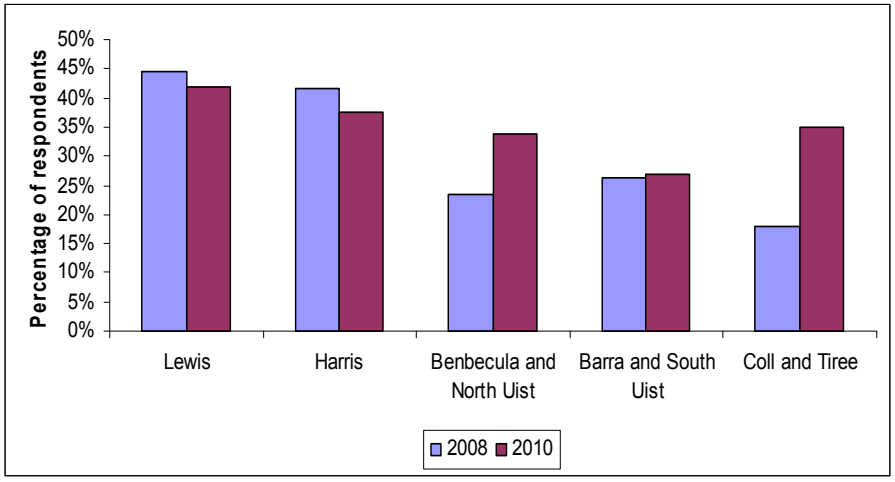
8.6.3 The data suggest that, on average, respondents were well satisfied with the aspects of their life presented, and this was generally consistent in 2008 and 2010. Satisfaction was particularly high with family life, neighbourhood and accommodation. In 2008 the greatest dissatisfaction was with the cost of living, though satisfaction had marginally improved by 2010. Despite the lower fares and increasing number of trips, residents' satisfaction with the access to services was virtually unchanged between 2008 and 2010.

8.6.4 The most noticeable change between 2008 and 2010 was in residents' average satisfaction with their present job, which decreased quite markedly between the two dates. It is difficult to attribute this to RET.

8.6.5 Satisfaction with different aspects of social life differed little across social groups. Low income households, unsurprisingly perhaps, were more likely to be dissatisfied with the cost of living. Despite a limited increase in travel for education by younger people, there was a small decline in the number of younger people stating that they were either very satisfied or satisfied with their access to education.

8.6.6 The key finding of the geographical analysis is that satisfaction with a range of key aspects of life has increased noticeably for residents of Coll and Tiree, where satisfaction levels had previously been lower than on the other islands. Between 2008 and 2010 satisfaction with access to services decreased slightly in Lewis and Harris but increased in Benbecula and North Uist and particularly in Coll and Tiree (Figure 8.10).

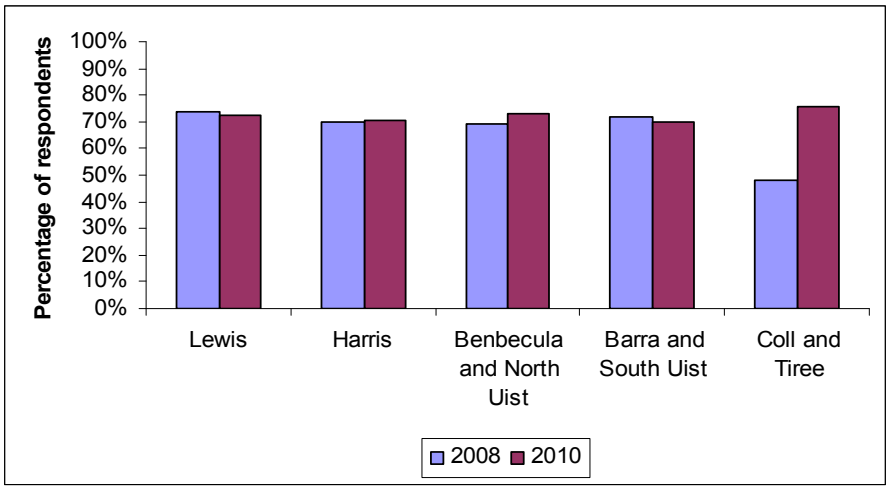
Figure 8.10: Satisfaction with access to services by island group



Source: Residents' Surveys

8.6.7 Figure 8.11 shows the proportion of residents who were very satisfied or satisfied with their present standard of living across the island groups. The level of satisfaction was generally consistent between 2008 and 2010 in all areas, apart from Coll and Tiree which showed a marked increase in satisfaction.

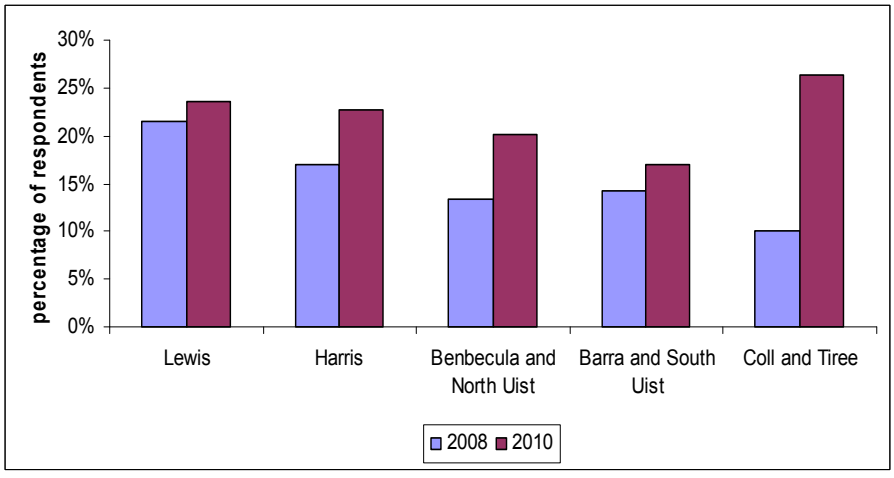
Figure 8.11: Satisfaction with present standard of living by island group



Source: Residents' Surveys

8.6.8 Figure 8.12 shows that between 2008 and 2010 there was an improvement across the various island groups in residents' satisfaction with cost of living, which was again most pronounced on Coll and Tiree.

Figure 8.12: Satisfaction with cost of living by island group



Source: Residents' Survey

8.7 ***Community impacts of RET***

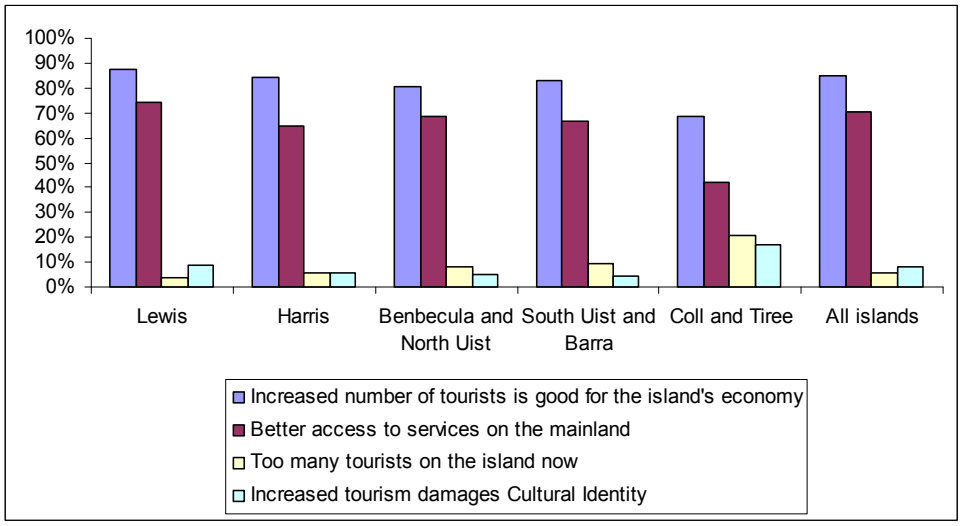
8.7.1 In 2010 residents were asked to state the extent to which they agreed with a range of broad statements about the impact of RET on themselves, their family and their island. These statements were:

- RET has given islanders greater access to mainland services;
- An increased number of tourists is good for the island's economy;
- There are too many tourists on the island now; and
- Greater links with the Scottish Mainland is damaging to the island's unique cultural identity.

8.7.2 Additionally, in both the 2008 and 2010 surveys, residents were asked to rate job opportunities on their island – though they were not specifically asked about the impact of RET on these.

8.7.3 These responses were analysed by island groups, and Figure 8.13 shows the proportion of residents across the various island groups who either strongly agreed or agreed with the statements outlined above.

Figure 8.13: Community Impacts of RET by island group



Source: Residents' Surveys

8.7.4 Of the total respondents to the residents' survey, 85% stated that they either strongly agreed or agreed that an increased number of tourists is good for the island's economy. Furthermore, 65% of residents stated that they either disagreed or strongly disagreed with the statement that there are too many tourists on the island now, showing that residents were generally favourable towards tourism on their island.

8.7.5 Around 70% of residents stated that they either disagreed or strongly disagreed with the statement that greater links with the Scottish Mainland is damaging to the island's unique cultural identity.

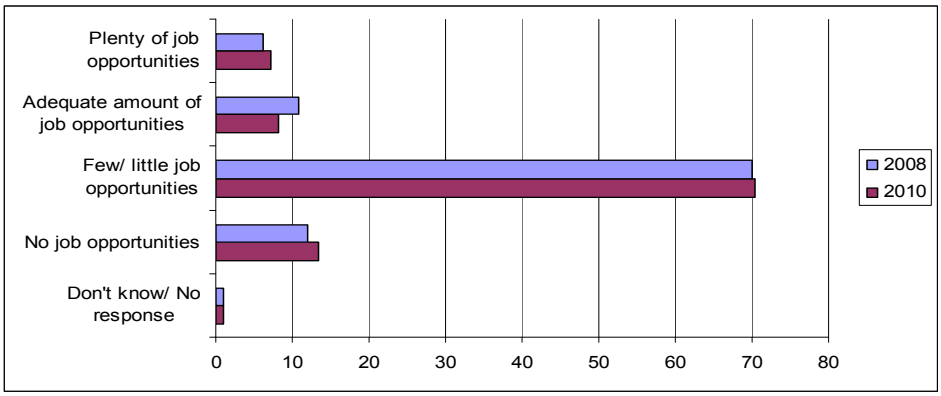
8.7.6 Overall a total of 70% of residents stated that they either strongly agreed or agreed with the statement that 'people living on my island now have better access to services on the mainland that are not available here'. Only on Coll and Tiree, and also Benbecula and North Uist, has this been reflected in respondents' satisfaction with their own access to services (shown in Figure 8.10) although this positive perception may nevertheless contribute in a small way to satisfaction with the quality of life.

8.7.7 Once again across each of the various island groups a similar proportion of residents stated that they agreed or strongly agreed with each of the statements, apart from Coll and Tiree. On these islands a lower proportion of respondents stated that they either strongly agreed or agreed with the statements: 'RET had given islanders greater access to mainland services' and: 'An increased number of tourists is good for the island's economy'. Furthermore, a higher proportion on Coll and Tiree stated that they either strongly agreed or agreed with the statement: 'greater links with the Scottish mainland is damaging to the island's unique cultural identity and 'there are too many tourists on the island now', although this figure is relatively small.

8.7.8 The responses were analysed by the social groups of the respondent, and there was no significant variation between them. Across all groups there was a strong perception that RET had given islanders greater access to mainland services, even amongst those who reported no change in their own travel behaviour as a consequence.

8.7.9 The residents' surveys asked respondents to rate job opportunities on the island where they lived. The majority of respondents to the surveys in both 2008 and 2010 indicated that they felt there were few or little job opportunities available (Figure 8.14), and this scarcely changed over the Pilot period.

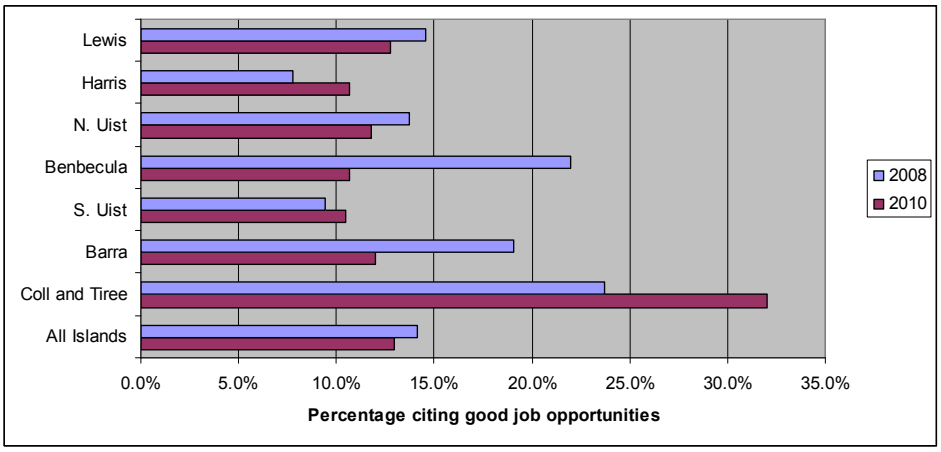
Figure 8.14: Perceptions of job opportunities, 2008 and 2010



Source: Residents' surveys

8.7.10 The percentage of residents claiming that there were 'plenty' or 'adequate' job opportunities on their island decreased between 2008 and 2010 across all island groups in the Western Isles (Figure 8.15) though by differing amounts, most noticeably on Barra and Benbecula. On the other hand, this proportion had increased for residents of Coll and Tiree and, to a lesser degree, those on Harris.

Figure 8.15: Percentage of residents citing good job opportunities by island group; 2008 and 2010



Source: Residents' surveys

8.7.11 In the 2010 residents' survey respondents were also asked to state the extent to which they agreed with the statement about RET that: 'Cheaper ferry fares makes it easier for people from the islands to work on the Scottish Mainland.' (68%) of residents either strongly agreed or agreed with this statement, although the reality is

that very few actually worked on the mainland. Residents who lived on Coll and Tiree, who made most use of ferry service for work, were the most likely to disagree, with nearly one quarter disagreeing or strongly disagreeing, compared to around 5% to 10% on the other island groups.

8.7.12 Taken together these views illustrate a perception that the employment situation has become more difficult over the past two years, but perhaps that this is not attributed to RET. There is a perception that RET has been good for business, and that RET has made access to jobs on the mainland easier, and yet also a perception that employment opportunities are marginally more difficult, which possibly reflects the national economic circumstances more than specific local experiences. The questionnaire does not allow this issue to be explored in greater depth.

8.7.13 Respondents to the 2010 household survey were asked to state what they thought were the **three main impacts of RET** on their island. The question was open-ended with respondents not constrained to choosing from a pre-determined list of options. Both economic and social impacts and both individual and community impacts were identified by residents.

8.7.14 Overall almost 80% of all respondents made comments about the positive benefits of RET. The most commonly cited impacts were benefits to businesses, identified by 56% of all respondents, and easier/cheaper/more frequent travel to the mainland for islanders (52%).

8.7.15 Similar results were observed across each of the island groups except Coll and Tiree. There a smaller proportion of residents (42%) claimed that RET had brought benefits and a higher proportion than the rest of the study area claimed that there were wider disbenefits to island life. This included 17% of residents on Coll and Tiree claiming that there were more or too many camper vans; 14% claiming no/little reduction in haulage/delivery costs; and, 8% citing that there was more traffic/holiday traffic/commercial traffic on the island.

8.7.16 Easier/ cheaper / more frequent travel was also the most commonly cited impact of RET by young people, mentioned by 79% of young respondents compared with 69% of the population as a whole. This perhaps reflects their own greater increase in travel for leisure and holiday purposes since the introduction of RET compared with other social groups.

8.7.17 Older people, low income households and people with a disability were marginally most likely to cite benefits to business as the most impact of RET, and the benefits

of increased visitors on tourist businesses on the islands. These groups were less likely to cite the benefits of easier, cheaper or more frequent travel, perhaps reflecting the lesser increase in trips by these groups following the introduction of RET.

8.8 ***Summary***

8.8.1 There is general satisfaction with life in the study area, though this has not increased since the introduction of RET.

8.8.2 Both regular and frequent ferry users, and those who only used the ferry infrequently, made greater use of the ferry after RET. Frequent users were most commonly using the ferry for access to shopping, business, education and healthcare. Infrequent users were most commonly using the ferry for visits to friends and family, leisure, shopping and holiday travel.

8.8.3 Residents reported that they visit friends and family more now since the introduction of RET. However people with disabilities, older people and low income households were less likely to make additional trips for this purpose, as were residents of Coll and Tiree. There was also a significant increase in visits to the RET area by friends and family living on the mainland. Noticeably younger people took most advantage of the opportunity to travel more but, on the other hand, were the only group to report fewer visits from friends and family following the introduction of RET.

8.8.4 Very few island residents used the ferry services for making healthcare related trips. This was true across all islands, though residents of Coll and Tiree made notably more trips for healthcare. Significantly, a below average increase in health trips was reported by people with disabilities.

8.8.5 Only 13% of all residents, though 19% of young people, use the ferry to access education and training. Proportionally the greatest use of the ferry for this purpose is from Coll and Tiree. 25% of young people who do use the ferry for this purpose now travel more often.

8.8.6 Leisure related trips have increased since the introduction of RET. While the majority of residents indicated that they do not use the ferry services for such trips, of those that do, the highest proportion state that they travel more now due to RET. Again this was particularly so for younger people. Results are consistent across the island groups with the exception of Coll and Tiree, where residents were less likely to cite increased leisure trips by ferry as a result of RET.

8.8.7 There was a markedly different response to the reduction in ferry fares following the introduction of RET by residents of Coll and Tiree. These small islands reveal more dependence upon the ferry for basic services, including shopping, health and education related trips. The ferry between Oban and Coll/Tiree has experienced the lowest level of traffic growth, and the residents report the lowest increases in the frequency of their trips to the mainland, but the additional trips which they do make are predominantly for shopping, education and health. This is likely to be a reflection of lower levels of provision within the islands themselves. However residents there have not reacted to RET by making the same increase in overall ferry travel as other parts of the Pilot area. At the same time the residents of Coll and Tiree showed the greatest improvement in satisfaction with their access to goods and services, implying that the lower cost of accessing the mainland was a real benefit. Coll and Tiree residents reported the greatest improvement in their satisfaction with their quality of life over the course of the study, though whether this is attributable to RET cannot be proven. Levels of satisfaction on the other islands did not change noticeably.

8.8.8 There was also a different attitude to RET expressed by residents of Col and Tiree in relation to wider effects upon the community. Whereas a majority in all areas considered RET a good thing for their community, a large minority (42%) of those on Coll and Tiree identified that that increased tourism has side effects which damage the unique island culture or impact adversely upon the island environment.

8.8.9 By contrast the greater response to lower fares by residents of the other islands demonstrates that more of their travel is 'optional' in the sense that they managed to meet their needs with fewer trips to the mainland before, but have taken advantage of lower fares to access mainland facilities and friends more frequently. These communities did however claim to perceive (rightly or wrongly) an upturn in business prosperity, employment and income, predominantly from increased tourist activity but also from smaller benefits to other business sectors. These communities were less likely to see any down side to the lower fares.

8.8.10 Overall it is possible to summarise that the residents of Coll and Tiree benefitted directly from RET through cheaper access to essential goods and services, even though this did not result in a great many additional trips. Their perception was that they benefitted less from increased economic activity, and felt that additional tourism had harmful impacts on island life, not least when fuel supplies dried up when the fuel tanker could not be accommodated on fully booked sailings.

9 Environmental effects of RET

9.1 ***Introduction***

9.1.1 This chapter of the report explores the environmental impacts associated with the RET Pilot. It has focused on changes to the way in which people travel to and from the ferry terminals, along with an analysis of mode switching. This assessment has been based primarily on an analysis of ferry traffic data, combined with origin and destination information captured through the on-board surveys. This provides an indication of how travel behaviour has evolved since the introduction of the RET Pilot and how this has impacted on the number of vehicle trips generated as a result. This has then provided the basis of a further analysis of the likely additional carbon emissions generated from changes in traffic flows following the introduction of RET. Ultimately this analysis seeks to ascertain the extent to which the fares policy has resulted in a change in carbon emissions.

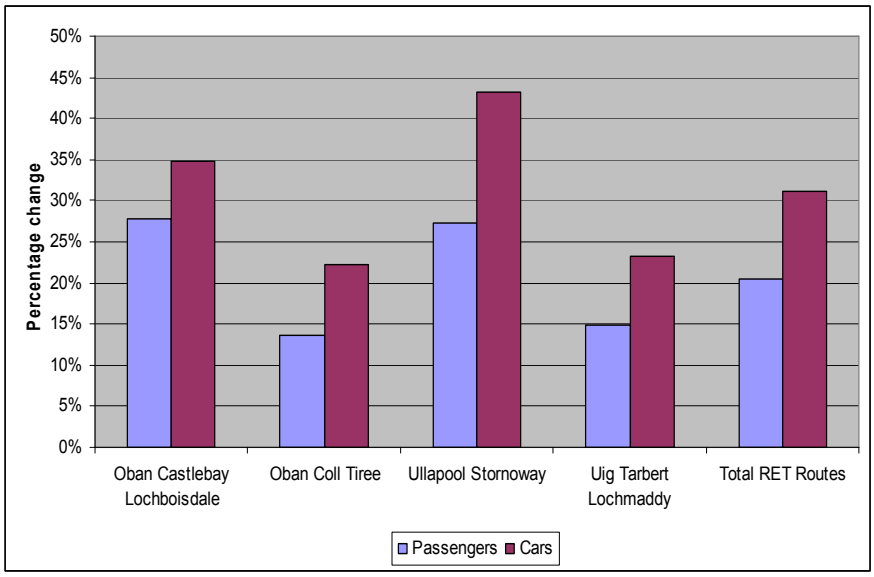
9.1.2 One of the main findings arising from the RET Pilot, has been the greater responsiveness of car carryings to the changes in ferry fares. Alongside the social and economic benefits associated with increased travel, there are wider environmental implications of a policy which has tended to stimulate increased car travel between the Western Isles, Coll and Tiree and the mainland of Scotland.

9.2 ***Change in the use of cars***

9.2.1 Overall, the number of cars carried on the RET routes increased by nearly one third between the baseline year (November 2007 to October 2008) and the second year of the RET Pilot. (Figure 9.1) This compares to an increase of one fifth in relation to passenger travel. The increase in car travel was particularly substantial on the Ullapool to Stornoway route where carryings rose by over 40% since the introduction of RET.

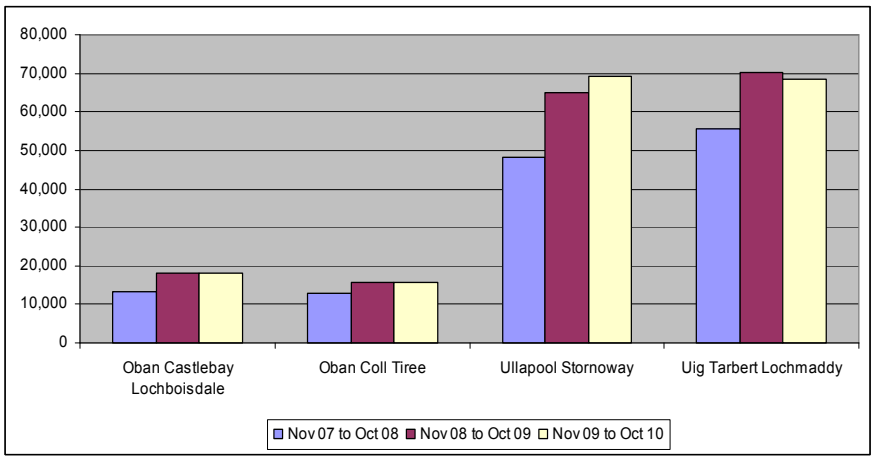
9.2.2 Overall, car carryings have increased by over 40,000 trips since the introduction of RET, of which over 20,000 were on the route from Ullapool to Stornoway (Figure 9.2). There were also nearly 13,000 more trips on the Uig - Lochmaddy / Tarbert route.

Figure 9.1: Change in car and passenger carrying by RET route 2007/8 - 2009/10



Source: Cal Mac

Figure 9.2: Car Carrying on RET Routes 2007/8 to 2009/10



Source: Cal Mac

9.2.3 As a result of the higher responsiveness of car travel to the RET fares, the ratio of passengers to cars has fallen on all of the four RET routes (Table 9.1). The changes are not large but they are consistent. There are now 3.1 passengers for every car travelling on these routes, which compares to 3.3 passengers before the introduction of the RET fares.

Table 9.1: Ratio of passengers conveyed per car carried

Route / Route Group	Pre-Pilot year	Pilot year 1	Pilot year 2
Ullapool to Stornoway	3.8	3.3	3.3
Uig to Tarbert / Lochmaddy	2.9	2.7	2.7
Oban to Castlebay / Lochboisdale	3.4	3.1	3.2
Oban to Coll/Tiree	3.6	3.4	3.3
Total RET Routes	**3.3**	**3.1**	**3.1**
Firth of Clyde	4.5	4.6	4.7
Inner Hebrides	5.7	5.7	5.7
Southern Hebrides	3.3	3.4	3.4
Skye	3.9	3.8	4.0
Northern Isles	4.3	4.5	4.7
Non RET routes	**4.5**	**4.5**	**4.6**

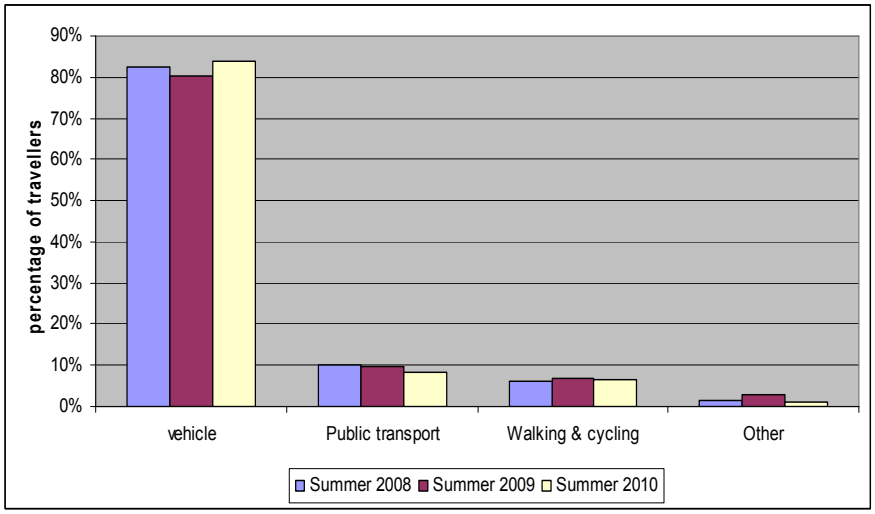
Source: Cal Mac

9.2.4 The RET routes now exhibit lower ratios of passengers to cars compared to all other ferry route groups across Scotland. Outside the RET Pilot the ratio of passengers to cars has either remained static or increased over the past two years, in contrast to the reduction that has occurred on the RET Pilot routes.

9.2.5 Corresponding with the increase in car traffic, the findings from the on-board passenger surveys also provide an indication that the mode of travel to and from the ferry terminal has shifted towards more use of the private car, increasing to 83% during the summer 2010, compared to 81% in the summer prior to the introduction of RET (Figure 9.3). The proportion using public transport [25] also has declined from 11% to 8% in the survey.

[25] In this analysis members of coach parties travelling as a group are not included.

Figure 9.3: Mode of travel to / from ferry terminal 2008 - 2010



Source: On-board survey

9.2.6 The mode of travel to and from the mainland and island ferry terminals was assessed in relation to the residency of ferry passengers for the 2010 onboard surveys. This indicated that passengers residing elsewhere in Scotland were the most likely to be travelling by car. This was least likely among passengers who were from outside Europe (Table 9.2). They were the most likely to be using public transport when travelling to and from the ferry terminal.

Table 9.2: Mode of travel to/from ferry terminal by origin of passenger

	Car	Public transport	Walking and cycling	Other	
Western Isles, Coll and Tiree	81%	6%	9%	4%	100%
Elsewhere in Scotland	87%	6%	6%	2%	100%
Elsewhere in UK	82%	5%	10%	2%	100%
Europe	74%	10%	14%	1%	100%
Outside Europe	68%	22%	8%	2%	100%
All	**84%**	**6%**	**8%**	**2%**	**100%**

Source: On-board survey

9.3 ***CO^2 emissions by residents***

9.3.1 Further analysis has been undertaken of the mainland travel destinations by residents of the Western Isles, Coll and Tiree. Whilst 15% of all trips on the

mainland were made by public transport, trips which were made to a location in close proximity to the mainland port (10 miles) were least likely to make use of public transport. The proportion was highest for trips to elsewhere in the Highlands and Islands and elsewhere in Scotland at 22% and 20% respectively (Table 9.3).

Table 9.3: Mode share of residents travel on UK Mainland 2010

Residents travel on mainland – destination	Car	Public transport	Walk or cycle	Other	
In proximity to mainland port	80%	7%	12%	2%	100%
Elsewhere in Highlands and Islands	75%	22%	1%	2%	100%
Elsewhere in Scotland	78%	20%	1%	1%	100%
Outside Scotland	80%	16%	0%	4%	100%
Destination not specified	83%	17%	0%	0%	100%
All mainland destinations	**78%**	**15%**	**5%**	**2%**	**100%**

Source: On-board survey

9.3.2 The impact of increased car travel by residents arising subsequent to RET will have a more extensive environmental impact the longer the onward distance travelled from the mainland port. Table 9.4 compares the travel patterns of residents during the summer before RET was launched (May and August 2008) with the equivalent period in 2010.

Table 9.4: Mode share of resident trips by destination; summer 2008 and summer 2010

	Car		**Public transport**		**Walk or cycle**		**Other**		**All modes**	
	2008	2010	2008	2010	2008	2010	2008	2010	2008	2010
Proximity to mainland port	11%	22%	9%	2%	3%	3%	0%	1%	23%	27%
Elsewhere in the Highlands and Islands	22%	23%	7%	7%	1%	0%	0%	2%	30%	32%
Elsewhere in Scotland	26%	29%	11%	6%	1%	1%	1%	0%	38%	36%
Outside Scotland	7%	4%	1%	1%	0%	0%	0%	0%	8%	5%
All mainland destinations	**66%**	**79%**	**28%**	**15%**	**5%**	**3%**	**1%**	**3%**	**100%**	**100%**

Source: On-board survey

9.3.3 Use of cars by residents has increased from 66% to 79% of all trips. The survey findings suggest travel to destinations in proximity to the ferry terminal by car have doubled from 11% to 22% of all trips whilst those using public transport has fallen from 9% to just 2%. Those using a car for journeys to other parts of the Highlands and elsewhere in Scotland have also increased from 48% to 52% of all journeys, whilst those using public transport to these areas has fallen from 18% to 13%.

9.3.4 Despite the increase in car journeys for shorter journeys in close proximity to the mainland port, longer car journeys to the rest of Scotland outside the Highlands and Islands remain the most common category, which does have implications in terms of contributing to an increase in car miles, and thus carbon emissions from road transport.

9.3.5 The data presented above have been used to provide a high level estimate of the increase in carbon emissions associated with the additional car travel by residents subsequent to the introduction of RET. The origin and destination data were analysed to estimate an approximate mileage for each type of return trip on the mainland (Table 9.5). This takes account of the port of entry on the mainland of Scotland and the principal destinations which were cited in Scotland and elsewhere. The estimated CO^2 emissions per trip are based on the fuel consumption on an average car at 21 mpg fuel economy.

Table 9.5: Estimated mileage and carbon emissions per mainland trip

	Estimated mileage on Scottish mainland for return trip	**Estimated tonnes of CO2 emissions per return trip**
In proximity to mainland port	10	0.006
Elsewhere in Highlands and Islands	200	0.110
Elsewhere in Scotland	300	0.165
Outside Scotland	500	0.275

9.3.6 The total increase in car trips over the Pilot period equated to around 41,200 individual journeys or 20,600 return journeys by cars. Survey evidence reported in Table 3.5 suggests that residents made approximately 14,500 additional ferry trips with a car in the second year of RET, which would suggest that they made about 7,250 additional return car trips, Combining this with the origin and destination

data and CO^2 estimates in Table 9.5 suggests that overall carbon emissions by residents taking their car on the ferry to the mainland rose by 10% (Table 9.6). This equates to an increase of just over 300 tonnes of CO^2 a year, which is equivalent to an additional 1.4 million vehicle-km travelled by car [26] and equates to 0.002 per cent of total Scottish transport emissions.

Table 9.6: Estimated change in CO2 emissions by resident car travel

	Change in tonnes of CO2 per annum	percentage change in CO2 emissions
In proximity to mainland port	27	126%
Elsewhere in Highlands and Islands	119	13%
Elsewhere in Scotland	346	22%
Outside Scotland	-191	-29%
All mainland destinations	**301**	**10%**

9.3.7 The proportional rise appears to be greatest in relation to locations in proximity to the mainland port, where estimated carbon emissions have more than doubled. The absolute increase in CO^2 was greatest in relation to car travel to locations in Scotland outside the Highlands and Islands. On the other hand, the findings also suggest that car travel to outside Scotland has fallen subsequent to RET. This is more likely to be associated with a current trend towards more holidaying closer to home and a reflection of wider economic circumstances rather than a consequence of RET.

9.4 ***CO^2 emissions from tourist travel by visitors***

9.4.1 The use of the RET ferry routes by tourists with cars has increased by 31% or 26,700 cars (Table 3.5). This is almost twice the increase in car trips estimated for the residents.

9.4.2 These additional car-based visitor trips clearly generate additional CO^2 emissions, although the data collected do not permit a detailed analysis of the additional mileage involved as the baseline survey did not include a suitably detailed question about the origin of the trip. However only 6% of these ferry users stated that they

[26] This is based on the assumed average annual mileage per car of 12,000 miles.

would not otherwise have travelled (Table 5.1), and 94% would have travelled to the islands anyway, or chosen an alternative mainland or island destination which might have involved more or less car mileage. Consequently the impact is likely to be fairly small.

9.5 CO^2 emissions by ferry vessels

9.5.1 CalMac state that they have not noted any change in fuel consumption as a consequence of the higher loads conveyed on the ferry services due to RET. The key variables which impact on fuel consumption are the speed and weather rather than payload, which has a negligible effect.

9.5.2 If in response to the higher demand additional sailings were necessary, then clearly additional fuel would be consumed and additional CO^2 emissions would arise. This has not been incurred however during the RET Pilot.

Summary

9.5.3 Overall, the findings from the primary and secondary data analysis provide a picture of increased travel by car arising subsequent to the introduction of RET. The growth in car traffic on the RET routes has been recorded as 31% of the traffic before RET. Car travel is now much more common for passengers on the RET routes compared to other routes within the Clyde, Hebridean and Northern Isles ferry routes, where the ratio of passengers to cars has been static or increasing.

9.5.4 The survey results for all passengers (residents and visitors) indicate an increased propensity to travel by car to and from the ferry terminal in relation to the RET routes, although the rise is only 2% from 81% of all trips to 83%.

9.5.5 The increased use of the car by residents has been predominantly to areas close to the ferry terminal on the mainland. Nevertheless, car travel to areas of Scotland outside the Highlands and Islands constitutes that largest proportion of journey types for residents of the RET Pilot area. Consequently the 28% increase in car travel arising from RET will have an impact in terms of increased car miles and increased carbon emissions from private cars. It is estimated that an additional 300 tonnes of CO^2 per annum has been generated from extra car travel.

10 National Roll-Out of RET

10.1 ***Introduction***

10.1.1 The purpose of this chapter is to consider the potential of rolling out RET across the wider Scottish ferry network. Consideration has focused on all publicly operated ferry services in Scotland supported by the Scottish Government[27].

10.1.2 The RET Pilot has been intended from the outset to test the effects of lower ferry fares on the demand for the ferry service and the impact upon the communities they serve. However the Pilot scheme was necessarily restricted to a sample selection of routes as described in Section 1.3 which do not reflect the full range of circumstances in which ferries operate or the markets which they serve.

10.1.3 The intention is to provide an informed indication of the revenue and subsidy implications of a national roll out, as far as is possible from the lessons learned from the experience of the Pilot. This Chapter also highlights the specific factors that need to be taken into consideration in applying the lessons learnt from the Pilot to other routes and circumstances.

10.1.4 The chapter is divided in to sections covering:

- Consideration of Pilot scheme characteristics (routes and islands) and their comparison with the wider ferry network and other Scottish islands.
- Assessment of ferry demand
- Assessment of revenue and subsidy

10.2 ***Route and market characteristics***

10.2.1 The extent that patterns which emerge from the Pilot can be considered to reflect the implications of introducing RET across the wider network is dependent on how typical the Pilot routes serving the Western Isles, Coll and Tiree and the actual islands themselves are representative of the wider network.

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[27] We have also completed some preliminary work on the impact on fare levels of a RET fare structure for local authority run services. On balance most of these services have fare levels that appear to be set below or around the level of a RET fare for that particular route. Including these routes in any national roll-out programme for RET would not mean significant fare savings for most passengers currently using these services.

10.2.2 It is therefore important to take into consideration some of the key characteristics of the Pilot routes. These are summarised below:

- The Western Isles are served by more than one ferry route to the mainland. This means on occasions where sailings are cancelled and / or full there is the potential opportunity to re-route via an alternative route. This option is not available for all islands, although an overland alternative is available for ferries serving peninsulas rather than islands.
- Within the Pilot area, Lewis, Benbecula, Barra, Coll and Tiree are all served by air services to / from the Scottish mainland. Inter-island flights also operate within the Western Isles and there is also an inter-island service between Coll and Tiree.
- The RET routes are characterised by long sea crossings, exceeded only by the services to Orkney and Shetland from Aberdeen, but considerably longer than most island links.
- The frequency of sailings range only from 2 crossings per day on the Ullapool – Stornoway service to one per day on the Oban – Castlebay / Lochboisdale crossing in the summer. Other ferry routes have either more or fewer sailings, affecting the range of travel opportunities available.
- A dedicated daily freight service operates between Ullapool and Stornoway. This service provides an alternative for commercial traffic to the passenger service and in doing so helps to manage ferry demand on this route.
- The geographic nature of the Western Isles and availability of several ferry routes means there is a natural "island hopping" route extending from Lewis in the north through Harris and the Uists to Barra in the south which is attractive to touring visitors.

10.2.3 Key issues to consider, can be categorised as follows:

- Route characteristics;
- Availability of alternative routes or modes;
- Island characteristics – geography and socio-economics:
- RET fares structure relative to existing fares levels and structure; and
- Route demand and capacity.

Route characteristics

10.2.4 The most significant characteristic of direct relevance to using the Pilot as a baseline to project potential impacts of rolling out RET across the wider network

is that they reflect passenger behaviour on relatively long sea crossings and are not necessarily representative of short sea crossings.

10.2.5 This is a particular consideration in the Firth of Clyde area. In general, the services operated in that area are relatively frequent in nature and the crossings relatively short ranging from approximately 0.6 miles (one way) on the Colintraive – Rhubodach route to 11.8 miles on the Ardrossan – Brodick route. The shorter crossing distances and sailing time is in turn reflected in the frequency of sailings which range from 9 to 10 return trips per day to Arran to over 25 return journeys to Cumbrae. In general the same timetable operates in the winter and summer.

10.2.6 The Inner Hebrides and Skye routes are also characterised by short-sea crossings with the longest route between Oban to Craignure just over 9 miles and a journey time of 45 minutes. All other crossings have journey times of less than 40 minutes. The implication is that on short and frequent short crossings the opportunities to make day trips are very greatly increased. This travel behaviour was not represented in the Pilot.

10.2.7 Where short and frequent crossings are operated, the ferry can be an important element of the commute to work. This is a particular consideration around the Firth of Clyde area. The RET Pilot does not clearly demonstrate how traffic and demand might respond to lower fares in these circumstances, especially in the longer term when decisions on home and work location have had time to emerge.

10.2.8 Of particular concern to some stakeholders during the pre-Pilot consultations in 2008 was the potential impact of RET on the local economy of islands in the Firth of Clyde area: for example, anecdotal comments at the time suggested that many residents of Arran are now shopping at the Asda in Ardrossan and lower fares could increase this mainland shopping to the detriment of island retailers. In addition, issues of affordability in the local housing markets were raised, as it was felt that RET may increase housing demand by encouraging greater second home ownership on the most accessible islands. Again the RET Pilot does not replicate this situation.

10.2.9 During discussions with hauliers as part of the RET consultations it was apparent that the availability of a choice of routes made the area more attractive to both island and mainland businesses. A more robust level of service is available where alternative routes were possible, and this made costs more predictable and deliveries more reliable – of particular importance for perishable and consumable goods. Businesses on those islands and peninsula communities where an

alternative route is available are possibly more likely to take advantage of lower fares than those which remain dependent upon a single route of access.

10.2.10 The RET pilot created a significantly greater increase in island residents taking their car on the ferry, and corresponding reduction in the proportion using public transport. This feature of the Pilot may not apply (or may not occur to the same degree) where substantially better public transport is available on the mainland – for example where there is a frequent and fast rail service from the mainland port.

Island characteristics

10.2.11 The size of the tourist market, and therefore the extent to which visitor numbers may be increased through RET fares, varies considerably between island groups. The RET Pilot was undertaken in an area where 64% of ferry traffic even before RET was tourist based, and the island economies had a large tourist element. The result of the Pilot showed that, at least in the short-term, tourists were most responsive to the lower fares - although in the second year the increase in non-tourist traffic was approaching that of the tourists. The extent to which this growth will occur if RET is applied to other routes will depend upon the level of tourism taking place on other islands.

10.2.12 Whilst 80% of respondents to the on-board visitors survey indicated RET had not influenced their decision to travel to the Pilot area, there was some evidence of displacement from other Scottish Islands by both home and overseas visitors (Table 5.1). This displacement would not occur if RET was applied across all island ferry routes.

10.2.13 Because of both the length of ferry routes, and remoteness from major populations areas, the RET Pilot area does not feature a day-tripper market, and only a limited short-break market. By contrast less peripheral islands, such as in the Firth of Clyde and Inner Hebrides, feature both short leisure breaks and day trips. The impact of RET in providing a boost to the tourism market could be different in these different circumstances.

10.2.14 The capacity of the island community to accommodate increased demand generated by RET may vary between islands. The Western Isles started the Pilot with low levels of peak occupancy of the available accommodation in comparison with benchmark areas, so that the growth in demand was largely catered for. Where occupancy is higher the scope to accommodate growth may be less. The increase in motorhome traffic in the Pilot area has however been a particular issue, both in terms of capacity on the ferry routes and also the environmental capacity of the island to absorb this increase. Press reports over the period of the Pilot

suggest this is not an issue isolated to the Pilot. Other islands, such as Islay, have also experienced problems arising from an increase in motorhome traffic.

10.2.15 Concern was also raised that island infrastructure, and particularly the local roads, may not be suitable to deal with any increase in demand brought about by the introduction of RET, especially on the smaller islands of Coll and Tiree, and this may apply to some similar communities elsewhere.

10.2.16 The Pilot study has demonstrated that the response to RET is affected by the size of the island community, and closely linked to that, the extent to which an island is self-sufficient in services such as secondary and further education, health facilities, and higher order leisure facilities. The different traffic generation of Coll and Tiree from other parts of the study area has illustrated the manner in which the nature of the island community affects the response to lower fares. The study has shown that these smaller islands are at the outset more reliant on the ferries for necessary utility trips, and derive benefit from the direct cost saving on ferry fares, but do not respond to the same degree by making additional trips. The larger communities on the other hand are less dependent on the ferries for essential trip purposes, being better served by island facilities, but respond to RET by increasing their leisure and optional travel. These characteristics can be expected to be replicated in other communities, although an understanding of the nature of each community would be necessary before applying this lesson to another ferry route.

10.2.17 In relation to business response to RET, the business surveys indicated that the smaller peripheral islands were too small to attract the interest of mainland businesses. For them the practical problems of transport logistics and the staff travel time involved were of far greater significance than the fare, and RET did not influence their transport decisions. It was the larger islands with a market of a potentially viable size that could potentially react to lower ferry fares.

10.2.18 In terms of the social benefits, RET has provided benefit to the Pilot area through an increase in the interaction between residents and friends and family on the mainland. Again it can be expected the introduction of RET to more peripheral islands would have a greater impact compared to those in closer proximity to the mainland where fares are currently lower, shorter sea crossings are involved and both the total time and the total cost of a visit (including both the overland and ferry segments of the trip) is currently less of a deterrent to frequent visits.

10.2.19 By contrast the sailings operated by NorthLink to the Northern Isles via Aberdeen are the longest sailings from the Scottish mainland and greatly exceed those in the RET Pilot. Analysis of the change in fares which would result indicates only

passenger fares for non-islanders are likely to fall under RET and other fares on this route are already at or below RET-based fares levels. As a result there is likely to be less impact on the economic and social well being of Shetland. Factors other than the distance also need to be taken into account as many passengers will book a cabin and, while the fare per mile is low on the Shetland route, it does not include the cost of a cabin.

Route Demand and Capacity

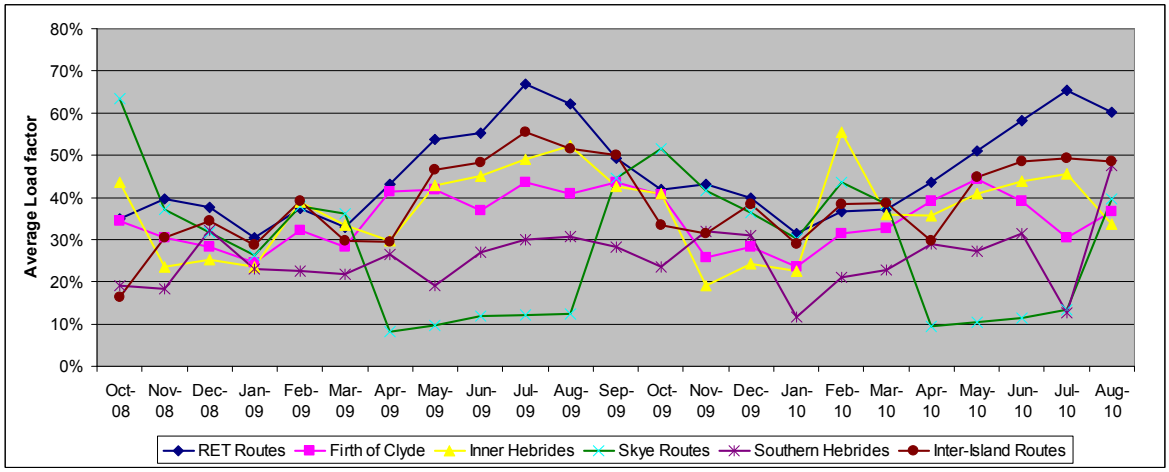
10.2.20 The RET Pilot demonstrated that the tourist and leisure markets were most responsive to lower fares, whereas (in the short-to-medium term at least) the volume of travel for other purposes was less affected. The additional traffic aggravated existing periods when peak demand exceeded supply. This is likely to vary significantly from route to route, reflecting:

- The proportion of tourist and leisure travel in the particular market;
- The volume of freight traffic and specific availability of freight capacity,
- The current differential between peak and off-peak demand; and
- The proportional reduction in fare delivered through RET.

10.2.21 Analysis of ferry traffic data highlights seasonal fluctuations with carryings peaking in the summer months, particularly July and August. This is a feature across the ferry network and highlights the importance of the tourism sector to the economies of many Scottish islands. However this seasonality is not of equal significance on all routes. Figure 10.1 shows the average load factors for motor vehicles on each route group during the RET Pilot between October 2008 and August 2010 [28]. It is most commonly the vehicle-deck capacity which is a constraint on traffic carrying.

[28] This figure is computed from the monthly average load against available capacity for all vessels on every service in each route group (see Table 2.1). The figures need to be treated only as a general indication since the capacity available varies not only with seasonal demand, but also when vessels are exchanged betweens routes for servicing, and also in response to changes in crewing levels at different times of the year which affects the permitted numbers that may be carried. Within the monthly average there will also be considerable variation by day of the week and (where there is more than one daily sailing) by time of day.

Figure 10.1: Average load factors (motor vehicles) by ferry route group



Source:: CalMac Data

10.2.22 The data show that the RET group of routes feature the highest average peak seasonal load factors, peaking at over 60% in each summer period, and also the greatest variability between peak and out-of-season loads. Because of the peripheral location of the Western Isles, Coll and Tiree, and limited day-trip and short-break traffic, the tourism market can be expected to be particularly seasonal on the peripheral islands, and RET has slightly aggravated that phenomenon. By contrast Firth of Clyde Routes and routes in the Southern Hebrides group show least seasonal variability and lower average peak loads. On the Skye routes the peak season shows the lowest load factors due to additional summer seasonal sailings. The implication is that on the RET area routes there is a greater likelihood that tourist traffic will be turned away in peak season, but nevertheless routes in other areas may operate at full capacity on individual sailings across the whole year.

10.2.23 In the RET Pilot business travellers reported that they were unable on occasions to make a visit to the mainland because they could not get the sailing times they required and residents reported that they could not get the sailing or route that they preferred. Experiences within the RET Pilot also show this can be an issue for freight businesses, and particularly when sailings are cancelled. As well as additional costs incurred, this has been a particularly severe issue for Coll and Tiree when essential fuel supplies could not be transported to the island due to lack of capacity on the ferry service. With this in mind, the need for additional demand management to prioritise essential supplies to island communities would be an important mitigating measure to reduce the negative impacts of inadequate capacity on the routes.

10.2.24 The RET Pilot on four routes serving the Western Isles, Coll and Tiree was not provided with any additional capacity as part of the Pilot project, although the introduction of Sunday sailings between Ullapool and Stornoway during 2010 for other reasons did increase the total capacity to a degree. Additional costs would clearly be incurred if additional capacity is procured to meet the increased demand induced by RET. This is likely to be particularly acute on the Clyde routes where the largest proportional increase in demand is projected (see following sections of this chapter). Such capacity may be delivered in a number of ways:

- through the deployment of larger vessels on existing routes;
- through an increase in the frequency of sailings with existing vessels (where there is sufficient time available in a weekly schedule) or else with new and potentially faster vessels;
- through an increase in the frequency of sailings applied to new and shorter routes (depending on the geography of an area); or
- through a combination of a larger number of sailings though with smaller vessels, deploying more than one vessel to a route.

Many of these options have implications for port facilities as well as vessels, and would incur capital costs as well as revenue costs.

10.2.25 Increased sailings or faster journeys of course have benefits beyond providing capacity for the additional traffic that may arise from lower fares, and could themselves induce further increase in demand. The complexity of considering all the potential permutations and defining an optimal and affordable solution is the subject of the separate Ferries Review.

10.3 ***Elasticity of demand***

10.3.1 Cheaper fares have two revenue consequences;

(a) there is a reduction in revenue associated with the cheaper price per ticket; but

(b) there may also be additional revenue associated with an increase in patronage where this arises as a result of lower fares.

Where the additional revenue arising from an increase in patronage is greater than the reduction associated with lower fares, this means that total income increases. Where however the loss of revenue from lower fares is greater than the revenue from additional travellers, then total revenue will fall.

10.3.2 A key method of assessing the responsiveness of ferry fares to the changes in demand is therefore to compare the percentage change in price to the percentage

change in the volume of demand. This is the measure of the 'price elasticity of demand'. If the demand does not increase correspondingly with a fall in its price then overall revenue accruing to the operator will fall, which is known as inelastic demand and is shown by a price elasticity of less than 1. Conversely, if the percentage increase in quantity demanded is greater than the percentage fall in price, then the price elasticity of demand is greater than 1 and is deemed to be elastic and overall revenue will rise.

10.3.3 Table 10.1 to Table 10.3 provide indications of the responsiveness of demand to change in prices for passengers, cars and commercial vehicles respectively for each route over the two year period of the Pilot.

Table 10.1: Price elasticity of demand between 2007/8 and 2009/10 for passengers

	percentage fall in average price	**percentage increase in quantity demanded**	**Price elasticity of demand**
Oban - Castlebay / Lochboisdale	38%	28%	0.73
Uig – Tarbert / Lochmaddy	39%	15%	0.38
Ullapool – Stornoway	39%	27%	0.70
Oban – Coll / Tiree	27%	14%	0.50
All routes	**36%**	**20%**	**0.56**

Table 10.2: Price elasticity of demand between 2007/8 and 2009/10 for cars

	percentage fall in average price	**percentage increase in quantity demanded**	**Price elasticity of demand**
Oban – Castlebay / Lochboisdale	22%	35%	1.57
Uig – Tarbert / Lochmaddy	39%	23%	0.60
Ullapool – Stornoway	34%	43%	1.29
Oban – Coll / Tiree	30%	22%	0.75
All routes	**32%**	**31%**	**0.96**

Table 10.3: Price elasticity of demand between 2007/8 and 2009/10 for Commercial Vehicles

	percentage fall in average price	percentage increase in quantity demanded	Price elasticity of demand
Oban - Castlebay / Lochboisdale	33%	34%	1.03
Uig – Tarbert / Lochmaddy	50%	6%	0.11
Ullapool – Stornoway	43%	5%	0.11
Oban – Coll / Tiree	40%	13%	0.34
All routes	43%	6%	**0.15**

10.3.4 The Pilot shows that car traffic is generally more price elastic than foot traffic – i.e. in relation to the change in fare that was implemented there was a greater response in terms of car trips than foot passengers. For car traffic on the route from Oban to Castlebay/Lochboisdale and from Ullapool to Stornoway the percentage increase in patronage was higher than the composite percentage fall in price, resulting in a price elasticity of demand greater than one, as shown in Table 10.2, and an increase in total revenue from car traffic. Across all routes car patronage is only slightly inelastic, and additional revenue (on average) nearly covered the lower fares per car. This is likely to be because some of those who previously travelled as foot passengers have been encouraged by lower fares to take a car, leading to a partial transfer from foot traffic to car traffic. This has policy implications for those routes that mostly rely on car patronage rather than foot [29].

10.3.5 Commercial traffic has been the least responsive to the reduction in ferry fares. Arguably the commercial traffic has increased in response to a change in business activity on the islands leading to a change in the demand for the transport of products and supplies, rather than as a direct response to lower fares. The growth in commercial vehicle traffic on the Oban – Castlebay/Lochboisdale route appears to be an exceptional result, and may be explained by a change in route choice, which was also alluded to in Haulier surveys (see paragraph 3.4).

[29] There is also some evidence in Chapter 4 to suggest that there have been vehicle capacity constraints on some routes during peak periods. This means that some demand may not have been fully accommodated at the prevailing RET prices and that the growth in car traffic and revenue might have been higher had the capacity been available.

10.3.6 Overall, these findings suggests that the fares elasticity is less than 1; that is demand is inelastic and an increase in government subsidy would be required to maintain the RET pricing structure in the Pilot area.

10.3.7 There are caveats in relation to this data which tend to imply that these elasticities may be lower if RET were applied across the whole network. Passenger travel increased by 3% overall on non-RET routes during the two years of the RET Pilot, although there was no corresponding growth in car travel. This provides some evidence to suggest that there has been some underlying growth in demand across the ferry network, and so the changes in demand on RET routes couldn't all be attributed to the RET Pilot. In addition, the findings from the onboard passenger survey indicates that 5% of visitors would have travelled elsewhere in the Scottish ferry network if the RET fares had not been introduced (Table 5.1). If RET were to became the normal basis for fare setting across the network, this transfer between routes would not occur. These visitors would be likely to travel elsewhere on the ferry network if an RET fare structure was introduced across the whole Scottish ferry network.

Calculating elasticities for the roll-out of RET

10.3.8 The RET Pilot has enabled the real and observed response of travellers to lower fares to be assessed, and this was a major purpose of the Pilot scheme. This is termed 'revealed preference' as the behaviour of travellers is revealed by their actual decisions. However the RET Pilot does not reflect the shorter routes that occur in other parts of the network (those routes which are 60 minutes or less). An alternative method of assessing passenger response to a change is to use survey techniques termed 'stated preference' where questions pose possible fares options and ask respondents to say how they would respond. This is the best available alternative where a full-scale Pilot has not been undertaken, and in the course of the Ferries Review stated preference studies were carried out [30].

10.3.9 Table 10.4 shows comparability between these stated preference results and the revealed preference results for passenger journeys on routes within the RET Pilot. The results indicate that the ferry route tends to be more demand inelastic the shorter the duration of the ferry journey. This finding is supported by the observed changes in patronage on the RET routes during the Pilot. The values are relatively consistent with the values exhibited in the RET Pilot.

[30] Scottish Lifeline Ferries Review: Stated Preference Research, MVA Consultancy, September 2009

Table 10.4: Comparison of stated preference and RET demand elasticities for passengers

Sailing length – time band	Stated preference derived estimate [31]	RET routes
A 30 minutes or under	0.38	
B 30 to 60 minutes	0.49	
C 60 to 120 minutes	0.51	0.38 – Uig to Tarbert / Lochmaddy
D 120 to 240 minutes	0.51	0.50 – Oban to Coll/Tiree 0.70 – Ullapool to Stornoway 0.60 – Average of two routes
E Greater than 240 minutes	0.59	0.73 – Oban to Castlebay / Lochboisdale
All routes	**0.51**	**0.56 – All RET routes**

10.3.10 Revealed preference values have been used where they are available as they are more reliable. In order to derive estimates for the shorter group A and B routes where no revealed preference values were available, the stated preference values were adjusted in proportion to the difference between the revealed and stated preference results for the longer routes. For example, the stated preference value for A routes, at 0.38, has been adjusted in proportion to the ratio of stated to revealed preference values for C routes, to derive a value of 0.28 which will be used in the analysis. This same process has been used to derive estimates for A and B routes for car and commercial vehicles.

10.3.11 The derived price elasticities of demand provide the basis to establish the expected change in demand based on carryings for passengers, cars and CVs on non-RET routes, while the actual elasticities have been applied on the respective RET Pilot routes. Table 10.5 summarises the estimated elasticities for different journey times, which have been used to assess changes in patronage on non-RET routes.

[31] These figures are an average of the elasticities for foot passengers travelling with a motor vehicle and those travelling without.

Table 10.5: Price elasticity of demand - wider network

Journey time	All passenger estimate	All cars estimate	CVs estimate
A 30 minutes or under	0.28	0.44	0.08
B 30 to 60 minutes	0.37	0.57	0.11
C 60 to 120 minutes	0.38	0.60	0.11
D 120 to 240 minutes	0.60	1.02	0.22
E Greater than 240 minutes	0.73	1.57	1.03
All routes	**0.51**	**0.87**	**0.13**

Application of RET Pilot results to the wider network

10.3.12 Table 10.6 shows the 2008 baseline fares in comparison with the RET formula fares across the wider Scottish ferry network. Where 2008 ferry fares are lower than the value which would exist if the RET tariff was applied, it has been assumed these would remain at the existing level, as in the Pilot. Therefore, on these routes, there is no change to the level of demand as a result of the introduction of the RET fare structure.

10.3.13 Table 10.7 and Table 10.8 illustrate the projected change in demand and percentage share of forecast change respectively estimated by applying the elasticity appropriate to the duration of the ferry trip to the change in fare.

Table 10.6: 2008 baseline and RET formula fares on the wider ferry network

	2008 Passenger	RET Passenger	% reduction	2008 Car	RET Car	% reduction	2008 CVs	RET CVs	% reduction
Gourock - Dunoon	£2.67	£2.43	**9%**	£6.71	£7.57	**0%**	£81.78	£32.57	**60%**
Wemyss Bay - Rothesay	£3.03	£2.68	**12%**	£11.73	£9.06	**23%**	£71.44	£37.82	**47%**
Colintraive - Rhubodach	£0.98	£2.06	**0%**	£5.68	£5.37	**5%**	£24.68	£24.81	**0%**
Tarbert - Portavadie	£2.73	£2.35	**14%**	£12.08	£7.07	**41%**	N/A	£30.80	**N/A**
Ardrossan - Brodick	£4.01	£3.18	**21%**	£24.11	£12.09	**50%**	£116.56	£48.48	**58%**
Lochranza - Tarbet/Claonaig	£3.70	£2.50	**33%**	£16.77	£7.98	**52%**	£83.66	£34.01	**59%**
Largs - Cumbrae	£1.60	£2.12	**0%**	£8.70	£5.71	**34%**	£57.22	£26.00	**55%**
Kennacraig - Islay	£6.54	£5.23	**20%**	£34.11	£24.39	**29%**	£173.90	£91.84	**47%**
Oban - Craignure	£3.31	£2.93	**11%**	£22.67	£10.59	**53%**	£122.91	£43.21	**65%**
Fishnish - Lochaline	£2.18	£2.19	**0%**	£9.18	£6.16	**33%**	£71.21	£27.58	**61%**
Fionnphort - Iona	£1.63	£2.10	**0%**	N/A	N/A	**N/A**	N/A	N/A	**N/A**
Oban - Coll/Tiree	£10.44	£7.97	**24%**	£58.61	£40.83	**30%**	£241.82	£149.79	**38%**
Oban - Castlebay/Lochboisdale	£16.87	£10.95	**35%**	£61.22	£58.69	**4%**	£323.83	£212.75	**34%**
Mallaig - Armadale	£2.69	£2.50	**7%**	£14.43	£7.98	**45%**	£55.70	£34.01	**39%**
Uig - Tarbert / Lochmaddy	£8.10	£4.92	**39%**	£36.61	£22.52	**38%**	£181.42	£85.26	**53%**
Ullapool - Stornoway	£12.18	£7.22	**41%**	£55.61	£36.32	**35%**	£257.56	£133.90	**48%**
Tayinloan - Gigha	£2.46	£2.25	**8%**	£8.62	£6.49	**25%**	£81.55	£28.77	**65%**
Raasay - Sconser	£2.01	£2.19	**0%**	£7.67	£6.16	**20%**	£88.36	£27.58	**69%**
Tobermory (Mull) - Kilchoan	£3.35	£2.37	**29%**	£17.75	£7.22	**59%**	£73.20	£26.66	**64%**
Oban - Lismore	£2.53	£2.75	**0%**	£21.25	£9.50	**55%**	£82.80	£33.50	**60%**
Oban - Colonsay	£10.10	£5.66	**44%**	£49.50	£26.96	**46%**	£211.40	£85.88	**59%**
Mallaig - Eigg	£5.05	£3.24	**36%**	N/A	£12.44	**N/A**	£91.00	£42.32	**54%**
Mallaig - Rum	£7.43	£3.43	**54%**	N/A	£13.58	**N/A**	£102.80	£45.74	**56%**
Mallaig - Muck	£7.70	£3.68	**52%**	N/A	£15.08	**N/A**	£143.00	£50.24	**65%**
Mallaig - Canna	£9.30	£4.30	**54%**	N/A	£18.80	**N/A**	N/A	£61.40	N/A
Berneray - Leverburgh	£4.79	£3.05	**36%**	£21.08	£11.30	**46%**	£139.60	£38.90	**72%**
Barra - Eriskay	£5.16	£2.63	**49%**	£14.68	£8.78	**40%**	£97.40	£31.34	**68%**
Scrabster - Stromness	£10.10	£4.98	**51%**	£43.87	£22.86	**48%**	£230.18	£86.44	**62%**
Aberdeen - Kirkwall	£14.40	£17.12	**0%**	£78.93	£95.74	**0%**	£370.48	£370.48	**0%**
Kirkwall - Lerwick	£11.62	£13.21	**0%**	£67.83	£72.26	**0%**	£278.24	£278.24	**0%**
Aberdeen - Lerwick	£18.95	£24.07	**0%**	£104.60	£137.39	**0%**	£231.36	£231.36	**0%**

10.3.14 Overall, these figures suggest that the roll-out of RET could result in over 311,000 additional passenger trips and over 216,000 additional car trips, while there would be over 8,200 additional trips by commercial vehicles and coaches (including the actual recorded increase on the Western Isles Pilot routes). However, these increases would only arise if there were no capacity constraints within the ferry network. Without further increases in capacity, it is unlikely that this increase in patronage could be accommodated on a number of ferry routes.

Table 10.7: Estimated changes in demand arising as a result of RET fares structure ('000s)

Route	Increase in patronage under RET		
	Passengers	Cars	CVs and coaches
Western Isles Routes	87.3	35.1	2.9
Orkney Routes	53.1	16.5	1.1
Shetland Routes	5.2	0.0	0.0
Firth of Clyde Routes	103.9	90.4	2.0
Inner Hebrides Routes	29.7	43.5	1.2
Skye Patronage Routes	3.9	11.2	0.1
Southern Hebrides Routes	14.2	10.9	0.6
Inter-Island Routes on Western Isles	14.2	8.9	0.3
Total	**311.6**	**216.4**	**8.2**

10.3.15 Table 10.8 provides an indication of the percentage share of the total increase in patronage across all of the various routes. This suggests that the Firth of Clyde routes would constitute over 40% of the total increase in car traffic and 33% of the total increase in passenger traffic.

Table 10.8: Percentage share of the total network increase in demand under RET by route

Route	Passengers	Cars	CVs and coaches
Western Isles Routes	28%	16%	35%
Orkney Routes	17%	8%	13%
Shetland Routes	2%	0%	0%
Firth of Clyde Routes	33%	42%	24%
Inner Hebrides Routes	10%	20%	15%
Skye Routes	1%	5%	2%
Southern Hebrides Routes	5%	5%	8%
Inter-Island Routes on Western Isles	5%	4%	3%
Total	**100%**	**100%**	**100%**

10.4 ***Changes in farebox revenue subsidy***

10.4.1 Comparing the change in farebox revenue based on average 2008 fares with the RET fares provides an indication of the change in subsidy which would result from a national roll out of RET. This has been assessed both in relation to a scenario in which the estimated increase in demand can be accommodated, and an alternative scenario in which there is no spare capacity and no further increase in demand could be accommodated.

10.4.2 The baseline for passenger and car fares is based on an average 2008 price (including summer saver 5 day return, winter single ticket and share of winter multi-journey ticket) as shown in Table 10.6. The Commercial Vehicle fares are based on the 2008 published single fares.

10.4.3 The price elasticities revealed by the RET Pilot Project suggest overall patronage on the ferry network overall is relatively unresponsive with respect to changes in price. It is therefore projected that revenue would decline with a lowering of fares through the introduction of a RET based pricing mechanism and as a result there would be an increase in government subsidy requirement to roll out a similar type of fares mechanism across the wider network. For this analysis, routes where current fares are already lower than would apply under the RET fares formula are assumed not to change, and consequently no change in the subsidy would be required.

10.4.4 Table 10.9 sets out the estimated change in subsidy requirement, assuming the projected increase in demand can be accommodated on all of the routes across the network. In summary, the base case analysis which assumes all additional demand

can be accommodated indicates that a total increase in subsidy (including the current Pilot Area) is estimated at £15.5 million per annum.

Table 10.9: Change in farebox revenue by route (£'000 pa)

Route	Passengers	Cars	CVs and coaches	Total
Western Isles Routes [32].	£1,055	£629	£2,051	£3,735
Orkney Routes	£832	£506	£1,030	£2,368
Shetland Routes	£63	£0	£0	£63
Firth of Clyde Routes	£745	£1,887	£1,687	£4,318
Inner Hebrides Routes	£227	£1,198	£1,161	£2,586
Skye Fares Routes	£27	£249	£126	£402
Southern Hebrides Routes	£163	£327	£877	£1,368
Change in Inter-island Fares Revenue under RET	£153	£200	£289	£643
Total	**£3,265**	**£4,996**	**£7,221**	**£15,482**

10.4.5 Table 10.10 details the estimated increase in subsidy per additional unit of patronage based on the projected increases in demand. The average increase in subsidy is equivalent to £10 per additional passenger, £23 per car and £876 per commercial vehicle or coach.

[32] The traffic and revenue data supplied by CalMac (and which corresponds with the forecast revenue loss from RET Pilot routes in Table 10.9) shows that revenue on the RET routes is down by £3.73M. CalMac is also compensated for the Traffic Dues levied by non-CMAL ports and revenue abstracted from other routes. Together these figures amount to £6.5M which is the amount the Scottish Government has agreed to pay for the Pilot in that year.

Table 10.10: Additional subsidy per additional unit of patronage under RET

Routes	Passengers	Cars	CVs and coaches
	Per person	Per vehicle	Per vehicle
Western Isles Routes	£12	£18	£708
Orkney Routes	£16	£31	£946
Shetland Routes	£12	£0	£0
Firth of Clyde Routes	£7	£21	£835
Inner Hebrides Routes	£8	£28	£952
Skye Routes	£7	£22	£876
Southern Hebrides Routes	£11	£30	£1,410
Inter-islands Routes	£11	£22	£1,135
Overall Network Average	**£10**	**£23**	**£876**

Impact of Capacity constraints

10.4.6 The additional subsidy required under this scenario is likely to be underestimated because it has been assumed that all the additional demand can be accommodated without additional capacity. In practice, with up to 40% more demand estimated, we would expect either that the volume of additional traffic could not in fact be carried, resulting in lower income, or higher costs would be incurred through increasing capacity. In either circumstance the subsidy requirement would in fact be greater than indicated by this estimate derived from fares elasticity.

10.4.7 In order to investigate the upper end of subsidy implications, the changes in subsidy have also been estimated in relation to a scenario in which none of the additional patronage arising as a result of RET could be accommodated. In this circumstance there would be a more substantial drop in farebox revenue as a result of the RET roll-out as there was no corresponding increase in demand as a result of the lower fares regime.

10.4.8 The estimated change in government subsidy in the case of when there is no increase in traffic is presented in Table 10.11. This suggests as a worst case that over £21 million of additional revenue subsidy would be required every year to compensate for the loss of farebox revenue as a result of rolling out RET across the Scottish ferry network.

10.4.9 The most likely outcome lies between these two estimates in the range £15.5 million to £21 million since it is probable that some of the additional demand can be accommodated, but that on some routes in peak period some of the potential

demand will be turned away. This study has not taken into account any potential additional costs that might be incurred in making additional capacity available.

Table 10.11: Change in Revenue subsidy if growth cannot be accommodated (£'000 pa)

Route	Passengers	Cars	CVs and coaches	Total
Western Isles Routes	£1,675	£1,747	£2,446	£5,868
Orkney Routes	£1,122	£637	£1,125	£2,884
Shetland Routes	£176	£0	£0	£176
Firth of Clyde Routes	£1,045	£2,725	£1,767	£5,538
Inner Hebrides Routes	£348	£1,735	£1,237	£3,320
Skye Fares Routes	£37	£334	£130	£501
Southern Hebrides Routes	£233	£565	£929	£1,728
Change in Inter-island Fares Revenue	£194	£293	£298	£785
Total	**£4,830**	**£8,038**	**£7,933**	**£20,800**

10.5 ***Summary***

10.5.1 This Chapter has provided a high level assessment of the potential for RET to be rolled out nationally. Key points to note include:

(a) The ferry traffic (cars, passengers and CVs) in most circumstances is relatively unresponsive to the reduction in ferry fares which would result from the introduction of a RET based tariff.

(b) Consequently, although an increase in patronage is forecast, this is not likely to be sufficient to offset the fall in revenue which would result

(c) A base case assessment suggests that an increase in subsidy of £15.5 million per annum is required to roll RET out across the Scottish Government funded ferry routes, assuming all the potential additional traffic can be accommodated. However it is inevitable that there will be some capacity constraints. As a worst case where capacity prevents any increase in demand, the cost in terms of lost revenue would be £21 million per annum, although it is unlikely that none of the growth could be accommodated. The outcome is likely to be between these two estimates. Providing additional capacity in order to meet the potential demand in full would have significant capital cost implications.

(d) The Pilot routes represent comparatively long sea crossings and therefore are not necessarily representative of the impacts that may arise on other routes, the short sea crossings in particular.

(e) The benefits to small islands which are very dependent upon ferry services for access to essential daily services are different in nature to the benefits

which accrue to larger islands with a higher level of local services. The larger islands are more likely to generate a higher level of traffic growth, though this may be predominantly for leisure and tourist travel.

(f) The Pilot area is characterised by more peripheral Scottish islands, therefore some benefits and changes resulting from the introduction of a RET fares structure in other islands could be less pronounced where islands are closer to the Scottish mainland and therefore remoteness is less of a factor.

(g) Correspondingly islands located closer to the Scottish mainland could potentially be exposed to more competition with the lowering of fares through RET increasing the attractiveness and viability of island markets to mainland businesses.

(h) The RET Pilot is operating in isolation. Information gathered suggests some marginal displacement of visitors from other Scottish islands.

10.5.2 As the characteristics of the Pilot area cannot be considered representative of the entire wider ferry network, in particular short sea crossings and islands in close proximity to the Scottish mainland, the information in this chapter is presented to provide an indicative assessment only. Therefore a more detailed assessment is still recommended to provide further understanding of the implications of extending RET to other services on the Scottish ferry network with particular reference to the characteristics of each service and of the existing travel market using it.

11 Summary and Conclusions

11.1 ***The RET Pilot Project***

11.1.1 The Road Equivalent Tariff (RET) is a theoretical means of setting ferry fares based on the cost of travelling an equivalent distance by road. As a matter of equity RET is designed to put island communities on an equal footing in terms of the cost of travel with similarly located mainland communities. The intention behind RET is that it reduces the economic disadvantage suffered by remote island communities, and that it will therefore enable the islands to make a bigger contribution to the economic prosperity of Scotland.

11.1.2 The location for the RET Pilot was determined by the Scottish Government after consideration of the evidence of economic problems arising within different island communities, but also bearing in mind the need for a self-contained area in which the concept could be piloted and monitored.

11.1.3 The Western Isles have been historically characterised by higher levels of declining population and poorer economic performance in comparison to other parts of Scotland and also Scotland as a whole. For these reasons the Western Isles are regarded as a particularly fragile economy and the routes serving the Western Isles were therefore identified as the Pilot routes.

11.1.4 The RET Pilot Project sets out to understand through a real-life project how a change in ferry pricing can influence transport decisions in remote island economies and, more importantly, the consequent impacts on the island communities. This study therefore examines both the change in travel demand following the price change and the impact that this has had on the economy of the islands. It also examines the impact of lower fares on the perceived quality of island life.

11.1.5 The RET Pilot commenced operation on 18th October 2008. The Pilot was initially due to operate until spring 2011, although the Scottish Government subsequently announced that RET fares would be extended by one year until spring 2012.

11.1.6 The Pilot is operating on all services between the Western Isles and the Scottish mainland, namely:

- Ullapool – Stornoway;
- Uig – Tarbert/Lochmaddy;

- Oban – Castlebay/Lochboisdale; and
- Oban – Coll/Tiree.

11.1.7 The fare reductions ranged from 14.3% for a single car fare on the Oban – Castlebay/Lochboisdale route to 53% for a commercial vehicle fare on the Uig – Tarbert/Lochmaddy route. Passenger fares fell by on average 40%. In introducing the RET fares, all previous discounts were removed. These had included discounts for multi-trip tickets for frequent travellers and off-season discounts for island residents.

11.2 ***Increased demand***

11.2.1 There was an increase in passenger and vehicle traffic between 2007-2008 and 2008-2009 across the whole Scottish ferry network, but this has been most pronounced on the RET routes. Discounting the initial growth and subsequent fall in traffic on non-RET routes, the indication is that RET gave rise to around 12% more passenger traffic in year one of the Pilot, and a further 5% in the second year (a cumulative increase of 17% over two years) in comparison with the pattern presented by other routes.

11.2.2 Within the overall level of growth, car traffic increased proportionately by almost 50% more than passenger numbers, implying that car users were more responsive to the change in the fares regime than foot passengers; indeed some foot passengers may have switched to taking their car.

11.2.3 Although increases in traffic were noted year round, a consequence of the change in travel patterns is that the peak has become more marked as a proportion of the annual traffic, with implications for coping with peak period demand, especially for car traffic.

11.2.4 The increase in commercial vehicles traffic was only 8% over two years, and has been a second order response to changes in business activity on the islands rather than a direct response to lower fares.

11.2.5 Due to the increase in motor vehicle traffic on the ferries, both residents and businesses have noted increasing difficulties in getting on the sailings on the routes and at the times they require. The overall increase in demand, and especially the requirement for deck space for large vehicles and some specific loads, has caused particular problems. On occasion this has resulted in journeys being cancelled; on other occasions additional costs have been incurred through the loss of perishable goods and the cost of feeding livestock, as well as staff and accommodation costs

for drivers. Fuel supplies on Coll and Tiree were reported to be unavailable for several days because the fuel tanker could not be accommodated on the ferry. These problems are not therefore insignificant to the hauliers, to the businesses they support, or the residents.

11.3 ***Impact on tourism***

11.3.1 Some 30,000 additional visits were made by ferry to the Pilot area during each year of the Pilot. The greater part of the increased visitor numbers is made up of people who say they would have otherwise visited another destination in Scotland. One fifth of all visitors say they would have not travelled to the area without the lowering of fares but 5% of all visitors claim they would have visited another island and 9% would have made a visit to another mainland destination. Only 6% (10,200 people or one third of the additional visitors) say they would not have travelled at all and some of these may have been visiting friends or relatives resident on the islands.

11.3.2 Feedback from accommodation providers indicated that nearly three quarters had experienced increased levels of occupancy since the introduction of RET, which is confirmed by VisitScotland data. There is some evidence that the season has been extended and this outcome is consistent with the increased seasonal travel demand on the ferries. Nevertheless the greater part of the additional tourist demand occurred in the traditional peak months of July and August, and this put additional strain on ferry capacity. This was reflected in more difficulties for residents and businesses in getting the routes and times they required for their own travel.

11.3.3 Over the two year Pilot period the majority of existing tourist businesses had experienced higher demand and a longer season. Some of this can be attributed to wider economic events, such as the rise in domestic tourism which followed the onset of recession and the Homecoming Scotland events. Nevertheless the tourist expansion in the RET Pilot area generally outstripped performance elsewhere.

11.3.4 The secondary data support the assertion that business performance has improved within the tourism sector with rates of occupancy higher than before the introduction of RET. Over the period of the RET Pilot the Western Isles experienced the highest proportional increase in the number of tourist sector businesses, and also increased employment in this sector; however greater growth in turnover and employment was recorded in Orkney despite the benefit to the Western Isles of RET.

11.3.5 There is limited evidence that in the short-term low-value tourism, and especially camping and motorhome visitors, have been more responsive to RET than other

sectors. The modest 4% increase in turnover of tourist related businesses despite the number of additional visitors supports this conclusion.

11.4 ***Impact on non-tourist businesses***

11.4.1 RET has made a positive impact on haulage businesses by lowering costs. Hauliers recorded savings amounting to an estimated 50% of ferry costs. However this represented only a small proportion of total transport costs. Whilst these varied considerably depending upon the mainland origin/destination, the type of vehicle and the product carried, these were estimated at an average of 10% of haulier business costs.

11.4.2 A large proportion of the reduction in ferry costs has been absorbed by haulage businesses and not specifically passed on throughout the supply chain, although reduced ferry costs may have offset other cost increases and enabled prices to be pegged where they would otherwise have increased.

11.4.3 A small number of firms were identified which had expanded into mainland markets. Examples included transport and distribution and also fish processing. Conversely there was an example of a mainland business securing new business in the RET area, though it is not clear that this was a consequence of lower ferry fares. There had also been an increase in businesses undertaking the transport of their own goods rather than using haulage companies. This trend was attributed to the ending of multiple-trip discounts which had given a cost advantage to local hauliers making frequent use of the ferries. Both these changes were small in relation to the overall trade and traffic.

11.4.4 The responses to the business survey provide no overall evidence of any impact on firms which use the ferry for exporting in terms of enhanced business performance relative to other firms. Nevertheless, a small number of examples of firms taking advantage of RET to compete more effectively in mainland markets and increase their level of exports from the Western Isles were identified. The extent to which this occurs will depend on the level of entrepreneurialism and dynamism within the local business base. It is to be expected that competition may increase in the medium or longer term if RET becomes permanent.

11.4.5 The overall number of personal business trips has increased for a large number of firms, and it is claimed that this was largely due to lower fares through RET. Lower ferry fares had also been a significant factor in shifting some business journeys from air to ferry, with the particular benefit to businesses of being able to take the car at a lower cost. The real benefit to businesses from being able to make more trips has not however been assessed.

11.4.6 Despite some businesses and residents saying that they have switched travel from air to ferry as a result of RET, primarily because they wish to take their car with them, it is not evident from the data on air traffic at the island airports that air services have lost a significant volume of traffic.

11.5 ***Wider Economic effect***

11.5.1 Until 2008, and into the first year of the Pilot, the Western Isles featured higher levels of unemployment than benchmark island communities and Scotland as a whole. Despite a modest increase in employment and a fall in unemployment between 2008 and 2010, the Western Isles has fared less well than Scotland as a whole and than most comparator areas. The growth in hotels and restaurants and in transport may be related to RET, but has barely offset the fall in employment in manufacturing and agriculture.

11.5.2 It is to be expected that, if RET has had any impact upon employment, this will lag behind other impacts. The initial response of businesses to an increase in trade will typically be to make better use of existing staff, and it will take time for businesses to gain the confidence that market conditions will support the costs of taking on more staff. Business decisions, especially where investment is required, will tend to lag behind the growth in the market, and some will be deferred until there is certainty that lower fares will become permanent. The early indication of increased employment and greater business confidence may be expected to increase over the medium term beyond the time horizon of the Pilot.

11.5.3 There was a perception that the employment situation has become more difficult over the past two years. The most noticeable change between 2008 and 2010 was in residents' average satisfaction with their present job, which decreased quite markedly between the two dates. It is difficult to attribute this to RET.

11.6 ***Cost of living***

11.6.1 The fuel price data provide some evidence to suggest that the differential between the price of fuel in the Western Isles and in the central belt has reduced subsequent to the introduction of RET. In August 2008, the Western Isles was the most expensive place in Scotland to purchase diesel, but this was no longer the case in 2010. Whether this relative reduction in the price can be attributed to RET is however unproven as the fuel distribution system does not use the ferries except to Coll and Tiree. No evidence was found to suggest that RET had had any short-term effect on house prices.

11.7 ***Impact on residents***

11.7.1 Residents are making greater use of the ferry services since RET with 22% more trips to the mainland during the second year of the Pilot. Only around 7% of ferry trips by residents were made by frequent ferry users travelling more than once a week, and this was unchanged over the RET Pilot period. The additional trips by residents were drawn in equal proportions from those who were frequent, occasional and very infrequent ferry users.

11.7.2 Overall RET has induced an increase in the frequency of trips by residents to the mainland by ferry to purchase goods and services. Although roundly half of all residents do not shop on the mainland, around one third claimed to make more trips to the mainland for shopping since RET than before. There was little difference between food and non-food shopping. This was also consistent across island groups, although a higher proportion of the residents of Coll and Tiree indicated that their travel was unchanged since the introduction of RET, most probably because they had always made more trips per head for these purposes than the residents of the other islands. Despite this increase in shopping trips, retail employment in the Pilot area appears to have increased during the period of the Pilot.

11.7.3 Residents visited friends and family on the mainland more after the introduction of RET, especially younger people. There was also a significant increase in visits to the RET area by friends and family living on the mainland. This result was also observed on the individual islands and island groups.

11.7.4 However, whilst these observed increases in the frequency of trips were exhibited across all social groups, those with disabilities, older people and those on limited incomes were less likely to make additional trips than the population as a whole.

11.7.5 There has been more of an impact in terms of leisure related trips since the introduction of RET. While the majority of residents indicated that they do not use the ferry services for leisure related trips, of those that do, a large proportion state that they travel more now due to RET. Young people took most advantage of the opportunity to travel more for leisure. Results are consistent across the island groups with the exception of Coll and Tiree, where residents were less likely to cite increased leisure trips by ferry as a result of RET.

11.7.6 Overall it was the young people amongst the resident population who claimed to have increased their travel most following RET, making increased trips for visiting friends and family, for shopping and for leisure, and to access health services.

11.7.7 The predominant perception of both residents and businesses was that RET has been beneficial to island businesses and hence to the island communities as a whole. However the evidence from businesses does not give much support to this view as only limited benefits to the islands have in fact been identified, and largely confined to the tourist sector. Across all groups there was a strong perception that RET had made the islanders more accessible to mainland services even amongst those who reported no change in travel behaviour as a consequence. This positive perception may contribute in a small way to satisfaction with the quality of life.

11.8 ***Coll and Tiree***

11.8.1 There were generally markedly different attitudes to the ferry service and RET from Coll and Tiree to those in the Western Isles. These small islands reveal more dependence upon the ferry for basic services, including shopping, health and education related trips. Their ferry service may perhaps fairly be described as a lifeline, with many more trips for what may be considered 'essential' purposes. This is likely to be a reflection of lower levels of provision of such services within the islands themselves. However, as a consequence perhaps, they have not reacted to RET by making the same increase in ferry travel as other parts of the Pilot area. The ferry between Oban and Coll/Tiree has experienced the lowest level of traffic growth, and the residents report the least increase in the frequency of their trips to the mainland.

11.8.2 Despite showing the lowest increase in trips to the mainland, the residents of Coll and Tiree showed the greatest improvement in satisfaction with their access to goods and services. This implies that the lower cost of accessing the mainland was a real benefit. Coll and Tiree residents also reported the greatest improvement in their satisfaction with life over the course of the study, though whether this is attributable to RET cannot be proven.

11.8.3 By contrast the greater proportional response to lower fares exhibited from the other islands reflected more 'optional' travel in the sense that they managed to meet their needs with fewer trips to the mainland before, but have taken advantage of lower fares to access mainland facilities and friends and more frequently.

11.8.4 There was also a different attitude to RET expressed by residents of Col and Tiree and the other islands. Whereas a majority of all respondents considered RET a good thing for their community, a large minority (42%) of those on Coll and Tiree claimed that increased tourism has side effects which damage the unique island culture or impact adversely upon the island environment.

11.8.5 Overall it is possible to summarise that the residents of Coll and Tiree benefitted very directly from RET through cheaper access to essential goods and services, even though this did not result in a great many additional trips. They benefitted less from increased economic activity, and indeed many on those islands felt that additional tourism had harmful impacts on island life, not least when fuel supplies dried up because the fuel tanker could not be accommodated on fully booked sailings.

11.9 ***Environmental impacts***

11.9.1 The change in fares structure attracted a bigger response from those travelling with a car than it did from those travelling as foot passengers, and indeed some who had previously been foot passengers may have opted to take a car when lower car fares were available. The use of public transport by island residents to access the ferry declined from 28% to 15% of all trips whilst the RET fares resulted in a 28% increase in car travel by residents, and an overall 31% increase in the number of cars carried.

11.9.2 Predominantly those island residents who took their cars to the mainland travelled only locally in the area around the mainland port. Even so there was an impact in terms of increased car miles and increased carbon emissions from private cars. It is estimated that an additional 300 tonnes of CO^2 per annum has been generated from extra car travel. Since the majority of additional visitors attracted to the islands by RET claim they would otherwise have travelled elsewhere, it is less certain that RET has increased emissions from visitor travel. Overall RET has had a small adverse environmental impact arising from increased car travel.

11.10 ***Extension of RET to other routes***

11.10.1 The overarching finding of this report is that, apart from tourist travellers and leisure trips, demand for ferry services is relatively inelastic. Demand rose, but generally not enough to offset the reduction in value of each fare. As a consequence, to sustain the current price level on the Pilot routes will require long-term increase to the subsidy provided to the ferry operator. Extension of RET to other routes will similarly result in less income and increase the subsidy requirement.

11.10.2 There are routes and categories of traffic where existing fares are at or below the RET structured fare. Excluding these, the extension of RET to additional routes will further increase the revenue deficit on the ferry services. The loss of fares revenue across the whole network might amount to some £15.5 million pa assuming that capacity is available to carry the additional trips that might arise.

This notional figure would however be lower if RET were to be applied even where the consequence would be an increase in the current fare.

11.10.3 On some routes it is unlikely that there would be the capacity to cater for an increase in demand of this magnitude and, as a worst case if RET fares were introduced but no additional demand could be accommodated, then the loss of revenue is estimated at £21 million pa. Alternatively on some routes there could be additional costs incurred to resolve capacity issues so as to cater for the consequent levels of higher demand. Such potential costs have not been estimated in this study.

11.10.4 Potentially the greatest growth in demand from RET would arise on the Clyde routes, where an estimated 33% increase in passenger traffic and 42% increase in car traffic might be generated on the basis of the results observed in the Pilot Scheme. However this provisional conclusion must be tempered by consideration that the short and frequent Clyde services are in many ways dissimilar to the long and infrequent sailings in the study area. On the Clyde day trips are a feasible option, opening up those islands and peninsulas to a range of travel behaviour (commuting, shopping and short leisure trips) that simply are not feasible in the study area, regardless of the fare.