CORRAN NARROWS

Socio-Economic Study

September 2021

In partnership with: Stantec

CORRAN NARROWS SOCIO-ECONOMIC STUDY

Prepared by: **Steven Reid**

Reviewed by: **Stephen Canning**

Approved by: **Scott Leitham**

Table of Contents

LIST OF TABLES

LIST OF FIGURES

Value of the Corran Ferry

CORRAN NARROWS

Socio-Economic Study

1.0 WHAT IS THE VALUE OF THE CORRAN FERRY?

The Corran Ferry provides the short passenger and vehicle crossing between Lochaber and Ardgour, providing an essential connection linking the communities of Ardgour, Sunart, Ardnamurchan, Acharacle, and Morvern (collectively referred to as the peninsular communities in this report, with a combined population of 2,177 in 2019) with their main service centre at Fort William and the wider strategic road network (A82 / A830). The service also provides a connection between Lochaber and the Isle of Mull via the Lochaline – Fishnish route, an important connection for supply-chain and personal travel needs of the residents of Mull. The Highland Council (THC) operated service carries over 270,000 cars each year, delivering over 30,000 sailings, early morning to late night, 363 days per year. The crossing of the Narrows is the busiest single vessel route in Scotland, and indeed is reputed to be the busiest single vessel route in Europe.

1.1 WHY IS THE CORRAN FERRY SO WELL USED?

The peninsular communities of Ardgour, Sunart, Ardnamurchan, Acharacle, and Morvern are amongst the most geographically remote and sparsely populated areas of mainland Scotland. Whilst the peninsula is home to a vibrant and growing population, its economic vitality (and, to a lesser extent, the economic vitality of the Isle of Mull) is dependent on connections to Lochaber and beyond for:

- Travel to work and education
- Accessing personal services such as Further and Higher Education, and hospitals
- Accessing leisure opportunities and visiting friends and relatives
- Attracting tourists, one of the primary economic sectors on the peninsula
- Inbound and outbound supply-chain movements
- Public service delivery, such as e.g., supply teachers, refuse vehicles and utilities maintenance etc

Residents of Lochaber also commute into the peninsula for work, whilst Lochaber businesses benefit from the wider labour supply offered by those living on the peninsula.

The scale of these economic interactions and the importance of the ferry to them is highlighted by its usage, which is greater than ferry routes to e.g., Arran, Mull, Islay, and the totality of the Outer Hebrides, despite having a lower population.

Such interactions are only possible because the Corran Ferry reduces the geographic peripherality of the peninsula by connecting it to the trunk road network south of Fort William, acting as a ‘bridge’ between the peninsula and Lochaber. Without the ferry, journey times from, for example, Sunart and Morvern to Fort William and Ballachulish

would increase significantly. Google Distance Matrix API[1] data[2], validated by Transport Scotland INRIX[3] data, suggests that the population weighted average increase in journey times from Sunart and Morvern to Fort William would be just over 15 minutes. The increase in journey times to Ballachulish (taken as a proxy for all points south) would be around 45 minutes, whilst the cost of these journeys would also increase. It is important to note however that data-based changes in journey time do not tell the full story – it should be noted that:

- The data is based on the average change in journey time. The single-track design of most of the peninsular road network however means that journey times are unreliable and thus, when making these journeys, motorists will build-in a healthy contingency on top of the actual journey time increase.
- The change in population weighted average journey times set out above is also based on the current transport network in the area. However, the absence of the ferry would lead to significant traffic rerouting, adding to traffic volumes on the peninsular road network. This is particularly important in the context of single-track roads, where more frequent stopping in passing places and increased platooning could be expected, significantly extending journey times.
- There would also be seasonal impacts on journey times. For example, in the summer months, there will be an increase in the volume of motorists on the peninsula, a change in the traffic mix (e.g. increased motor home traffic and coaches) and a higher proportion of motorists which are less familiar with single track roads. This seasonality effect can be most clearly seen in Mull where the journey time from the main ferry terminal at Craignure to Fionnphort (the embarkation point for Iona) increases significantly between Easter and October.

In the absence of the Corran Ferry, it can therefore be reasonably assumed that journey times would increase significantly, and journey time reliability would worsen. At the margin, this would make certain journeys less attractive and would weaken the economic interactions between the peninsula and Lochaber / wider Scotland.

1.2 WHY IS IT IMPORTANT TO UNDERSTAND THE VALUE OF THE CORRAN FERRY?

Despite its importance and usage, the future of the ferry service is under significant pressure. A replacement for the secondary vessel, MV *Maid of Glencoul* is urgently required, whilst there are several operational challenges including the size of the crew complement - which is close to the minimum number required to deliver the current level of service - and the ageing crew demographic. Whilst the requirement for investment is evident, the scale of that investment is substantial, incorporating two new vessels in the medium-term and upgrades to terminal infrastructure at Corran and Ardgour to accommodate them. Added to this is the requirement for additional revenue

[1] Travel times were extracted using a departure time of 8am. Travel times represent historically informed trends and provide an average travel time based on the day and time of day selected.
[2] Historical data was extracted, providing observed travel times and although this will mostly be based on information over a number of years Pre-Covid, there will be an element of travel times informed by times in the past year. Journey times are informed through actual journeys captured by users using Google Maps to navigate, thus provide average times captured across a time period no shorter than a year.
[3] INRIX collates in-vehicle GPS data establishing a daily database of travel times and speeds on the road network. This provides a robust database of daily travel patterns and behaviours on the network.

expenditure to establish a sustainable human resource position. Without investment, the level of service offered could be compromised and indeed the whole operation could ultimately cease in the fullness of time. The farebox revenue, whilst covering operating costs, is also insufficient to meet the future capital investment needs of the route.

1.3 HOW CAN THE VALUE OF A FERRY SERVICE BE DETERMINED?

Our approach in this study has been to consider the different ferry user types – resident, business, and visitor – and develop a 'logic map' setting out how they would respond in a hypothetical 'no ferry' scenario. Having developed these logic maps, we then tested and refined the logic chains through a programme of research including resident and business surveys, stakeholder engagement and desk-based economic research. Collectively, these research strands highlight the consequences of a 'no ferry' scenario and, by extension, the socio-economic value of the service.

1.4 WHAT ARE THE IMPLICATIONS OF A 'NO FERRY' SCENARIO FOR RESIDENTS?

The implications of a 'no ferry' scenario for residents of both the peninsula and Lochaber are as follows:

- Residents – particularly peninsular residents – would experience **poorer employment outcomes** and **thus significant reductions in disposable income**, particularly in Sunart and Morvern, which would be the most severely affected communities.
- This loss of disposable income would both **reduce aggregate demand in the peninsula** and **incentivise some families to leave the area** - indeed, **9% of survey respondents noted that they would resign their job and leave the area**. Increased travel costs would impact more on those in low / minimum / living wage jobs, often 'key workers'. This group would be most at risk of having to give up their jobs, meaning those on low incomes are most affected and service provision (e.g. social care) could be impacted.
- Such a loss of working age population would be highly detrimental to the peninsula, weakening the **critical mass required to maintain economic viability**, increasing the age profile and thus **dependency ratio** and threatening the **viability of local services such as primary schools, bus connections etc**. It would also **reduce the attractiveness of the peninsula to families minded towards in-migration**. The impacts again would be particularly stark in Sunart and Morvern, which would go from being relatively well-connected to a position of extreme rurality in a very short space of time.
- The reduction in income and loss of employment in the peninsula would potentially **increase the number of people claiming benefits** (a net cost to society).
- The evidence from the resident survey clearly highlights the **extensive economic interactions between the peninsula and the Lochaber area**. Cumulatively, the ability to engage in the social activities is important in making the peninsula an attractive place to live, particularly for families. A reduction in connectivity to e.g., shopping or cultural and entertainment activities would diminish quality of life and, together with job / income impacts, would be a '**push' factor in encouraging out-migration**.

Overall, the 'no ferry' scenario would **significantly reduce the ability for residents to access employment, employment opportunities / training, key services, and social activities**. This in turn, would diminish the quality of life for many and act as a 'push' factor in encouraging population out-migration, posing a risk to the future sustainability of communities and businesses on the peninsula.

1.5 WHAT ARE THE IMPLICATIONS OF A 'NO FERRY' SCENARIO FOR BUSINESSES?

The implications of a 'no ferry' scenario for businesses are as follows:

- The size of the **customer base would diminish**, particularly in the peninsula which has a relatively large tourism sector. It is likely that this would make some businesses unviable, and thus may put further downward pressure on population.
- The **size of the labour pool** available to employers in the peninsula and the wider study area would be reduced. This in turn would make it **harder to fill vacancies** or, where these are filled, effectively **match skills to jobs**. Both of these effects would impact negatively on **productivity**. The impacts would be most keenly felt on the peninsula, where the labour market is already very small in absolute terms.
- **Business costs would increase**, particularly for those firms physically moving goods, either by contracted haulier or on their own account.
- Rural haulage businesses – or the rural operations of regional / national haulage businesses – are generally marginal operations, where even small increases in cost can make the operation unviable. The incidence of this impact depends on the haulier in question, the scale of their operation and the extent to which they can pass increased costs onto the end customer or otherwise. The key **risk for the peninsula** outwith increased cost of delivery is the **withdrawal of one or more haulage businesses** in the area, which could threaten an already marginal supply-chain.

Overall, the 'no ferry' scenario implies an **immediate increase in the cost of serving and doing business in the peninsula**. The extent of the impacts would vary by business sector and company depending on the size and geography of the market they serve, the extent to which the business can pass on costs and, where cost pass on is possible, who the end customer is. Nonetheless, it is reasonable to assume that the **cost of least some goods and services would increase**. There is also a risk that some firms may also withdraw from the peninsular market, which could increase cost through reducing competition. The 'no ferry' scenario also implies a reduction in the size of the **labour pool** for the combined peninsular and Lochaber areas. This could exacerbate job vacancy rates and **skills shortages** which already exist and reduce local, regional, and national **productivity**. The impacts would be most keenly felt on the peninsula, where the labour market is already very small in absolute terms.

1.6 WHAT ARE THE IMPLICATIONS OF A 'NO FERRY' SCENARIO FOR VISITORS?

The implications of 'no ferry' scenario for visitors are as follows:

- The visitor survey suggests that there would be a **significant reduction in day-trippers** to the peninsula, reducing direct expenditure in peninsular businesses and with consequential 'multiplier'[4] effects. There would also be a potential **redistribution of the remaining visitor trips** as a result of the changes in journey times – it is expected that Morvern and Sunart would be particularly affected.

[4] The Multiplier effect is a measure of how many times money spent in an area circulates through its economy, effectively recognising that £1 of initial spend will have a greater impact than that initial spend alone. For example, if a tourist books a hotel night for £100, the hotelier will buy stock from say a local provider. The local provider will in turn pay staff who may then spend a part of their income in a local shop of restaurant. Therefore, a proportion of the £100 initial spend is recycled through the local economy several times, creating a larger overall impact.

- The NCN78 – the cycle route from Campbeltown to Inverness – would be **severed** thus reducing passing trade for peninsular businesses and the overall attractiveness of long-distance cycle trips to and from the area. It would also increase the **THC subsidy required for the Camusnagaul Ferry**, which is well-used by cyclists. This could however be to the benefit of Lochaber if there is a redistribution of trips to that area.
- For car-based visitors, rerouting to avoid the peninsula would result in a **loss of passing trade for businesses**, with direct and multiplier effects on the peninsula – this could affect the market as far south as Oban / Mull and as far north as Skye if people fundamentally change their holiday plans. This could however be to the benefit of Lochaber if there is a redistribution of trips to that area.
- There would also be a reduction in **overnight stays** on the peninsula. This would be the **most significant tourism impact** as overnighting visitors tend to spend more money in an area, even when accommodation costs are excluded. This loss of direct expenditure would be amplified by multiplier effects within the local economy. Moreover, a long-term contraction in demand would lead to the **gradual diminution of the supply-side (e.g., bed stock, cafes / restaurants etc)**, reversing long-term initiatives to grow the attractiveness of the peninsula for tourists.

Overall, it is unquestionable that, in a 'no ferry' scenario, **the scale of the peninsular tourism market would reduce**, and there could also be both negative and positive (redistribution) impacts in Lochaber. This reduction would directly reduce visitor spending, with consequential multiplier impacts, and would thus **reduce employment in one of the primary economic sectors in the area**. Moreover, it would lead to a **long-term erosion of the supply-side** in the area, undoing much of the market development work undertaken in recent years.

1.7 WHAT IS THE COST OF A 'NO FERRY' SCENARIO?

There are two components to the 'cost' of a no ferry scenario – these are:

- The monetised 'disbenefit' that current ferry users would experience as a result of longer journey times and high vehicle operating costs – these are the (dis)benefits typically accounted for in the 'Transport Economic Efficiency' component of a Scottish Transport Appraisal Guidance (STAG) appraisal, which are used as the basis for benefit-cost ratio (BCR) calculations. The TEE disbenefits amount to on average **£1.9m per annum**, or between **£71m to £78m when considered as a discounted 60-year present value of benefits (PVB)**[5].
- The economic impact of ferry withdrawal on employment and Gross Value Added (GVA)[6]. The withdrawal of the ferry would lead to a loss of **106 jobs on the peninsula out of 990 (including 14 crew jobs)** and **£58m in GVA over a 30-year period**.

[5] The present value of benefits (PVB) is the benefit / disbenefit is a means of equating a long-term benefits stream to its current or 'present' value.
[6] Gross Value Added (GVA) is the measure of the value of goods and services produced in an area, industry or sector of an economy.

1.8 SHOULD THE A861NOT JUST BE UPGRADED INSTEAD?

One potential alternative to investing in the Corran Ferry is to upgrade the A861 between Ardgour ferry slip and Drumsallie to single carriageway standard, reducing the travel time disbenefits of travelling to Fort William by road. However, high-level cost estimates developed as part of this study suggest that this would cost in the region of **£190m**. Moreover, it is evident that:

- The cost of upgrading the A861 to a standard single carriageway would be tens of millions of pounds more expensive than the Stromeferry Bypass, which THC has been pursuing for many years. It would also only serve the eastern part of the peninsula, so the benefits of such an investment would be unevenly distributed.
- Whilst the conversion of the A861 to single carriageway would reduce journey times from Ardgour and Morvern, journey times and distances would still be significantly longer than travelling via the ferry.
- As the A861 is a road for which THC has responsibility, it would bear the costs of the upgrade unless funds could be secured from external sources. Given the backstory with Stromeferry, this seems unlikely in the medium-term. The capital cost of such a road upgrade would therefore likely be unaffordable from a THC perspective. **Crucially, such an upgrade would also be significantly more expensive than a fixed link across the Corran Narrows, which is understood to be the preferred long-term solution of peninsular communities for crossing the Narrows.**
- There would also likely be significant environmental consenting issues with upgrading a road which hugs the western shore of the scenic Loch Linnhe.

Overall, it is clear from the above that, even without a full appraisal exercise, the upgrading of the A861 to single carriageway cannot realistically be considered as an appropriate or value for money mitigation in a ‘no ferry’ scenario.

1.9 CONCLUSION

The above analysis clearly highlights the importance of the Corran Ferry to both the peninsular communities and Lochaber more generally. The approach adopted has been to consider a ‘no ferry’ scenario from the perspective of different users, which made it easier to distil the different impacts for the purposes of the research. In practice however, the impacts on each of these groups would overlap and reinforce the negative consequences of a ‘no ferry’ scenario. For example, the loss of peninsular jobs would be compounded by a reduction in visitor income and a potential increase in supply-chain and delivery costs. Multiplier effects would compound these losses creating a vicious circle of decline.

All these impacts would ultimately coalesce around a threat to the economic viability of the area. The peninsula has a small and sparse population, but one which the Corran Ferry helps to ensure is viable. Increased costs, reduced income, and difficulty accessing employment, personal business and leisure opportunities would act as a significant ‘push’ factor to out-migration, particularly amongst younger cohorts, and would also act as a deterrent to families minded to in-migration. In fragile rural communities, it only takes a small number of families to leave for local businesses to become unviable and services reduced, creating a cycle of decline. The benefits of improved connectivity

across the Highlands and Islands (e.g., the Skye Bridge, Scalpay fixed link, the Sound ferries in the Outer Hebrides, the Shetland Ro-Ro ferry network etc) have been seen and evidenced in recent years, and the loss of a ferry at Corran could therefore be readily assumed to reverse the types of benefits delivered in these similarly remote areas.

In short, in the absence of a fixed link across the Narrows, the provision of a frequent, reliable, and high-capacity ferry service at Corran is simply fundamental to the economic viability and future sustainability of the peninsula as evidenced by the potential cost of the loss of 106 jobs and £58m in GVA.

Introduction

CORRAN NARROWS

Socio-Economic Study

2.0 INTRODUCTION

2.1 THE CORRAN NARROWS

The Corran Narrows marks the boundary between the upper and lower section of Loch Linnhe, a circa 30-mile-long sea loch which runs along the Great Glen Fault. The section of the loch upstream of Corran separates Lochaber from Ardgour and the areas beyond, albeit it is possible to drive around the head of the loch via Fort William and Drumsallie. At its narrowest point at Corran, Loch Linnhe is circa 0.4 miles wide. It is at this point, that the Corran Ferry service operates.

MV *Corran* operates the short passenger and vehicle crossing between Lochaber and Ardgour, providing an essential connection linking the communities of Ardgour, Sunart, Ardnamurchan, Acharacle, and Morvern with their main service centre at Fort William and the wider strategic road network (A82 / A830). The service also provides a connection between Lochaber and the Isle of Mull via the Locahline – Fishnish route, an important connection for supply-chain and personal travel needs.

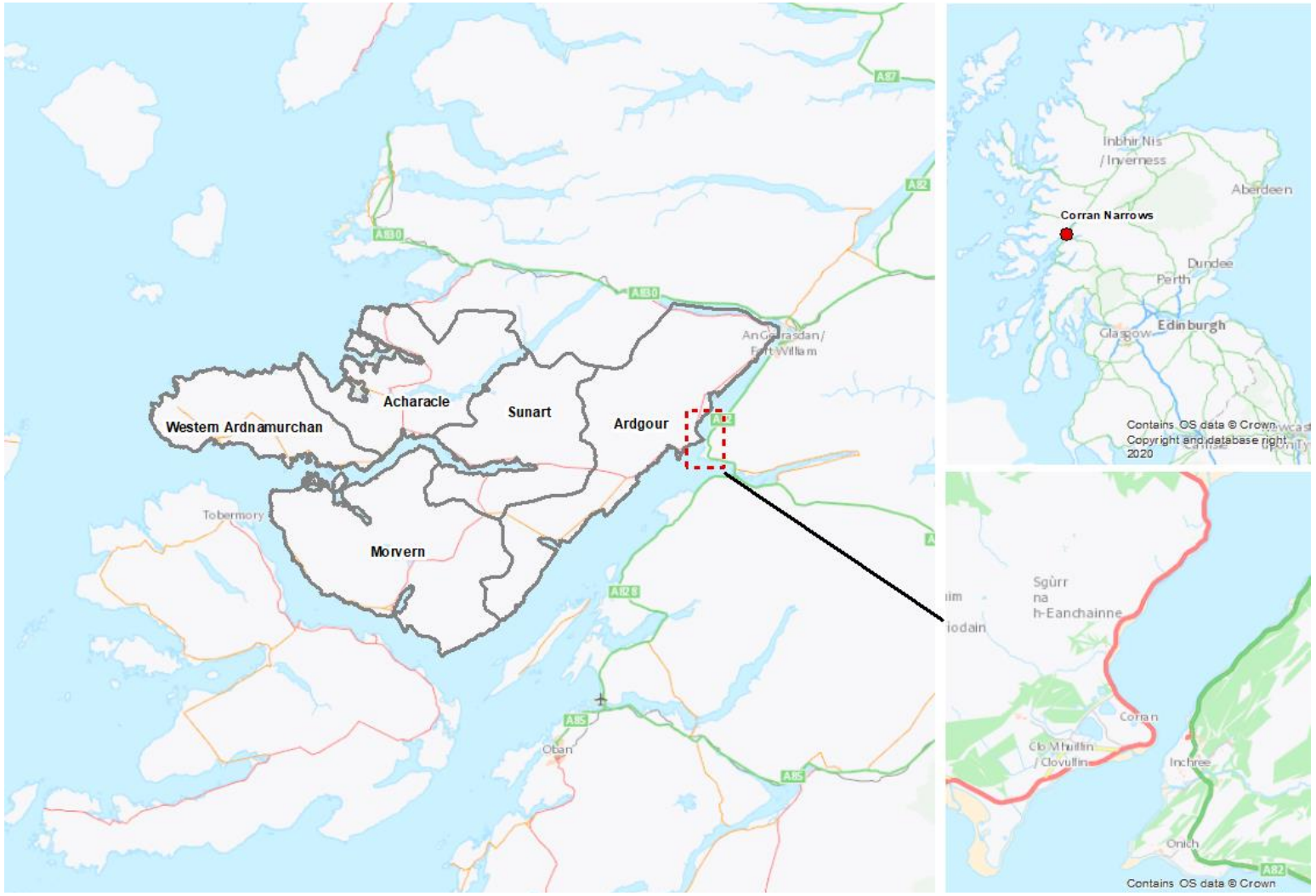


Figure 2-1: Location of Corran Narrows

The Corran Ferry serves a wide variety of purposes including providing access to employment and other key services for residents, acting as a gateway for tourists visiting the peninsula, and supporting the supply-chain needs of the above communities as well as those of the Isle of Mull.

The Highland Council (THC) is responsible for operating the service, which is the busiest single vessel route in Scotland carrying over 270,000 cars each year, delivering over 30,000 sailings, early morning to late at night, 363 days of the year.

2.2 PURPOSE OF THIS STUDY

The purpose of this study is to provide a comprehensive statement of the socio-economic role of the Corran Ferry in meeting the needs of the people and businesses who use the ferry. It will support both the internal and external case for investment in the service and the assets which deliver it.

2.2.1 Why is this study required?

The Corran Ferry forms the primary transport connection between peninsular communities and Lochaber, providing connectivity to Fort William as the regional service centre and the A82 trunk road. It is a multi-functional service, connecting peninsular residents to employment, education, and personal services; supporting the peninsular and Mull supply-chains; and facilitating tourism visits to the area. The alternative route connecting to Fort William and beyond is via the A861 which connects onto the A830. However, the road-based infrastructure is single track with passing places and has many constrained horizontally and vertically constrained sections which limit the movement of certain vehicle types, such as the low bridge at Drumsallie. The ferry service is therefore integral to the economic and social wellbeing of the peninsula and the wider Mull and Lochaber areas.

Despite its importance to the area, there are growing pressures on the sustainability of the service. The crossing is currently operated by two vessels, the relatively modern MV *Corran* (2001) and the 1970s vintage MV *Maid of Glencoul*. The requirement to maintain two vessels arises from their 'quarter-point' vehicle ramp design, which is required to allow

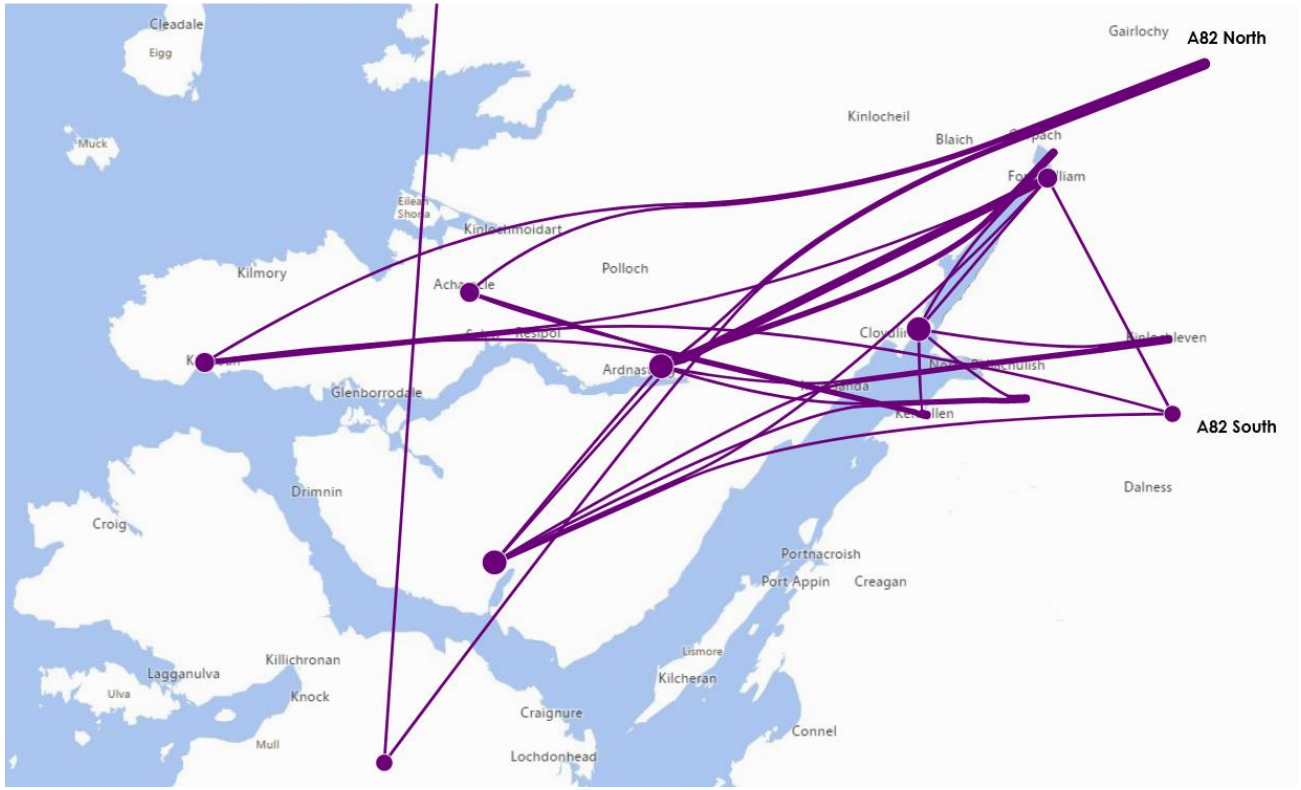


Figure 2-2: Resident Flows from *Voice of the Customer Survey*

safe and efficient operation in the strong tidal conditions experienced at Corran. MV *Corran* is the main vessel, with MV *Maid of Glencoul* stepping in when the primary vessel is out of service for scheduled or unscheduled maintenance. The impending life expiry of MV *Maid of Glencoul*, together with recent reliability issues with MV *Corran*, has highlighted the requirement for capital investment to maintain the integrity of the service. The vessel situation is compounded by a challenging human resource position. As an entirely self-contained service, the Corran Ferry is dependent on a small number of highly dedicated crew. However, the combination of an aging crew demographic and recruitment difficulties has reduced crew headcount to near the minimum level required to operate the service at its current level.

Whilst the requirement for investment is evident, the scale of that investment is substantial, incorporating two new vessels in the medium-term and upgrades to terminal infrastructure at Corran and Ardgour to accommodate them. Added to this is the requirement for additional revenue expenditure to establish a sustainable human resource position. As is almost always the case with essential ferry services, it is challenging to make a conventional transport appraisal case for investment based on a positive net present value (NPV) and benefit-cost ratio (BCR). It is thus necessary to draw out evidence on the social and economic benefits of the ferry service, highlighting both the benefits of investment and the risks of a 'do nothing' approach. This is the role which this study fulfils – it will be used to support internal investment considerations within THC, but also as a case making piece for Scottish Government or other investment in the service.

2.2.2 What work has been done to date?

In response to the emerging challenges with the ferry service, THC commissioned Stantec (then Peter Brett Associates), Mott MacDonald and WSMD Associates to undertake an appraisal of options using the Scottish Transport Appraisal Guidance (STAG) in 2018. The STAG study was focused exclusively on shortlisting vessel and infrastructure options which could address the problems on the route and setting out how these could be funded and delivered. It did not therefore consider a fixed link across the Narrows and, as a largely technical exercise, took a light touch approach to public engagement.

In 2019, the STAG study was supplemented by a High-level Outline Feasibility Study of a Fixed Link across the Corran Narrows, which was completed by Stantec and submitted to Transport Scotland for further consideration within the Strategic Transport Projects Review 2 (STPR2)[7] process. Taken together, the ferry and fixed link pieces provided a comprehensive statement of all possible future options for crossing the Corran Narrows. A fixed link is understood to remain the preferred option of the community and is actively being pursued through THC submissions to the STPR2 process. However, even if a fixed link was to be approved in the short-term, the design, consenting and construction timelines mean that it remains a medium-term proposition. To this end, an at-least interim ferry solution is required, and this is now being progressed through the business case process set out below.

2.2.3 Corran Ferry Business Case

The progression of a future ferry solution is being developed using the Transport Scotland *Guidance on the Development of Business Cases*, which is based on the H.M. Treasury *Green Book* 'Five Case Model', the standard approach to business case development in the UK. The business case process is split into three stages:

[7] STPR2 is the process through which Transport Scotland's capital investment priorities for the next two decades will be defined.

- **Strategic Business Case (SBC):** The purpose of the SBC is to establish the rationale for intervention, detailing the problems and opportunities which the business case is seeking to address. It sets objectives, generates and appraises an initial long list of options, and establishes a shortlist to be progressed for further consideration.
- **Outline Business Case (OBC):** The purpose of the OBC is to revisit the SBC in more detail and to identify a preferred option which demonstrably optimises value for money. It also sets out the likely solution; demonstrates its affordability; and details the supporting procurement strategy, together with management arrangements for the successful rollout of the preferred scheme.
- **Final Business Case (FBC):** The FBC is an updated version of the OBC and takes place following the procurement phase of the project to confirm that the project remains on track and provides value for money.

Within each 'stage' of the business case, there are five 'cases', which provide a structured approach to detailing each component of the overall proposition. These are as follows:

- **Strategic Case:** Defines the case for change / rationale for intervention and identifies a shortlist of options which could deliver the project-specific and wider policy objectives.
- **(Socio)[8] Economic Case:** Assesses the options to determine their value for money in terms of economic, social and environmental benefits and costs.
- **Financial Case:** The financial case involves undertaking a full financial appraisal of the preferred option, based on resource accounting and budgeting principles, including information on funding, budgeting over the life of the project and scheme cash flow.
- **Commercial Case:** The commercial case provides evidence on the commercial viability of a proposal and the procurement strategy that will be used to engage the market.
- **Management Case:** Details the project management plans, outlining the framework for managing risk, benefits realisation and post-project evaluation.

The focus on each 'case' varies by stage of the business case – this is highlighted in the figure below, with the size of the box showing the emphasis placed on that component of the business case at each stage of the process.

[8] The Economic Case is sometimes referred to as the Socio-Economic Case in Scotland, by Transport Scotland for example. This subtlety reflects a desire to more fully reflect wider social and economic factors alongside the traditional estimation of value for money determined by a cost-benefit ratio and net present value.

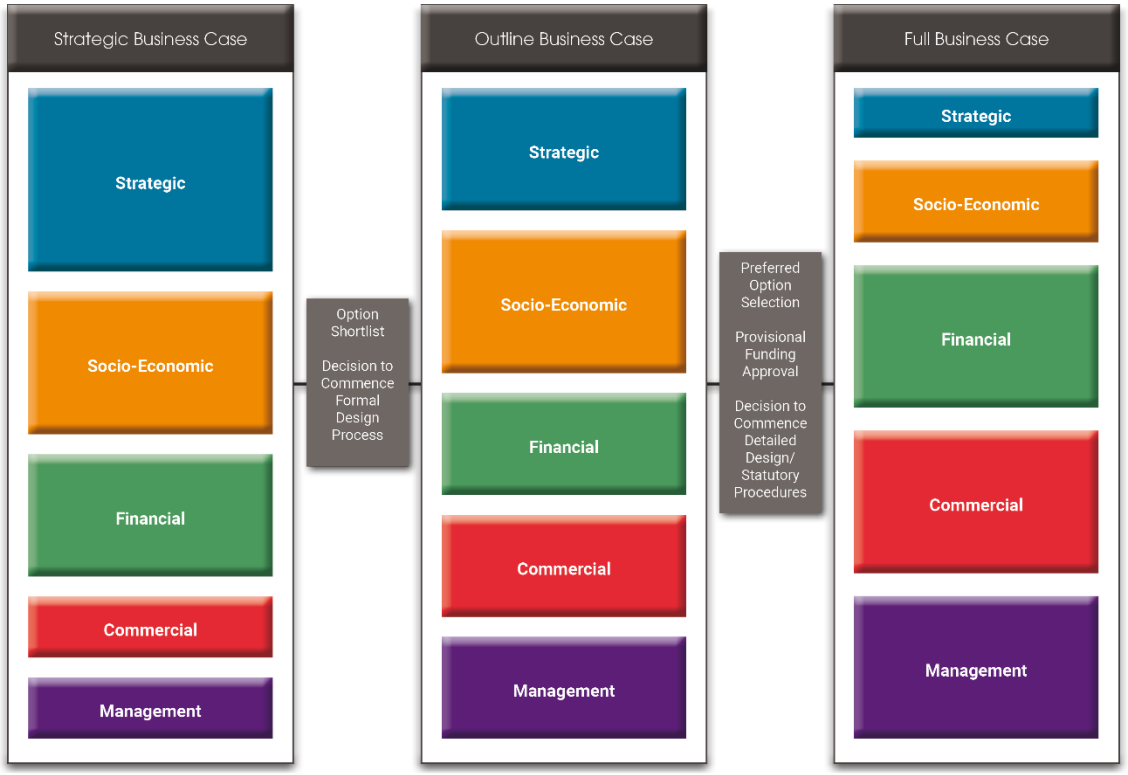


Figure 2-3: Business Case Stages

Taken together, the **Corran Ferry STAG Appraisal** and **High-level Outline Feasibility Study of a Fixed Link across the Corran Narrows** form the SBC for future transport provision across the Corran Narrows. THC is now pursuing the OBC for the ferry service. The Strategic Case is complete, and the Socio-Economic Case is well-developed in terms of the options. **However, there remains a gap in terms of understanding socio-economic benefits of investing in the ferry service, and it is this gap that this study will address.** Upon completion, THC will be in a position to select a preferred ferry option and proceed in developing the Commercial, Financial and Management Cases.

Scene Setting

CORRAN NARROWS

Socio-Economic Study

3.0 SCENE SETTING

This chapter provides background to the geography of the study area, the transport network within it and the operation of the Corran Ferry, providing the context for the socio-economic analysis which follows in the subsequent chapters.

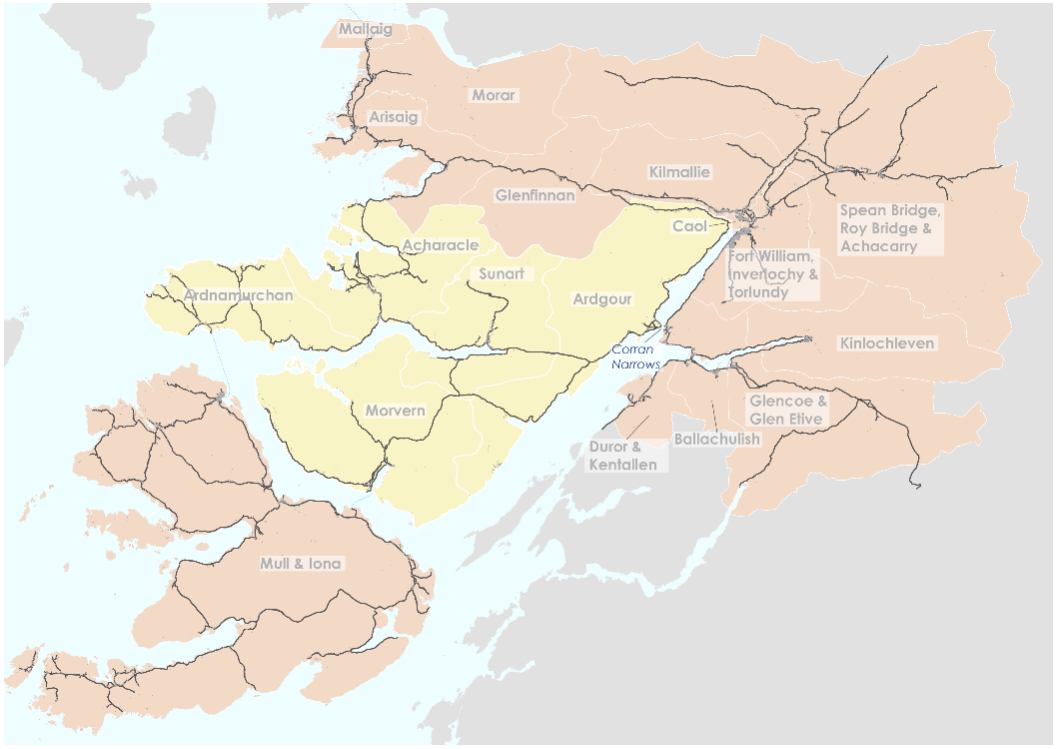


Figure 3-1: Peninsula Communities & Wider Study Area

3.1 DEFINING THE AREA

In defining the study area, the primary focus is on the five peninsular communities of Ardgour, Acharacle, Ardnamurchan, Morvern and Sunart. However, the sphere of influence of the Corran Ferry is wider - in addition to providing a short link across the Narrows to the Peninsula, the crossing also provides:

- A secondary route to / from Mull via the CalMac Ferries Limited (CFL) operated Lochaline – Fishnish crossing, especially for transporting dangerous goods when MV *Isle of Mull* is operating the Oban – Craignure route on her own.
- A road-based divisionary route during occurrences when the A830 Fort William to Mallaig trunk road is closed between Kinlocheil and Fort William.

To this end, the study area for the project has been summarised into two distinct areas as highlighted in **Figure** 3-1, (i) the five peninsula-based communities shaded yellow; and (ii) the wider study area shaded in orange, incorporating Mull and Iona and Lochaber.

3.2 GEOGRAPHY

The Scottish Government Urban Rural Classification is used to identify rural communities and better understand the impact that issues such as transport, education and health can have on them, and to reflect this when developing or implementing policy.

The classification provides a consistent way of defining urban and rural areas across Scotland and is based upon two main criteria: (i) **population**, as defined by the National Records of Scotland (NRS), and (ii) **accessibility**, based on drive time analysis to differentiate between 'accessible' and 'remote' areas in Scotland[9].

Both the peninsular communities (collectively) and the wider study area for this project are classified using the following 8-fold classification: (1) Large Urban Areas, (2) Other Urban Areas, (3) Accessible Small Tows, (4) Remote Small Towns, (5) Very Remote Small Towns, (6) Accessible Rural Areas, (7) Remote Rural Areas and (8) Very Remote Rural Areas.

Table 3-1 below provides the classification for each of the community council areas considered within the study and the 2019 population[10]. The peninsular communities are coloured orange.

Table 3-1: Scottish Government Urban Rural Classification 8-Fold 2016 (Source: Scottish Government, 2016)

Community Councils	8-Fold Classification	2019 Population
Acharacle	**8**	**529**
Arisaig, Glenfinnan, Kilmallie	7	1,041
Ballachulish, Kentallan, Glencoe	7	649
Caol	2	4,577
Fort William, Inverlochy, Torlundy	2	5,658
Morar, South Knoydart	8	902
Morvern, Sunart, Ardgour	**8**	**1,076**
Mull	8	3,021
Nether Lochaber, Kinlochleven	6	510
West Ardnamurchan	**8**	**572**

The peninsula-based communities are all classified as 'Level 8, ***Very Remote Rural Areas***'. These are therefore defined as fragile communities in the view of the Scottish Government using this measure.

3.3 ROAD BASED CONNECTIONS

The peninsular road network is sparse, both in terms of the coverage of the network and the form, standard and horizontal and vertical alignment of those roads – this reinforces the use of the ferry as an integral part of the road network, connecting the peninsular communities to Fort William and the trunk road network. In Lochaber, the A82 at Corran provides the trunk road connection south to Oban and the Central Belt and north to Fort William, Inverness, and Skye. The A82 connects with the A830 in Fort

[9] Three population thresholds are used to categorise settlements into 4 categories; 125,000+ = Large Urban Areas, 124,999 - 10,000 = Other Urban Areas, 9,999 - 3,000 people = Small Towns, and less than 3,000 = Rural Areas. Accessibility is measured in terms of drive times to an urban area. This is done by calculating 30 and 60 minute drive times from the population weighted centroids of Settlements with a population of 10,000 or more.
[10] 2019 Mid-Year Population Statistics, National Records of Scotland 2021

William and provides connections to Mallaig and onward ferry services to Skye, Knoydart, the Small Isles and the Outer Hebrides. The A830 connects with the A861 on the peninsula at both Drumsallie and Lochailort and has one low bridge constraint to the east of Glenfinnan. The A861 provides a circuitous route looping around the peninsula between Drumsallie, Ardgour, Strontian, Salen and Lochailort.

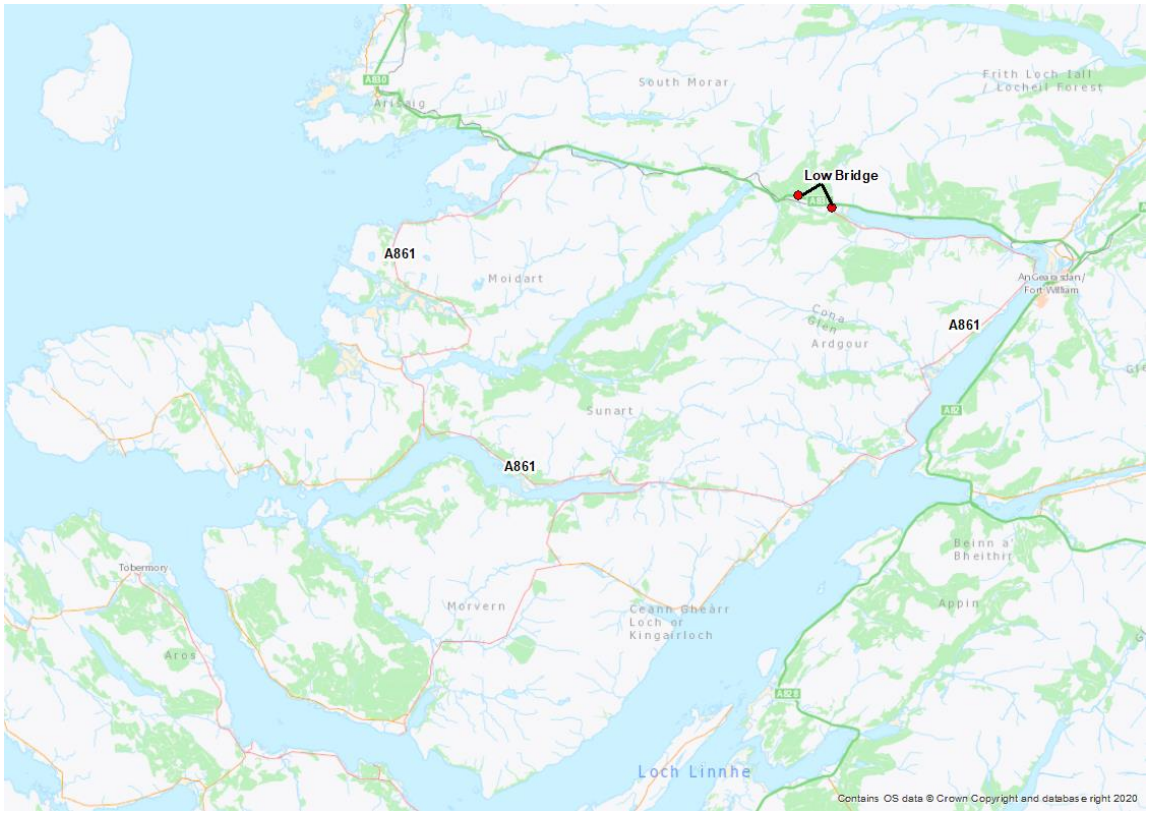


Figure 3-2: Road Network and Constraints

The A861 varies in standard along its length, consisting mainly of single track with passing places, low bridges and tight turns and bends. The physical characteristics of the road restrict the movements of certain vehicle types, such as the low bridge at Drumsallie which restricts certain HGV movements from using the A861 between the A830 and the ferry slip at Ardgour along the western shore of Loch Linnhe.

3.3.1 Road Closures

The lack of alternative routing increases the dependence of the on the core road network. This is an issue on both the A82 north of Corran and the A830 west Fort William, for which routing via the peninsula and Corran Ferry is the only diversion opportunity, albeit not an ideal one. Incidents can therefore cause long delays and can prevent the emergency services from accessing incidents. Road closure information was sourced from BEAR, who maintain both the A82 and A830 trunk roads on the behalf of Transport Scotland, to ascertain the frequency of road closures.

Between July 2016 and July 2021, **33** road closures of the A830 were recorded between Fort William and Mallaig. These closures can be categorised into two categories:

24 – Closures due to maintenance (incorporating planned maintenance)

9 – Closures due to Road Traffic Collisions (RTCs)

From Transport Scotland's access to INRIX data, road incident data were extracted for 2019 to identify the number of incidents on the A82 and A830 that would impact those using the road network and potentially using the ferry for diversionary purposes. Overall, 147 incidents were recorded over the year, which resulted in heavy traffic flows, queuing and congestion. These incidents can be classified as follows:

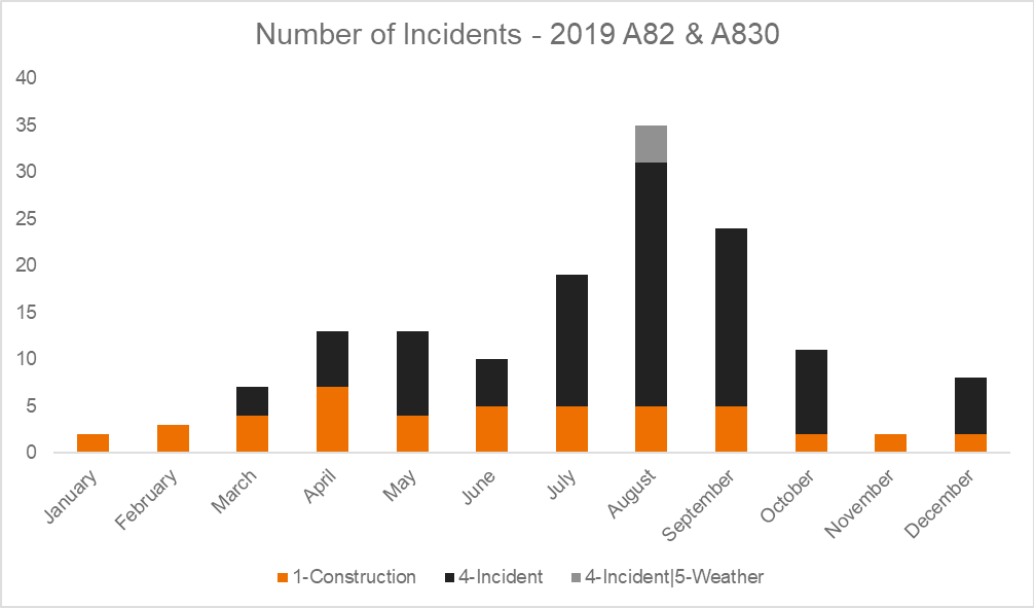


Figure 3-3: Road Incident Data (Source: INRIX 2019, Transport Scotland)

As is evident from the graph above, the majority of incidents took place in August, which could align with increased visitor numbers and thus heavier traffic volumes during this period. However, when considering the level of impact of these incidents, those taking place in April had the largest impact on the network, lasting for 43 days, while construction in January impacted the network for 28 days. So, although most incidents occurred in August, these only occurred over nine days.

3.3.2 Accident Data

Between 2015 and 2019, 18 Road Traffic Collisions (RTC) occurred on the A82 between the Corran Ferry access road and the junction with the A830 in Fort William. These comprised 16 slight incidents, 1 serious and 1 fatal. **It is also worth noting that 4 of these slight incidents and 1 serious all occurred at the access junction to the Corran Ferry**, which implies a potential road safety issue there. Over this same period, 18 RTCs were also recorded on the A830 between Fort William and Lochailort. These comprised of 14 slight, 2 serious and 2 fatal. One of these fatal incidents in August 2019 led to the A830 being closed between the junction with the A861 at Drumsallie and Corpach for several hours, effectively severing access to the peninsula from the east except via the Corran Ferry.

3.4 CYCLE NETWORK

The Caledonia Way (National Cycle Route 78) runs from Campbeltown to Inverness, including through the centre of the study area. The Corran Ferry fulfils an integral role in this cycle route as it provides a link for cyclists to avoid the busy A82 for the relative safety of the much quieter single-track road between Ardgour and the Camusnagaul Ferry. As such, the Corran Ferry helps to contribute to the success and attractiveness of the Caledonia Way and adoption of active travel more generally.

3.5 THE CORRAN FERRY

The Corran Ferry service is operated by THC – the Council funds the services, owns the vessels and infrastructure, and employs the crew. THC defines the service specification, with the ferry operating towards the limit of what can be delivered within the current crewing envelope. All capital and revenue costs accrue to THC and all revenue is retained by the Council.

The Council receives an increment on its annual Grant Aided Expenditure (GAE)[11] settlement from the Scottish Government to account for the additional costs it accrues from having to operate ferry services. For further detailed information, please refer to the ***Corran Ferry Service Option STAG Appraisal***[12], while below is a brief summary of the main points of the current Corran Ferry service.

3.5.1 Infrastructure and Vessels

Nether Lochaber Ferry Terminal is located approximately nine miles south of Fort William and is accessed via a priority junction off the A82. The terminal comprises of a slipway and a marshalling area that officially accommodates approximately 15 cars. At peak times, this marshalling area can reach capacity quickly causing queuing further back up the hill towards the junction with, and on occasions, onto the A82 – this frequently happens on Mull Rally weekend for example. On such occasions, Police Scotland traffic management support can be required.

On the opposite bank, Ardgour Ferry Terminal is located on the southern edge of the village. Again, the terminal comprises of a slipway and marshalling area, however, this area can accommodate approximately 45 cars. Again, traffic can back out of the marshalling area, where presents a risk given there is a blind bend when approaching the marshalling area from the west.

[11] GAE is the means by which the funding allocated from the Scottish Government Spending Review is apportioned fairly amongst local authorities.
[12] Stantec (formerly PBA), August 2018

MV *Corran* and MV *Maid of Glencoul* are unique in Scotland in that they are quarter-loading vessels (as opposed to the more typical bow and stern loading vessels found elsewhere in the country). This is a consequence of the tidal conditions at the Narrows and the absence of any berthing / aligning structures on either side of the crossing.

The absence of a berthing / aligning structures means that, when loading and discharging traffic, a standard bow and stern loading vessel would be getting pushed off the slipway by the current running through the Narrows, making it difficult for the vessel to hold its position and allow safe loading and discharge of vehicles. The requirement for quarter-loading has an impact on the resilience of the service if one or both vessels are off for any reason, as a replacement vessel is not available (hence the requirement to maintain a second vessel for occasional use and all of the cost inefficiencies associated with that).

MV *Corran* is the main vessel for 11 months of the year. She was designed to carry 28 cars (at that time) and does not have any significant restrictions with respect to the height or weight of vehicles carried.

Figure 3-4: MV *Maid of Glencoul* – quarter loading vessel

MV *Maid of Glencoul* is scheduled to operate for around 4-6 weeks a year when MV *Corran* is in drydock. Originally, she could carry 14 cars, which was recently reduced due to the middle lane not having the necessary width to cope with larger modern vehicles whilst still allowing satisfactory space to evacuate in an emergency (it is estimated that she now carries 9-10 cars). MV *Maid of Glencoul*, being smaller, is also limited to carrying shorter articulated lorries of 15m long (12m if rigid), a maximum of 38t in weight and with loads no higher than 16ft. Consequently, and because there are height and weight restrictions on the alternative road routes, many large commercial vehicles must reroute via Lochailort when MV *Corran* is not in service and any vehicle over 13'6" cannot access the peninsula at all due to the low bridge at Drumsallie and the low bridge to the east of Glenfinnan (Figure 3-2: Road Network and Constraints).

3.5.2 Timetable

The service operates 7 days a week, 363 days a year. Monday to Saturday, the service begins at 06:30 and is timetabled to sail every 20 minutes during the peak and every 30 minutes thereafter up until the last sailing at 21:30. On a Sunday, the service starts slightly later at 08:30 and operates every 30 minutes through to 21:30.

Although the service provides significant capacity across the day, there are frequent periods where the number of vehicles awaiting carriage exceeds scheduled capacity. When queues develop, the service operates in 'shuttle' mode until the backlog is cleared. These periods are becoming ever more frequent, particularly during the peak summer months when the service will often operate in 'shuttle' mode every day. Operating in shuttle mode also puts significant additional pressures on the crew.

3.5.3 Journey Times

The time to cross the Narrows is less than 5 minutes (typically 2-3 minutes) excluding any wait time. The Corran Ferry, therefore, provides a 'shortcut' from the peninsula to Fort William and indeed the rest of Scotland. From the ferry terminal at Ardgour, the alternative road route to Fort William is 35 miles, much of it on single track road. This route, the A861 which connects Ardgour to the A830 at Drumsallie (and onwards to Fort William) also has a 12-foot height restriction at Drumsallie immediately south of the junction restricting access for many commercial vehicles. Service outages therefore significantly extend journey times to all destinations, particularly for larger commercial vehicles, which need to route via Lochailort.

3.5.4 Carryings

The figure opposite illustrates the carryings trends on the Corran Ferry indexed to 2013 figures (i.e., 2013=100).

As can be seen, there has been a steady growth in both car and passenger[13] carryings since 2013. The combined trend in commercial vehicle (CV) and bus carryings fluctuates more widely as this is often underpinned by changes in demand for the movement of goods in the supply-chain, in addition to being influenced by any disruption on the Oban-Craignure service.

Overall, there has been a Compound Annual Growth Rate (CAGR) of **2.1%** in car carryings, **1.1%** in passenger numbers and **-0.4%** in CVs and buses. It is the car-based growth, both as the dominant

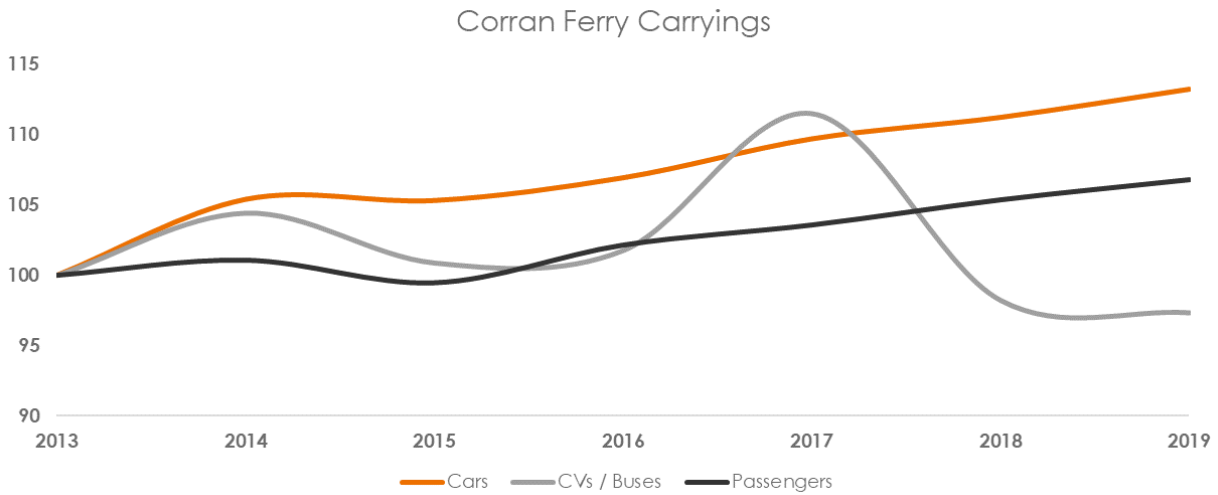


Figure 3-5: Corran Ferry Carryings (Source: Scottish Transport Statistics No. 39 2020 Edition)

[13] A formal record of passengers and cyclists is not currently maintained, although estimates are recorded.

user of the ferry and that which puts most pressure on capacity, which is of greatest note here.

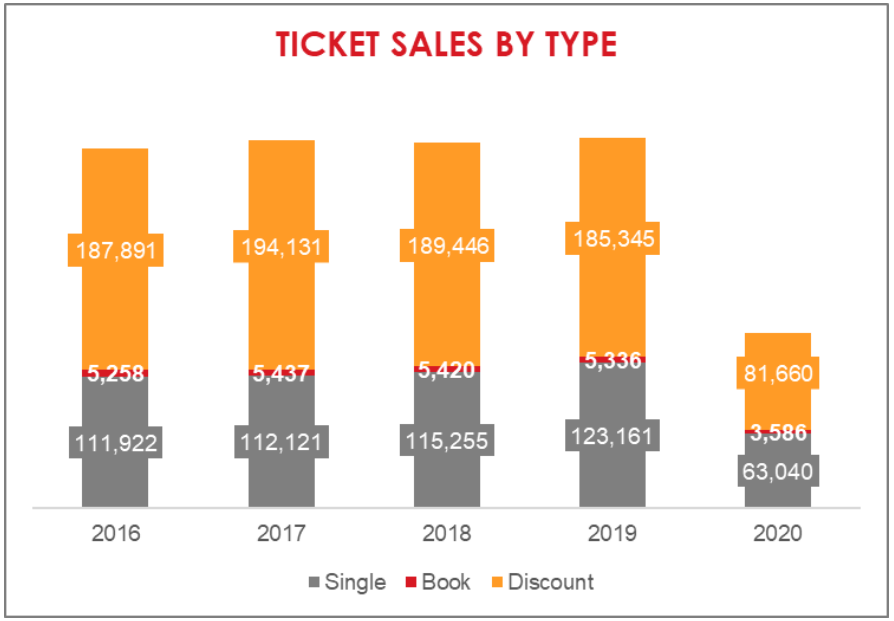
3.5.5 Fares

Due to the short crossing time combined with the limited turnaround time, the fares' structure is designed to be quick and simple to administer, consisting of single tickets and books of discounted tickets for different classes of vehicle.

Until this year (2021), foot passengers and cyclists were not charged which made the service something of an outlier in Scotland. Late 2021 will see the introduction of new fares for passengers and cyclists, dispensed from a ticket machine on each slipway at a cost of £1 and £1.50 respectively.

For private and light goods vehicles, three fares are available, (i) single fare – which consists of a flat rate based on vehicle type, (ii) book of 30 tickets (valid for 1 year) and (iii) book of 20 tickets – open to Lochaber OAP (valid for 2 years). The single fares are comparatively expensive for such a short route; however, the discounted 30 ticket book offers a substantial 72**%** saving on the single drive-up fare.

Commercial vehicles are defined as being over 3,500kg gross vehicle weight (GVW) and are charged based on the number of axles, rather than the more commonly used lane metre measure. This reflects the historic issue of weight rather than deck lane meterage being the constraining factor on the vessel. Buses are charged based on the number of seats (17-35 seats and 36 seats+). Single fares are available as are discounted ticket books. The multi-journey ticket books require a different number of tickets to be surrendered based on the type of vehicle. For example, a lorry / van under 7.5t 'pays' two tickets for a single journey, whereas a 5/6-axle HGV would have to 'pay' seven tickets.



The chart on the left illustrates the breakdown in ticket sales over the past five years, covering 2016 – 2020.

As can be viewed in the chart, discounted tickets account for the largest proportion of ticket sales each year and these are most commonly used by local residents. Car and LGV tickets account for on average 83% of all tickets used on this crossing.

It should be noted that this study will not directly comment in the fares structure, which is taken as a given for the purpose of the analysis.

3.5.6 Service Reliability / Resilience

The Corran Ferry is a very reliable service, with data showing very few service outages over the period 2013-17. The short and relatively sheltered nature of the crossing means that its weather-related reliability is much better than other routes in Scotland, whilst the presence of MV *Maid of Glencoul* means the service can continue to operate (albeit at reduced capacity) when MV *Corran* is out of service. The major reliability and resilience issue occurs when one of the two

vessels breaks down when the other is away for scheduled maintenance. This is what happened in summer 2017, when the service was suspended in its entirety for several days**.**

3.6 WIDER FERRY NETWORK

3.6.1 Mull and Iona

The CFL Oban – Craignure ferry service is currently operated on a year-round basis by MV *Isle of Mull*, which is supplemented by MV *Coruisk* in the summer timetable period (April to October). MV *Isle of Mull* is a closed deck vessel and therefore cannot carry certain categories of dangerous goods – when she is operating the Oban – Craignure route on her own, goods such as fuel and fertiliser route via Lochaline – Fishnish and the **Corran Ferry**. The reliability of the Corran Ferry service is therefore important in meeting this island need during the winter timetable, when MV *Isle of Mull* is operating on her own.

Further to this, consultation, and survey evidence from other studies we have undertaken has identified that the Corran Ferry is used as a divisionary route for accessing Mull via Lochaline - Fishnish during disruption on the main Oban-Craignure route, or when a vehicle booking cannot be secured on that route, an increasingly common issue since the introduction of Road Equivalent Tariff on that route in 2015. Analysis of CFL carryings data between July 2017 and December 2019 validated this assumption. In circumstances when the Oban-Craignure route was disrupted, average vehicle deck utilisation on the Lochaline - Fishnish route increased from **27% to 33%**. Some **177** sailings during this time exceeded **85%** of available car deck capacity, which has never occurred when the Oban-Craignure service is not affected by disruption.

The analysis also indicated that the Corran Ferry is more likely to be used as a divisionary route by Mull residents, rather than by mainland visitors. Analysis of the vehicle deck utilisation figures by direction during periods of disruption on the Oban-Craignure service shows that Lochaline - Fishnish utilisation only increased from **27%** to **33%** on average, whereas in the opposite direction Fishnish - Lochaline this figure increased from **28%** to **37%**.

Furthermore, consultation with CFL staff indicated that Mull residents often travel to Fort William to access services and shops that are not present in Oban. As such, the Corran Ferry plays a key role in providing connectivity for Mull residents to Fort William, in addition to providing a link for the main haulier on Mull, to the north of Scotland.

3.6.2 Mallaig and Skye

Although not having a direct impact on connectivity to the Mallaig ferries and onward connections to the isles, the Corran Ferry does play a role in providing a divisionary route for those travelling to or from Mallaig during times when the A830 may be closed. It also facilitates ‘island hopper’ journeys for those travelling up the west coast via Mull, and the peninsula to Skye, the Small Isles, Knoydart and South Uist.

3.7 WHAT ROLE DOES THE CORRAN FERRY PLAY?

The analysis above highlights that the Corran Ferry:

- Plays a pivotal role in providing connectivity between the peninsula and the wider area, providing access to employment, education and personal services as well as supporting the service delivery and supply-chain needs of the peninsula (and Mull and Iona with respect to the supply-chain)
- Provides a strategic diversionary route in circumstances of road closures or Oban – Craignure service disruption
- Provides wider network resilience for local communities
- Provides a safer cycling route between Corran and Fort William on the NCN78
- Plays a strategic role in connecting wider Scotland to local businesses on the peninsula and Mull, particularly freight and logistics
- Provides a gateway to the peninsula for tourists, as well as a link in wider island-hopping holidays

Methodology

CORRAN NARROWS

Socio-Economic Study

4.0 METHODOLOGY

4.1 METHODOLOGY

Having defined the service context, this section sets out the methodology for establishing the socio-economic benefits of the Corran Ferry. This methodology is focused on outlining the social and economic impacts of the ferry service with respect to the peninsular communities, Lochaber and beyond.

The only way to fully understand the **socio-economic value** of the Corran Ferry is to consider a hypothetical scenario of the ferry service **no longer operating**. Within the *Corran Narrows Fixed Link Feasibility Study*, we scoped out a range of potential social and economic impacts of a fixed link framed within a logic-map, and this is the approach we have adopted for this project, detailing the potential consequences of a 'no ferry' scenario.

4.1.1 Logic Maps

The Corran Ferry supports three user groups:

- **Residents**, based both on the peninsula and the wider study area
- **Businesses**, based both on the peninsula and the wider study area
- **Visitors / Tourists** to / through the peninsula and surrounding study area

For each of these groups, a logic map has been developed setting out the impact of a 'no ferry' scenario. Each logic-map is focused on capturing the chains of transport and socio-economic cause and effect associated with the absence of a ferry service and are structured as follows:

- **Context**: the current situation in the study area
- **Input**: the removal of the ferry service
- **Output**: changes in the transport supply-side – e.g., longer journey times and increased costs
- **Outcomes**: changes in travel behaviour – e.g., higher costs incurred, re-routing, modal shift, changes in destinations, trips no longer being made etc
- **Impacts**: the societal impacts associated with these transport outcomes – e.g., reduced disposable income, increased business costs and reduced efficiency, loss of markets or suppliers, withdrawal from the workforce, health impacts, social exclusion through reduced contact, reduction in-tourism, out-migration etc.

The logic maps were used to guide the development of the engagement programme to ensure that a structured set of questions was posed to provide the evidence to underpin or otherwise the hypothesis presented in each logic map. The logic maps were then refined on the basis of the evidence collected.

4.1.2 Engagement

Surveys were developed to capture the views and opinions of the three user groups mentioned above, supplemented with consultation with Community Councils, Local Elected Members and other stakeholders, such as Highlands and Islands Enterprise (HIE) and CalMac Ferries Ltd (CFL). Four online surveys were created (i) *Resident / Visitor Voice of the Customer Survey*, (ii) *Accommodation and Tourist Businesses*, (iii) *Freight and Logistics Businesses* and (iv) *All other businesses* and were open for a period of six weeks to capture as many responses as possible. Telephone depth interviews with stakeholders were also undertaken to supplement the responses received.

Each survey was structured around the corresponding logic map to ensure that they derived the information required to either validate other datasets or provide anecdotal evidence to fill any gaps where freely available data / evidence are lacking.

Data collated through the engagement process were aggregated to the community council area to maintain compliance with General Data Protection Regulations (GDPR) regulations and to map across to the spatial geography of published datasets (e.g., Census, NOMIS, etc).

4.1.3 Data

As part of the study, data were sourced and extracted from various published datasets to assist in the development of the profiles of the communities within the study area. It should be noted that, due to the rural nature of the study area, these data are only available at aggregated levels. As such, data were captured at the community council level in order to produce meaningful insights. In some cases, this has resulted in some communities being grouped, rather than discussed individually to maintain anonymity. For example, on the peninsula, West Ardnamurchan and Acharacle are considered individually as the geographic coverage aligns with the community council areas. Ardgour, Sunart and Morvern, however, are grouped as one area within the data.

4.1.4 COVID-19

This study was undertaken throughout the COVID-19 pandemic. As such, data for 2020 and 2021 have been excluded from the study as they would distort underlying trends. With this in mind, 2019 has been selected as the base year to inform all secondary data analysis and any future forecasting. Respondents to the survey were also directed to frame their responses in relation to their travel behaviours in 2019.

Context, Input & Output

CORRAN NARROWS

Socio-Economic Study

5.0 CONTEXT, INPUT AND OUTPUT

This chapter provides an overview of the **Context**, **Input** and **Output** elements of the logic map exercise, as to an extent these elements are similar for each user of the Corran Ferry service. It is the **Outcomes** and **Impacts** from these elements where the focus lies in determining the value of the ferry service for each affected group in a 'no ferry' scenario, and these will be discussed in turn for each group in the following chapters.

5.1 CONTEXT

An initial step within the logic map process is to understand more about the people and businesses that the Corran Ferry currently serves. Understanding more about these communities helps to inform the narrative in defining the importance of maintaining the link across the Narrows. The 'Context' sets out the current situation with regards to demographics, employment, social circumstances, and current behaviour in terms of use of the ferry service, incorporating travel behaviours such as origin-destination, purpose, and frequency. Below we have summarised the context for each of the three main user groups of the ferry based on the responses to the survey (total responses indicated by N=), with more detailed supporting information in **Appendices A-D**.

Residents (N=400[14])

Demographics

- Between 2015 and 2019 the population on the peninsula experienced **4%** growth, while the population of the wider study area reduced by **-0.2%**. Population forecasts predict the peninsula population to grow by a further **1.1%** by 2024, while the wider study area is expected to grow by **0.9%** over the same period

This demonstrates a potentially growing customer base for the ferry and highlights its

Businesses[15] (N=24)

Accommodation Providers

- **10** accommodation providers within the study area responded to the survey (6 self-catering, 3 B&Bs and 1 Hotel)
- **Seven** of these businesses were based on the peninsula
- **Eight** of the businesses employed staff based solely on the peninsula

Visitor / Tourist[16] (N=155)

Demographics

- **73%** of visitor respondents to the survey were classed within the working age category
- **26%** were over the age of 65

Economics

- **64%** of respondents were employed
- **Over a third** of respondents earn more than £50,000 per annum

[14] N= is the number of survey responses
[15] Based on information extracted from the three Business Surveys (May – June 2021)
[16] Based on information extracted from the *Voice of the Customer Survey* (May - June 2021)

role in connecting the current and future population of the peninsula to key services etc.

- **75%** of the population is under 65 years of age on the peninsula, with **59%** falling into the working age category and **16%** in the under-16s. The wider study area displays a similar profile with **78%** of the population under the age of 65, with **61%** of working age and **17%** under 16

This is an important statistic as these are the age groups who are most likely to use the ferry as part of a journey for employment, education, and social activities.

Economics

- Accommodation and food services, Transport and storage (inc postal) and Education account for **49%** of all employment on the peninsula. In the wider study area, **44%** of employment can also be categorised in three main sectors; (i) Accommodation and Food services, (ii) Health and (iii) Retail
- Peninsula-based residents earn on average **£21** less per week (4%) than the wider study area average
- There is widespread car dependency on the peninsula as a result of a lack of alternative modes, with over a **third** of homes having access to two or more cars, while this is **6%** lower for households in the wider study area

- **All 10** are classed as small enterprises as they employ less than 50 members of staff
- **Eight** of the business turned over less than £85,000 per annum, while **five** forecast minor to moderate growth over the next five years and **five** expecting no change
- **Five** businesses indicated that the average length of stay for visitors is 7+ nights
- **Four** businesses use the ferry service weekly, while the remaining 6 use it monthly
- The most common use for the ferry is to obtain supplies for the business or to visit the premises to clean / collect linen etc
- **Three of the 10** businesses currently have an issue with the ferry service

The ferry plays an important role in connecting accommodation provider businesses with customers and is used very frequently by peninsula-based businesses to obtain supplies and allow customers to access the accommodation

Freight and Logistics

- **Four** businesses responded to the survey, all of which are well established in the area operating for over 20 years each

Tourism

- **30%** of respondents indicated they were visiting the area as part of a long holiday (4+ nights)
- **13%** travelled for a short holiday (1-3 nights)
- **Morvern** was the most popular destination with 21% staying there, with a further 19% staying in western Ardnamurchan
- **28%** of respondents were visiting their second home
- **49%** of respondents indicated they did not pay for their accommodation
- **60%** of respondents indicated they had spent up to £300 on expenses out with accommodation

Ferry Use

- **91%** of respondents used the Corran Ferry for both legs of their journey
- **4%** were using the ferry for the first time
- **34%** of respondents were travelling as part of a group of two adults
- A further **29%** of respondents were travelling alone

The economic structure of the peninsula is heavily geared towards tourism and thus good transport connectivity is key to ensuring their ongoing vitality. Moreover, there are relatively few jobs on the peninsula and thus good connectivity to Fort William, the regional service centre, is essential in ensuring access to employment.

Social Indicators

- Using the Sottish Indices of Multiple Deprivation (SIMD), there is relatively little deprivation on the peninsula, although areas in Ardnamurchan do display lower levels of performance against employment and income indicators, reflecting the peripherality of the area

Although, currently no areas on the peninsula are classed as deprived, there are a few lower performing areas, which the evidence suggests is at least in part due to their peripherality. Any further reduction in transport connectivity would diminish access to employment further.

Ferry Use

- Most peninsular residents use the Corran Ferry service regularly, at least weekly, and mainly for purposes such as retail/shopping and employment. Residents of the wider study area predominately use the ferry service to

- **Three** businesses employ staff from both the peninsula and outwith the peninsula, and **one** employs staff solely from outwith the peninsula
- All businesses employ between **50-249** full-time staff
- All businesses turn over more **than £5m per annum** with two businesses turning over **£15m per annum**
- All four businesses expect to see growth over the next five years, with **two expecting moderate growth** and **two expecting significant growth**
- All four businesses use the Corran Ferry Service **daily**
- Two businesses currently have an issue with the Corran Ferry service, with one stating fares as being too high and the other acknowledging the reliability issue if the service is disrupted or MV *Maid of Glencoul* is operating

Growth expectations will rely heavily on the connectivity afforded by the Corran Ferry, as this will provide the connectivity required for freight and logistics operators to reach the trunk road network and the wider Scottish and UK markets.

The ferry plays an important role in broadening the labour pool for businesses in both the peninsula and Lochaber.

visit family and friends and as such use the ferry less regularly (on a monthly basis)

- When peninsular residents do travel, they tend to take their car onboard the ferry, use the discounted book of tickets and travel to Fort William, for almost all purposes. Wider study area residents also opt to take a car onboard, use single tickets and visit a variety of locations across the peninsula and Mull
- **59%** of peninsular residents indicated that they would still make their journey if the ferry was off due to disruption. Residents of the wider study area would be less inclined to still make the journey, with over **a third** stating that they would not still make the journey if the ferry was disrupted

This information from the Voice of the Customer Survey highlights the importance of the Corran Ferry for providing vital connections to Fort William for peninsular residents to access to employment and key services, whilst also demonstrating the importance of the link to the residents of the wider study area to retain a connection to family and friends on the peninsula and further afield.

Other Businesses

- 10 other businesses responded to the survey, of which five are based on the peninsula
- In general, nine of the ten businesses are classed as small enterprises employing less than 50 people, while one can be classed as a large enterprise employing between 50-249 staff
- Three businesses solely employ people from the peninsula, three employ people from out with the peninsula, two employ staff from both locations and a further two do not employ anyone other than themselves
- Eight of the businesses turn over less than £85,000 per annum, while one turns over between £1m and £2m and the last business turns over more than £25m per annum
- In terms of growth six businesses expect to experience growth over the next five years (3 minor, 2 moderate and 1 significant), while two expect to see no change and a further two expect minor shrinkage
- Ferry use is varied with four businesses using the ferry daily, four weekly and two monthly
- Only three businesses indicated current issues with the ferry service, those being capacity and wait times during peak summer season and

	the impact of disruption resulting in long road-based diversions *The ferry plays an important role in connecting businesses with customers and staff and is used very frequently by peninsula-based businesses*	

5.2 INPUT

Within the Logic Map process, the **'Input'** is a hypothetical scenario where the Corran Ferry is withdrawn.

5.3 OUTPUT

The 'no ferry' scenario would give rise to two '**outputs**' - longer journey times and increased travel costs. These two outputs would likely have differing effects on users of the Corran Ferry service and there would be differential effects across the peninsula and wider study area – some areas would be much more adversely affected than others. This is summarised below.

5.3.1 Changes in Journey Times

5.3.1.1 Residents

Some residents of the peninsula and the wider study area would experience changes in travel times as a result of the ferry no longer operating across the Narrows. As mentioned above, these changes would impact some more than others and based on the **Context** section, the residents of the peninsula use the ferry service more often and for a wider range of purposes than Lochaber or Mull users and would thus be impacted to a higher degree. To determine the expected changes in travel time, the following analysis therefore focusses on the movements between the peninsula and the mainland from a peninsular resident perspective. This analysis broadly also applies to Lochaber and Mull residents, but the corresponding impacts are likely to be of a smaller magnitude as their dependence on the Corran Ferry service is less.

An assessment of the impact of the 'no ferry' scenario on journey times was undertaken to quantify the change in travel time and distance for residents of the peninsula to reach two key points on the network; (i) **Fort William** as the main destination for most trips from the peninsula as well as linking into the A82 North; and (ii) **Ballachulish**, as a single reference point for those making travel movements on the A82 south[17].

[17] So informed by the Voice of the Customer Survey May-June 2021

Using Google Distance Matrix API[18] travel times[19] and distances from each postcode on the peninsula to each of these two destinations, were extracted and assessed. The Distance Matrix API is a service that provides travel distance and time for a matrix of origins and destinations. The API returns information based on the recommended route between start and end points, as calculated by the Google Maps API. Table 5-1 below summarises the **population weighted average** change in travel time from each peninsular community to both Fort William and Ballachulish in a 'with' and 'without' ferry scenario, in addition to the change in network distance.

Table 5-1: Population Weighted Changes in Journey Time and Distance (Source: Google API, 2021)

	Change in Travel Time		***Change in Distance (Miles)***	
Community	***Ballachulish***	***Fort William***	***Ballachulish***	***Fort William***
Acharacle	***00:13:17***	*00:00:00*	***22.7***	***2.2***
Ardgour	***00:23:37***	***00:07:26***	***25.5***	***12.0***
Morvern	***00:45:19***	***00:16:29***	***41.2***	***23.9***
Sunart	***00:44:38***	***00:15:48***	***40.9***	***23.6***
West Ardnamurchan	***00:26:26***	*00:00:00*	***32.2***	***14.9***

As can be seen from the table, the communities of Morvern and Sunart see the greatest increase in both travel times and distance to both destinations, almost double that of the other three communities, as would be expected based on geography. Disaggregating these data to the individual postcode areas within each of the community areas, a greater level of disparity emerges, not only between communities, but also within the same community. Figure 5-1 highlights the range of differences in travel times from each postcode within each community council area to both Ballachulish and Fort William.

[18] Travel times were extracted using a departure time of 8am. Travel times represent historically informed trends and provide an average travel time based on the day and time of day selected.
[19] Historical data was extracted, providing observed travel times and although this will mostly be based on information over a number of years Pre-Covid, there will be an element of travel times informed by times in the past year. Journey times are informed through actual journeys captured by users using Google Maps to navigate, thus provide average times captured across a time period no shorter than a year.

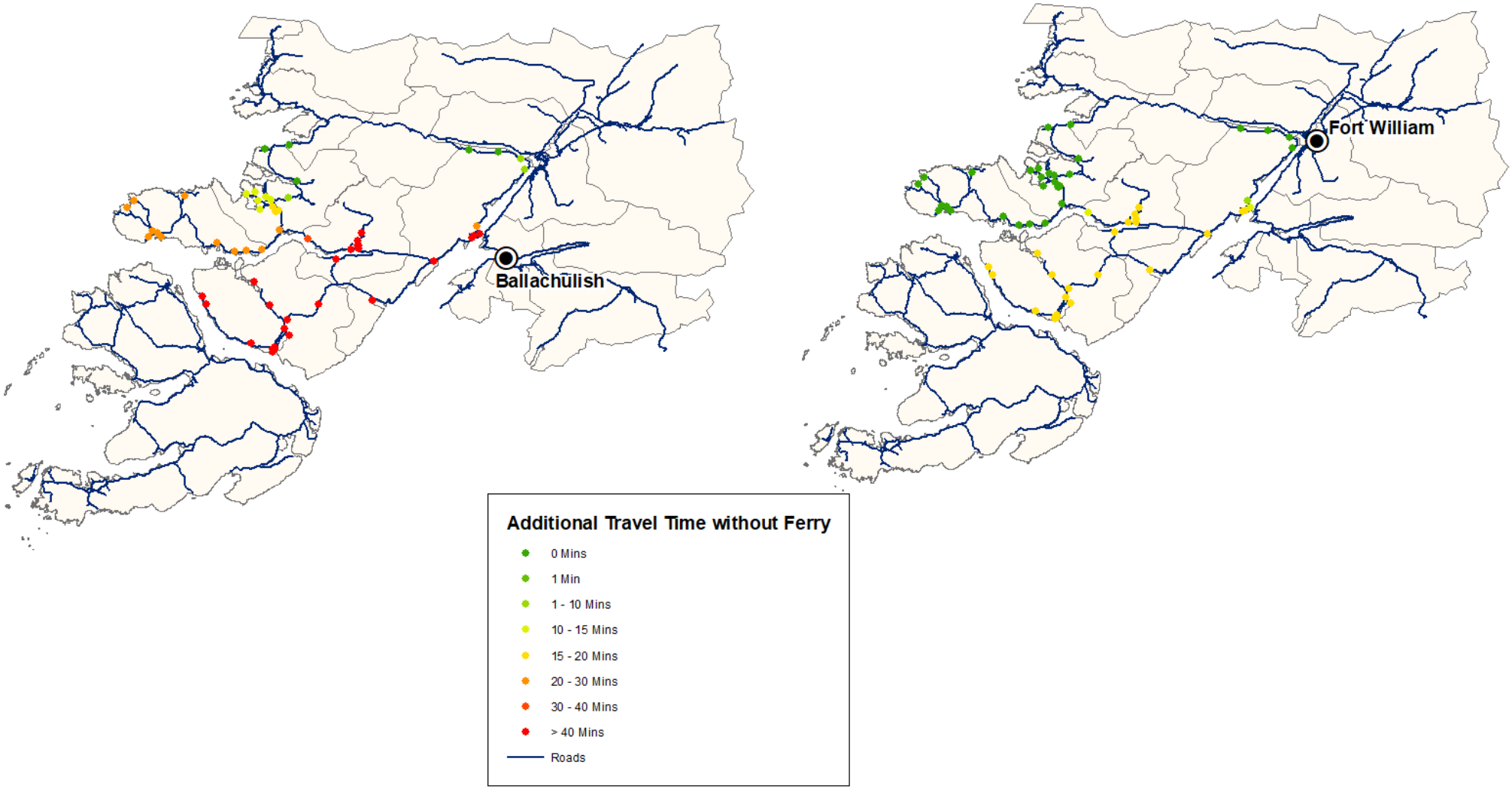


Figure 5-1: Change in Travel Time (Mins) by Postcode

As can be seen in the figure, residents of Ardgour experience a significant difference in travel time depending on where they live within the community council area, with some postcodes only experiencing a difference in average travel time of just over a minute, to others experiencing an increase of nearly 43 minutes. Residents of Morvern all

experience nearly an average **43-minute** increase in travel time to Ballachulish as a result of travelling by road. These areas would therefore experience the greatest impacts in the 'no ferry' scenario.

Postcodes within Acharacle and Ardnamurchan do not witness any change to Fort William as the time taken to travel by road, is the same as travelling by ferry when including wait time. This calculation will obviously not account for every single journey or resident experience and is solely based on the best journey time data available.

It should also be noted that the changes in journey times are based on current road traffic volumes, which are very light. However, if even if a majority proportion of the current 270,000 cars per annum carried on the Corran Ferry rerouted onto peninsular roads, journey times would be expected to increase. Whilst conventional congestion is unlikely to ever be an issue, vehicle platooning on single track roads and over capacity passing places would increase journey times, particularly in summer when volumes are higher and there is a larger proportion of tourists who will be less familiar with driving on single track roads. This effect was highlighted in the CHFS RET Evaluation Study (Transport Scotland, 2020), which found that the increase in road-based traffic in Mull as a result of RET significantly worsened journey time reliability between Craignure and Fionnphort (and, to a lesser degree, Tobermory) as a result of the above issues with single track roads.

5.3.1.2 Journey Time Reliability

Although the data above provides historic average journey time data, an important factor is the reliability of being able to make these journey times consistently on a daily basis or even across the same day. To determine journey time variability, INRIX data was extracted using Transport Scotland's INRIX licence. INRIX collects real journey time data from in-vehicle GPS devices providing a database of journey times representing real-time traffic conditions, which have been used on various Transport Scotland funded projects to evidence the need for an intervention or to monitor and evaluate an intervention, such as the Queensferry Crossing.

Journey times from Kilchoan and Lochaline on the peninsula to Ballachulish were extracted to provide a representation of weekday and weekend journey times using both the ferry and the road alternative route. This information is presented in the table below, with further supporting information provided in Appendix E, including weekend travel data. The tables below highlight the travel times experienced across five separate hours of a weekday for the whole of 2019, with the percentile value demonstrating the percentage of journeys at that respective time that can generally achieve the recorded journey time, i.e. the 50th percentile illustrates that half of all journeys undertaken at that time can generally achieve that journey time.

Table 5-2: Journey Time variability (INRIX, Transport Scotland, 2019)

Kilchoan to Ballachulish Bridge (Weekday [Mon-Thu]) by Road				
	25th Percentile	***50th Percentile***	***75th Percentile***	***95th Percentile***
8am	2h 22m 51s	2h 26m 44s	2h 30m 20s	2h 35m 17s
10am	2h 25m 49s	2h 30m 50s	2h 35m 22s	2h 39m 31s
4pm	2h 23m 1s	2h 26m 44s	2h 32m 29s	2h 26m 44s
6pm	2h 19m 35s	2h 23m 37s	2h 25m 18s	2h 23m 37s
10pm	2h 17m 28s	2h 20m 32s	2h 21m 24s	2h 20m 32s
Lochaline to Ballachulish Bridge (Weekday [Mon-Thu]) by Road				
	25th Percentile	***50th Percentile***	***75th Percentile***	***95th Percentile***
8am	2h 38m 24s	2h 44m 8s	2h 46m 21s	2h 44m 8s
10am	2h 35m 55s	2h 40m	2h 43m 47s	2h 40m
4pm	2h 29m 31s	2h 34m 43s	2h 39m 28s	2h 34m 43s
6pm	2h 28m 18s	2h 32m 34s	2h 36m 23s	2h 32m 34s
10pm	2h 28m 12s	2h 29m 59s	2h 30m 11s	2h 29m 59s
Kilchoan to Ballachulish Bridge (Weekday [Mon-Thu]) by Ferry				
	25th Percentile	***50th Percentile***	***75th Percentile***	***95th Percentile***
8am	1h 33m 25s	1h 36m 32s	1h 39m 40s	1h 36m 32s
10am	1h 35m 18s	1h 39m 33s	1h 43m	1h 39m 33s
4pm	1h 32m 51s	1h 34m 8s	1h 35m 12s	1h 34m 8s
6pm	1h 32m 58s	1h 36m 15s	1h 36m 9s	1h 36m 15s
10pm	1h 28m 25s	1h 30m 7s	1h 30m 52s	1h 30m 7s
Lochaline to Ballachulish Bridge (Weekday [Mon-Thu]) by Ferry				
	25th Percentile	***50th Percentile***	***75th Percentile***	***95th Percentile***
8am	1h 11m 4s	1h 13m 12s	1h 15m 4s	1h 13m 12s
10am	1h 9m 33s	1h 11m 34s	1h 13m 30s	1h 11m 34s
4pm	1h 4m 59s	1h 6m 51s	1h 8m 40s	1h 6m 51s
6pm	1h 7m 1s	1h 8m 56s	1h 10m 21s	1h 8m 56s
10pm	1h 3m 47s	1h 5m 13s	1h 6m 35s	1h 5m 13s

As is evident from the table, journey times vary across the day by as much as 10 to 15 minutes for road-based journeys and are considerably more consistent for ferry-based journeys. On average, across the five hours selected in the table, road-based travel between Kilchoan and Ballachulish is **47.5** minutes longer by road than travelling by ferry.

Between Lochaline and Ballachulish, road-based journeys are **81.6** minutes longer on average across the day. These times account for all traffic interactions and behaviours on the road network across 2019 and will include journey times observed during outages of the ferry service and increased vehicular flows on the peninsula road network.

So, in summary, the increase in journey times to Ballachulish (taken as a proxy for all points south) would be around **45** minutes from a population weighted centre, but could vary depending on conditions up to 81.6 minutes, whilst the cost of these journeys would also increase. It is important to note however that data-based changes in journey time do not tell the full story – it should be noted that:

- The data is based on the average change in journey time. The single-track design of most of the peninsular road network however means that journey times are unreliable and thus, when making these journeys, motorists will build-in a healthy contingency on top of the actual journey time increase.

- The change in population weighted average journey times set out above is also based on the current transport network in the area. However, the absence of the ferry would lead to significant traffic rerouting, adding to traffic volumes on the peninsular road network. This is particularly important in the context of single-track roads, where more frequent stopping in passing places and increased platooning could be expected, significantly extending journey times.
-
- There would also be seasonal impacts on journey times. For example, in the summer months, there will be an increase in the volume of motorists on the peninsula, a change in the traffic mix (e.g. increased motor home traffic and coaches) and a higher proportion of motorists which are less familiar with single track roads. This seasonality effect can be most clearly seen in Mull where the journey time from the main ferry terminal at Craignure to Fionnphort (the embarkation point for Iona) increases significantly between Easter and October.

In the absence of the Corran Ferry, it can therefore be reasonably assumed that journey times would increase significantly, and journey time reliability would worsen. At the margin, this would make certain journeys less attractive and would weaken the economic interactions between the peninsula and Lochaber / wider Scotland.

5.3.1.3 Accommodation Providers and All other Businesses

As evidenced above, there would be considerable differences in distances and journey times to travel to/from locations across the peninsula as a consequence of the cessation of the Corran Ferry service. This may limit the market for those only willing to travel for a certain length of time to their holiday accommodation, although a small segment of the market would be attracted by increased remoteness. For accommodation providers, the increased travel time is more likely to be felt by their guests in the first instance, which in turn could impact future demand, while for other businesses it is likely to impact their customer base. A significant number of accommodation units on the peninsula are self-catering, with the owners either living elsewhere on the peninsula or indeed further away in the wider study area.

5.3.1.4 Freight and Logistics Businesses

The additional distance and time taken to complete journeys is most likely to have a significant impact on the freight and logistics sector. These businesses are constrained by schedules / timetables and driver hours - the additional journey time associated with rerouting, together with the use of lower standard roads, would impact on both reliability and operating costs Indeed, it is important to note that commercial vehicle drivers' hours are monitored by tachograph, which precludes the option of simply

extending their working day in the way that a van driver could. This would then require additional stopovers which again would extend the overall journey time. Links into the ferry service to Mull would also be impacted by this additional journey time, as drivers would need to time/schedule their journeys to meet Mull ferry timetables.

As the main bus operator on the peninsula, Shiel Buses currently operates services via the Corran Ferry in addition to running summer tour buses during the peak period. In a 'no ferry' scenario, bus journey times would be extended and the coach tour market more difficult to deliver commercially.

The cost of delivery to peninsular businesses – and in particular local shops – is currently minimised through the use of groupage services. This is where a haulier moves palletised goods and thus only charges by the pallet rather than a 'full load' HGV. Similarly, the likes of the Co-Op and Nisa will deliver to multiple stores using a single commercial vehicle. This arrangement is most efficient where route planning facilitates multiple deliveries within a single day. The Corran Ferry is an important part of that arrangement and, in a 'no ferry' scenario, it is not unreasonable to assume that freight costs would increase, or surcharges could be levied to account for 'remoteness'. This would particularly be the case for 'full load' or bulk products such as fuel, housing kits etc.

5.3.1.5 Service Delivery

A further implication of the additional journey times is the ability to deliver Council services across the peninsula. This additional travel time is likely to have an impact on local services, such as:

- Roads Maintenance
- Waste collections
- Supply teachers
- Locum doctors
- Emergency services, for which the Corran Ferry is essential in providing rapid access to the peninsula in an emergency.

5.3.2 Changes in Costs

5.3.2.1 Residents

In addition to extended journey times, there would also be a cost implication for peninsular residents associated with the removal of the ferry service. The additional distances to be covered by road would increase the costs associated with maintaining and operating a vehicle as well as the increase in fuel costs associated with making a journey,

albeit there would be a saving in the ferry fare. Using the values calculated above and combining this with WebTAG[20] parameters[21], the cost of a return journey in both a 'with' and 'without' ferry scenario was considered.

Ferry fares were included in the calculation using the return fare equivalent from the discount book of 30 tickets, as this is the most commonly used ticket type by residents of the peninsula, as evidenced via the *Voice of the Customer Survey* and ticket sales data. At this stage, Value of Time (VoT) has not been included within the calculation but is represented within the quantification of impacts section in Chapter 10.0. The table below again represents the population weighted travel costs equivalent for each community council area.

Table 5-3: Change in Cost to complete Return Journey

	Change in Cost of Return Journey	
Community	***Ballachulish***	***Fort William***
Acharacle	***-£0.47***	*£0.00*
Ardgour	***+£0.47***	***-£2.49***
Morvern	***+£3.91***	***+£0.11***
Sunart	***+£3.85***	***+£0.05***
West Ardnamurchan	***+£1.93***	***-£1.86***

As expected, residents of both Morvern and Sunart would suffer the greatest negative impact due to the significant increase in distance to Ballachulish and the A82 South. West Ardnamurchan and to a lesser extent Ardgour, also witness increases in the cost of travel to varying degrees to undertake a return journey. The -£0.47 reduction for residents travelling from Acharacle to Fort William is a reflection of the removal of the ferry fare from the cost of the journey which would mean the additional cost of fuel to travel by road is just -£0.47 cheaper than the ferry fare. This implies that residents of Acharacle use the ferry for southbound journeys due to the journey time savings rather than cost savings on offer.

Error! Reference source not found. illustrates the estimated change in cost by population for making a return journey from each postcode on the peninsula to both B allachulish and Fort William.

[20] TAG (Web-based Transport Analysis Guidance) is the Department's transport appraisal guidance and toolkit. It consists of software tools and guidance on transport modelling and appraisal methods that are applicable for highways and public transport interventions. These facilitate the appraisal and development of transport interventions, enabling analysts to build evidence to support business case development, to inform investment funding decisions.

[21] DfT TAG Book 2021, Fuel Consumption Module A1.3.8 and Fuel Costs Module A1.3.7

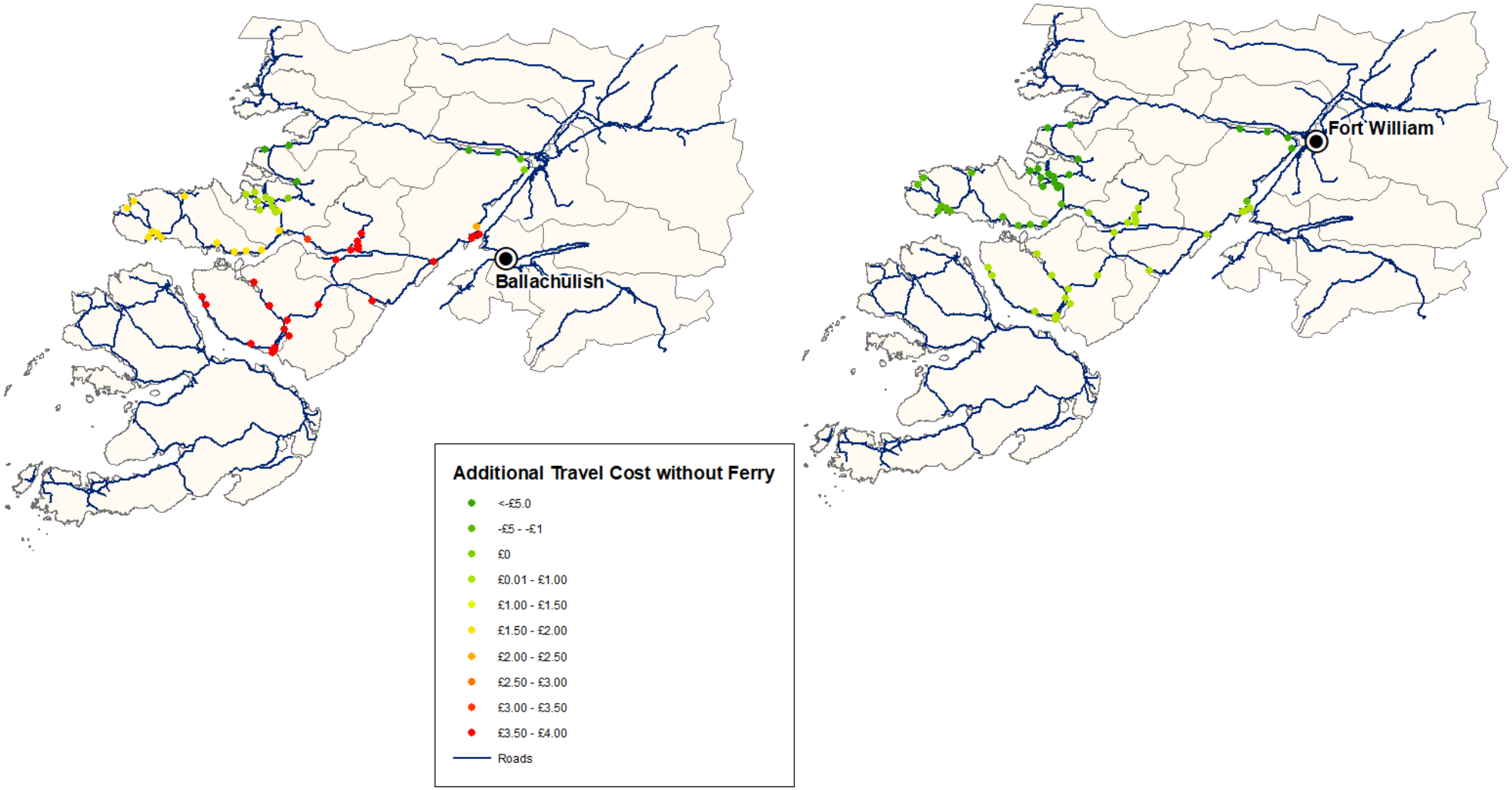


Figure 5-2: Change in Travel Cost To/From Ballachulish and Fort William

Figure 5-3 and Figure 5-4 below summarise the total population within each of the five peninsula communities and the percentage increase in cost they would experience to undertake a return journey as outlined above. For example, 379 residents of Acharacle would experience between a 1% and 10% increase in cost to/from Ballachulish.

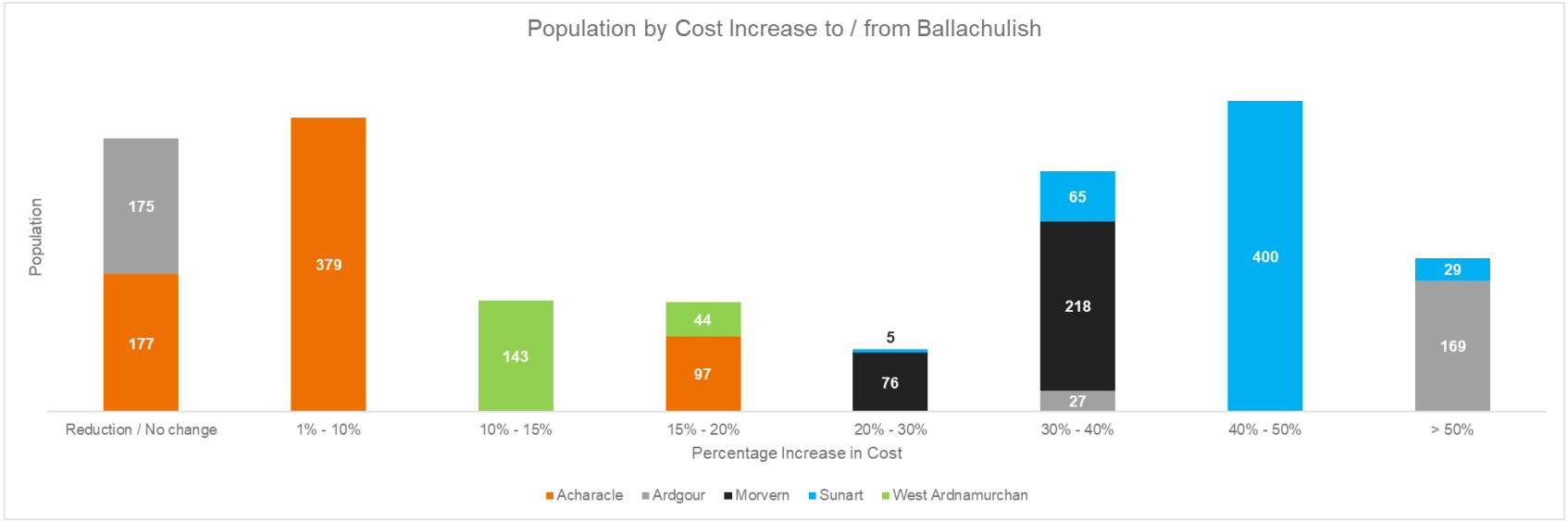


Figure 5-3: Population by Cost increase to Ballachulish

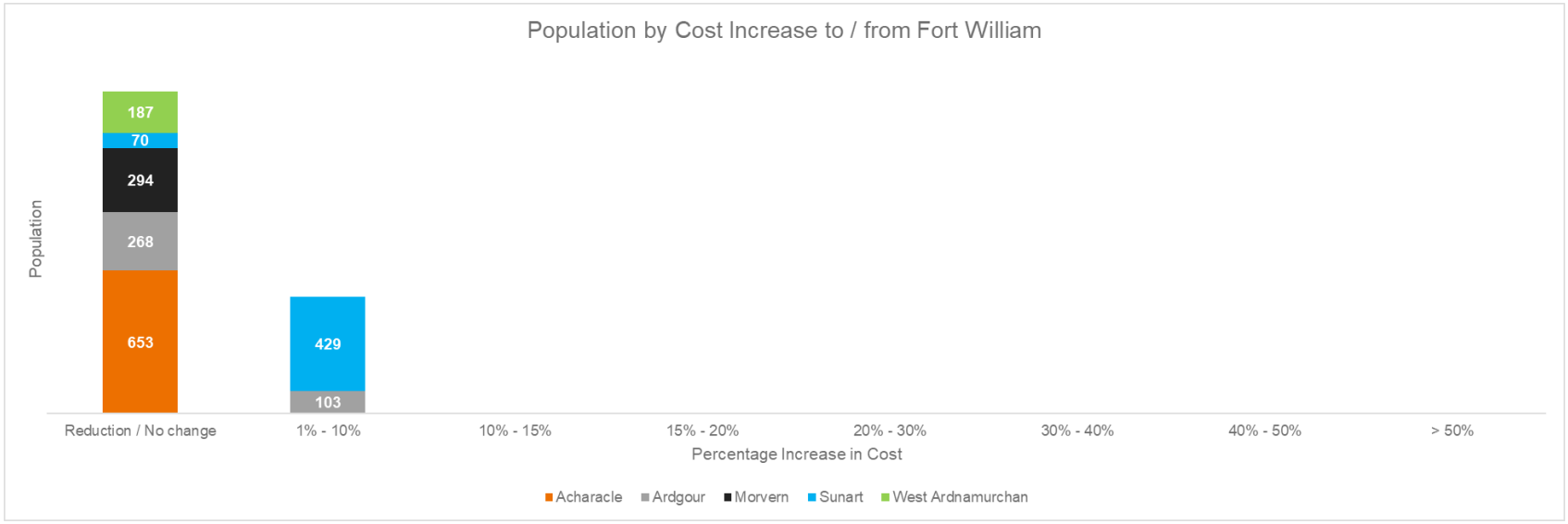


Figure 5-4: Population by Cost increase to Fort William

In total, **30%** of peninsular residents would incur an increase in travel cost greater than **40%** (£3.91 on average) when undertaking a return trip to Ballachulish. Those undertaking a return trip to Fort William would see **27%** of peninsular residents incur an increase of travel cost between **1%** and **10%** (£0.11 on average). From the Ballachulish chart, it can be seen that the communities of Morvern and Sunart in particular would witness the most significant increase in costs, in addition to **52%** of the population of Ardgour. **This is a significant increase in costs in an area where wages are lower than the national average and would clearly have negative impacts on those who live there, particularly when combined with longer drive times.**

5.3.2.2 Accommodation Providers and All other Businesses

The increased travel costs incurred to visit the peninsula would impact these businesses in two ways (i) **Direct Costs** - increased costs for the business to transport supplies / undertake maintenance / travel for business, and (ii) **Indirect Costs** - increased costs to customers / guests. To avoid repetitive analysis, reference to section 5.3.2.1 should be considered, as these increases in cost incurred by a business not involved in the transporting of goods are likely to align with the equivalent additional costs for a peninsula-based resident.

5.3.2.3 Freight and Logistics Businesses

Using average haulage rates[22] per HGV load type and the change in distance as a result of a 'no ferry' scenario, the additional cost to the haulier has been calculated. In theory, this cost plus a profit mark-up would be passed on to the customer, but the extent to which this happens would vary by customer, product line and geography. These calculations are based on the additional distance to travel to the population weighted centre of each of the five community council areas. The graphs below highlight the additional costs associated with a one-way journey to travel from/to Ballachulish and Fort William (as undertaken previously for residents).

[22] https://www.returnloads.net/how-to-price-haulage-work/

Figure 5-5: HGV Change in Travel Costs to/from Ballachulish and Fort William

Due to these calculations being distance based, as expected, journeys to or from Sunart and Morvern are penalised the most due to the additional mileage incurred to reach these destinations. Those journeys travelling beyond Ballachulish, A82 south, would on average witness an increase of **£48.79** for a 7.5-tonne load, **£65.65** for an 18-tonne load, **£73.18** for a 26-tonne load and **£89.44** for a 44-tonne load, from the peninsula.

To undertake a similar journey to Fort William, these average costs reduce (as distance based) to an average cost of **£22.98** for a 7.5-tonne load, **£30.64** for 18-tonne load, **£34.47** for 26-tonne load and **£42.13** for a 44-tonne load from the peninsula.

The use of less appropriate roads for HGV routing would also accelerate wear and tear on the road network, increasing the cost of maintenance to THC. Increased traffic volumes would also likely lead to community demands for improvements, such as construction of sections of single carriageway or improvements to passing places.

5.3.2.4 Environmental Costs

From an environmental perspective, in a 'no ferry' scenario there will be consequences on the Climate Change aspirations of Net Zero (2045), due to HGVs travelling further by road. Considering the 2019 HGV carrying figures, high-level analysis suggests that the Corran Ferry saves 137 tonnes of CO^2 annually, which would normally be associated with HGVs using the road-based alternative to access the peninsula. It should be noted however, that these potential savings may be offset in future, depending on the vessel solution arrived at (1 or 2 vessels, fuel type) and / or continued increased demand across all carrying types.

5.3.2.5 Service Delivery

THC, NHS Highland, Scottish Water etc are also likely to incur increased costs associated with the additional distance covered by service vehicles, such as through general wear and tear, parts and maintenance and impact on the road network as mentioned above. The increased journey times are also likely to require an increase in working hours for service providers' staff, which again adds additional cost to the current service delivery budget for these organisations.

5.4 SUMMARY

From the analysis above, the following conclusions can be drawn from the **Context**, **Inputs** and **Outputs** elements of the Logic Map:

- The ferry service is well used by peninsular residents, who depend on the link to provide connectivity to key services and in particular shopping
- Tourism is an essential industry for the economic wellbeing of the peninsula, with a significant number of businesses in this sector providing accommodation or services to tourists / visitors
- There are a few large-scale (for the region) freight and logistics companies based in the area who rely on the ferry to provide connectivity to the trunk road network
- **53%** of residents would see an increase in travel cost greater than **50%** to travel to Ballchulish and beyond in a 'no ferry' scenario
- Residents of Morvern and Sunart would be most heavily penalised in a 'no ferry' scenario through longer journey times and increased costs to make a return journey to both Forth William and southbound on the A82.
- The cost to operate HGVs in the region would increase as a result of the longer journey times, incurring higher vehicle operating costs, including driver wages
- Service delivery costs from the perspective of the public sector would also increase
- Journey times by road could also be expected to increase if even a majority proportion of the Corran Ferry traffic rerouted via the peninsular road network. This would increase maintenance costs to THC and likely give rise to local demands for investment in the road network
- Whilst the loss of the ferry would be detrimental for the peninsula as a whole, it is important to note there would be strong distributional impacts, with Morvern and Sunart suffering disproportionately large negative impacts in a 'no ferry' scenario

Outcomes & Impacts - Residents

CORRAN NARROWS

Socio-Economic Study

6.0 OUTCOMES AND IMPACTS – RESIDENTS

Having defined the travel time and cost impacts of a 'no ferry' scenario, this chapter considers the potential behavioural responses **(outcomes)** to these increases and their consequential 'societal **impacts**' through the logic mapping approach introduced earlier in the report. This chapter is focused on residents – the first of the three ferry user categories defined earlier – and separately considers peninsular and wider study area residents. The focus is primarily on peninsular residents however, as the differences in behavioural responses and impacts between these two groups would tend to relate more to magnitude than type.

6.1 THE PENINSULAR RESIDENT LOGIC MAP

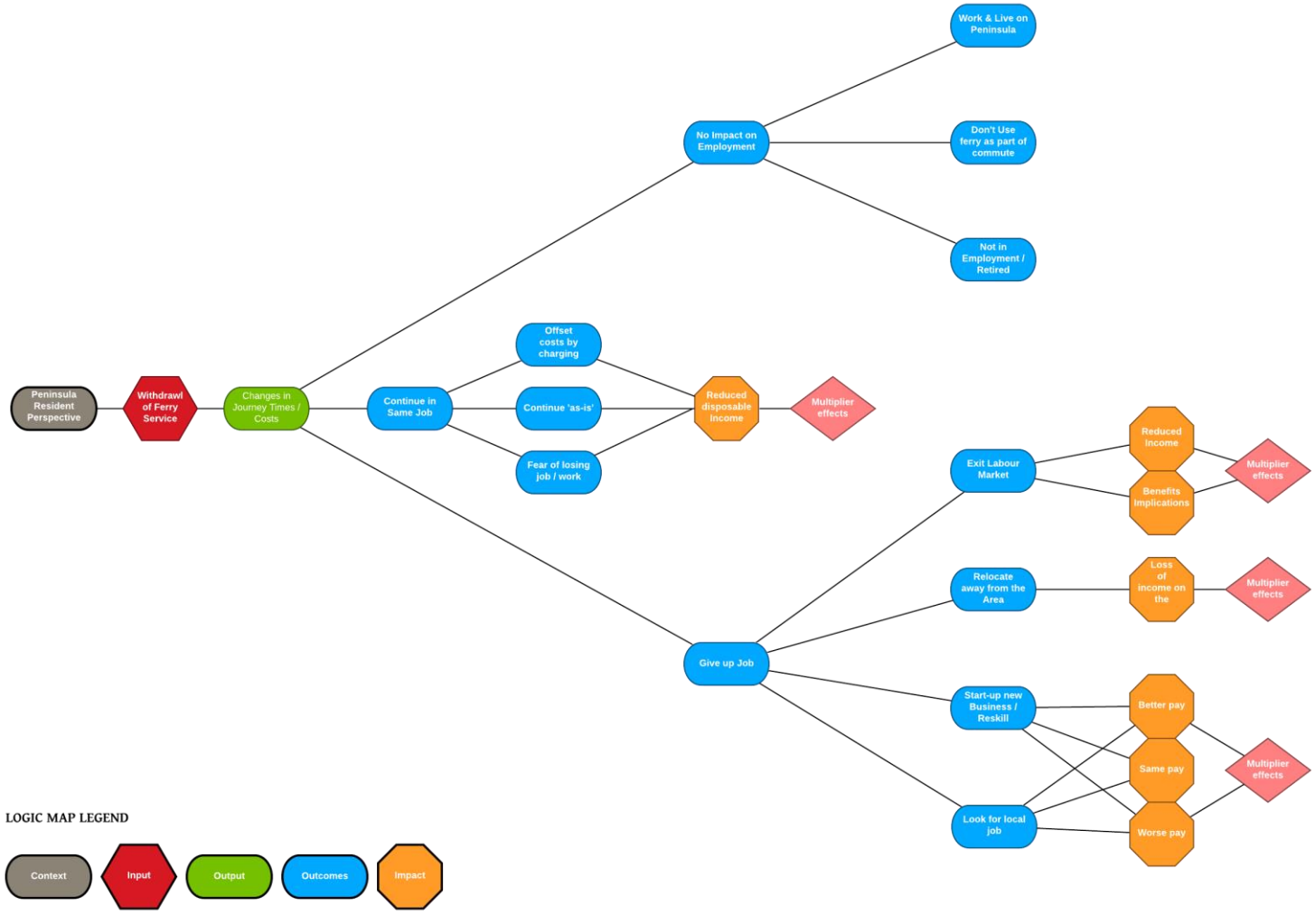


Figure 6-1: Peninsular Resident Perspective Logic Map 'No Ferry' Scenario

6.2 THE WIDER STUDY AREA RESIDENT LOGIC MAP

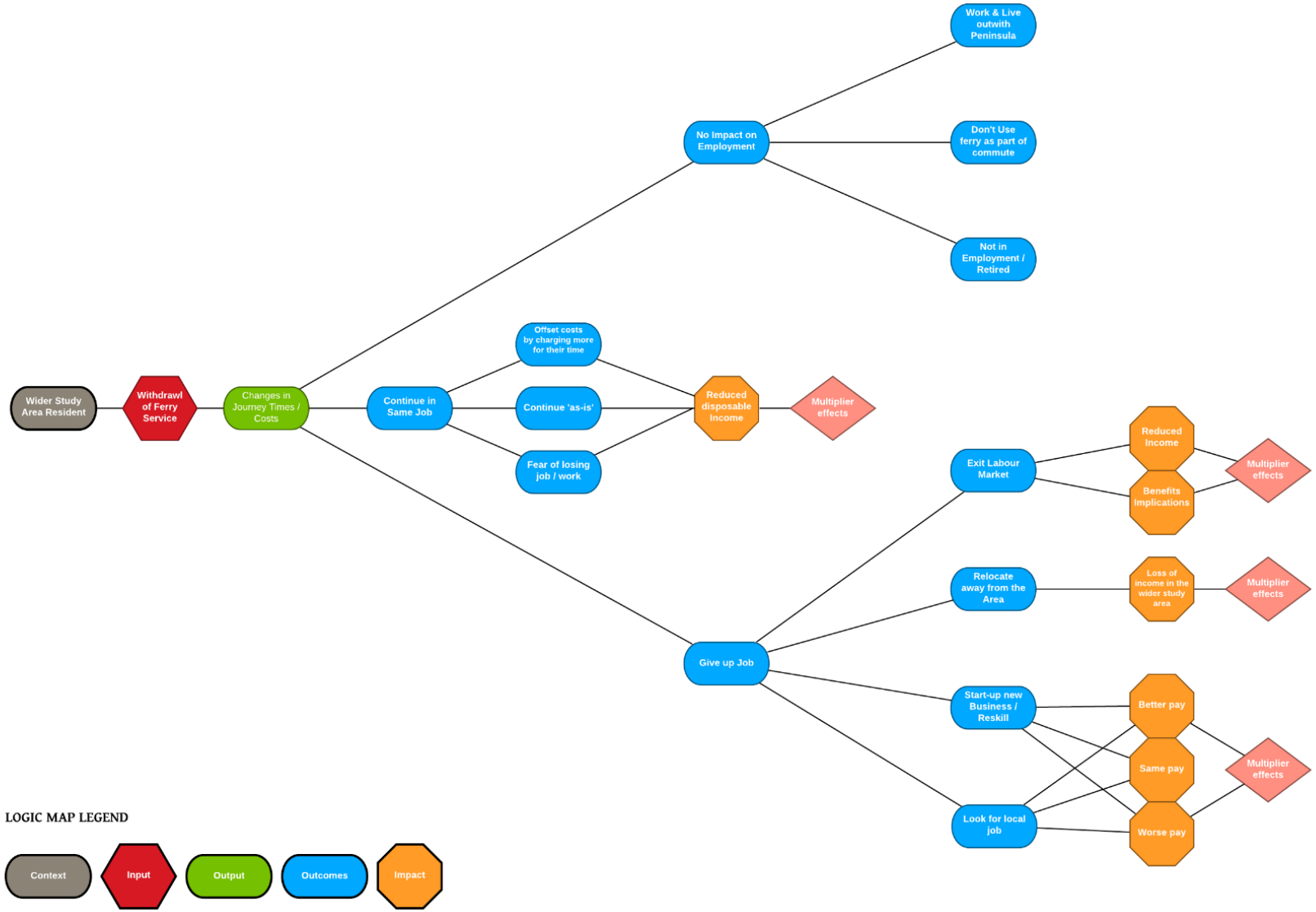


Figure 6-2: Wider Study Area Resident Perspective Logic Map 'No Ferry' Scenario

6.3 OUTCOMES

As a direct consequence of the outputs of the 'no ferry' scenario, increased journey times and costs are likely to have a direct impact on travel behaviour, including the frequency, purpose and destination of any journeys made by residents of the peninsula and the wider study area, including Mull. An element of trip making would remain non-discretionary, such as accessing health appointments or undertaking the larger weekly shop at a supermarket. However, residents may choose not to make some discretionary trips in the immediate term (which could be a good or a bad thing), and there may be a longer-term change in travel behavioural patterns, for travel-to-work and business trips for example. **It is the impact on travel-to-work and subsequent labour market choices which are explored in this section as these more than anything else would shape how people respond in a 'no ferry' scenario**.

From the Logic Map process, **Error! Reference source not found.** and Figure 6-2, for those who currently use the ferry, there are three potential behavioural responses as a consequence of the **'Outputs'** - changes in journey times and costs incurred – these are: **(i) give up current job**, **(ii) continue in the same job**, and **(iii) No direct impact on employment** for residents (i.e. for those who have no dependence of the ferry for travel-to-work). The *Voice of the Customer Survey* included a question to establish which of these behavioural responses residents would adopt if the ferry was discontinued. It is important to note that the question within the survey concentrates on the residents' perspective for accessing work, whilst it is the role of the business survey to determine the impact / viability of those 'jobs' that residents are travelling to/from. The results below represent the residents' perspective across the entire study area.

6.3.1.1 Give Up Current Job

The first behavioural response chain to consider within the 'no ferry' scenario in the Logic Map, are those employed residents that would give up their current job as a direct consequence of the change in the transport supply-side. There are four sub behavioural responses to this choice:

(i) those who would choose to **exit the labour market altogether**

(ii) those who would choose to **relocate away from the area**

(iii) those who would choose to **start-up a new business / reskill**

(iv) those who would **either look for a new local job, or search for a new job altogether**

From the total resident (peninsular and wider study area) responses of the survey:

- **3% (n = 10)** of residents indicated that they would choose to exit the labour market completely, a direct negative impact on Scotland's productivity
- **9% (n = 31)** would give up their current job and relocate away from the area altogether, which would have a detrimental impact on the peninsula
- **2% (n = 5)** would look to start-up their own business or undertake some form of reskilling, which could benefit the peninsula depending on the success of that individual

- **3% (n = 13)** would look for a local job instead, which could have benefits in terms of retaining skills locally, but which would also likely lead to lower total disposable income on the peninsula (the assumption being that a person travels further for work to take advantage of higher pay or better career prospects)

17% (n = 59) of residents, therefore, stated that they would look to **give up their current job** and follow one of the four possible chains of Logic. **24** of these residents can be classed as 'key workers[23]', with **12** earning over £50,000 per annum and **11** earning between £20,000-£49,999 per annum. This potential reduction in employment on the peninsula would have significant consequential societal impacts, which will be explored in the next section.

6.3.1.2 Continue in the Same Job

The second behavioural response considered was those that would remain in the same job despite the increased journey times and costs.

- **13% (n = 48)** of respondents indicated that they would continue with the same job, accepting the increased time and costs incurred. This would lead to reduction in disposable income in the peninsula
- **8% (n = 23)** would also continue in the same job but would consider other ways to offset the additional costs incurred, such as increasing their charges for their time, renegotiating their current contracts, searching for a higher paying job in the same location and altering their travel behaviours

Overall, **21% (n = 71)** of people would, therefore, **continue in the same job**, thus continue making the journey to work at the same destination. In transport appraisal, these respondents would be defined as experiencing a *social welfare disbenefit* in terms of the 'Transport Economic Efficiency' criterion of STAG. This effectively involves monetising their change in journey time using published information on people's value of time for different travel purposes (discussed further in Transport Economic Efficiency Analysis (TEE)).

6.3.1.3 No Direct Impact on Employment

The final consideration is those residents who would experience no direct impact on their current employment. This constitutes those who both live and work on the peninsula or are retired, etc.

[23] Defined as those employed in Health, Education, Public Administration and Defence, and Transport and Storage.

- **25% (n = 92)** of respondents are not in employment
- **36% (n = 138)** of respondents do not use the ferry as part of their commute

61% (n = 230) of all resident responses therefore would **not experience any direct impact** on their employment if the ferry was removed.

6.3.1.4 Summary of Outcomes

Overall, **39% (n = 90)** of residents in the study area believe that in a 'no ferry' scenario, their current employment would be directly impacted in some form, which validates the assumption that the Corran Ferry plays an integral role in connecting labour to employment for residents of the peninsula, wider study area and Mull.

6.4 IMPACTS

From the above behavioural responses and transport outcomes, there would ultimately be an economic and societal impact of a 'no ferry' scenario. These potential impacts are considered below (with reference to the Logic Map) while the quantification of these impacts is discussed further within the 'Quantification of Impacts' in Chapter 9.0.

6.4.1.1 Reduced Disposable Income

Disposable income is the amount of money that an individual or household has to spend or save after taxes etc. have been deducted. Focusing on the two chains of logic that affect **39%** of the resident population, it is clear that their decision to give up their current job or accept the higher cost of travelling to employment would reduce household disposable income on the peninsula. The impacts are likely to be most keenly felt in Morvern and Sunart, where the increase in journey time and cost is likely to be most significant. Studies have indicated that, to have a minimum acceptable standard of living in remote rural Scotland (which the peninsula is classed as), typically requires between **1/10th** and **1/3rd** more household income than in urban parts of the UK[24]. Given the limited employment opportunities and higher cost of living on the peninsula and the lower-than-average wages, there would be a 'tipping point' at which it is rational for an individual / household to leave the peninsula and move elsewhere.

While the sources of these additional costs are varied, two indicators which are of particular interest to this study are **the costs of travelling** and **paying for goods and their delivery,** which are often higher for residents in remote rural locations. While travel costs have been discussed above, in terms of delivery costs, a report by Citizens Advice Scotland (CAS) found that individuals living in the North and North-East of Scotland (which are significantly less rural in nature) pay at least 30% more than consumers in the rest of the UK, while residents of the Scottish Islands have to pay 50% more on average[25].

[24] A Minimum Income Standard for Remote Rural Scotland: A Policy Update, Highlands and Islands Enterprise (HIE), October 2016
[25] https://www.gov.scot/publications/economic-analysis-postal-delivery-pricing-scotland/pages/3/

Disposable income is also further eroded in remote and rural areas with more expensive home energy costs[26], and higher prices at local shops which do not benefit from the economies of scale of chains (although the Co-Op and Nisa network go some way to offsetting this). These costs, compounded by the additional costs of travel incurred in a 'no ferry' scenario, are highly likely to a have a net negative impact on disposable income on the peninsula.

A direct impact on income would also be felt by the current crew of the Corran Ferry if the ferry service was discontinued. There are 14 crew members with the majority of them (12) based on the peninsula. Currently, crew wages and costs account for circa £700,000 a year, which would be lost through the discontinuation of the service, with further impacts felt locally over time through negative multiplier[27] effects.

Key Point: The 'no ferry' scenario implies a significant reduction in disposable income in the peninsula, particularly in Sunart and Morvern, which would be the most severely affected communities. This loss of disposable income would both reduce aggregate demand in the peninsula and, at the margin, incentivise some families to leave the area.

6.4.1.2 Cost to Society

Aligned to the reduction in disposable income is the potential for an increased dependency on benefits such as Universal Credit to offset any reduction in income as a result of leaving the labour market or accepting a lower paid job. Although many may adopt this solution in the short-term in the hope of identifying other employment opportunities, there is an inherent risk that this becomes semi-permanent if no new opportunities arise or such opportunities are e.g., lower paid, seasonal etc.

At this stage, it is not possible to robustly quantify the likely scale of this potential impact (with exception of crew members discussed above), however, it is possible to glean some insight through the change in those claiming Universal Credit/Job Seekers Allowance as a consequence of the COVID-19 pandemic, which effectively closed the tourism industry in the peninsula. As was evidenced in the **Context**, many of those living on the peninsula and wider study area, are employed in sectors which are likely to have been worst hit by the pandemic, such as tourism/visitor-based employment. Between March 2019 and March 2021, the number of recipients on the peninsula claiming UC/JSA increased by **170%**, while in the wider study area, this also increased by **135%**[28]. This trend points towards the possible future scenario for those in employment on the peninsula if there was a future reduction in the number of tourists visiting the peninsula as a direct consequence of a 'no ferry' scenario.

Key Point: The reduction in income and loss of employment on the peninsula as a result of a 'no ferry' scenario would potentially increase the number of people claiming benefits (a net cost to society).

---

[26] A Minimum Income Standard for Remote Rural Scotland: A Policy Update, Highlands and Islands Enterprise (HIE), October 2016

[27] The multiplier effect is a measure of how many times money spent in an area circulates through its economy, recognising that £1 of initial spend will have a greater impact than that initial spend alone. For example, if a tourist books a hotel night for £100, the hotelier will buy stock from say a local provider. The local provider will in turn pay staff who may then spend a part of their income in a local shop of restaurant. Therefore, a proportion of the £100 initial spend is recycled through the local economy several times, creating a larger overall impact.

[28] This number will include those classed as self-employed who were not eligible for the furlough scheme

6.4.1.3 Population Retention and Growth

The trend in population and the age profile of that population is a key barometer of the economic wellbeing of an area. In absolute terms, areas with a stable or growing population tend to be more vibrant and resilient, with areas of declining population less so. Similarly, in areas with a high dependency ratio (the ratio of working age to non-working age population) – i.e., an ageing population or large numbers of children – pressure can emerge on service delivery and the filling of vacancies. The baseline data suggests that the peninsular communities demonstrate both a growing population, but also an aging population, possibly related to lifestyle migrants moving to the area. Conversely the peninsula has also witnessed a depopulation amongst younger people leading to an increasingly ageing population in some communities, which in turn could lead to skill shortages, threatening community sustainability, and putting pressure on public services. This can be driven by several factors including limited employment opportunities[29], high house prices or leaving to pursue further education.

High quality transport connectivity plays an important role in supporting population retention and a positive dependency ratio, both through providing connections to employment and education (e.g., in Fort William) and in making the area attractive to in-migration by families, where one or more adult household members can work remotely but travel occasionally on business or to visit family. A 'no ferry' scenario increases the risk of population loss in peninsular communities, as is evident in the *Voice of the Customer Survey*, where **9%** of respondents indicated that they would give up their job and relocate away from the area. Moreover, the cohort who do so are likely to be the young and economically active. Our experience from studies across Scotland highlights that, in areas of small population, it only takes a small number of families leaving to make public services unviable (e.g., the local primary school) or vacancies hard to fill. This in turn can create a vicious cycle for an area as it becomes less attractive for families to move into. In a 'no ferry' scenario, peninsular settlements like Ardgour would immediately go from being relatively well connected to a position of extreme rurality in a very short period of time.

A recent study undertaken by HIE[30] has reported that there are four key elements that those between the age of 16 and 30 felt were essential for them to want to remain in the community: (i) a critical mass population of young people, (ii) connectivity, both digital and transport, (iii) a feeling of community/community spirit, and (iv) social activities and services (shops, cinemas, restaurants etc). Recent efforts across these four areas in the Lochaber, Skye and Wester Ross region has seen the proportion of young people identifying as 'committed stayers' increase from **31%** in 2015 to **45%** in 2018, with the number of 'committed leavers' falling from **39%** to **22%**. This positive work could be at risk in the peninsula if the ferry was to cease, thereby limiting opportunities to undertake activities such as employment, leisure pursuits, social activities etc.

In a scenario where the ferry remains and applying the current underlying population trends, over the period from 2019 to 2050 (one lifecycle of a vessel), the population of the peninsula could potentially grow by **13%**, from 2,177 to 2,457 (assuming no exogenous impacts). That growth could be vital to sustaining the communities on the peninsula and further strengthens the argument for investment in the Corran Ferry to retain a sustainable link across the Narrows.

Key Point: The loss of economic and social opportunity in a 'no ferry' scenario could lead to a reduction in the population of the peninsula – indeed, 9% of survey respondents noted that they would leave their job and move away from the area. Such a loss of population would be highly detrimental to the peninsula, weakening the

[29] Enabling the Next Generation, Young People and the Highlands and Islands Maximising Opportunities: Lochaber, Skye and Wester Ross, HIE, 2018
[30] Enabling the Next Generation, Young People and the Highlands and Islands Maximising Opportunities: Lochaber, Skye and Wester Ross, HIE, 2018

critical mass required to maintain economic viability, increasing the age profile and thus dependency ratio, and threatening the viability of local services such as primary schools, bus connections etc. It would also reduce the attractiveness of the peninsula to families minded towards in-migration. The impacts again would be particularly stark in Sunart and Morvern, which would go from being relatively well-connected to a position of extreme rurality in a very short space of time.

6.4.1.4 Access to Key Services

In remote rural locations, it is almost always necessary to travel to access many services, a trend being reinforced by recent centralisation of services, specialist medical treatment for example. While some services are provided in part across the peninsula (e.g., primary and secondary education), many are centralised in Fort William (as reflected within the origin-destination distribution analysis from the *Voice of the Customer Survey*).

Health, some of the specialised hospital services have been relocated to Raigmore Hospital in Inverness, as Belford Hospital has had certain procedures/services relocated, downgrading the classification of the hospital. To attend these health appointments in Inverness is a significant journey currently, and in a 'no ferry' scenario, these journeys would become longer, with residents of Morvern and Sunart expected to see a return journey increase by up to 33 minutes on average when travelling by car (and longer when journey time contingency is built in). From the responses from the *Voice of the Customer Survey*, **76% (n = 279)** of residents agreed or strongly agreed that a 'no ferry' scenario would limit the opportunities to access health appointments.

Education, the connectivity afforded by the Corran Ferry service has been highlighted as one of the key supporting features behind the construction of Ardnamurchan High School in Strontian. There is a critical mass of young people on the peninsula as a result of local families choosing to remain in the area as opposed to relocating, creating sufficient demand for the high school to be established. This ties into the previous point about population retention – any reduction in population would threaten the viability of key services such as primary schools and would also make recruitment of e.g., teachers, school cleaners etc. more difficult as the size of labour pool which can be drawn on diminishes. Indeed, many schools in remote and rural Scotland experience recruitment and retention difficulties.

Shopping / Retail, as discussed previously, residents in remote and rural Scotland can be penalised by shopping locally with higher prices, although it is acknowledged that this can retain income within the local area, generating positive multiplier effects. Fort William allows residents of the peninsula to access a larger chain supermarket to complete their weekly shop, increasing choice and reducing the impacts of the local premium on everyday goods. In a 'no ferry' scenario, these trips are less attractive, and the savings generated from shopping in these larger supermarkets may be eroded through the increased cost of travel. **84% (n = 308)** of respondents to the survey agreed or strongly agreed that the cessation of the Corran Ferry service would limit their opportunities for shopping/retail. Whilst it is acknowledged that travel to Fort William to access shopping represents economic 'leakage'[31] from the peninsula, the fact that residents choose to make such a journey highlights that they place a value on being able to do so (in economic terms, they derive 'utility' from doing so).

[31] Leakage in this context refers to a transfer of income from the peninsula to other areas. For example, a peninsular resident shopping in Morrisons in Fort William would represent leakage of income from the peninsula, and potentially the area overall of that money is ultimately repatriated to a central head office.

6.4.1.5 Access to other services / leisure opportunities

In addition to the key services highlighted above, respondents to the survey were also asked to express their thoughts on the limitations on other opportunities including:

- **Eating / Drinking out: 65% (n = 245)** of respondents agreed or strongly agreed that their opportunities would be limited in a 'no ferry' scenario
- **Sporting Activities: 63% (n = 236)** of respondents agreed or strongly agreed that their opportunities would be limited in a 'no ferry' scenario
- **Cultural / entertainment: 81% (n = 298)** of respondents agreed or strongly agreed that their opportunities would be limited in a 'no ferry' scenario
- **Visiting Friends / Relatives: 86% (n = 315)** of respondents agreed or strongly agreed that their opportunities would be limited in a 'no ferry' scenario
- **Deliveries to the peninsula: 86% (n = 315)** of respondents agreed or strongly agreed that it would be more expensive / difficult in a 'no ferry' scenario
- **Tradespeople to the peninsula: 85% (n = 313)** of respondents agreed or strongly agreed that it would be more expensive / difficult in a 'no ferry' scenario

Cumulatively, the reduction in access to each of these features of everyday life would make the peninsula a less attractive place to live.

Key Point: The evidence from the resident survey clearly highlights the extensive economic interactions between the peninsula and the Lochaber area. Cumulatively, the ability to engage in the above listed activities will be important in making the peninsula an attractive place to live, particularly for families. A reduction in connectivity to e.g., shopping or cultural and entertainment activities would diminish quality of life and, together with job / income impacts, would be a 'push' factor in encouraging out-migration.

6.5 SUMMARY

The resident survey and secondary data analysis highlight the importance of the Corran Ferry in accessing employment, personal and leisure opportunities and for service delivery in the peninsula. This level of connectivity is therefore essential in retaining population and encouraging in-migration. The data suggests that the 'no ferry' scenario would weaken or in some cases break the connection between the peninsula and Lochaber for many of these activities, reducing income, employment, and leisure opportunities, which would in turn act as 'push' factor in encouraging population out-migration.

Outcomes & Impacts - Businesses

CORRAN NARROWS

Socio-Economic Study

7.0 OUTCOMES AND IMPACTS – BUSINESSES

This chapter presents the equivalent anticipated outcomes and impacts for businesses in the ‘no ferry’ scenario.

7.1 PENINSULAR BUSINESS LOGIC MAP

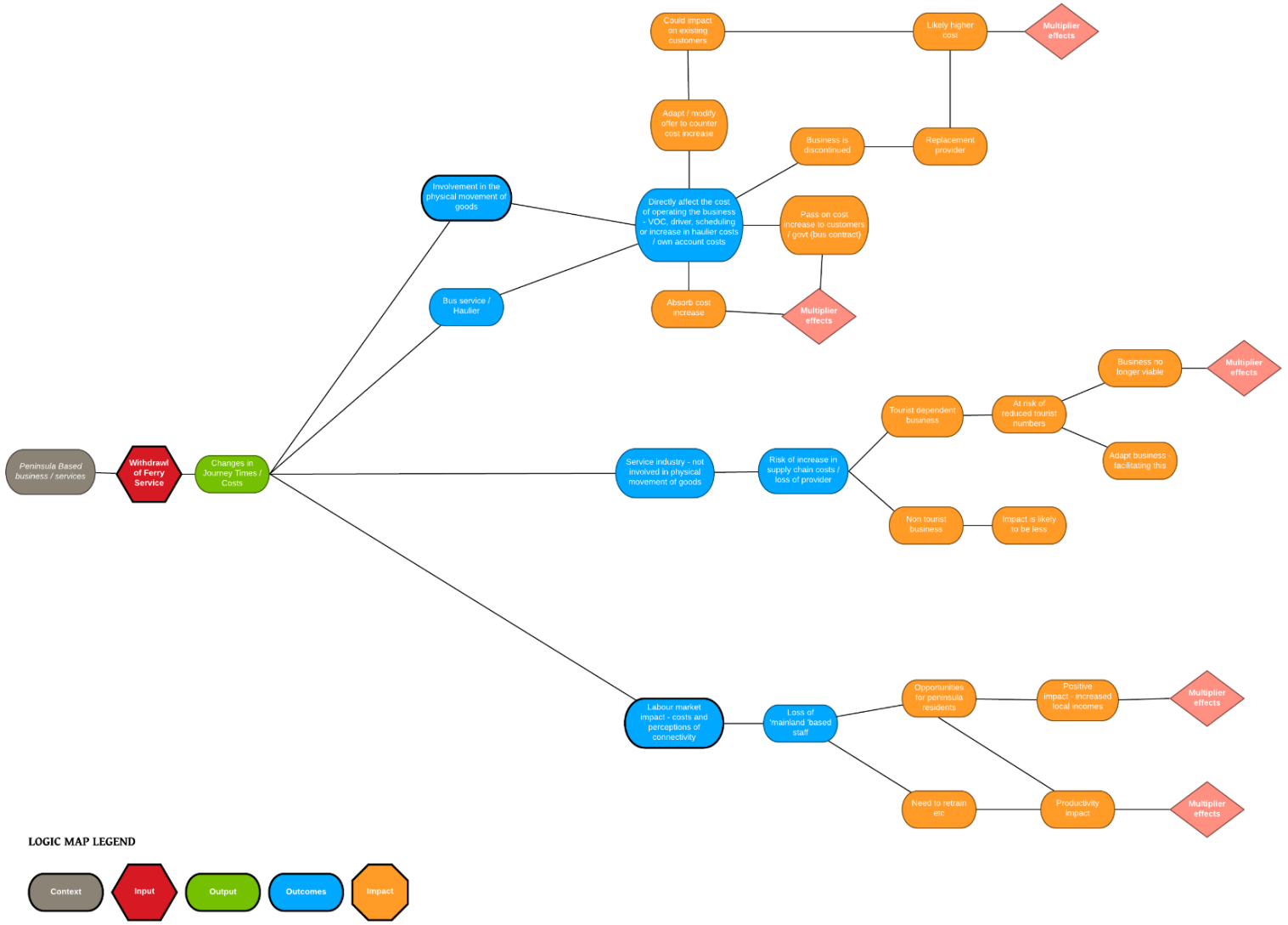


Figure 7-1: Peninsular Business Perspective Logic Map 'No Ferry' Scenario

7.2 WIDER STUDY AREA BUSINESS LOGIC MAP

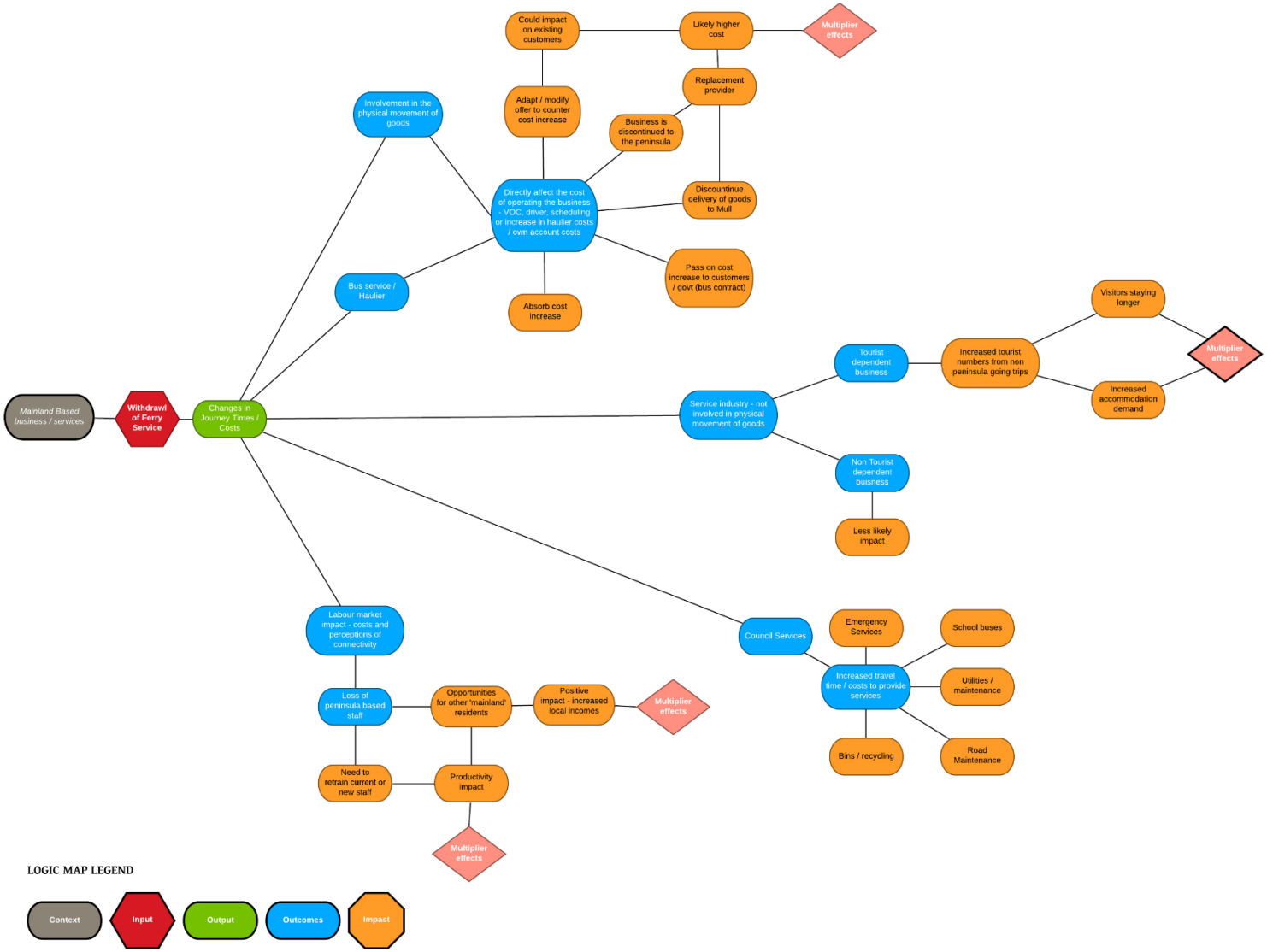


Figure 7-2: Wider Study Area Business Perspective Logic Map 'No Ferry' Scenario

7.3 OUTCOMES

7.3.1.1 Accommodation Providers and All Other Businesses

In a 'no ferry' scenario, the likely outcomes for the service industry and those businesses not involved in the physical movement of goods (i.e. producers of goods who contract out haulage and service businesses) is a risk of increased supply-chain costs or even the potential of losing a provider (discussed further below). For accommodation and leisure businesses, there is also a risk of lost custom if fewer people travel to and through peninsula.

7.3.1.2 Freight and Logistics Businesses

For those businesses involved in the transport of goods (either via a contracted haulier or on their own account), the increased travel time, distance and subsequent costs are likely to have outcomes that directly affect the operating costs of the business.

(i) **Vehicle Operating Costs (VoC):** these costs would be highly likely to increase as vehicles would operate longer and on less suitable roads, further increasing wear and tear in addition to the increased fuel costs, as touched on above. The additional running of these vehicles would likely lead to increased servicing, repairs, maintenance and replacement of parts such as tyres and brakes.

(ii) **Drivers and Vehicles:** the additional time taken to complete journeys would impact on driver hours. There are two consequences of this: (i) for commercial vehicle drivers operating on a tachograph, their hours of work are fixed – longer journey times would mean fewer deliveries in a day and thus increase costs to the business or end customer if passed on; (ii) the same issue arises for those not operating on a tachograph, but the outcome could be a longer day rather than increased cost, which gives rise to clear road safety risks. To offset this time impact, there may be a requirement to hire additional staff or have existing staff work longer hours, whilst the total company vehicle requirement may increase.

(iii) **Scheduling:** as touched on above, there would be significant implications on the scheduling of deliveries and transporting goods, especially time sensitive cargo. Much of this freight (e.g., seafood) is routed to Central Belt distribution depots (e.g., Bellshill, Larkhall) for onward shipment to England and the continent. These deliveries must be on time and, if the connection is missed, the stock could lose much of its value if it is delayed until the next day. This would increase the costs to the business through solutions such as mentioned in point (ii) with additional staff and vehicles to offset the time implications or, in the worst-case scenario, the business may withdraw from the market if the 'hassle factor' increases or the operation becomes unprofitable. There are examples of this from the Outer Hebrides when RET was withdrawn for commercial vehicles, with the increase in cost leading to some firms exiting specific low margin markets.

For most haulage firms, margins are tight, and the market is highly competitive, so there is often limited scope to pass on cost increases to customers, although this does vary by geography and market. Firms moving goods on their own account may have greater flexibility to pass on costs to customers, but this again depends on the market they are serving (it is typically easier when moving small and / or high-volume goods).

7.4 IMPACT

7.4.1.1 Accommodation Providers and All Other Businesses

Non-tourism businesses on the peninsula are likely to witness less significant direct impacts as a result of increased costs. Impacts are likely to be centred around the ability to obtain supplies / goods, and the likely increased costs associated with obtaining these items as a potential pass-through cost from hauliers, as discussed in the 'Freight and Logistics' section below. These businesses could see a reduction in possible revenue / turnover, although such impacts are not anticipated to be significant for 'less than full load' customers given that the cost of any one HGV movement is spread over multiple customers (this point was evidenced when RET was withdrawn for hauliers serving Coll, Tiree, and the Outer Hebrides – whilst the costs were keenly felt by hauliers and 'full load' customers, changes in cost were less evident to groupage customers).

Tourist based businesses on the other hand are likely to experience significant impacts of a 'no ferry' scenario. The biggest risk to these businesses would be the potential of reduced visitor numbers. This could significantly impact the sustainability / viability of any business, resulting in either a need to adapt and change their offering or, in the worst-case scenario, closure of the business. As part of the business surveys that were undertaken, respondents were asked what they felt the likely impacts to their business would be in a 'no ferry' scenario. Responses are summarised below:

- Several businesses indicated that they felt visitors would still come to the peninsula, but that they would be fewer in number.
- All businesses indicated that they felt the biggest danger was to the day-tripper market, much of which would be lost – in effect, this market would be almost entirely discontinued for areas closest to the ferry such as Ardgour, Morvern and Sunart.
- The increased journey times would impact those who run AirBnB and other self-catering accommodation and live elsewhere, when visiting the property to clean / turnover for new guests arriving, as pointed out in a number of returns to the accommodation providers business survey.
- Without the ferry, Ardgour would be at risk as there are few other reasons to specifically visit there, therefore, businesses such as the hotel would be significantly impacted. Indeed, Ardgour would become something of a cul-de-sac.
- A major benefit of the Corran Ferry for the peninsula is that it provides visitors with quick and easy access to a wild and scenic part of Scotland – it is the presence of the ferry which makes this area feel 'close' for visitors to Lochaber, Glencoe etc. In a 'no ferry' scenario, there would undoubtedly be a change in the perception of the peninsula (at least the east side of it), which would then be considered 'remote', even if the drive times to the main destinations were in fact reasonable. This perception of the peninsula being 'a long way away' would reduce its overall attractiveness to casual visitors (although it may also appeal to some visitors who specifically seek remote locations for their holidays).

Key Point: In a 'no ferry' scenario, business costs would increase, particularly for those firms physically moving goods, either by contracted haulier or on their own account. For tourism businesses, particularly those in Ardgour, Morvern and Sunart, much of the day tripper market would be lost, potentially jeopardising the financial viability of tourism businesses in that area.

7.4.1.2 Freight and Logistics Businesses

From the possible outcomes in the Logic Map in a 'no ferry' scenario, there are the implied impacts on peninsula-based businesses to consider - these are:

(i) **Business is discontinued:** The additional operating costs of running a freight/logistics business may pose a financial risk to a number of businesses who may already be struggling from other significant external changes such as Brexit, increased fuel costs etc. In a recent Business Panel Survey, businesses within the region highlighted that the two main risks to their business were **increased costs** (89%) and **political and economic uncertainty** (84%)[32]. Additionally, other common risks identified were (i) poor transport links (66%), (ii) increased competition (65%), (iii) continued weakness of Sterling (64%) and (iv) difficulty recruiting or retaining staff (57%, although likely to be a much larger proportion in the current environment). Haulage firms in rural areas are often marginal operations (albeit these areas are also served by several national operators) and, when combined with a 'no ferry' scenario and the additional costs of transporting goods, such firms could become unviable and cease trading. This could then lead either to a loss of provision or a replacement provider entering the local market, and the likely higher cost implications associated with this.

(ii) **Adapt/Modify offer to counter cost increase:** A second possible business decision would be for a firm to either adapt or modify their current service offerings to offset the increase in costs. This could potentially impact on their existing customer base and again could involve higher costs associated with this.

(iii) **Absorb increase:** Businesses may also choose to simply absorb the increase in costs, which would reduce profitability and potentially growth aspirations. A reduction in profitability could also have wider implications for staff, such as retention / salary / pay rise opportunities, training opportunities, removal of other benefits and by association the further societal impacts associated with these as discussed in section 6.3.

(iv) **Pass costs on to customers:** precedent suggests that this response is the most likely and could also have the largest impacts. The increased costs for customers could potentially see those customers in turn taking one of these four responses themselves, thus producing a cyclical impact across the peninsula for other businesses and residents (staff). Such impacts would be most keenly felt by 'full load' rather than groupage customers.

[32] HIE Business Panel Survey Wave 14: Business Resilience, Brexit and Climate Change, 2019

Key Point: Rural haulage businesses – or the rural operations of regional / national haulage businesses – are generally marginal operations, where even small increases in cost can make the operation unviable. The incidence of this impact depends on the haulier in question, the scale of their operation and the extent to which they can pass increased costs onto the end customer or otherwise. The key risk for the peninsula outwith increased costs of delivery is the withdrawal of one or more haulage businesses in the area, which could threaten an already marginal supply-chain.

7.4.1.3 Labour Market Impact

The evidence from the resident survey found that 12% of respondents would exit the labour market or relocate from the peninsula in a 'no ferry' scenario. From a business perspective, there would be two labour supply impacts:

- For both peninsular and wider study area businesses, the size of the labour pool would diminish, making it harder to fill vacancies or effectively align skills to jobs.
- From a peninsular perspective only, the size of the local labour market would contract by 12%

Much of north-west Scotland is already suffering from labour shortages, particularly in the hospitality and leisure industry (e.g., waiters, bar staff, cleaners etc) and social care sectors. The job density for the Fort William workplace region has increased over the last five years ahead of population to 0.97 (14% growth), which indicates that there is almost one job per working age person in the region. From the engagement exercise, respondents indicated staff resourcing issues as a result of Brexit, with many accommodation providers responding by altering their service offering, such as limiting the number of short-stay bookings in favour of encouraging longer stay bookings due to this labour shortage. The 'no ferry' scenario would exacerbate this problem on both sides of the Narrows, although the effects would be most directly felt on the peninsula, where the labour market is already very small. From a regional economic perspective, unfilled vacancies and ineffective skills matching would impact negatively on productivity at the local, regional and likely national level.

Key Point: The 'no ferry' scenario would reduce the size of the labour pool in the peninsula and the wider study area. This in turn would make it harder to fill vacancies or, where these are filled, effectively match skills to jobs. Both of these effects would impact negatively on productivity. The impacts would be most keenly felt on the peninsula, where the labour market is already very small in absolute terms.

7.5 SUMMARY

The 'no ferry' scenario implies an immediate increase in the cost of serving and doing business on the peninsula. The extent of the impacts would vary by business sector and company depending on the size and geography of the market they serve, the extent to which the business can pass on costs and, where cost pass on is possible, who the end customer is. Nonetheless, it is reasonable to assume that the cost of at least some goods and services would increase. There is also a risk that some firms would also withdraw from the peninsular market, which would increase cost through reducing competition.

The ‘no ferry’ scenario also implies a reduction in the size of the labour pool for the combined peninsular and Lochaber areas. This could exacerbate job vacancy rates and skills shortages which already exist and reduce local, regional, and national productivity. The impacts would be most keenly felt on the peninsula, where the labour market is already very small in absolute terms.

Outcomes & Impacts – Visitors / Tourists

CORRAN NARROWS

Socio-Economic Study

9.0 OUTCOMES AND IMPACTS – VISITORS / TOURISTS

This chapter presents the equivalent anticipated outcomes and impacts for visitors / tourists in the ‘no ferry’ scenario.

9.1 VISITOR / TOURIST LOGIC MAP

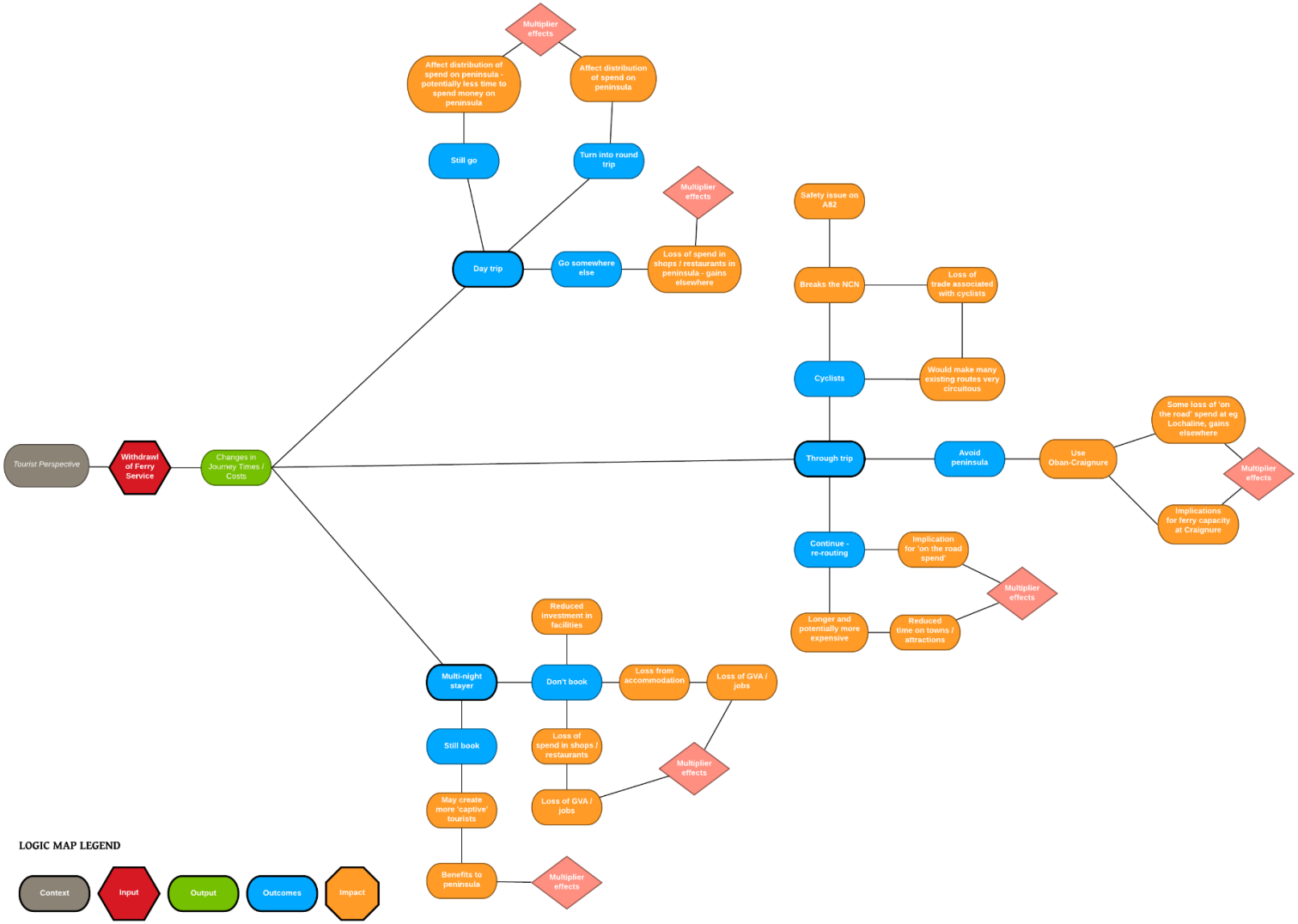


Figure 9-1: Tourist / Visitor Perspective Logic Map 'No Ferry' Scenario

9.2 OUTCOMES

The likely outcomes from the cessation of the Corran Ferry service would be orientated around the three potential visitor market types **(i) the day tripper**, **(ii) the through tripper**, and **(iii) the overnight stayer**. As previously discussed, a large proportion of employment in the study area is in tourist related activities with over 2,500 jobs in 'accommodation and food services' and a further 650 jobs in 'arts, entertainment, recreation and other services' in 2019.

9.2.1 Day Tripper

The day tripper market is popular on the peninsula, attracting visitors from within the wider study area and further afield. Three outcomes are possible as a result of the Corran Ferry no longer operating; (i) visitors still make the journey to the peninsula as the main destination, (ii) visitors turn the journey into a through trip, i.e., the peninsula is no longer the main destination, and (iii) visitors go elsewhere.

9.2.2 Through Tripper

Through trippers are those that include a journey to the peninsula as part of a trip to another ultimate destination and so travel through the area en-route. Examples include cyclists using the Caledonia Way and those undertaken an island-hopping trip up the west coast. Again, there are three possible outcomes for through trippers as a result of the ferry no longer running, including (i) cyclists having to reroute, (ii) visitors avoiding the peninsula, and (iii) continue making the journey but re-route.

9.2.3 Overnight Stayer

Multi-night stayers are those who are travelling to the peninsula as a destination and spend one or more nights staying on the peninsula. There are two possible outcomes for this type of visitor in response to the ferry no longer operating: (i) still book to stay on the peninsula; or (ii) do not book to stay on the peninsula.

9.3 IMPACT

9.3.1.1 Day Tripper

From the anticipated outcomes from the possible day tripper responses, there are two possible impacts. Those who choose to still make the journey or turn it into a round-trip are likely to have reduced time to spend money on the peninsula. There would also be a likelihood of redistribution of spending across the peninsula, giving rise to 'winners and losers' within the peninsular communities – for example, visitors in Sunart and Morvern could travel instead to Ardnamurchan. Where before, people had more time to spend visiting locations, the additional journey time would reduce this, or alter the routing visitors may take. **65** respondents to the *Voice of the Customer Survey*, indicated they were making a day-trip with **an average spend of £180 per travelling party response as part of their journey to the peninsula[33].**

[33] Based on weighted average responses against bottom spend bracket. This is per response, of which exists different permutations of party composition. Includes all spend other than accommodation.

For those who may instead choose to not visit the peninsula and go elsewhere, there would be a loss of expenditure in the peninsular shops, cafes / restaurants, and other businesses. In turn, other locations may benefit from this loss of custom for the peninsula, either in Lochaber or elsewhere. Whilst there may be a limited or no net effect at the regional and national level, there would be significant disbenefits in the peninsula itself. The reduction in direct spend would be amplified by multiplier effects meaning the total reduction in spending would be greater than that of the tourist spend alone. This would negatively impact both businesses which benefit from tourist custom and the area more generally from a reduction in aggregate income.

Key Point: The 'no ferry' scenario would likely lead to a significant reduction in day-trippers to the peninsula, reducing direct expenditure in peninsula businesses, with consequential multiplier effects. There would also be a potential redistribution of the remaining visitor trips as a result of the changes in journey times – it is expected that Morvern and Sunart would be particularly affected.

9.3.1.2 Through Tripper

As set out in Section 3.4, the Corran Ferry is an integral link in the Caledonia Way as part of the NCN78, which allows cyclists to avoid the busy and dangerous section of the A82 to and from Fort William. The removal of the ferry service would then break this link in the NCN, resulting in cyclists choosing between cycling on the A82 with all of the risk that that implies or choosing not to make the journey. This would lead to a reduction in cyclist-based trade for peninsular firms, such as at the Inn at Ardgour, in addition to reducing the patronage on the Camusnagaul Ferry (and thus increasing the net cost of that ferry service to THC).

For those who would choose option (ii) above – i.e., continue to make the journey but reroute - and avoid visiting the peninsula as part of a through trip, this would lead to a reduction of 'on-the-road' visitor spend on the peninsular through trip, for example in the local shop in Lochaline when arriving from Fishnish. For multi-centre trips including Mull, there would be a redistribution of trips from the more lightly used Lochaline – Fishnish route (average loading capacity 26%[34]) to the highly capacity pressured Oban – Craignure route (average loading capacity 81%[35]), amplifying peak summer utilisation issues on that route, with negative implications for residents of, and visitors to, Mull.

The final response for through trippers is to still make the journey, re-routing via the most appropriate route on the peninsula dependent on the vehicle. This would likely make journeys longer and more expensive, potentially further reducing time for people to spend money in peninsular restaurants and shops and impact on time/spend on local activities and attractions.

Each of these responses would give rise to similar multiplier effects as discussed previously, with implications for business viability, jobs, income, and the wider peninsular economy.

[34] Evaluation of Road Equivalent Tariff on the Clyde and Hebridean Network, Stantec, 2020
[35] Evaluation of Road Equivalent Tariff on the Clyde and Hebridean Network, Stantec, 2020

Key Point: The 'no ferry' scenario would break NCN78, thus reducing passing cycling trade for peninsular businesses and the overall attractiveness of long-distance cycle trips to and from the area. It would also increase the THC subsidy for the Camusnagaul Ferry, which is well-used by cyclists. This could however be to the benefit of Lochaber if there is a redistribution of trips to that area.

Key Point: For car-based visitors, rerouting to avoid the peninsula would result in a loss of passing trade for businesses, with direct and multiplier effects on the peninsula, and a potential redistribution of activity within the peninsula. This could however be to the benefit if Lochaber if there is a redistribution of trips to that area.

9.3.1.3 Overnight Stayer

The first response to the outcomes for overnight stayers considers those who would choose to still book and visit the peninsula. This decision is likely to deliver **positive** impacts for the peninsula. The absence of a ferry may create more 'captive' tourists which could potentially lock-in spend on the peninsula supporting local jobs and businesses, bringing wider benefits to the peninsula, such as further job creation, job security and increased wages / salaries. In terms of approximate spend per overnight stayer, 67 responses to the *Voice of the Customer Survey* were received suggesting an average spend of **£451**[36] (excluding accommodation) and a further average spend of **£714** on accommodation[37] per travelling party composition.

Conversely, if the response is to instead not book to stay on the peninsula, the impacts would be more significantly felt. 48 responses to the *Voice of the Customer Survey* indicated they would either no longer visit the peninsula or reduce the frequency at which they visit. Supply outweighing demand may lead to a reduction in investment in facilities and even the possibility of the loss of accommodation as businesses change their operating model – this is a not unlikely outcome given the small scale and family-based nature of accommodation on the peninsula. This would lead to a loss of GVA and jobs. Furthermore, a reduction in the number of tourists would see less spend in shops and restaurants and again impact the viability of local peninsular businesses, leading to a loss of GVA and jobs as a consequence.

Key Point: The 'no ferry' scenario would likely lead to a loss in overnight stays in the peninsula, with 48 responses to the *Voice of the Customer Survey* indicating they would either no longer visit the peninsula or reduce the frequency at which they visit. This would be the most significant of tourism impact as research shows that staying visitors tend to spend more money in an area, even when accommodation costs are excluded. This loss of direct expenditure would be amplified by multiplier effects within the local economy. Moreover, a long-term contraction in demand would lead to the gradual diminution of the supply-side (e.g., bed stock, cafes / restaurants etc), reversing long-term initiatives to grow the attractiveness of the peninsula for tourists.

[36] Spend includes all other expenditure out with accommodation, i.e. food, meals, fuel, retail etc.
[37] Based on weighted average responses against bottom spend bracket. This is per response, of which exists different permutations of party composition.

9.4 SUMMARY

The Corran Ferry plays an integral role in the tourism offer of the peninsula and the Lochaber area more generally, effectively making an area that would otherwise be remote easily accessible, even on a day-trip. It is unquestionable therefore that, in a 'no ferry' scenario, the scale of the peninsular tourism market would reduce, and there could also be negative impacts in Lochaber depending on the behavioural response of visitors. This reduction would directly reduce visitor spending, with consequential multiplier impacts, and would thus reduce employment in one of the primary economic sectors in the area. Moreover, it would lead to a long-term erosion of the supply-side in the area, undoing much of the market development work undertaken in recent years.

Looping back to the resident and business analysis, a reduction in visitor numbers and a loss of employment associated with this would likely be a major 'push factor' in people choosing to leave the area.

Quantification of Impacts

CORRAN NARROWS

Socio-Economic Study

10.0 QUANTIFICATION OF IMPACTS

This chapter sets out to quantify the impacts of a 'no ferry' scenario where it is possible to do. There are three components to this:

- Monetising the increases in travel time and vehicle operating costs
- Providing a high-level estimate of the costs of potentially upgrading the A861 to mitigate the loss of the ferry
- Undertaking a high-level economic impact assessment of a 'no ferry' scenario in terms of employment and Gross Value Added (GVA) impacts

10.1 TRANSPORT ECONOMIC EFFICIENCY ANALYSIS (TEE)

Transport Economic Efficiency (TEE) covers the benefits ordinarily captured by cost-benefit analysis and is a key component of the STAG[38] process. These are the transport impacts of a scheme or policy and estimate the changes in journey time (which are monetised) and vehicle operating costs.

TEE analysis captures the benefit or disbenefit of a transport scheme by comparing its costs and benefits and deriving a Benefit Cost Ratio (BCR). Costs include all capital, operating and maintenance costs of the project. Benefits on the other hand are generally determined through an analysis of the impact of a scheme on transport users, and are thus predominately, although not exclusively, **social welfare**, rather than financial benefits.

A key issue with transport schemes is that the costs tend to be accrued up-front, with the benefits emerging over a much longer time period. To account for this, in line with HM Treasury Green Book guidance, an appraisal typically works over a 30 or 60-year time horizon to provide an equitable comparison of costs and benefits. This recognises that a cost or benefit accrued in the future is 'worth' less than a cost or benefit in the present day (this is known as 'rate of time preference'). To account for this, appraisal uses the convention of 'discounting', which equates future benefits and costs to a single point in time (known as present value), thus providing a consistent and equitable comparison.

10.1.1 Present Value of Benefit (PVB)

10.1.1.1 No Ferry Scenario

The 'no ferry' scenario assumes that the ferry service would continue until the existing vessel(s) fail and the service is discontinued, whereby there would be no crossing provided across the Narrows. As this scenario is hypothetical, for the purposes of this analysis, this is assumed to take place in 2021. After this point, residents, businesses, and visitors to and from the peninsula would travel by road.

[38] https://www.transport.gov.scot/publication/stag-technical-database/section-9/#s911 section 9.1.1

A bespoke, WebTAG-based[39] economic benefits spreadsheet model was developed to determine the level of transport (dis)benefits associated with the cessation of the Corran Ferry service. As mentioned above, a PVB was calculated over a 60-year horizon period and included the consideration of three ferry related scenarios based on the average wait time to board the ferry, comprising; (i) 5-minute wait for the ferry, (ii) 10-minute wait for the ferry, and (iii) 15-minute for the ferry – these scenarios reflect the frequent requirement to queue at peak times of the year. Within the TEE analysis, the transport benefits that comprise PVB have been defined as consisting of:

- **Vehicle Operating Costs (VoC)** – which include changes in operating costs incurred by a user, such as fuel, repairs, maintenance etc.
- **Travel Time Benefits** – journey time benefits or disbenefits associated with the scenario, such as the removal of ferry wait times, or the additional road-based journey times
- **User Charges** – any changes in charges incurred by users, such as the removal of ferry vehicle fares in the 'no ferry' scenario etc

As this analysis is high-level, assumptions have been based on a continuation of the patronage trends pre-COVID-19, and therefore do not reflect the possible future impacts of the pandemic on travel patterns and behaviours. Due to current uncertainty on the long-term impacts and possible changes in demand, we have assumed a continued growth in traffic based on pre-COVID-19.

From the spreadsheet model, the following results were determined for the 'no ferry' scenario:

Table 10-1: 60 Year PVB

60 Year PVB	
Ferry Wait Time Scenario	***PVB***
5-Minute Wait	**-£75.8** million
10-Minute Wait	**-£73.5** million
15-Minute Wait	**-£71.1** million

As can be viewed in the table, there is a difference of -£4.7m between the top and lower values as a result of the wait scenario. As the assumed ferry wait time increases, the disbenefit reduces as the differential in travel times by road and ferry diminishes. On average, the 'no ferry' scenario is likely to disbenefit users of the ferry by **-£1.9m per annum**[40] for the next 60 years, as an average across the three different wait scenarios. As is evidenced by the numbers above, there would be a significant disbenefit to current ferry users associated with the discontinuation of the Corran Ferry service.

[39] WebTAG is the Department for Transport's guidance on appraising transport projects, within which is a databook of parameters for use in analysis.
[40] Discounted to 2010 base prices

10.2 UPGRADE OF A861

As discussed previously, the road network on the peninsula is predominantly single track with passing places and is constrained at points in terms of horizontal and vertical alignment and bridge heights. As it currently stands, there would be difficulties in accommodating a significant proportion of the number of vehicles on the A861 between Corran and the A830 as the Corran Ferry carries due to the single-track design of the road, blind bends, and make-up of the vehicle fleet (cars, campervans, motorhomes, CVs, buses etc). To this end, a potential mitigation in a 'no ferry' scenario would be to upgrade the A861 from the junction with the A830 to the ferry slipway at Ardgour. A high-level assessment was undertaken to estimate the approximate costs associated with upgrading this section of road. The cost estimate is based on upgrading the section of road to a DMRB S2 rural all-purpose 7.3m wide (excluding hardstrips) as shown in Figure 10-1 below and works to provide clearance for CVs under the low railway bridge at Drumsallie.

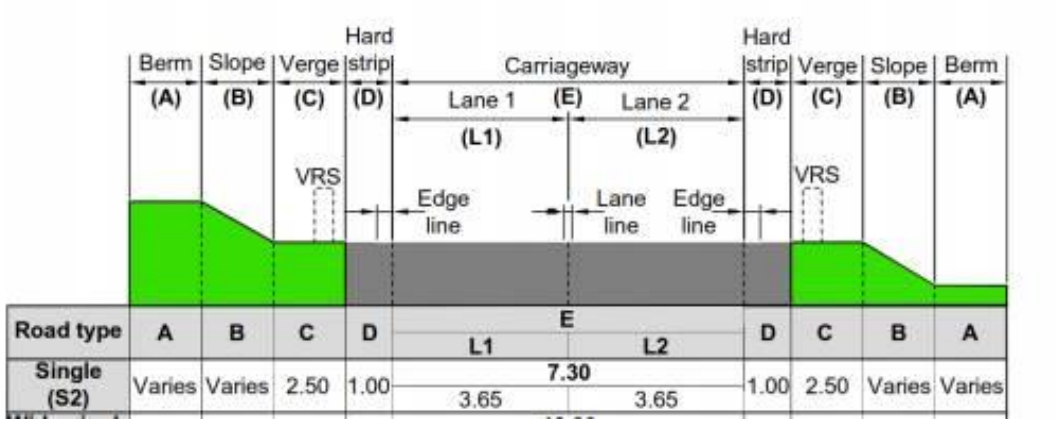


Figure 10-1: DMRB S2 rural all-purpose 7.3m carriageway cross section

The road corridor was disaggregated into sections and a typical cross-sectional cost to bring the existing road up to this standard was applied (Appendix F). The total cost is provided in Table 10-2 below. The costs have been verified against approximate estimating rates for new road construction.

Table 10-2: Cost Estimate upgrade of A861 (undiscounted 2021 prices)

Item	*Cost*
Civil Construction Cost	*£95,330,000*
Optimism Bias @ 44%[41]	*£41,945,000*

[41] Standard % application at this stage in design as per Green Book guidance

Design Fees @ 10%[42]	*£9,533,000*
Construction Prelims @ 15%[43]	*£14,299,000*
Utility Diversions @ 30%[44]	*£28,599,000*
Total Cost	***£189,706,000***[45]

Whilst the above figures are high-level, it is evident that:

- The cost of upgrading the A861 to a standard single carriageway is significant, and indeed would be tens of millions of pounds more expensive than the Stromeferry Bypass, which THC has been pursuing for many years. It would also only serve the eastern part of the peninsula, so the benefits of such an investment would be unevenly distributed.
- Whilst the conversion of the A861 to single carriageway would reduce journey times from Ardgour and Morvern, journey times and distances would still be significantly longer than travelling via the ferry.
- As the A861 is a road for which THC has responsibility, it would bear the costs of the upgrade unless funds could be secured from external sources. Given the backstory with Stromeferry, this seems unlikely in the medium-term. The capital cost of such a road upgrade would therefore likely be unaffordable from a THC perspective. **Crucially, such an upgrade would also be significantly more expensive than a fixed link across the Corran Narrows, which is understood to be the preferred long-term solution of peninsular communities for crossing the Narrows. It would also be an inferior solution.**
- There would also likely be significant environmental consenting issues with upgrading a road which hugs the western shore of the scenic Loch Linnhe.

Overall, it is clear from the above that, even without a full appraisal exercise, the upgrading of the A861 to single carriageway cannot realistically be considered as an appropriate or value for money mitigation in a 'no ferry' scenario.

[42] Typical value
[43] Typical value
[44] Conservative estimate, given the lack of information available at costing. This is likely to decrease through investigations and design progression, given the rural nature of the site
[45] Undiscounted 2021 prices

10.3 ECONOMIC IMPACT ASSESSMENT

10.3.1 Overview

The evidence presented in this study highlights that the Corran Ferry acts as an essential link across the Narrows, supporting the movement of goods and people from peninsular communities to Fort William, Ballachulish, and the Central Belt. The surveys described above demonstrate that a reliable crossing underpins key elements of the local economy, including commuting and business travel and the integrity of local supply-chains.

An economic impact assessment (EIA) has been undertaken to quantify the scale of economic activity that is dependent on a reliable link across the Narrows. This brings together the findings of the resident survey with labour market and business data published by the Office for National Statistics (ONS) and the Scottish Government. It monetises forecast changes in employment on the peninsula in terms of resident income and gross value added (GVA) – a measure of the value of the total goods and services produced.

In line with the recent H.M. Treasury *Green Book* review (2020) and its emphasis on 'place-based impacts', economic impacts have been considered at the peninsula level. Without a reliable link across the Narrows, activity on the peninsula is likely to be displaced by similar activity across the Highlands, in some cases by the same workers who have relocated from the peninsula (a potential effect which the survey provides good evidence for).

In the absence of a link across the Narrows, the resident survey suggests that adverse economic impacts would likely be realised in one of the following ways:

- **Residents give up their current job and move away from the peninsula:** resulting in a reduction of GVA on the peninsula, a decrease in local expenditure, and multiplier impacts as the job market contracts in response to this
- **Residents continue to travel to their mainland job, spending more on transport:** resulting in a reduction of disposable income and thus expenditure on the peninsula, leading to multiplier impacts as the job market contracts in response to this
- **Residents change job to a lower paid or lower productivity role on the peninsula:** resulting in a reduction of GVA on the peninsula, a decrease in local expenditure, and multiplier impacts as the job market contracts in response to this

The current Corran Ferry crew would be included in either the first or third response above.

10.3.2 Population Characteristics and Decision Making

Peninsula residents were asked how they were likely to approach their employment if the ferry service was to cease. Figure 10-2 below presents the responses, highlighting the above categories.

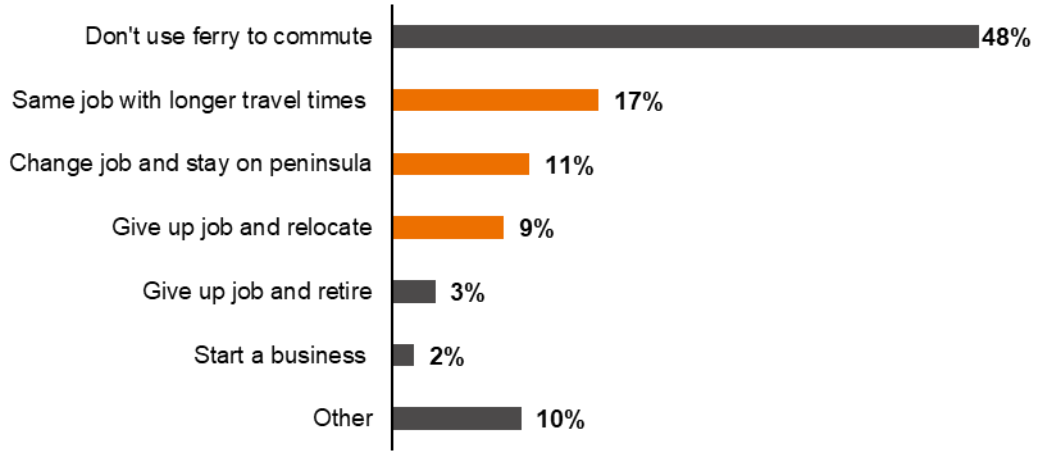


Figure 10-2: Survey respondents' intentions if ferry service were to cease

Note: excludes those not currently in employment

This suggests that over a **third** (37%) of residents in employment would be adversely impacted by the cessation of ferry services, in addition to a further **3%** who would give up their job and retire. Respondents' intentions were likely influenced by the role they are currently employed in, with those who are likely to relocate in higher value, and more mobile, sectors, such as construction and transport. Table 10-3 below shows the results of this survey, controlled for employment sector.

Table 10-3: Intentions of survey respondents by employment sector[46]

Employment sector	All respondents	Same job with longer travel times	Change job and stay on peninsula	Give up job and relocate	Other (including no impact)
Accommodation and food services	***15%***	7%	10%	0%	83%
Education	***14%***	11%	13%	12%	64%
Health	***13%***	14%	24%	12%	50%
Agriculture, forestry and fishing	***11%***	9%	13%	8%	70%
Arts, entertainment, recreation and other services	***8%***	18%	0%	12%	70%
Professional, scientific and technical	***6%***	7%	7%	0%	86%
Construction	***5%***	7%	6%	16%	71%
Transport and storage	***5%***	7%	3%	12%	78%
Public administration and defence	***4%***	9%	3%	4%	84%
Retail	***3%***	2%	0%	4%	94%
Business administration and support services	***3%***	2%	10%	4%	84%
Information and communication	***3%***	5%	7%	4%	84%
Financial and insurance	***2%***	2%	0%	4%	94%
Manufacturing	***2%***	0%	0%	0%	100%
Mining, quarrying and utilities	***2%***	0%	3%	0%	97%
Motor trades	***2%***	0%	0%	4%	96%
Property	***1%***	0%	0%	4%	96%

Applying these rates to the wider population of the peninsula – aged between 16 and 64 and economically active – derives an estimate of how many jobs are likely to impacted by these changes. **Table 10-4** below presents these estimates.

[46] The information is based on the returns to the survey and as such, sample sizes at the sectorial level are relatively small. This should be acknowledged when considering the context of this table and the reflection of employees in that sector as a whole.

Table 10-4: Estimated jobs impacted by employment sector

Employment sector	Same job with longer travel times	Change job and stay on peninsula	Give up job and relocate	Total jobs affected	Total Jobs on Peninsula
Accommodation and food services	12	11	-	23	
Education	19	15	11	45	
Health	23	27	11	61	
Agriculture, forestry and fishing	15	15	7	37	
Arts, entertainment, recreation and other services	31	-	11	42	
Professional, scientific and technical	12	7	-	19	
Construction	12	7	15	34	
Transport and storage	12	4	11	27	
Public administration and defence	15	4	4	23	
Retail	4	-	4	8	
Business administration and support services	4	12	4	20	
Information and communication	8	7	4	19	
Financial and insurance	4	-	4	8	
Manufacturing	-	-	-	-	
Mining, quarrying and utilities	-	4	-	4	
Motor trades	-	-	4	4	
Property	-	-	4	4	
Wholesale	-	-	-	-	
Total	**169**	**113**	**92**	**374**	**990**

Source: National Records for Scotland (2020). Small Area Population Statistics; ONS (2021). Annual Population Survey.

This suggests that approximately **169** people would continue in the same job with longer travel times, **113** would aim to change job and stay on the peninsula, and **92** would relocate away from the peninsula. This represents **37%** of all economically active peninsular residents, which is a significant upheaval to the local labour market in such a rural location.

10.3.3 Direct Impacts

10.3.3.1 Gross Value Added

As people relocate away from the peninsula, the total output of the local economy would decline. The GVA associated with the 92 lost jobs has been quantified using average productivity rates, derived from an analysis of the Scottish Annual Business Survey and the Business Register and Employment Survey. This process is shown in **Table 10-5** below.

Table 10-5: Peninsular GVA lost due to residents relocating[47]

Employment sector	Jobs lost	Productivity	Annual GVA lost
Education	11	£14,300 / job	£157,200
Health	11	£14,300 / job	£157,200
Agriculture, forestry and fishing	7	£30,300 / job	£222,370
Arts, entertainment, recreation and other services	11	£14,900 / job	£164,100
Construction	15	£46,751 / job	£686,220
Transport and storage	11	£50,000 / job	£551,200
Public administration and defence	4	£38,400 / job	£141,000
Retail	4	£27,900 / job	£102,400
Business administration and support services	4	£38,400 / job	£141,000
Information and communication	4	£68,900 / job	£252,900
Financial and insurance	4	£48,300 / job	£177,400
Motor trades	4	£32,000 / job	£117,400
Property	4	£72,400 / job	£265,800
Total	**92**		**£3,136,400**

Source: Stantec analysis of resident survey, *Scottish Annual Business Survey*, and *Business Register and Employment Survey*.

Note: all values in 2021 prices.

The peninsular jobs anticipated to be lost have an average productivity of **£34,200**[48] GVA per job, suggesting that up to **£3.2 million** in annual GVA could be lost from the peninsula in the absence of reliable link across the Narrows.

10.3.3.2 Expenditure

Levels of resident expenditure on the peninsula are also anticipated to decline as residents move away, spend more on travel, or shift to lower-paid jobs.

The households which relocate away from the peninsula are anticipated to reduce annual levels of expenditure by **£1.5 million**. This estimate is based on weekly spending data per (adult) published by the ONS.[49] Of this, approximately **£847,000** could have been spent in local businesses.[50] This would result in a loss of **£245,800** in GVA associated with a reduction in retail expenditure.

[47] Numbers presented below are rounded to the nearest whole number

[48] Weighted average

[49] Office for National Statistics (2019). *Average weekly household expenditure on goods and services in the UK.* Table 35: Detailed household expenditure by countries and regions.

[50] Including food and drink, clothing, household goods and services, communication, recreation and culture, hospitality, and miscellaneous goods and services.

Analysis of changes in journey times, cross-referenced with the stated destinations of survey respondents, suggests that those who would continue to commute from the peninsula would spend an additional **£81** on average annually, as calculated as part of the TEE analysis above. This suggests a reduction in annual levels of cumulative disposable income of **£18,200** annually.

Finally, those who would seek a local job on the peninsula are likely to take lower-paying positions. Analysis of the Annual Survey of Hours and Earnings suggests that on average, jobs on the peninsula tend to pay less (**£26,328** p.a.) than those held by ferry-using commuters in higher value sectors (**£32,173** p.a.). If the earnings of this group were to converge to the peninsular average, this would result in an annual decrease in gross earnings of approximately **£524,000**. Adjusted for tax and pension contributions, this is equivalent to a reduction in disposable income of approximately **£439,000** annually.

In total, annual cumulative disposable income on the peninsula would reduce by £457,200.

10.3.4 Multiplier Impacts

The anticipated decline in population, output, and expenditure on the peninsula would give rise to 'induced[51]' and 'indirect' contractions in economic activity. Lower demand in local sectors and reduced turnover to businesses is likely to result in job losses, further compounding the adverse impacts of not maintaining a link across the Narrows. In an area of small population, this can also create a spiralling impact – a reduction in population can in turn lead to a loss of local amenities (e.g. shops, cafes etc) and services (e.g. the primary school), which in turn creates a further incentive to leave.

The above estimates (Table 10-4) suggest that cessation of the ferry service could impact **374** peninsular residents resulting in an annual reduction of **£1.3 million[52]** in retail expenditure. The Highland retail sector requires turnover of **£97,547** to support one job on average.[53] A reduction in sector turnover of **£1.3 million** could therefore cost a further **13** retail jobs, generating an output of **£376,100** GVA every year.

10.3.5 Cumulative Impacts

The monetised impacts presented above relate to a decrease in annual output and expenditure. In the absence of intervention, these impacts are likely to persist, permanently reducing the economic activity on the peninsula. **Table 10-6** below presents the cumulative impact of this reduction in activity, associated with the loss of 106 jobs. For the purposes of this assessment, it has been assumed that ferry services cease in 2021 and impacts take five years to build up.

[51] Induced contractions are those impacted by the reduced spend in disposable income by residents of the peninsula. Indirect contractions are those resulting from reduced business to business transactions.
[52] This consists of the cumulation of: a reduction in take home pay, reduction in retail expenditure and change in overall income
[53] Stantec analysis of resident survey, Scottish Annual Business Survey, and Business Register and Employment Survey.

Table 10-6: Cumulative Economic Impacts

	First Year of Full Impact (2029) *Undiscounted*	Over 10 years*	Over 20 years*	Over 30 years*
Direct impacts				
GVA lost to relocation	*£3.1m*	*£9.7m*	*£28.5m*	*£41.7m*
Expenditure lost to relocation	*£245,800*	*£760,400*	*£2.2m*	*£3.2m*
Disposable income lost to Increased travel costs	*£18,200*	*£56,200*	*£165,000*	*£241,300*
Disposable income lost jobs changed	*£439,000*	*£1.4m*	*£3.9m*	*£5.8m*
Multiplier impacts				
Loss of retail GVA	*£376,100*	*£1.2m*	*£3.4m*	*£5.0m*
Total	**£4.2m**	**£13.0m**	**£38.3m**	**£56.0m**

*Note: Impacts are discounted to 2021. All impacts are net additional, i.e., relative to the counterfactual.

10.4 SUMMARY OF IMPACTS

As is evident, the discontinuation of the Corran Ferry service would have a significant detrimental impact on the peninsular communities. It is also important to note that supply-chain and visitor impacts have not been included within the above EIA, as the data to support these calculations is not currently available, and as such would be additional to these impacts.

Considering the TEE analysis, the costs of upgrading the A861 and the Economic Impact Assessment, there is a strong argument for investment in the Corran Ferry service to protect the sustainability of these peninsula communities.

Routes to Investment

CORRAN NARROWS

Socio-Economic Study

11.0 ROUTES TO INVESTMENT

11.1 OVERVIEW

As noted at the outset of this report, THC will use the findings of this study to conclude the Socio-Economic Case of the Outline Business Case, selecting a preferred option to progress. At this stage, it will be necessary to more fully develop the Financial, Commercial and Management Cases, which will identify how THC will fund, procure, manage and deliver their preferred option. As part of the brief for this study, THC requested an overview of the potential routes to funding for new vessels and landside infrastructure. This chapter briefly summarises these sources of funding and the advantages and disadvantages associated with each.

11.2 VESSELS

There are various options available for procuring new tonnage, each with its own advantages and disadvantages in terms of cost, affordability, strategic control and both financial and operational risk. This section considers the particulars of these options and the advantages and disadvantages of each.

11.2.1 Public Sector Capital Funding

This option would involve the public sector (either local authority or central government) providing up-front capital funding for the purchase of the new vessels. This has been the most commonly adopted approach for purchasing vessels for subsidised or publicly owned ferry services within the UK. Funding could be provided through one or a combination of:

- direct funding through the local authority or Transport Scotland / Scottish Government capital budgets and / or
- grant funding through external schemes such as e.g., the UK Government 'Levelling-Up' Fund and / or
- prudential borrowing (local authorities and Tier 3 Regional Transport Partnerships only) and / or
- drawdown on capital reserves

The primary benefit of this approach is that the cost is internalised within the public sector and there is no ongoing cost liability or interest payments except in the case of prudential borrowing. However, the disadvantage of this approach is that the required funding must be found up-front, which could present an affordability challenge as well as questions over opportunity cost.

As a public sector example, the up-front capital funding approach is typically favoured by Transport Scotland in its procurement of new vessels to serve its relatively large ferry network, albeit other financing models have been used when the required funding has not been available or for other technical accounting or government policy reasons. However, up-front funding is much less common for a commercial ferry operator.

11.2.2 Prudential Borrowing

The advantage of using capital budgets or reserves is that all costs are covered up-front. Borrowing on the other hand removes the requirement for up-front capital but creates a long-term liability in terms of financing that borrowing (albeit one which would be partially offset by revenues from the ferry service).

The decision as to whether to fund tonnage through the capital budget / reserves or prudential borrowing would be driven by available resources and the comparative costs and benefits of each approach. For many local authorities at present, the cost of borrowing is low, and their invested reserves are generating reasonable returns, thus borrowing options represent better value for money than up-front capital funding.

Note that the Scottish Government, and by extension Transport Scotland, does not have borrowing powers and thus this option would be less likely in a 'transfer of responsibilities' situation.

11.2.3 Finance or Operating Lease

An alternative option for procuring new tonnage would be to arrange a finance or operating lease.

A **finance lease** is where a bank or other lending house would meet the up-front costs of an asset (i.e., a vessel) and then provide it to a lessee (e.g., a local authority) for an agreed period and payment schedule. Under this arrangement, the finance company would remain the legal owner of the asset, with the lessee having control over it. The two parties share the economic risks and returns in terms of any changes in the residual value of the asset at the conclusion of the contract. An **operating lease** is a similar arrangement, the main difference being that at the end of the lease, the title to the asset does not pass to the lessee and thus the residual value risk remains with the lessor. In the past, the benefit of an operating lease from the public sector perspective was that it does not appear on balance sheet and thus does not count against the Public Sector Net Cash Requirement (PSNCR – i.e. borrowing), whilst on the other side, the lessor benefits from tax concessions. However, changes in accounting standards and definitions make operating leases less attractive than they once were.

The primary benefits of a lease arrangement are:

- There is no up-front capital cost for the buyer – the bank or finance house would pay for the construction and equipping of the vessel. Placing an order following price negotiations with one or more shipyards regularly results in a lower price in comparison to 'one-shot' public sector tendering. There may also be longer-term savings associated with the private sector being in a better position to manage risk, lever economies of scale in the build process and design a vessel to maximise its long-term residual value.
- The design and build risk is taken by the private sector rather than the public sector.
- An operating lease would mean that the asset would be off-balance sheet and would thus not contribute towards the PSNCR (albeit these leases are less attractive than they once were).

The disadvantages of a lease arrangement are:

- There is a commitment of future revenue budgets to fund the lease. As the lease fee will be based on commercial interest rates, this approach could be more expensive in the long-run compared to lower cost prudential borrowing (although this advantage is reduced by the private sector driving efficiencies in risk management - minimising the purchase price whilst maximising the residual value - and levering its economies of scale).
- With an operating lease, the local authority would never own the vessel and the lease period would need to be limited to ensure the company financing the vessel is taking a genuine residual value risk
- Whilst a more subjective point, lease arrangements of this nature can attract negative publicity as private shareholders are seen to benefit at the expense of the public purse, irrespective of whether this is the case or not. For example, Scottish Ministers have been questioned in Parliament on several occasions about the lease used to fund the new Stornoway – Ullapool ferry MV *Loch Seaforth* despite Audit Scotland not identifying any concerns with the procurement approach used.[54]

11.2.4 Shipbuilder Financing

Under this option, a shipyard would pay for the cost of a new vessel and then rent it to the operator for a lengthy period.

The key advantages of this approach are:

- As with a finance or operating lease, the up-front cost of the vessel is covered, in this case by the shipbuilder. In addition, it is in the interest of the shipyard to ensure a high-quality build as they retain liability for any future issues with the vessel.
- At the end of the lease period, there is flexibility as to whether the vessel is purchased, leased for a longer period or permitted to go off-hire and replaced with a new vessel

The disadvantages are similar to those of a finance or operating lease.

11.2.5 Tendering

The final procurement option is for the ultimate procuring party to wrap-up the procurement of a new vessel within a wider tendering of the service. Under this option, the procuring body would invite bidders to operate a clearly defined service specification and task them with identifying their own vessels to deliver this service, albeit within agreed parameters defined in the tender (e.g., capacity, speed, fuel type etc).

The primary advantages of this approach are:

[54] https://www.theyworkforyou.com/sp/?id=2018-09-06.6.0&s=speaker%3A25496

- There would be no up-front capital cost, rather the cost of a new vessel would be recovered over the contract period. Indeed, it is possible that a bidder could bring existing vessels to operate the service, thus reducing the vessel charge element of the tender (although it is acknowledged that this is unlikely given the specific operating conditions at Corran).
- The incoming operator would likely have experience in procuring and managing the build of vessels and may thus be better placed to manage the risks associated with this. They may also bring innovative approaches to operating the service.

The primary disadvantages of this option are:

- A contract of at least 10 years, and likely 12-15 years, would likely be required for a bidder to fully recover the cost of their vessel(s). Whilst there are several ferry service contracts of this duration around Europe at present, the length of contract could be open to challenge.
- At the end of the contract period, there is a risk that if the incumbent operator was to lose the next tender, they would remove the vessel from the route. Whilst in theory an alternative bidder could bring a new vessel, there is a risk of service disruption during any transition period, or more likely no other bids would be received given that the incumbent has an appropriate vessel which would be heavily written down (i.e., a *de facto* monopoly). A transfer of assets clause is a possibility but this may be considered discriminatory if it prevents other operators bringing their own vessel.
- In the event that the incumbent operator went bust, arrangements would be required for an operator of last resort, which would need to have plans in place to take control of the vessel and the financial liabilities associated with it.

It should be noted that THC recently undertook a market testing exercise to gauge interest in operating the service through the issue of a Prior Information Notice. Following this exercise, THC chose not to progress with the tendering option and thus it is unlikely that this model would be used for funding new assets.

11.3 LANDSIDE INFRASTRUCTURE

It is highly likely that the investment in landside infrastructure will be funded by the public sector (in its widest sense) and thus the question is the form which that funding will take. There are three main options, each of which could be pursued on its own, or in combination with another option (i.e., they are not mutually exclusive). These options are listed below and explained thereafter:

- public sector capital funding
- Transport Scotland Ports and Harbours Scheme
- increased harbour access charges

11.3.1 Public Sector Capital Funding

This option would involve the public sector (either local authority or central government) providing up-front capital funding for the purchase of the new infrastructure. Funding could be provided through one or a combination of:

- direct funding through the local authority or Transport Scotland capital budgets
- grant funding through external schemes
- prudential borrowing (local authorities and Tier 3 Regional Transport Partnerships only)
- drawdown on capital reserves.

The advantages, disadvantages and key considerations are the same as those for the procurement of new vessels.

11.3.2 Transport Scotland Ports and Harbours Scheme Funding

The Scottish Government runs the Transport Scotland Ports and Harbours Scheme, which allows local authorities, trusts and commercial organisations to make an application for grant funding. Grant funding made by Transport Scotland will be at an 'intervention rate', with the applicant contributing the balance. The intervention rate is based on the value of the project involved, typically 80% payable by grant with the applicant contributing 20%.

There are a range of key requirements and principles underpinning this scheme, with any application having to be supported by an appropriate business case.[55] Whilst this an attractive model from a cost perspective, there is significant competition for central government funding.

11.3.3 Increased Harbour Access Charges

The final option would be to fund the infrastructure through increasing the harbour access charges paid by ferry operators for use of the infrastructure. However, as almost all local authority services involve a publicly owned ferry operator calling at publicly owned infrastructure, this would be a zero-sum game. It would only be a practical option in the event of a transfer for services to Transport Scotland, whereby the local authority would effectively be levying dues on central government to pay for infrastructure, as happens on the CHFS network at e.g. Port Askaig, Craignure, Lochmaddy etc.

Any funding through this avenue could, based on the stated principles of a transfer of responsibilities, be deducted from the block grant received by the local authority.

[55] https://www.transport.gov.scot/public-transport/ferries/infrastructure-projects/#60717

11.4 NEXT STEPS

Identification of the preferred funding option(s) for new infrastructure at Corran will be determined in the Financial, Commercial and Management Cases, set within the context of the both the preferred procurement approach and the management and delivery strategy for the project overall.

Appendices

CORRAN NARROWS

Socio-Economic Study

12.0 APPENDIX A

A.1 Peninsula Resident Context

12.1.1 Socio-Economic Context

12.1.1.1 Demographics

In 2019, the total population of the five peninsula Community Council areas was **2,177**[56], accounting for **12%** of the overall wider study area population and **1%** of the total Highland local authority area population. The population is split almost evenly across the peninsula with the Acharacle and West Ardnamurchan populations totalling 1,101 and Morvern, Sunart and Ardgour the remaining 1,076.

Over the four-year period between 2015 and 2019, the peninsula experienced a **4% growth in population**[57]. Looking at the CAGR[58] values for each of the five peninsula communities, Acharacle witnessed a rate of **0.2%,** Morvern, Sunart and Ardgour a combined rate of **1.1%** and West Ardnamurchan a rate of **1.7%.** Over this same period, the study area as a whole witnessed an equivalent CAGR of **0.1%,** while Highland and Scotland experienced a CAGR of **0.2%** and **0.4%** respectively.

From the Experian data forecasts, the population across the peninsula, is expected, on average, to grow by a further **1.1%** between 2019 and 2024.

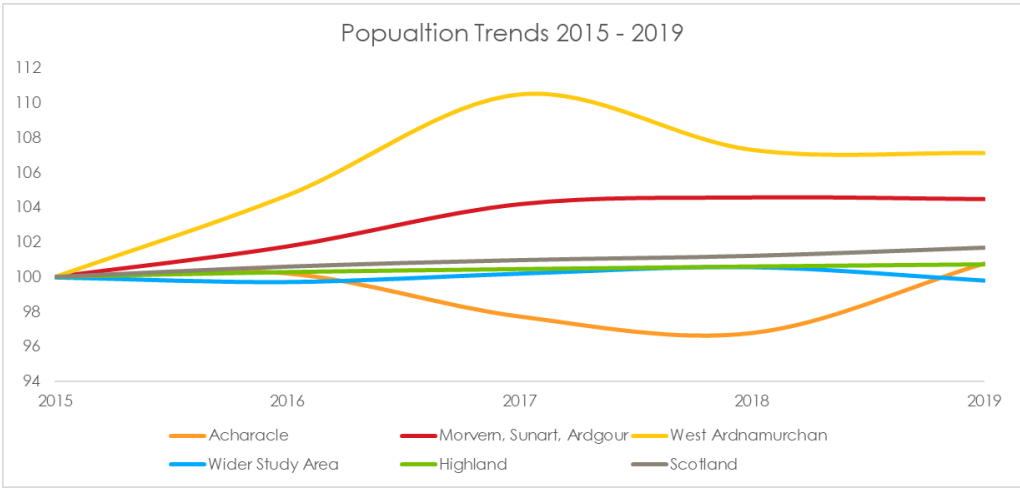


Figure 12-1: Population Trends 2015-2019 (Source: National Records of Scotland, 2021)

[56] 2019 Mid-Year Population Statistics, National Records of Scotland 2021
[57] 2021 Experian Mosaic Data via CoStar
[58] Compound Annual Growth Rate

In terms of the age categorisation of the current population, **59%** of the peninsula population falls into the working age category (16-65), **16%** in the Under 16s and **25%** in the over 65s. While the population has grown since 2015, most of this growth falls in the over **65s category**, which could point towards a trend of in-migration of retirees to the peninsula. Acharacle in particular has witnessed a **20.8%** increase in the over 65 age bracket.

Conversely, West Ardnamurchan has witnessed a reduction in the over 65s, and an increase in the under 16s and working age brackets.

The average age of the peninsula population in 2019 was **49**, while the population forecasts to 2024, predict this average age will increase to **50** as a result of the current underlying population trends.

In terms of the total dependency ratio[59] there are **70 dependents for every 100 people of working age** on the peninsula. This figure is higher than the wider study area ratio of 62 dependents for every 100, the Highland Council value of 64 dependents to every 100 of working age, and the Scottish national figure of 56 dependents to every 100 of working age.

***Voice of the Customer Survey*: Resident Insight**

- **22% (n = 55)** of peninsula-based responses were from the over 65s category
- In total, **77% (n = 199)** of responses from peninsula-based residents could be categorised within the working age category (16-64)

[59] The proportion of the population not in the work-force who are 'dependent' on those of working-age. One of the obvious limitations of dependency ratios is the assumption that people under 16 years and over 65 years (65+) are outside of the labour force, as well as the assumption that those aged 16-64 are participating in the labour force.

12.1.1.2 Housing

In 2019, there were approximately **1,300** homes on the peninsula, with an average household size of **2.1**[60]. In terms of property prices, **53%** of properties are valued under £200,000, **46%** of properties between £201,000 and £500,000 and **1%** of properties valued over £501,000.

Compared to the wider study area, on average, property values are higher on the peninsula, while the composition of those households remain comparable at 2.1 on average.

***Voice of the Customer Survey*: Resident Insight**

- **42% (n = 107)** of responses were from 2 Adult Households
- A further **21% (n = 53)** were from small family households (2 Adults + 2 Children)

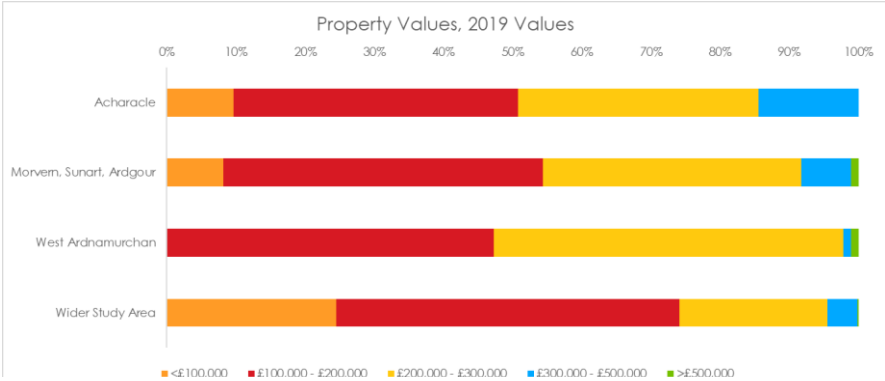


Figure 12-2: Property Values, 2019 Prices (Source: Experian Mosaic 2021)

12.1.1.3 Economic

Based on the 2019 employment figures from the Business Register and Employment Survey (BRES)[61], the top three employment sectors within the peninsula are; (i) **Accommodation and food services**, (ii) **Transport and storage (inc postal)** and (iii) **Education**, accounting for **49%** of all employment.

Between 2015 and 2019, the largest growth sector on the peninsula was in Transport and storage (inc postal), followed closely by Accommodation and food services. Conversely, the sector to see the largest decrease in jobs was the Arts, entertainment and other services sector.

In terms of income, analysis of average Gross Household Income[62] indicates that peninsula-based residents earn on average **£21** less than the wider study area average at **£532**. Disaggregating the data down into the five community areas, residents of Morvern, Sunart and Ardgour earn on average **3%** more than the wider study area average, while both Acharacle and West Ardnamurchan earn **12%** and **3%** less than the wider study area average, respectively.

---

[60] 2021 Experian Mosaic via CoStar
[61] NOMIS 2021
[62] Experian Mosaic via CoStar 2021

Often used as an indicator of economic wealth, car ownership can provide several insights. **33%** of households on the peninsula have at least two cars, compared to an average of **28%** of households across the wider study area. Just **12%** of properties own no cars, which is **5%** lower than the wider study area.

***Voice of the Customer Survey*: Resident Insight**

- **87% (n = 185)** of those in the working age category are employed, either full-time, part-time, or self-employed
- Four sectors account for **56% (n = 103)** of employment on the peninsula; (i) ***Health 15% (n = 28),*** (ii) ***Education 14% (n = 26)***, (iii) ***Accommodation and Food Services 15% (n = 27)*** and (iv) ***Agriculture, Forestry and Fishing 12% (n = 22)***.
- **19% (n = 35)** of respondents earn less than £20k a year, **46% (n = 84)** earn between £20k and £50k a year and **20% (n = 37)** earn more than £50k a year

12.1.1.4 Social Factors

No areas within the peninsula sit within the Scottish Index of Multiple Deprivation (SIMD) and most communities display favourable characteristics against the nine indices. Acharacle, however, although the data does not highlight any immediate concerns, does highlight a lower level of performance against both the employment and incomes indicators, as alluded to in the statistics above.

The number of residents claiming benefits on the peninsula accounts for approximately **11%** of the total claimant count in the wider study area.

12.1.2 Use of the Corran Ferry Context

Resident based responses were extracted from the Resident and Visitor *Voice of the Customer Survey* to inform the study of the current resident behaviours and attitude towards the Corran Ferry service. In total **256** responses were received from residents of the peninsula, accounting for **50%** of all responses to the survey.

From the analysis of the responses the general profiles and travel behaviours related to the use of the Corran Ferry by residents of the peninsula are summarised below. Note, questions were prefaced with the instruction for responses to be framed in the context of **Pre-COVID**, i.e. 2019.

12.1.2.1 Purpose

Residents were asked what their **main purpose** for using the ferry service was, and subsequently what other purposes they used the ferry for:

MAIN PURPOSE:

- **55% (n = 140)** of responses indicated Shopping as the main purpose for travel on the ferry
- A further **23% (n = 60)** indicated commuting purposes
- **8% (n = 21)** indicated travelling for employers' business

OTHER PURPOSE:

- This was a multiple selection question and the two most popular choices selected by **155** and **154** respondents were **Visiting Friends/Relatives** and **Health Appointment** respectively.
- **Social / Entertainment** and **Shopping** were the next most selected options at **126** and **122** respectively.

12.1.2.2 Destination

In using the ferry for their main purpose, residents were asked to indicate where their **main destination** was located for that purpose:

- **77% (n = 198)** of responses indicated Fort William as their main destination
- A further **9% (n = 23)** indicated another destination out with the study area using the A82 South
- **2% (n = 6)** stated another destination out with the study area using the A82 North
- The remaining **12% (n = 29)** of responses were spread widely across the other community council areas within the study area

12.1.2.3 Day of the Week, Frequency and Time

Respondents were asked to consider how frequently they used the ferry service prior to COVID19 and at what time of day they normally travelled on the ferry:

DAY OF THE WEEK:

- This question allowed for multiple answers to be selected. From the number of times a day was selected, **Thursday**, **Friday** and **Saturday** emerged as clear candidates for preferred days to travel, being selected **161**,**152** and **153** times each respectively.

- **Monday to Wednesday** displayed similar support to one another, while **Sunday** was much lower at **98** times selected.

FREQUENCY:

- **82% (n = 208)** of residents indicated that they used the ferry service at least weekly
    - **28% (n = 71)** use the ferry service twice a week
    - **19% (n = 48)** use the ferry 3-4 times a week
    - **19% (n = 48)** use the ferry once a week
    - **8% (n = 21)** use the ferry 7 times a week
    - **8% (n = 20)** use the ferry 5-6 times a week

TIME:

- **52% (n = 134)** of residents use the ferry for their outbound trip during the morning service (0900-1159)
- A further **37% (n = 95)** indicated they undertake their outbound trip during the AM Peak (0630-0859)
- In the inbound direction (home leg), **40% (n = 102)** of residents return between 1600-1859
- **32% (n = 82)** make their return journey between 1200-1559

12.1.2.4 Travel Behaviours

In a serious of questions, residents were asked to summarise how they travel with respect to mode for travelling on board the ferry, ticket type and the number of people making the journey:

- **94% (n = 241)** of responses indicated that they travel onboard the ferry by car (86% Car Driver, 8% Car Passenger)
- **92% (n = 235)** of residents use the discount book of 30 tickets
- **48% (n = 104)** of all journeys are solo journeys, i.e. travelling alone
- **19% (n = 40)** of journeys are made by two adults

12.1.2.5 Travelling out with the Study Area

Residents were also asked to indicate how frequently they used the Corran Ferry as part of their journey to areas out with the general study area:

A82 NORTH:

- **21% (n = 53)** of responses indicated that they travel North on the A82 at least weekly
- A further **36% (n = 94)** of residents undertake this journey at least monthly

A82 SOUTH:

- **13% (n = 32)** of residents travel south on the A82 at least weekly
- **48% (n = 121)** undertake this journey at least monthly

A86 EAST

- **33% (n = 84)** of residents indicated that they do not travel east on the A86
- A further **33% (n = 84)** indicated that they undertake this journey less often than every 3 months

MALLAIG FERRIES

- **68% (n = 173)** of residents do not use the Corran Ferry as part of their journey to connect with Mallaig ferries

MULL FERRIES

- **59% (n = 151)** of residents do not use the Corran Ferry as part of their journey to Mull

12.1.2.6 Queuing and Disruption

With a view to understanding any capacity issues and impacts of any disruption to the service on residents, respondents were asked about their ability to board the first ferry that arrived during specific times in the year and what behaviours they undertook when the ferry is off:

QUEUING:

- **Outbound:**

- **46% (n = 119)** of residents indicated that during June–August, they sometimes have to wait on a later ferry
- **57% (n = 145)** stated that during April-May and September-October, that they can always or nearly always board the first ferry
- **87% (n = 223)** stated that they can always or nearly always board the first ferry during November-March
- **42% (n = 107)** indicated that when the MV *Maid of Glencoul* is operating that they have to sometimes wait on a later ferry

- **Inbound:**
  - **50% (n = 129)** of residents indicated that during June–August, they sometimes have to wait on a later ferry
  - **44% (n = 113)** stated that during April-May and September-October, that they can always or nearly always board the first ferry
  - **80% (n = 205)** stated that they can always or nearly always board the first ferry during November-March
  - **45% (n = 115)** indicated that when the MV *Maid of Glencoul* is operating that they have to sometimes wait on a later ferry

DISRUPTION:

- If the Corran Ferry service is disrupted, **36% (n = 122)** of residents indicated that they still undertake their journey but drive instead using the A861|A830 via Drumsallie
- **23% (n = 89)** of residents indicated that they would still make the journey but drive using the A861|A830 via Lochailort
- **9% (n = 67)** indicated that they would not make the journey at all
- A further **8% (n = 52)** indicated that they would wait until the service resumes
- The remaining **23% (n = 89)** was spread across various connotations of the options, such as either sometimes not making the journey or still make the journey but drive instead, or drive via an alternative route to that suggested in the survey

13.0 APPENDIX B

A.2 Peninsula Business Context

13.1.1 Accommodation Provider Businesses

13.1.1.1 Business Profiles

Seven businesses based on the peninsula responded to the survey. Four responses were from those who own self-catering accommodation (houses / cottages), two responses from Bed and Breakfast providers and one response from a hotel. Five of these businesses are well established, having been operating for longer than six years (three businesses for 6-10 years, and two businesses for 11-20 years).

13.1.1.2 Employment

All seven businesses hire locally, with all employees based on the peninsula. Based on the number of employees employed by each of these seven businesses, they are classed as small enterprises (under 50 employees). Four businesses hire between 1-9 full-time employees, five hires between 1-9 part-time employees and three hire 1-9 seasonal employees.

13.1.1.3 Turnover and Growth

In terms of turnover six of the businesses turn over less than £85,000 a year and one turns over between £250,000 and £500,000 a year. When asked to indicate their level of expected growth over the next five years, four businesses expected to witness no change in that time period. A further two expected to experience some minor growth, while one expected to see moderate growth over this time period. It is notable that, despite the circumstances, there is local optimism on market conditions.

13.1.1.4 Business Use of the Corran Ferry

Five businesses use the Corran Ferry weekly, while the other two businesses indicated that they use the ferry service at least monthly. The most common use of the ferry was to obtain supplies with five businesses stating this practice. Two businesses highlighted the use of the ferry to partake in shopping for their businesses (not supplies) travelling to Fort William to do so.

Four businesses indicated that they currently do not experience any issues with the current Corran Ferry service offering, while the other three did indicate an issue. All three were in agreement and felt that fares were unsustainable and too high for such a short crossing. One business in particular felt that motorhomes were being unfairly penalised by being charged more than like-sized vans, as they bring business to the area even if they are not paying for accommodation in some circumstances.

13.1.1.5 Disruption Impact

All seven businesses agreed that, when the Corran Ferry is disrupted, it has a negative impact on their business. The main concerns were the additional travel times and costs associated with the alternative road-based route, and the disruption this causes guests, especially after an already long journey.

13.1.2 Freight and Logistics Businesses

13.1.2.1 Summary

Only one freight and logistics business responded to the survey from the peninsula. This particular business has been operating for more than 20 years, with employees residing both on the peninsula and in the wider study area. The business employs between 50-249 employees (i.e. it is a small to medium enterprise, SME) on a full-time basis and between 1-9 on a part-time basis. Turnover is in the region of £5m - £10m and over the next five years they expect to see moderate growth.

In terms of business and distribution, only between 1-25% of business is peninsula based, while the remainder is split evenly between the wider Highland Council area and elsewhere in Scotland.

13.1.3 All Other Businesses

13.1.3.1 Business Profiles

Six businesses based on the peninsula responded to the 'all other businesses' survey. Two of these businesses are classified as retail, one is in accommodation and food services; one in the education sector; one in the arts, entertainment and activities sector; and finally one in the wholesale sector.

13.1.3.2 Employment

Three of the businesses have employees based on the peninsula, one has employees based both on the peninsula and in the wider study area, while the remaining two businesses do not employee any additional staff. In total, five businesses are classed as small enterprises employing between 1-9 employees, while one is classed as a large enterprise employing over 250 staff members.

13.1.3.3 Turnover and Growth

In relation to annual turnover, five businesses turnover less than £85,000 a year and the final business turns over £25m+ annually. Four businesses expect to experience varying degrees of growth over the next five years, while two business expect to experience minor shrinkage.

13.1.3.4 Business Use of the Corran Ferry

In terms of their use of the Corran Ferry service, two businesses indicated they use the ferry on a daily basis, three indicated weekly use of the ferry while the remaining businesses indicated they use the ferry once a month for business needs.

13.1.3.5 Disruption Impact

Only two businesses provided comment on current issues and disruption with the ferry service. Both highlighted the issue with queuing during peak times which negatively impacts their business and schedules in particular. During times of disruption to the service, both businesses feel the additional journey times to be both tiring and frustrating, especially when travelling long distances to reach the ferry slips.

14.0 APPENDIX C

A.3 Wider Study Area Resident Context

14.1.1 Socio-Economic Context

14.1.1.1 Demographics

In 2019, the total population of the wider study area was approximately **16,358**, accounting for **7%** of the total Highland local authority area population. The Fort William, Inverlochy and Torlundy Community Council area is home to the largest number of residents, accounting for **35%** of the wider study area population.

Over the four-year period between 2015 and 2019, the wider study area experienced a **-0.2%** reduction in population. Looking at the CAGR values for each of the seven communities in the wider study area, five communities experienced positive growth with two communities registered negative growth. Nether Lochaber and Kinlochleven, recorded the largest growth at **1.5%**, whilst Fort William, Inverlochy and Torlundy recorded the largest reduction at **-0.5%**. over this same time period, the wider study area witnessed an equivalent CAGR of **0%**, while Highland and Scotland experienced a CAGR of **0.2%** and **0.4%** respectively.

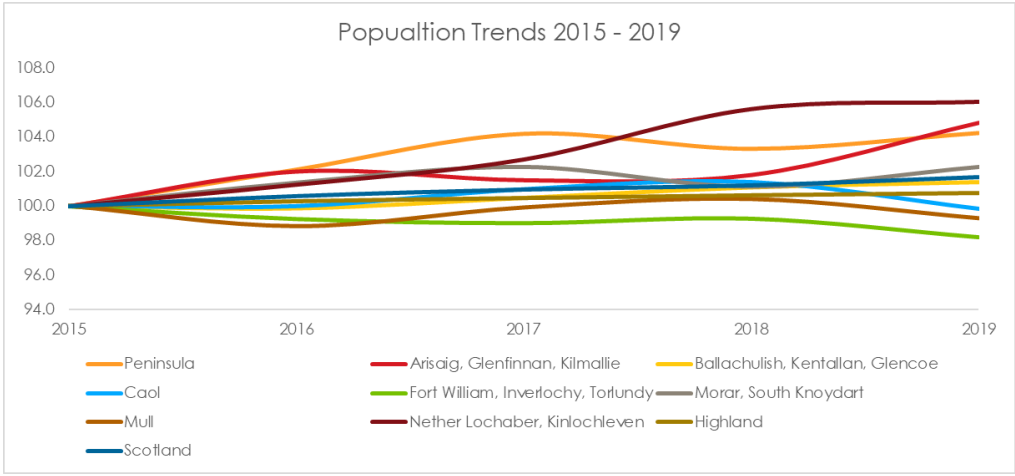


Figure 14-1: Population Trends 2015-2019 (Source: national records of Scotland, 2021)

From the Experian data forecasts, the population across the wider study area is expected, on average, to grow by a further **0.9%** between 2019 and 2024.

In terms of age categorisation of the current population, **61%** of the wider study area population falls into the working age category (16-65), **17%** in the under 16s and **22%** in the over 65s. while the population growth has stagnated, this has been the consequence of the growth in the over 65s (**3%**) offsetting the reduction in the under 16s (**-4%**). As with the peninsula communities this could be a reflection on people choosing to retire to the region. Mull has seen the largest increase in the over 65s at **7.9%**, while Arisaig, Glenfinnan and Kilmallie, witnessed a **-5.1%** decrease in over 65s.

In terms of the younger cohorts, Fort William, Inverlochy and Torlundy witnessed the largest reduction in the under 16s at **-10.7%**.

The average age of the wider study area population in 2019 was **45**, while the population forecasts to 2024, predict this average age will increase to **46** as a result of the current underlying population trend.

In terms of the total dependency ratio there are **62 dependents for every 100 people of working age** in the wider study area. This figure is lower than both the peninsula and Highland Council area values of **70** and **64** respectively, but higher than the Scottish national value of **56** dependents to every 100 of working age.

***Voice of the Customer Survey*: Resident Insight**

- **28% (n = 32)** of peninsula-based responses were from the over 65s category
- In total, **67% (n = 76)** of responses from peninsula-based residents could be categorised within the working age category (16-64)

14.1.1.2 Housing

In 2019, there were approximately **15,400** homes in the wider study area with an average household size of **2.2**. In terms of property values, **74%** of properties are valued under £200,000, **26%** between £201,000 and £500,000 and no properties are valued over £501,000.

***Voice of the Customer Survey*: Resident Insight**

- **37% (n = 42)** of responses were from 2 Adult Households
- A further **19% (n = 21)** were from small family households (2 Adults + 2 Children)

14.1.1.3 Economics

Based on the 2019 employment figures from BRES, the top three employment sectors within the wider study area are: (i) Accommodation and Food services, (ii) Health, and (iii) Retail, accounting for **44%** of all employment.

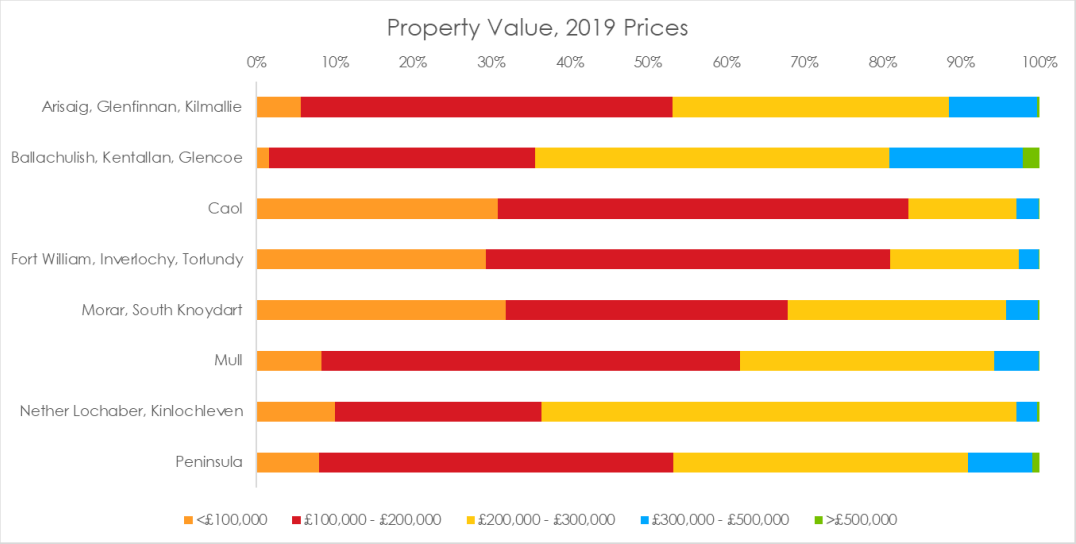


Figure 14-2: Property Values, 2019 Prices (Source: Experian Mosaic 2021)

Between 2015 and 2019, the largest growth sector in the wider study area has been the property sector, followed by agriculture, forestry and fishing. Conversely, the sector to see the largest decrease in jobs was the Wholesale and Finance sectors.

In terms of income, analysis of average Gross Household income indicates that wider study area residents earn on average **£21** more than peninsula residents. Disaggregating the data down into the seven community areas, Ballachulish, Kentallan and Glencoe, earn on average **10%** more than the wider study area average, while residents of Morar and South Knoydart earn **-16%** less.

Often used as an indicator of economic wealth, car ownership can provide several insights. **28%** of households in the wider study area have at least two cars, compared to **33%** of households on the peninsula. **17%** of properties own no cars, which is **5%** higher than the peninsula.

***Voice of the Customer Survey*: Resident Insight**

- **80% (n = 67)** of those in the working age category are employed, either full-time, part-time or self-employed
- Two sectors account for over a third (**31% (n = 21)** of employment in the wider study area; (i) ***Education 16%* (n = 11),** (ii) ***Accommodation 7 food services 15%* (n = 10)**
- **14% (n =** of respondents earn less than £20k a year, **41% (n =** earn between £20k and £50k a year and **21% (n =** earn more than £50k a year, **24% (n =** preferred not to say

14.1.1.4 Social Factors

Two areas within the wider study area sit within the 20% most deprived areas within the Scottish Index of Multiple Deprivation (SIMD). Both locations sit within Fort William, in particular around the train station and south Fort William. Both locations track poorly across all nine indices.

The number of residents claiming benefits in the wider study area accounts for approximately **6%** of the total claimant count for the Highland Council area.

14.1.2 Use of the Corran Ferry Context

14.1.2.1 Resident use of the Ferry

Resident responses from the wider study area were extracted from the Resident and Visitor *Voice of the Customer Survey* to inform the study of the current resident behaviours and attitude towards the Corran Ferry service. In total **113** responses were received from residents of the wider study area, accounting for **22%** of all responses to the survey.

From the analysis of the responses the general profiles and travel behaviours related to the use of the Corran Ferry by residents of the wider study area are summarised below. Note, questions were prefaced with the instruction for responses to be framed in the context of Pre-COVID, i.e. 2019.

14.1.2.2 Purpose

Residents were asked what their **main purpose** for using the ferry service was, and subsequently what other purposes they used the ferry for:

MAIN PURPOSE:

- **27% (n = 31)** of responses indicated Visiting Friends / Relatives
- **19% (n = 21)** of responses indicated Shopping as the main purpose for travel on the ferry
- A further **14% (n = 16)** indicated commuting purposes

OTHER PURPOSE:

- This was a multiple selection question and the top three popular choices selected were **Visiting Friends / Relatives**, **Social / Entertainment / Cultural** and **Short Holiday (1-3 Nights)**.
- Two further options which were also slightly favoured above the remaining options were **Shopping** and **Leisure / Sport / Gym**.

14.1.2.3 Destination

In using the ferry for their main purpose, residents were asked to indicate where their **main destination** was for that purpose:

- **26% (n = 29)** of responses indicated Fort William as their main destination
- A further **17% (n = 19)** indicated Ardgour, **14% (n = 16)** Sunart and **11% (n = 12)** Morvern
- The remaining responses were distributed across the other options

14.1.2.4 Day of the Week, Frequency and Time

Respondents were asked to consider who frequently they used the ferry service prior to COVID19 and at what time of day they normally travelled on the ferry:

DAY OF THE WEEK:

- This question allowed for multiple answers to be selected. From the number of times a day selected, **Friday** and **Saturday** emerged as clear candidates for preferred days to travel, being selected **73** and **69** times each respectively.
- **Monday to Thursday** displayed similar support to one another, while **Sunday** was much lower at **55** times selected.

FREQUENCY:

- **25%** of residents indicated that they used the ferry service at least weekly
    - **3% (n = 4)** use the ferry service twice a week
    - **10% (n = 11)** use the ferry 3-4 times a week
    - **5% (n = 6)** use the ferry once a week
    - **3% (n = 3)** use the ferry 7 times a week
    - **4% (n = 5)** use the ferry 5-6 times a week

TIME:

- **53% (n = 60)** of residents use the ferry for their outbound trip during the morning service (0900-1159)
- A further **22% (n = 25)** indicated they undertake their outbound trip during the AM Peak (0630-0859)
- In the inbound direction (home leg), **49% (n = 44)** of residents return between 1600-1859
- **32% (n = 36)** make their return journey between 1200-1559

14.1.2.5 Travel Behaviours

In a serious of questions, residents were asked to summarise how they travel with respect to mode for travelling on board the ferry service, ticket type used and the number of people making the journey:

- **81% (n = 82)** of responses indicated that they travel onboard the ferry by car (86% Car Driver, 8% Car Passenger)

- **58% (n = 65)** of residents purchase single tickets
- **47% (n = 43)** of all journeys are solo journeys, i.e. travelling alone
- **24% (n = 22)** of journeys are made by two adults

14.1.2.6 Travelling out with the Study Area

Residents were also asked to indicate how frequently they used the Corran Ferry as part of their journey to areas out with the general study area:

A82 NORTH:

- **47% (n = 53)** of responses indicated that they do not use the Corran Ferry as part of their journey to travel on the A82 North
- **19% (n = 22)** of responses indicated that they travel North on the A82 less often than once every three months
- **9% (n = 10)** of residents undertake this journey at least weekly

A82 SOUTH:

- **47% (n = 53)** of responses indicated that they do not use the Corran Ferry as part of their journey to travel on the A82 South
- **17% (n = 19)** of responses indicated that they travel South on the A82 less often than once every three months
- **7% (n = 8)** of residents undertake this journey at least weekly

A86 EAST

- **65% (n = 74)** of residents indicated that they do not travel east on the A86
- A further **25% (n = 28)** indicated that they undertake this journey less often than every 3 months

MALLAIG FERRIES

- **78% (n = 88)** of residents do not use the Corran Ferry as part of their journey to connect with Mallaig ferries

MULL FERRIES

- **35% (n = 39)** of residents do not use the ferry service as part of their journey to Mull
- **20% (n = 23)** use the ferry monthly to travel to Mull

14.1.2.7 Queuing and Disruption

With a view to understanding any capacity issues and impacts of any disruption to the service on residents, respondents were asked about their ability to board the first ferry that arrived during specific times in the year and what behaviours they undertook when the ferry is off:

QUEUING:

- **Outbound:**
  - **49% (n = 55)** of residents indicated that during June–August, they sometimes have to wait on a later ferry
  - **61% (n = 69)** stated that during April-May and September-October, that they can always or nearly always board the first ferry
  - **87% (n = 98)** stated that they can always or nearly always board the first ferry during November-March
  - **38% (n = 43)** indicated that when the MV *Maid of Glencoul* is operating that they have to sometimes wait on a later ferry
- **Inbound:**
  - **43% (n = 49)** of residents indicated that during June–August, they sometimes have to wait on a later ferry
  - **50% (n = 56)** stated that during April-May and September-October, that they can always or nearly always board the first ferry
  - **83% (n = 94)** stated that they can always or nearly always board the first ferry during November-March
  - **40% (n = 45)** indicated that when the MV *Maid of Glencoul* is operating that they have to sometimes wait on a later ferry

DISRUPTION:

- If the Corran Ferry service is disrupted, **34% (n = 48)** of residents indicated that they would not make the journey
- **42% (n = 60)** indicated they would still make the journey but using the road instead; **21% (n = 30)** driving via A861/A830 Drumsallie and **21% (n = 30)** driving via A861/A830 Lochailort
- A further **14% (n = 20)** indicated that they would travel via Mull Ferries instead

The resident survey helped provide significant insight to the current context for residents of the wider study area and the relationship with the Corran Ferry service. Further questions were directed at respondents and these will be used to help validate the assumptions with the Outcomes aspect of the Logic Map.

A.4 Wider Study Area Business Context

14.1.3 Business Context

14.1.3.1 Business Profiles

In total eight businesses based in the wider study area replied to the business surveys, with three businesses replying to each of the accommodation provider and other business surveys and two to the logistics survey. In terms of community council areas represented, three of the responses were from businesses located in Kilmallie, and then one business from each of the following; Arisaig, Ballchulish, Fort William, Inverlochy and Torlundy, Glencoe and Glen Etive and Mull. Seven of the businesses are well established having operated for over six years, with the one remaining accommodation based business having operated for between 0 and five years thus far.

14.1.3.2 Employment

All three accommodation-based businesses are small enterprises employing between 1-9 full-time employees, 1-9 part-time employees and with employees based either solely on the peninsula or out with the peninsula.

Both logistics-based businesses employ between 50-249 full-time employees and one also employing between 1-9 part-time employees. One of these businesses has employees that reside both on the peninsula and out with the peninsula, while the other has employees solely based out with the peninsula.

Finally, the other businesses employ a range of employees, with one employing between 50-249 full-time employees and 10-49 part-time employees, a second hiring between 10-49 full-time employees and 1-9 part-time employees, with the last employing between 1-9 full-time employees. The first two enterprises employ staff based out with the peninsula, while the last hires staff based across both the peninsula and out with the peninsula.

14.1.3.3 Turnover and Growth

Two of the accommodation provider businesses turnover less than £85,000, while one turns over between £85,000 and £249,000. Growth expectations are low for these businesses, with one indicating no growth over the next five years, while two indicated minor growth is forecast over this same period.

For the logistic based businesses, one turns over between £10m and £14.99m while the second turns over between £15m and £24.99m. There are higher expectations for growth over the next five years for these companies with one indicating an expectation of moderate growth and one forecasting significant growth.

Responses to the all other business survey highlights a range of turnover, with one business turning over each of the following; less than £85,000, between £1m and £1.99m and more than £25m. Two of these businesses expect to experience no change in terms of growth over the next five years while one expects to obtain moderate growth.

14.1.3.4 Business Use of the Corran Ferry

Two of the accommodation providers use the ferry for business use, while the third business indicated that while they do not, their guests do. Use for business is moderate, with one business using the ferry at least once a month during the peak summer season and the other using the ferry occasionally.

Both logistic businesses use the ferry for business purposes and indicated doing so on average twice daily throughout the year.

Finally, those who responded to the all other businesses survey indicated a much higher use of the ferry for business. One indicated use of the Corran Ferry every day, a second indicated six times per week and the last indicated between two and four times a week during the season and occasionally out with the season.

14.1.3.5 Disruption Impact

None of the businesses that responded to the accommodation providers survey indicated having issues with the current Corran Ferry service and when the service is disrupted, there was little comment other than to note the long drive around.

Just one of the logistic providers noted a current issue with the Corran Ferry related to the cost of travel and the lack of resilience if the ferry is off or at capacity, with the inability to accommodate multiple HGVs being an issue. Both businesses did provide an indication to the impacts experienced when the ferry service is disrupted, with one saying they cannot fulfil their orders to customers, while the second noted that they need to reroute via Oban instead due to the low bridge restrictions near Fort William.

Only one other business indicated a current issue with the ferry service and that is resilience and the inconvenience for staff if the ferry is off and the drive they then face as an alternative. Two businesses indicated that when the ferry is disrupted, they may have to change their plans/schedules to accommodate the delay associated with the road-based journey. One also indicated the increased risk to safety of travelling on the alternative single-track road.

14.1.4 Context Summary

- **Population:** Population growth in the wider study area has been stagnant. The reduction in under 16s has been offset by a similar increase in over 65s. The underlying trends point towards an ageing population, which could pose many potential issues for the future of the area.
- **Housing:** Property values are generally in the lower valuation brackets; thus housing costs may be less than on the peninsula with lower council tax and rates. Household compositions are also marginally larger than peninsula communities
- **Economics:** There is a good level of economic activity in the wider study area, with most people employed in education and accommodation and food services. Household incomes vary across the wider study area, but on average are higher than those on the peninsula.

- **Social:** Two areas fall within the 20% most deprived locations in Scotland. Both score relatively poorly across all indices
- **Ferry Use:** Most residents use the Corran Ferry service monthly, and mainly for purposes such as visiting relatives/friends. When residents do travel, they tend to take their car onboard the ferry, use single tickets and travel to Ardgour, Sunart and Morvern. 32% of residents also indicated that they would still make their journey if the ferry was off due to disruption.
- **Businesses:** Only eight responses were received across the three surveys. Responses reflected a variety of businesses of various sizes and ambitions for growth.
- **Business Use of the Ferry:** all the businesses highlighted similar issues with disruption to the Corran Ferry and the subsequent additional journey times, without a viable alternative option

15.0 APPENDIX D

A.5 Visitor / Tourist Context

139 survey responses were received from tourists / visitors and second homeowners.

15.1.1 Socio-Economic Context

DEMOGRAPHICS

- **73% (n = 101)** of respondents to the survey fall within the working age category (16-65)
- **26% (n = 36)** were over the age of 65

EMPLOYMENT

- **64% (n = 89)** of respondents were employed (38% **(n = 53)** Full-time, 11% **(n = 15)** Part-time and 15% **(n = 21)** Self-Employed)
- A further **30% (n = 42)** of respondents were retired
- In total, **81% (n = 113)** of those in the working age category are employed

INCOME

- **7% (n = 9)** of respondents earn less than £20,000 a year, **38% (n = 53)** earn between £20,000 and £50,000 a year, **23% (n = 20)** earn between £50,000 and £75,000 and finally, a further **10% (n = 14)** earn more than £100,000 a year

15.1.2 Use of the Corran Ferry Context

JOURNEY LEG

- **91% (n = 125)** of respondents indicated that they used the Corran Ferry for both legs of their journey
- Of the **9% (n = 13)** who used the ferry for only one leg, **77% (n = 10)** undertook the second leg using the road network, **15% (n = 2)** travelled via Mull and the final **8% (n = 1)** travelled as a passenger/cyclist on the Camusnagual ferry

FREQUENCY

- Only **4% (n = 6)** of respondents used the Corran Ferry for the first time as part of this journey
- **37% (n = 51)** of respondents use the ferry less often than once every three months, **16% (n = 22)** use the ferry once every 3 months, **12% (n = 17)** indicated 2-3 times a month and **12% (n = 17)** use the ferry at least once every 2 months
- **16% (n = 23)** of respondents use the ferry more frequently than monthly

ONBOARD THE FERRY

- **91% (n = 125)** of respondents indicated that they travelled onboard the ferry with their car
- **34% (n = 47)** of respondents were travelling as part of a group of two adults
- **29% (n = 40)** of respondents were travelling alone

15.1.3 Tourist Sector Context

REASON FOR VISITING

- **30% (n = 42)** of respondents indicated that they were visiting the area as part of a long holiday (4+ nights)
- A further **30% (n = 42)** indicated that they were visiting family and friends
- While **13% (n = 18)** indicated they had travelled to the area for a short holiday

AREA VISITED

- **21% (n = 29)** were staying in Morvern, **19% (n = 26)** were visiting Western Ardnamurchan, **16% (n = 22)** Sunart, **14% (n = 19)** Ardgour, **13% (n = 18)** Acharacle, **12% (n = 17)** were travelling through tot Mull and Iona
- **5% (n = 7)** indicated elsewhere within the study area outwith the peninsula

TYPE OF ACCOMMODATION USED

- **28% (n = 39)** were visiting their second home
- **22% (n = 30)** were staying in self-catering (house / cottage)

- A further **22% (n = 30)** were staying with friends / relatives

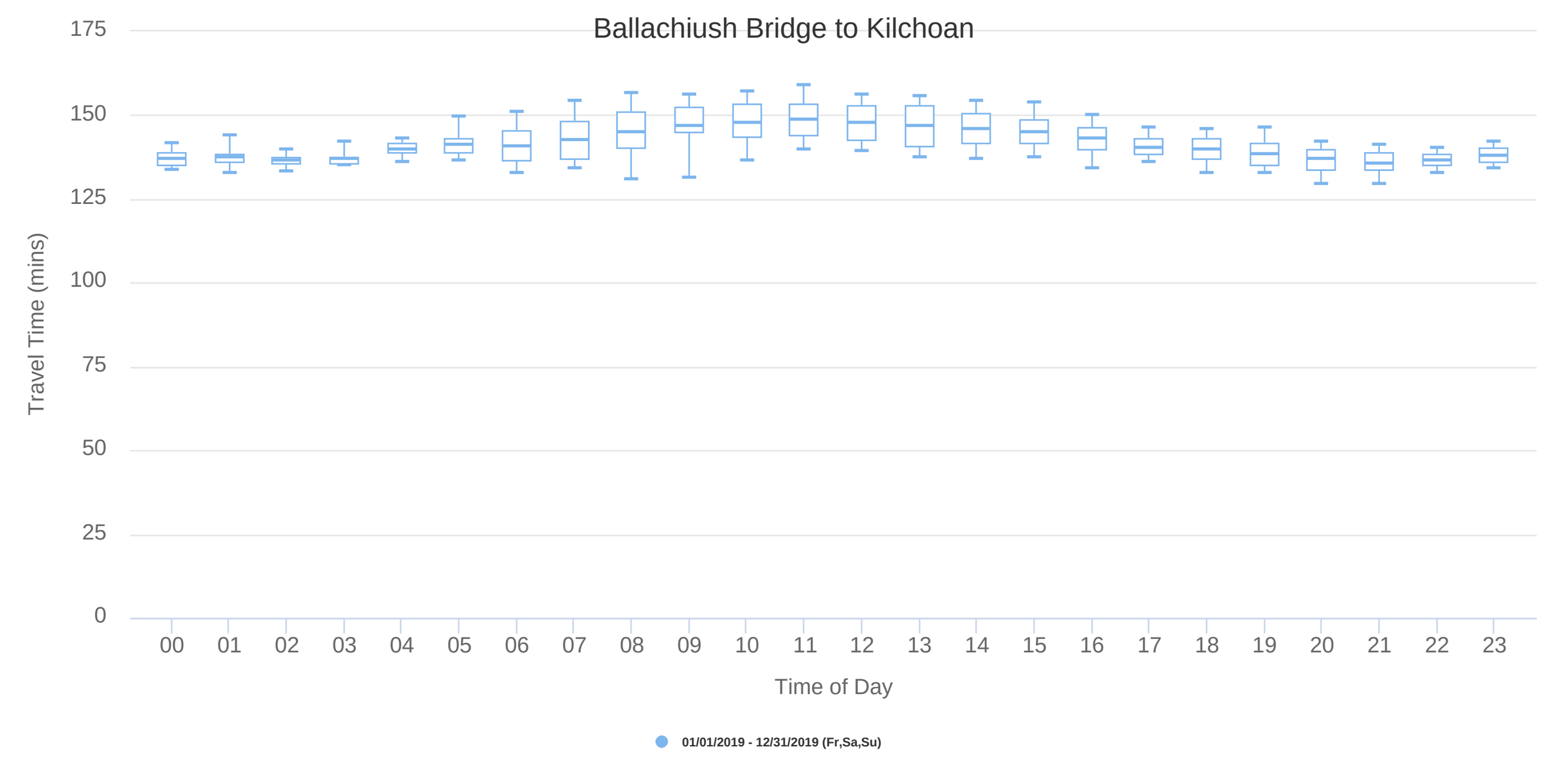
SPEND ON ACCOMMODATION

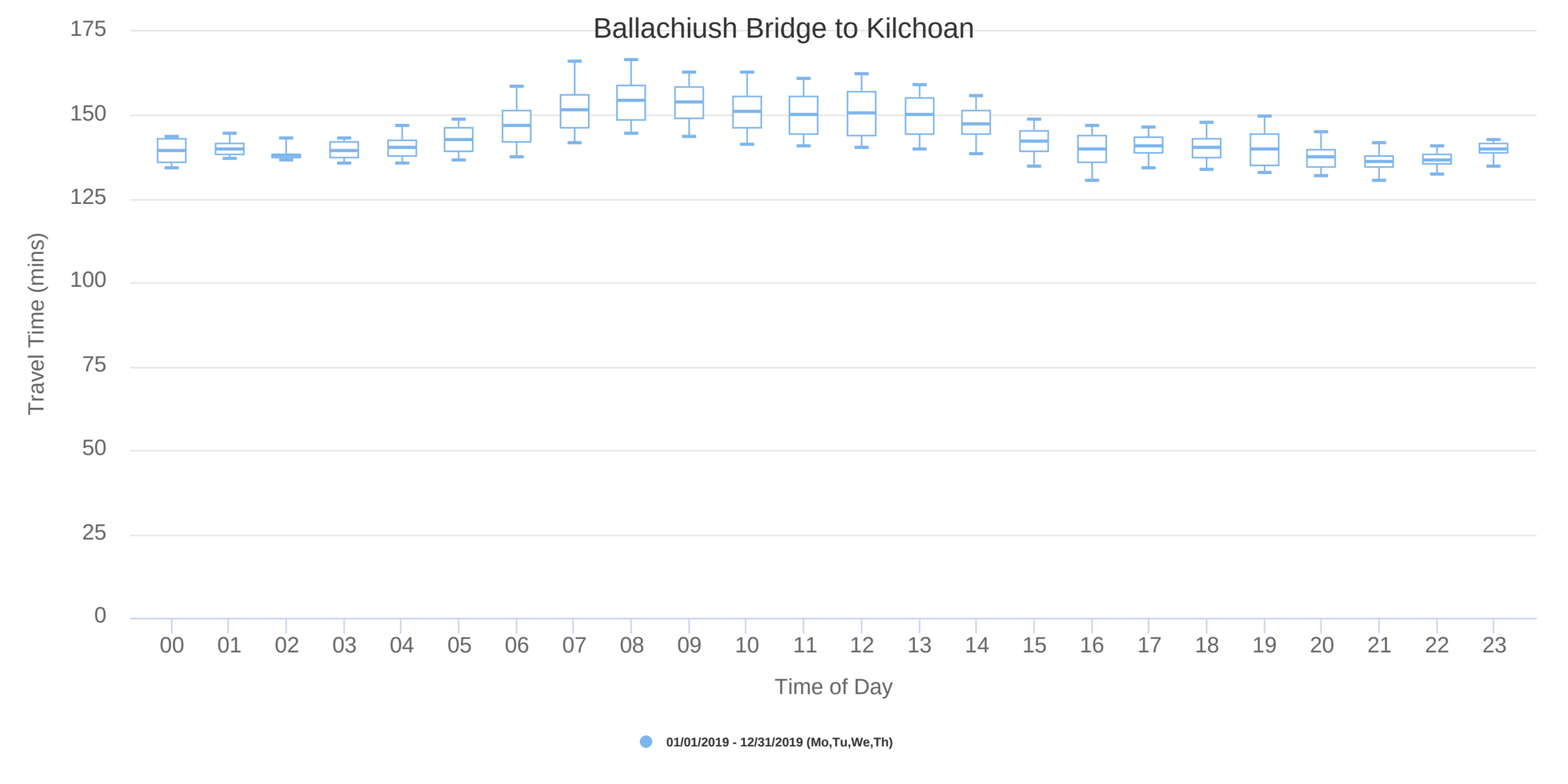
- **49% (n = 68)** of respondents indicated that they did not pay for accommodation
- **16% (n = 22)** spent up to £300 on accommodation
- **22% (n = 30)** spent between £300 and £750
- While **13% (n = 18)** indicated they spent over £750 on accommodation

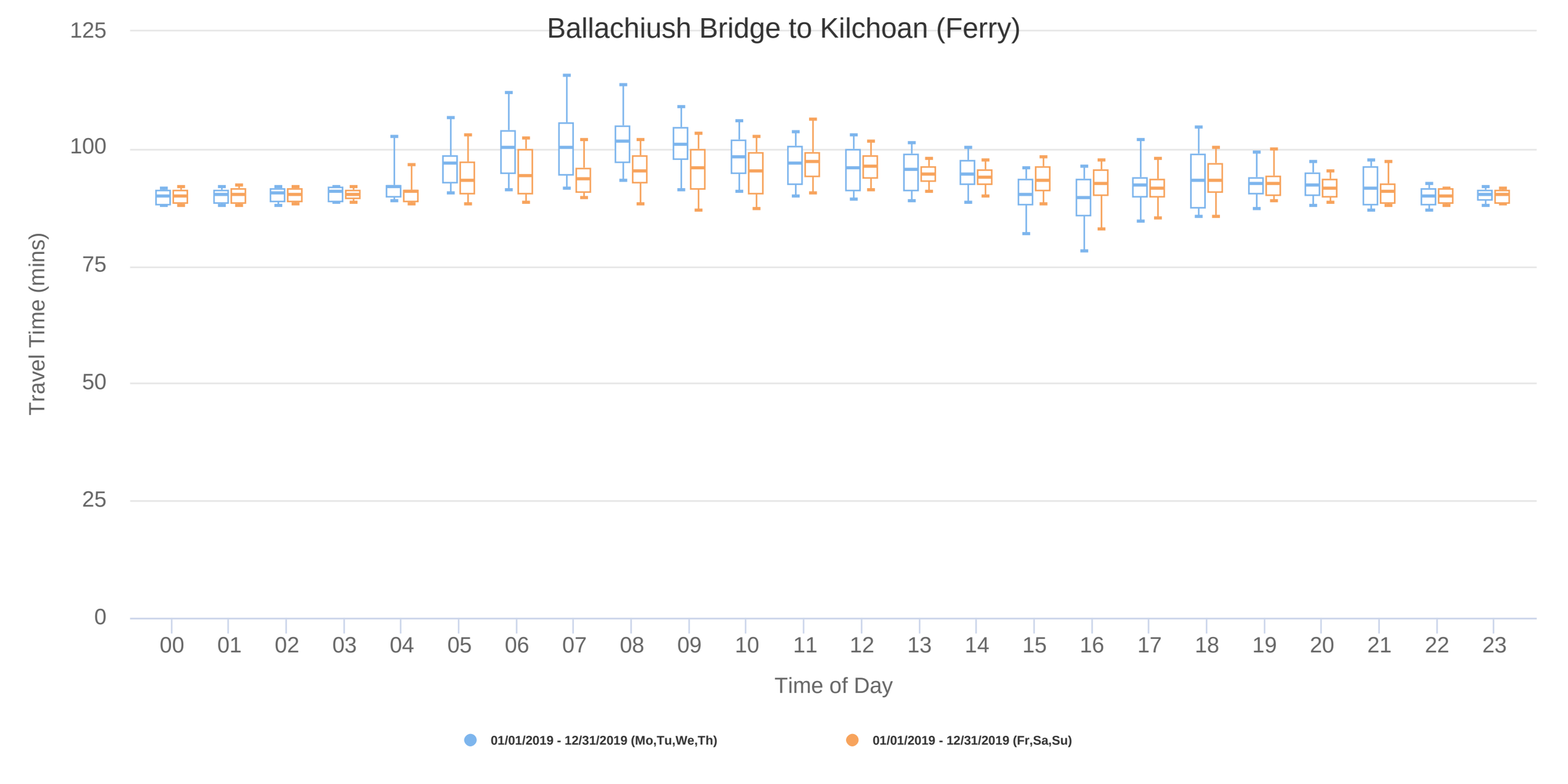
OTHER SPEND IN THE REGION

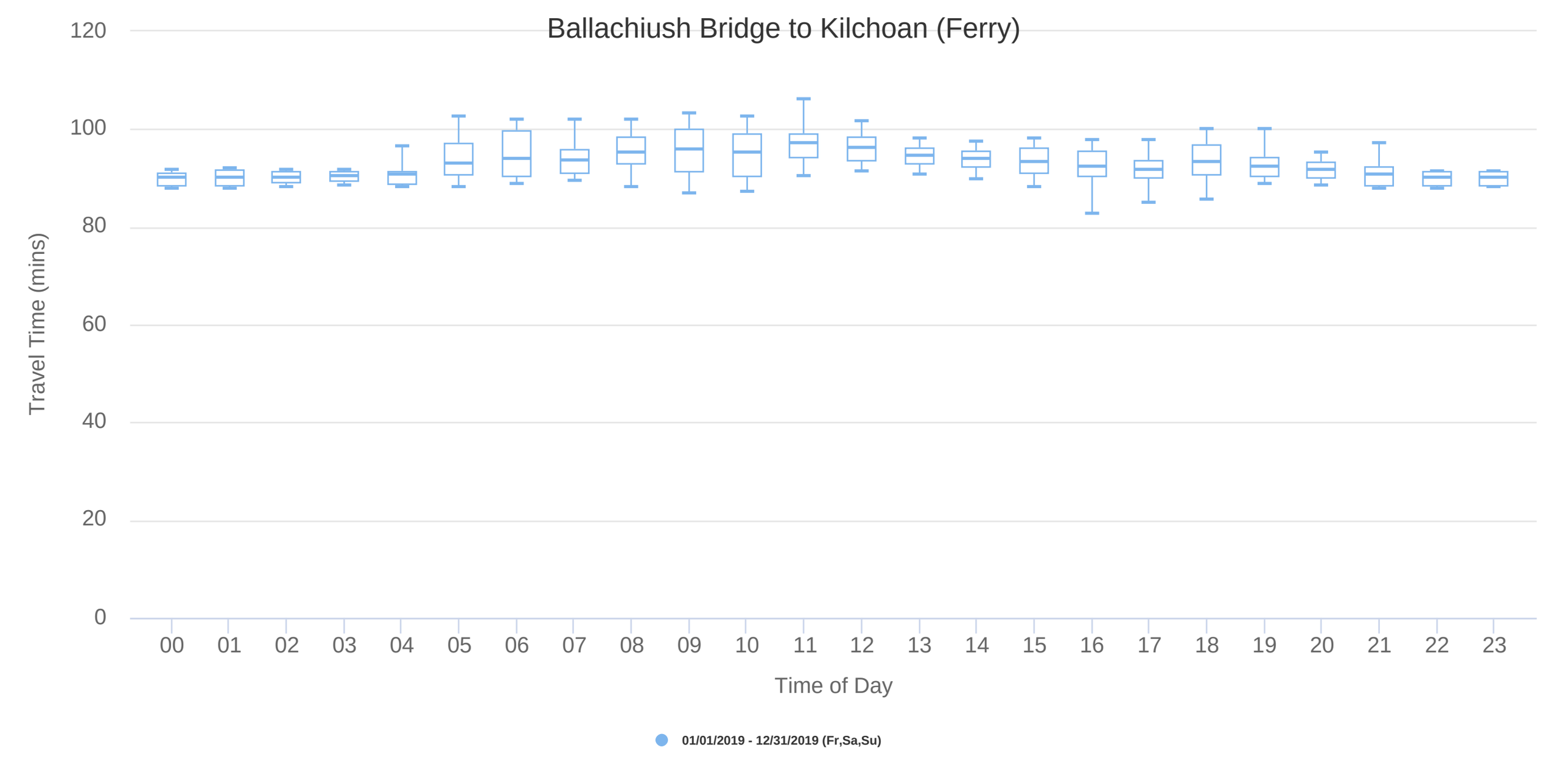
- **60% (n = 83)** of respondents indicated that they had spent up to £300 on other items – such as food and activities
- **31% (n = 64)** indicated spending between £300 and £750
- While a further **9% (n = 12)** indicated they had spent over £750

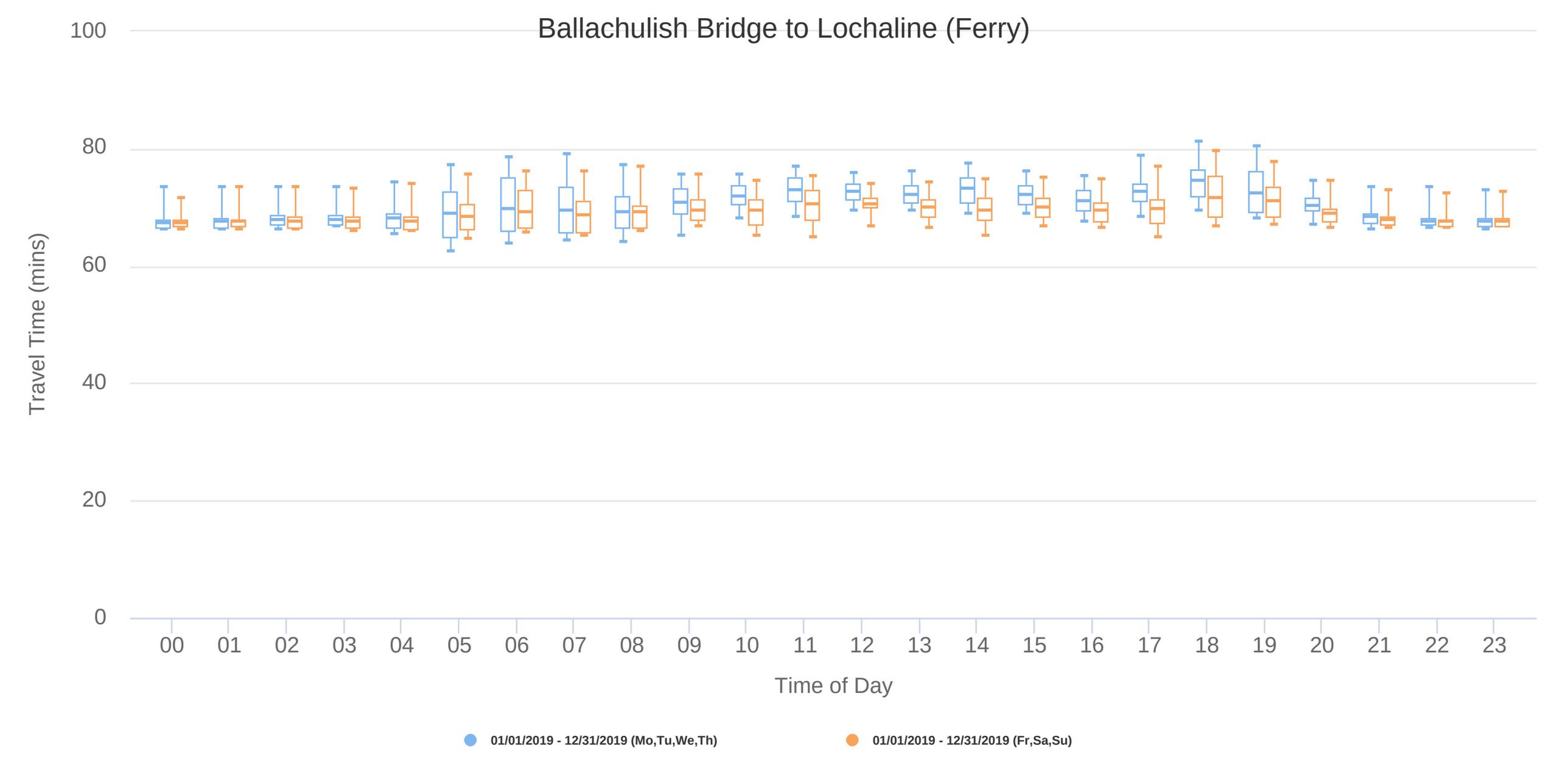
16.0 APPENDIX E

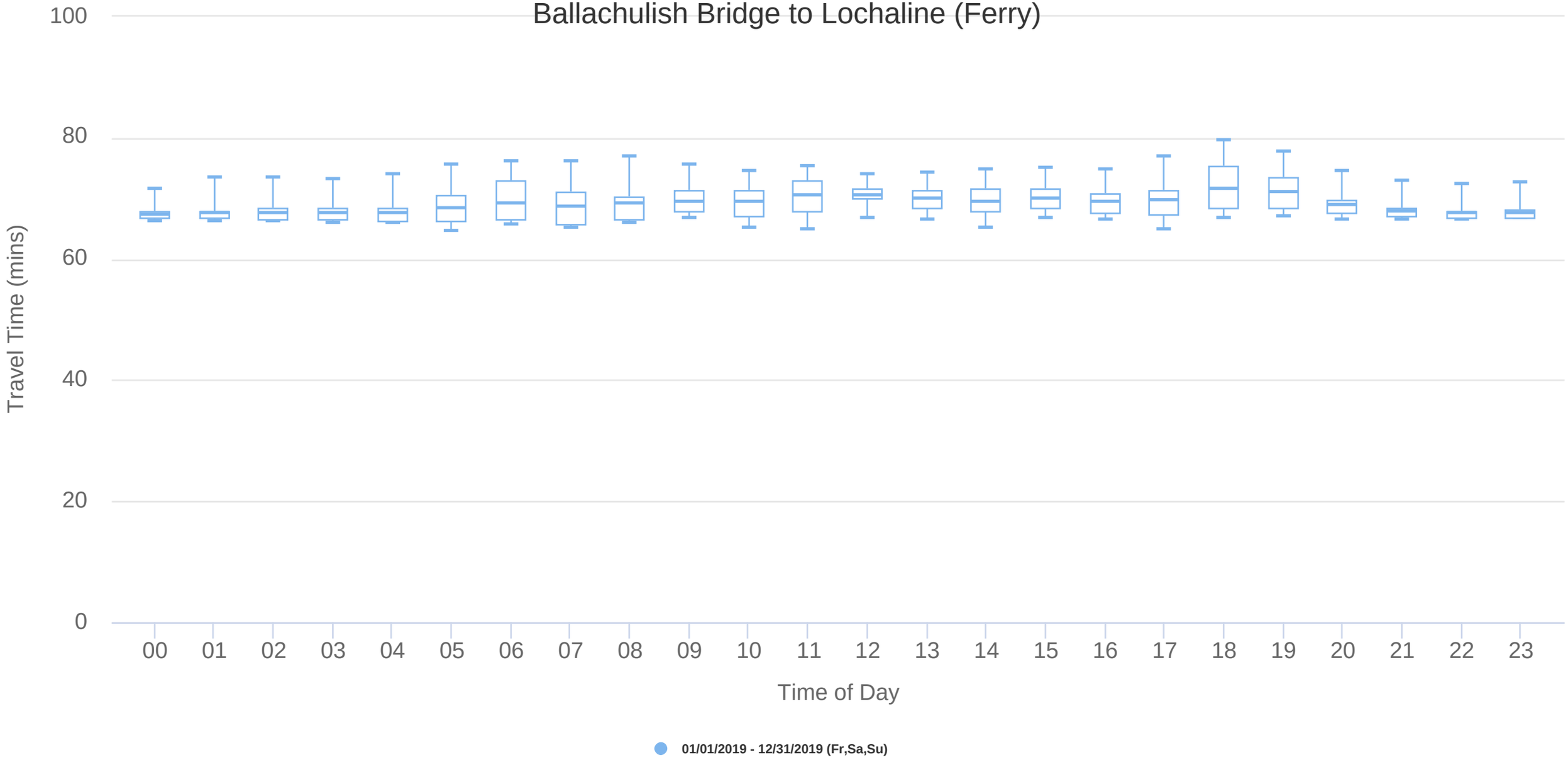

Ballachiush Bridge to Kilchoan
175
150
125
100
75
50
25
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

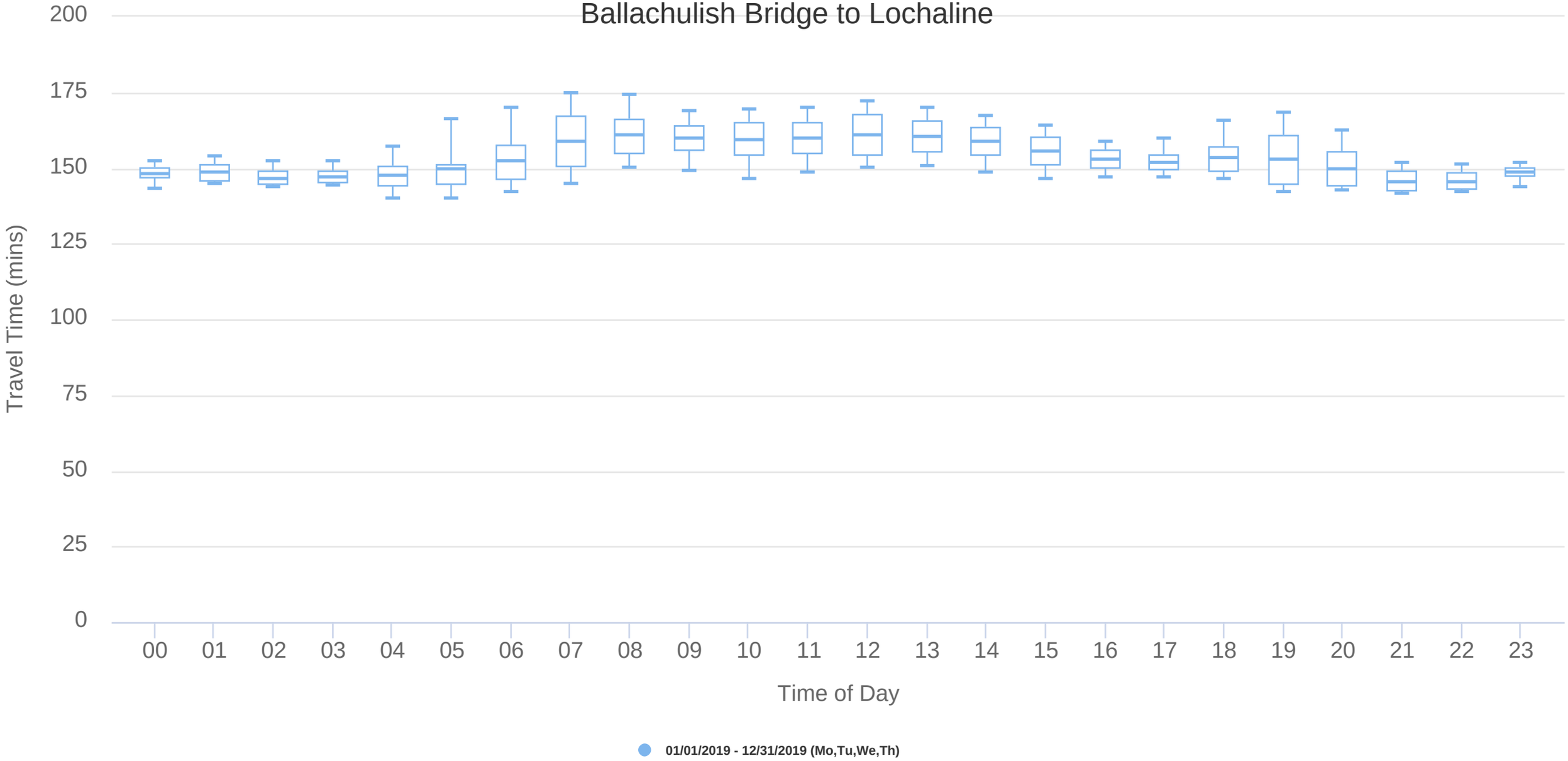

Ballachiush Bridge to Kilchoan
Travel Time (mins)
175
150
125
100
75
50
25
0
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)

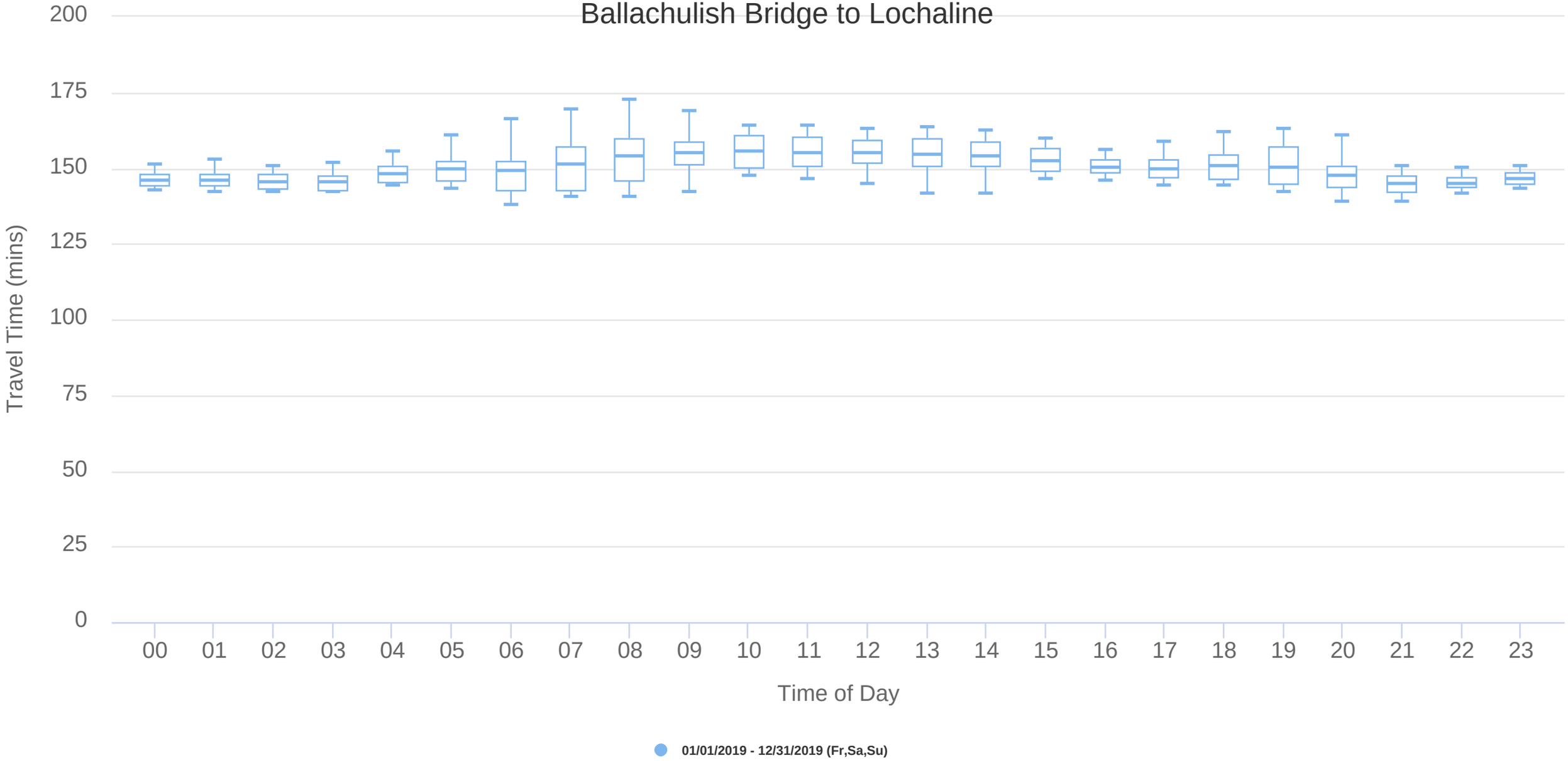

Ballachiush Bridge to Kilchoan (Ferry)
125
100
75
50
25
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

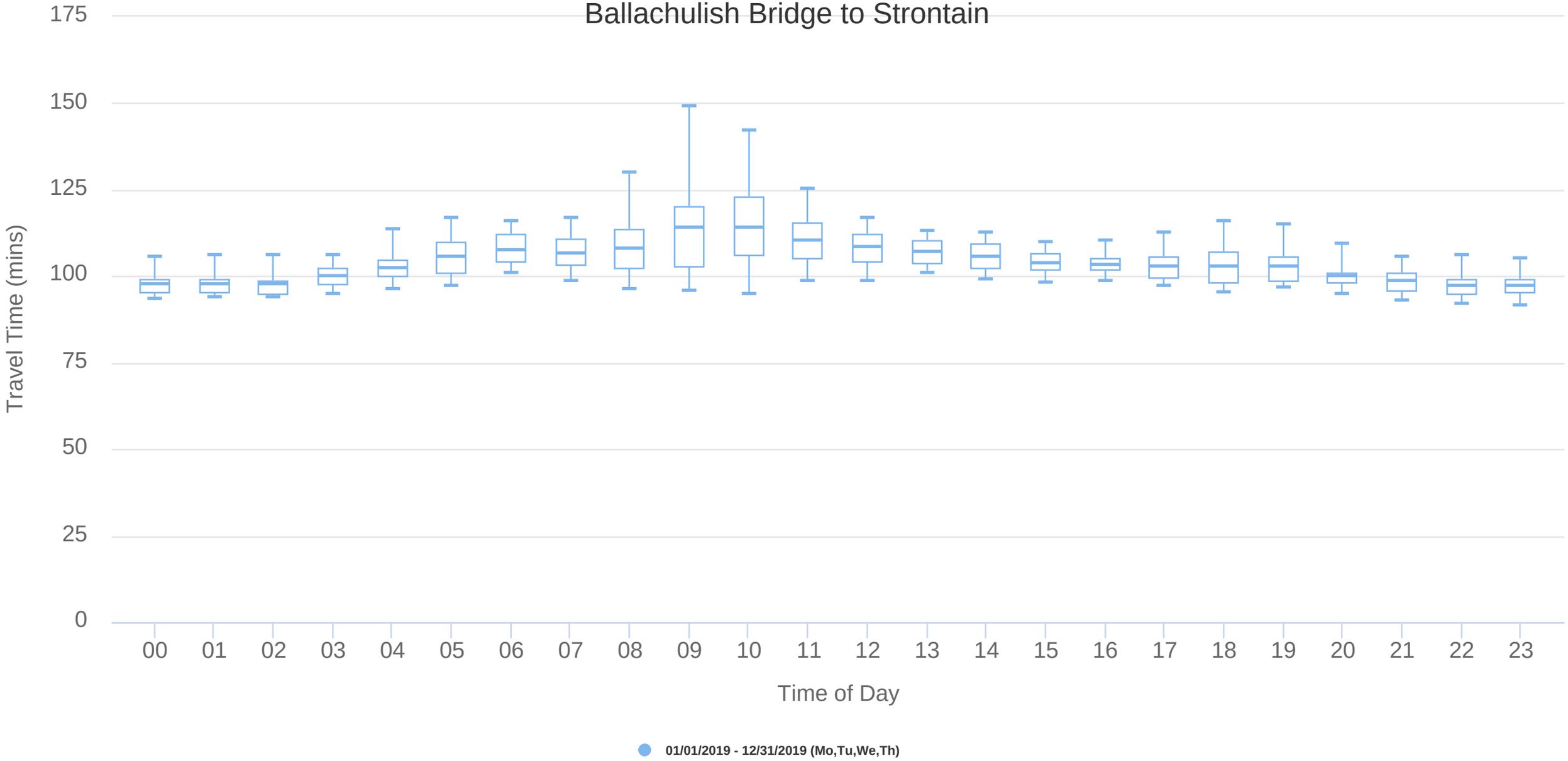

Ballachiush Bridge to Kilchoan (Ferry)
120
100
80
60
40
20
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

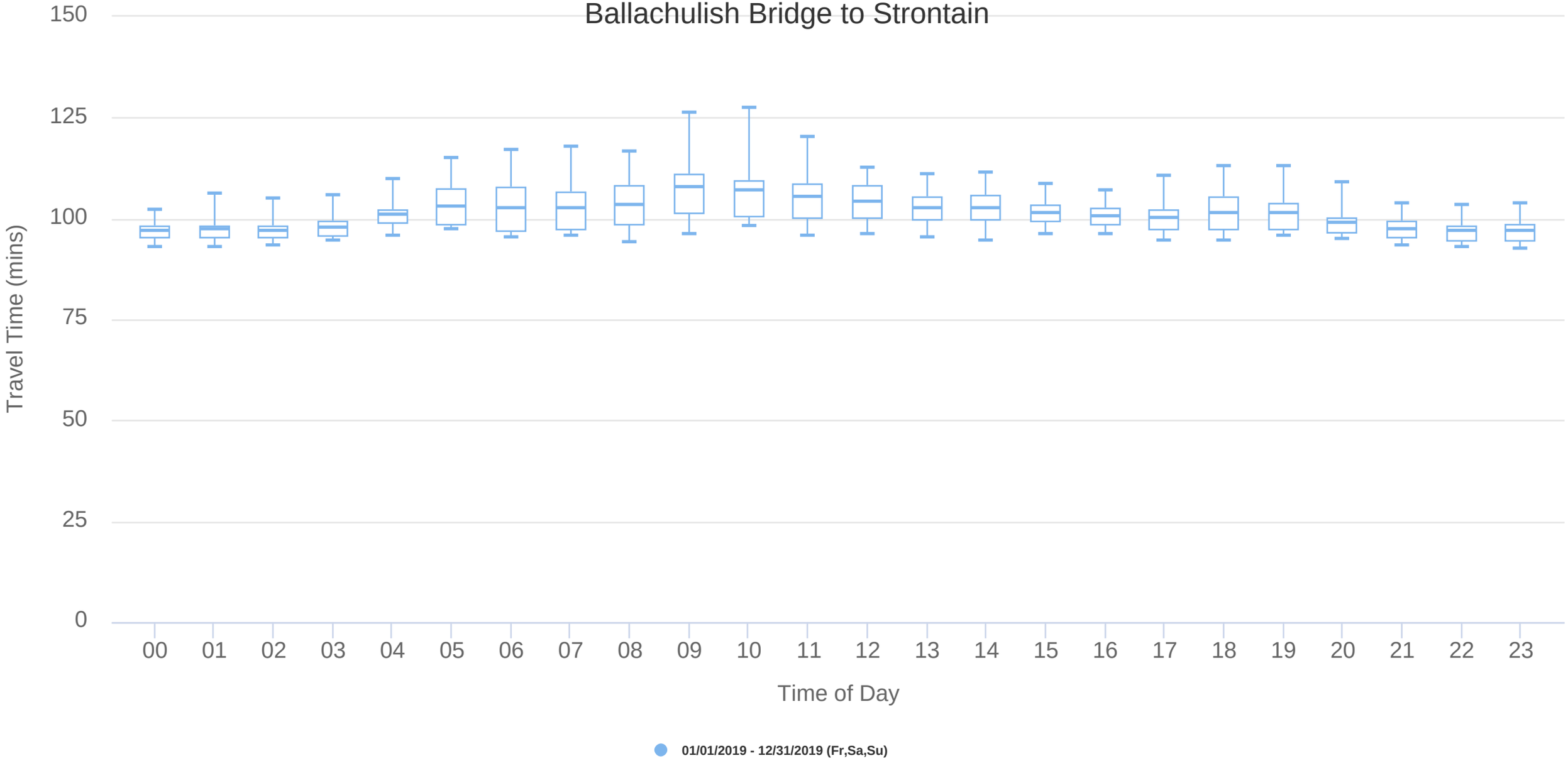

Ballachulish Bridge to Lochaline (Ferry)
Travel Time (mins)
100
80
60
40
20
0
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

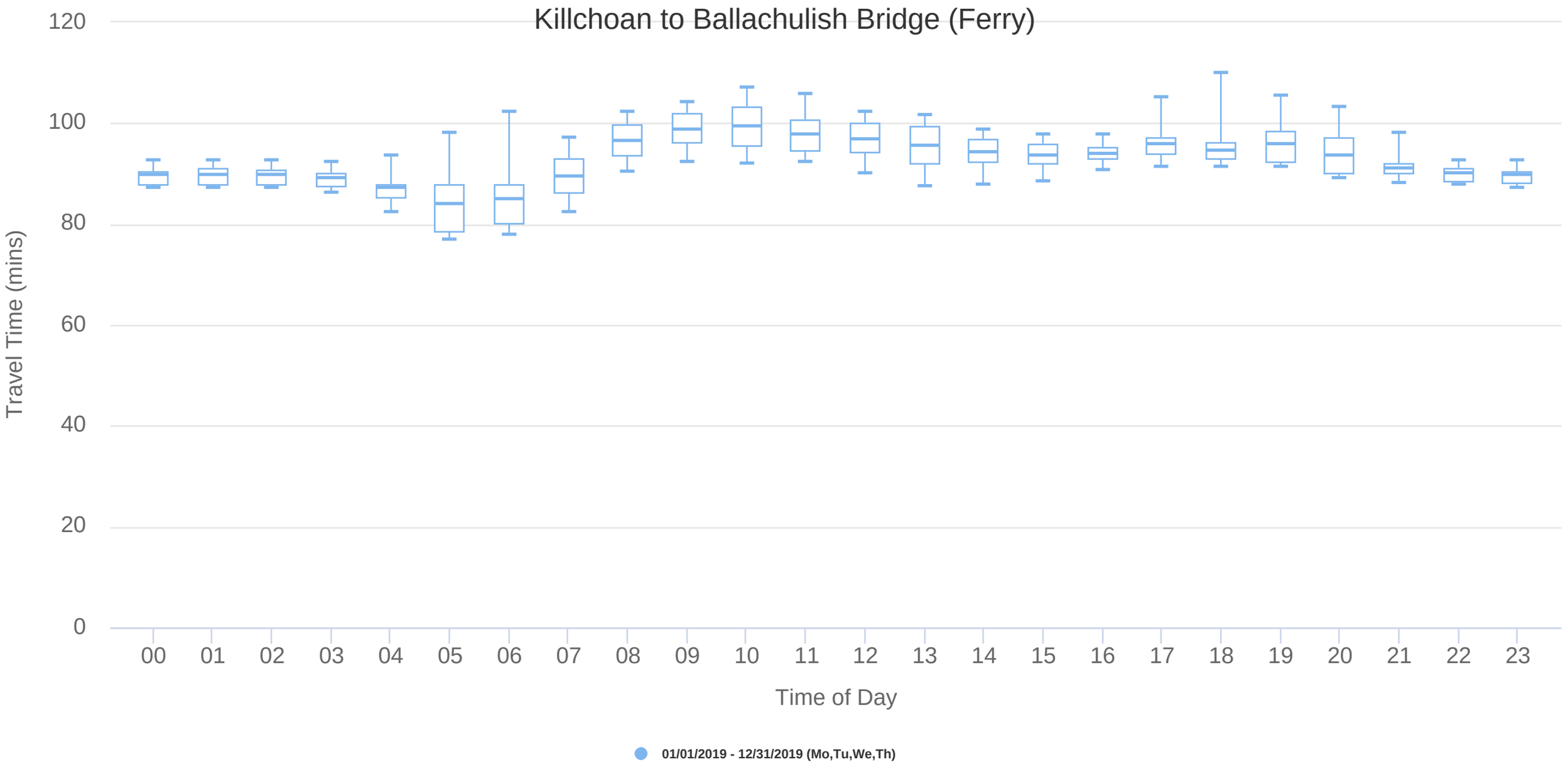

Ballachulish Bridge to Lochaline (Ferry)
100
80
60
40
20
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

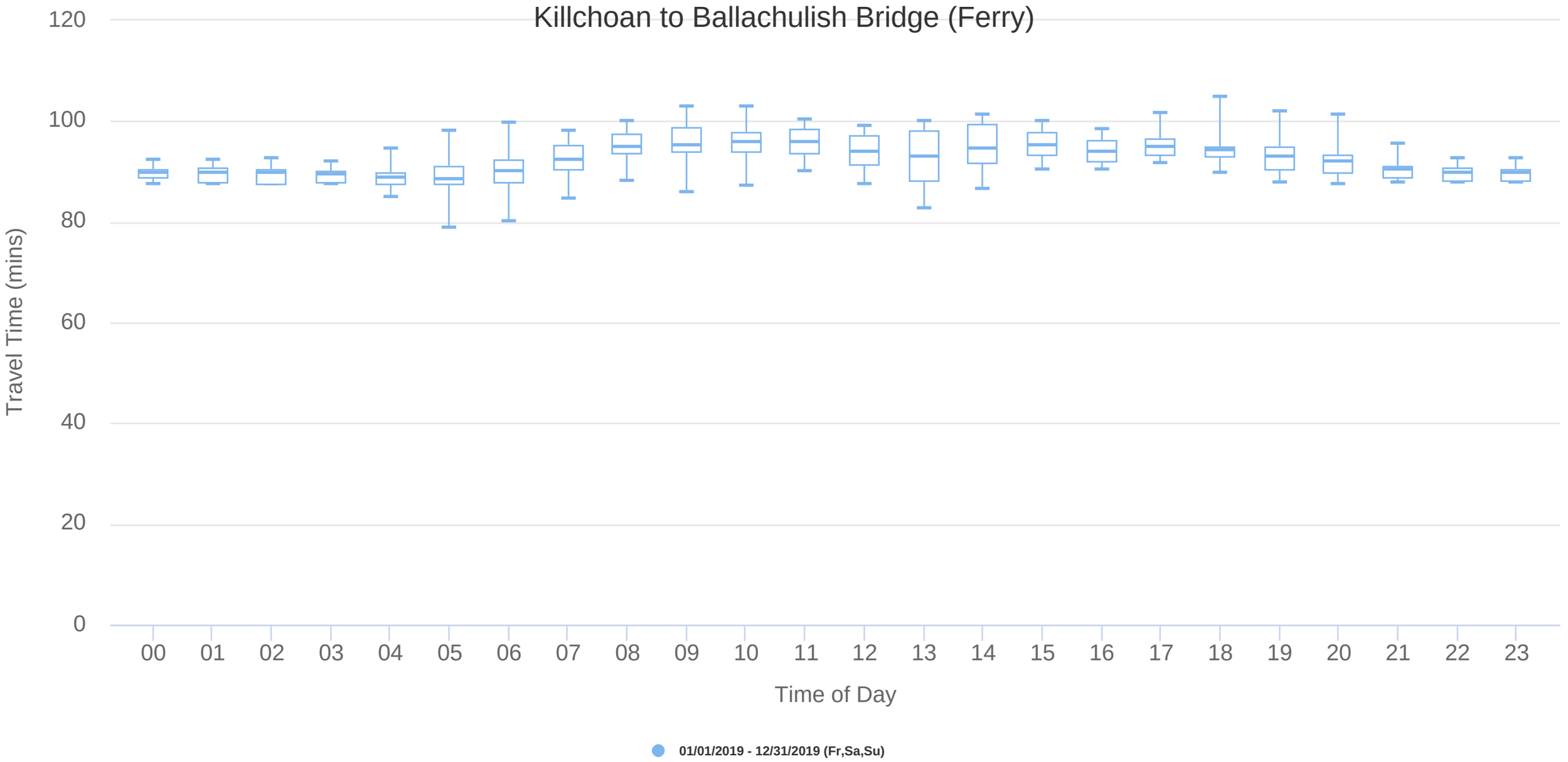

Ballachulish Bridge to Lochaline
Travel Time (mins)
200
175
150
125
100
75
50
25
0
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)

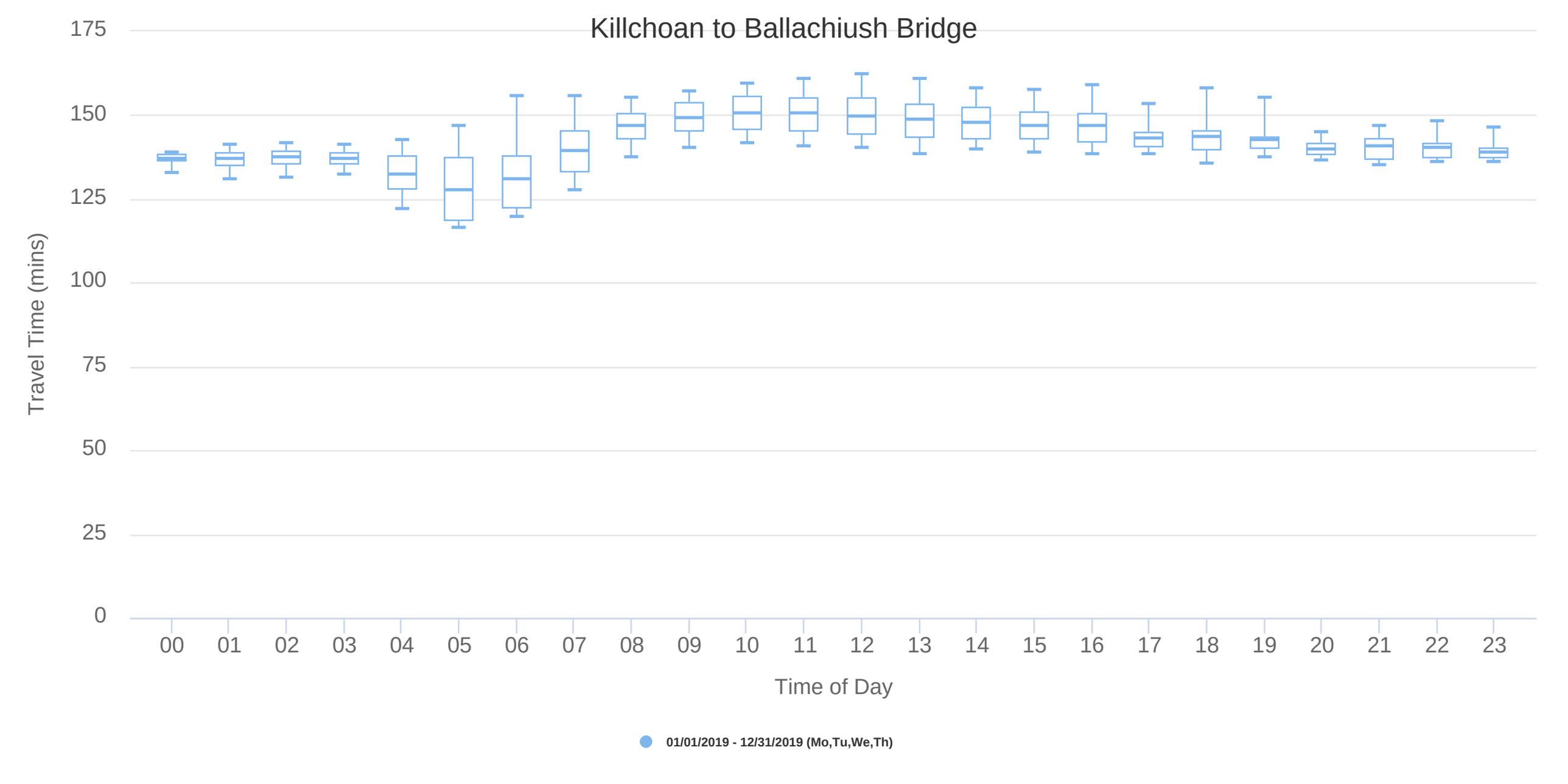

Ballachulish Bridge to Lochaline
Travel Time (mins)
200
175
150
125
100
75
50
25
0
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

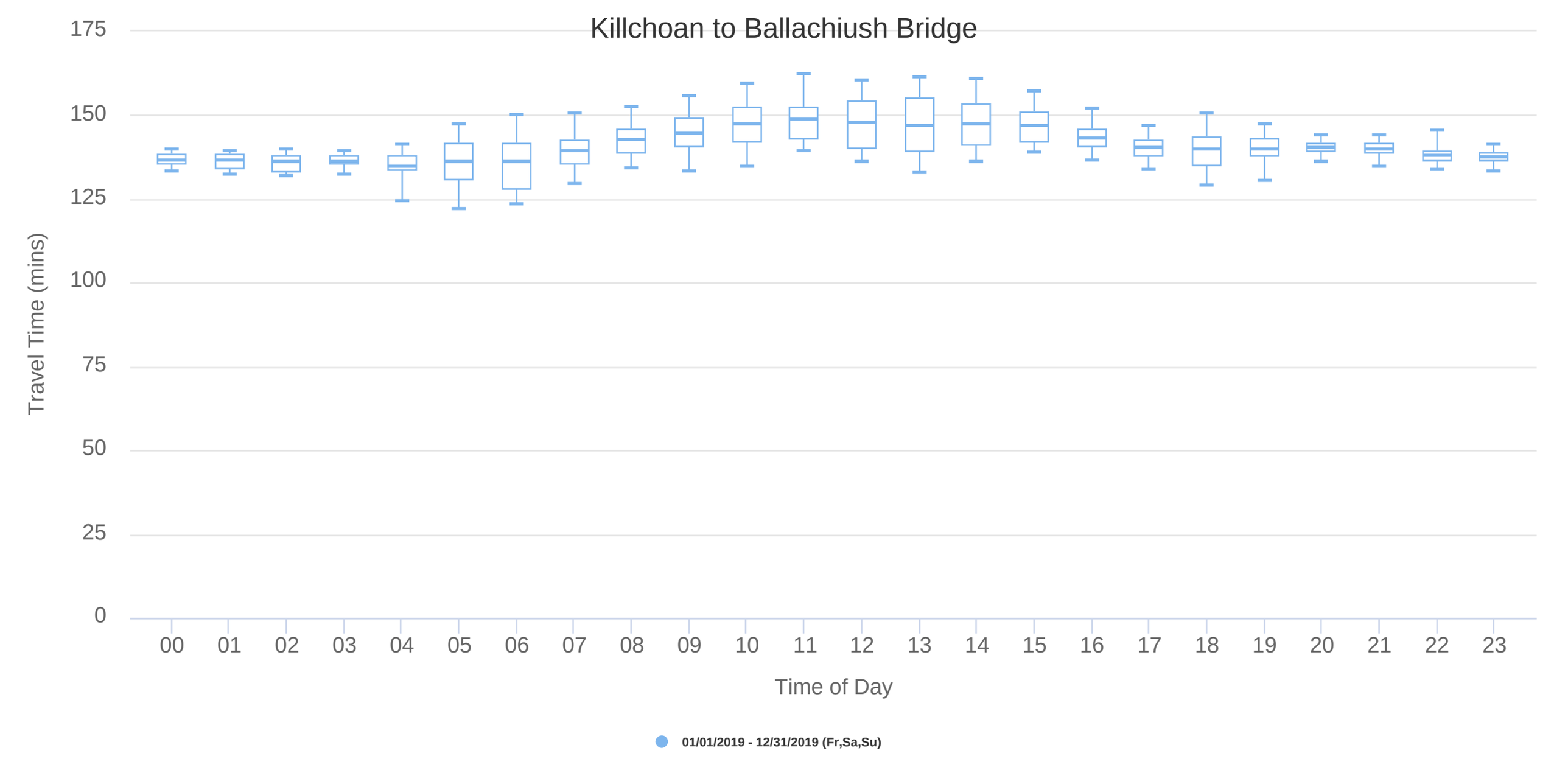

Ballachulish Bridge to Strontain
Travel Time (mins)
175
150
125
100
75
50
25
0
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)

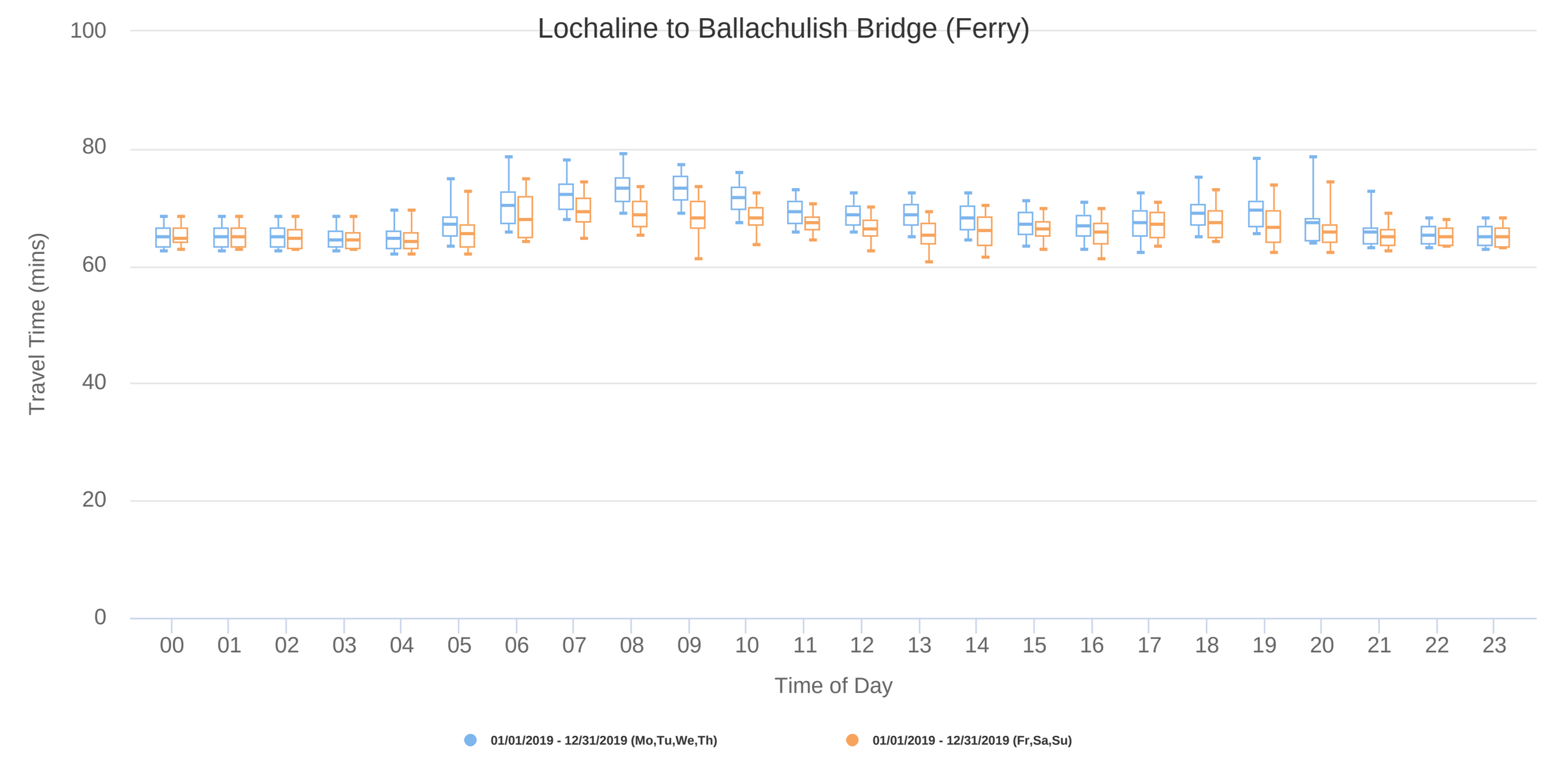

Ballachulish Bridge to Strontain
150
125
100
75
50
25
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

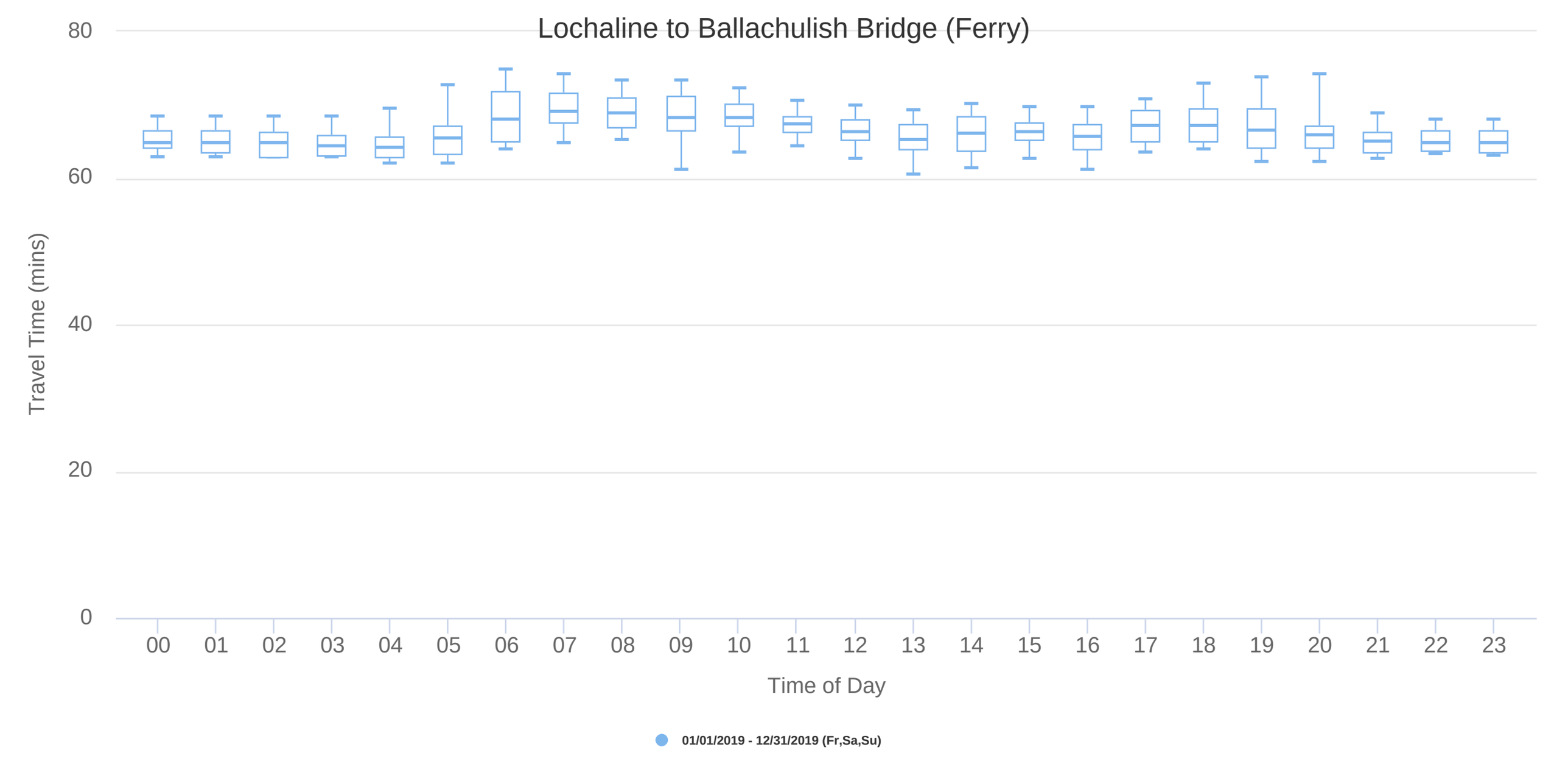

Killchoan to Ballachulish Bridge (Ferry)
120
100
80
60
40
20
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)

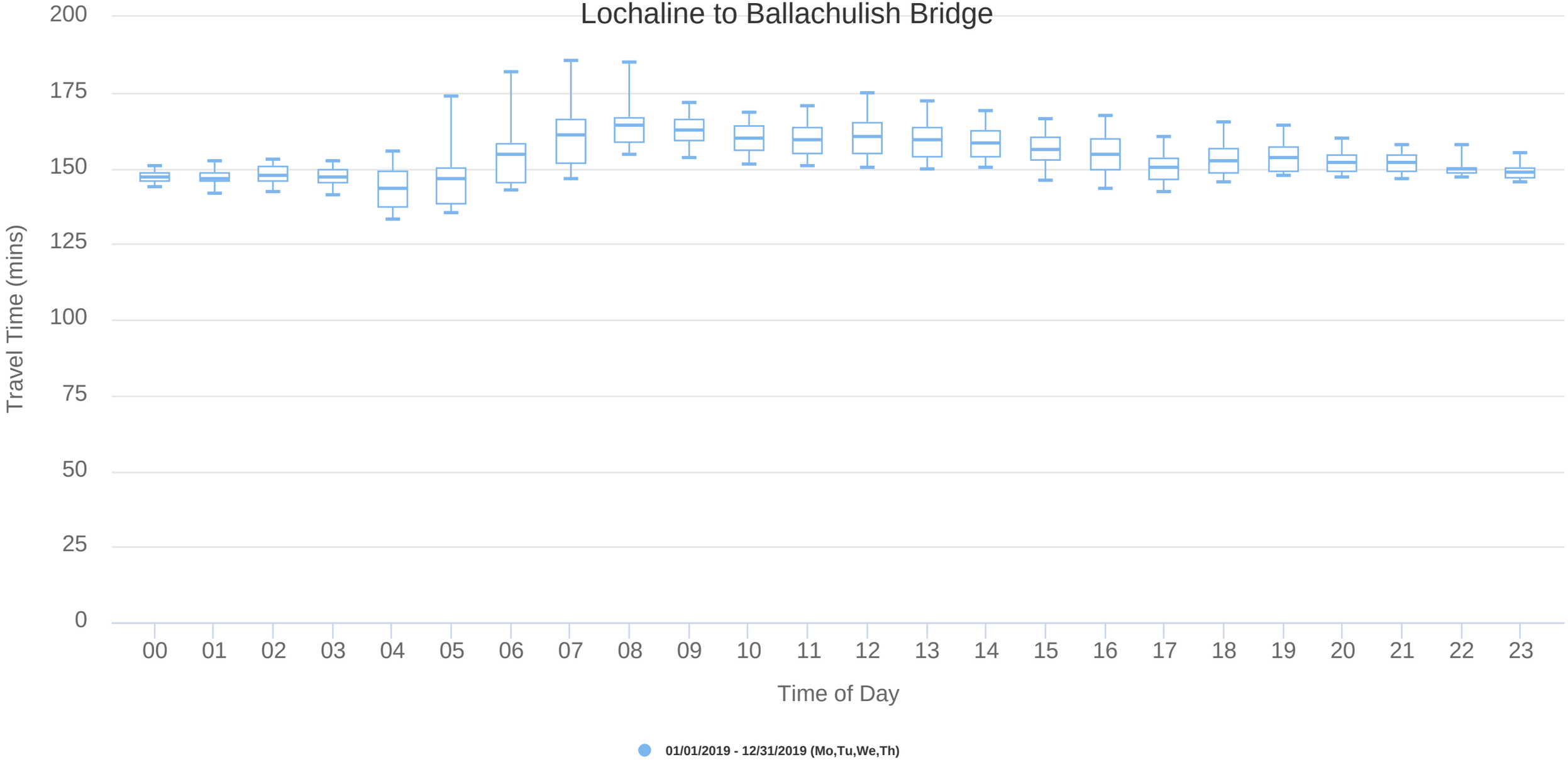

Killchoan to Ballachulish Bridge (Ferry)
120
100
80
60
40
20
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

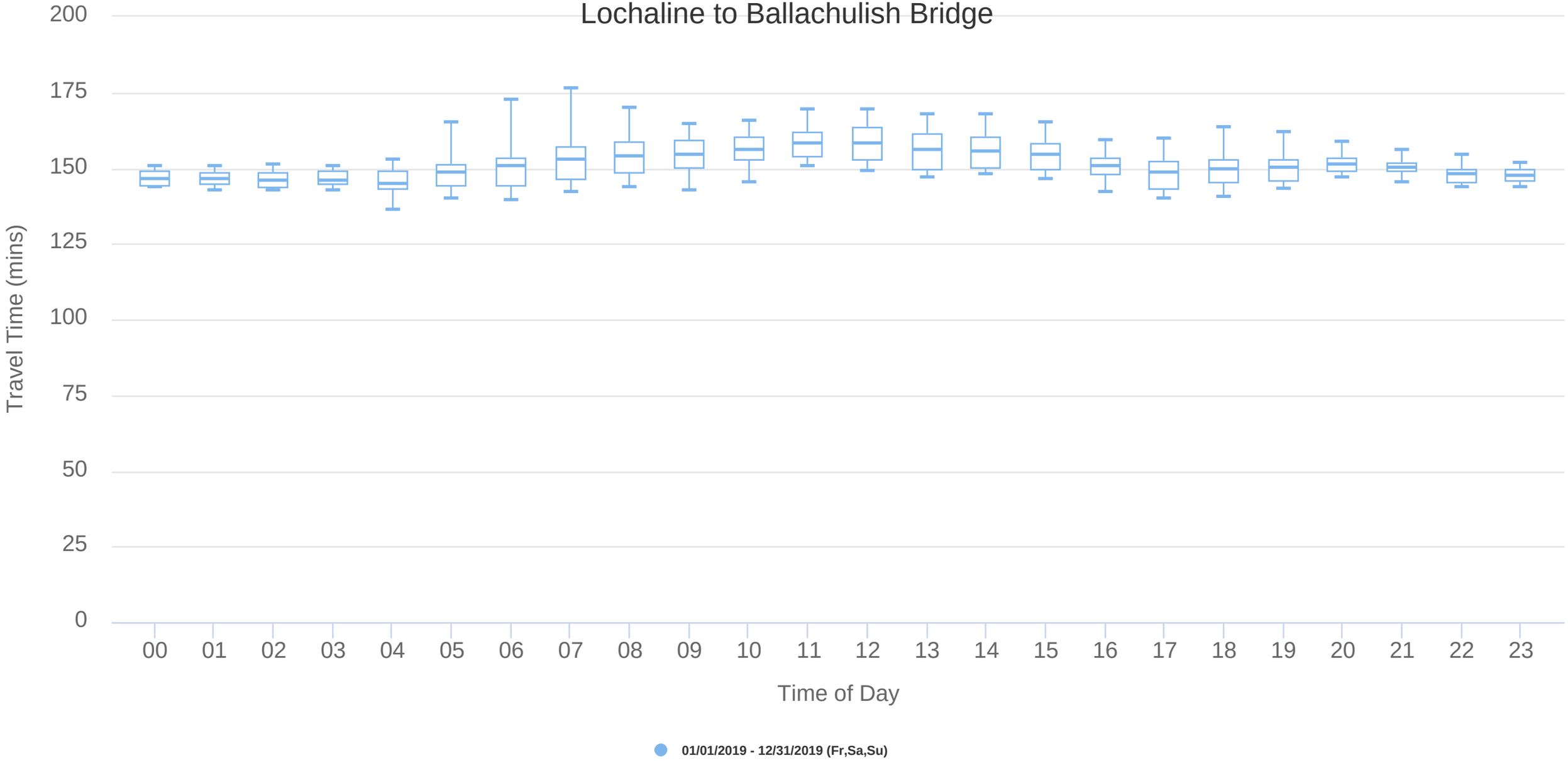

Killchoan to Ballachiush Bridge
Travel Time (mins)
175
150
125
100
75
50
25
0
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)

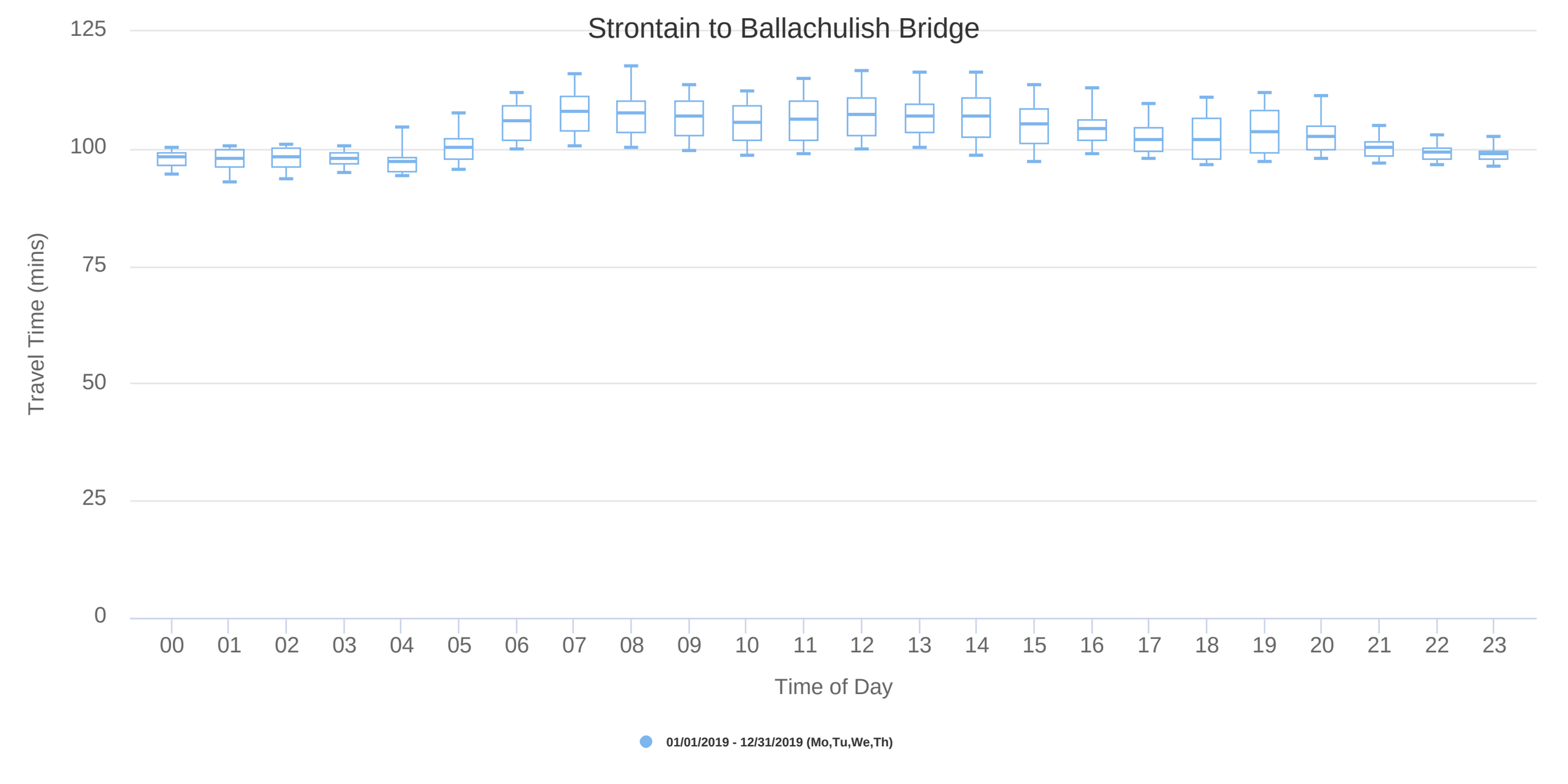

Killchoan to Ballachiush Bridge
175
150
125
100
75
50
25
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

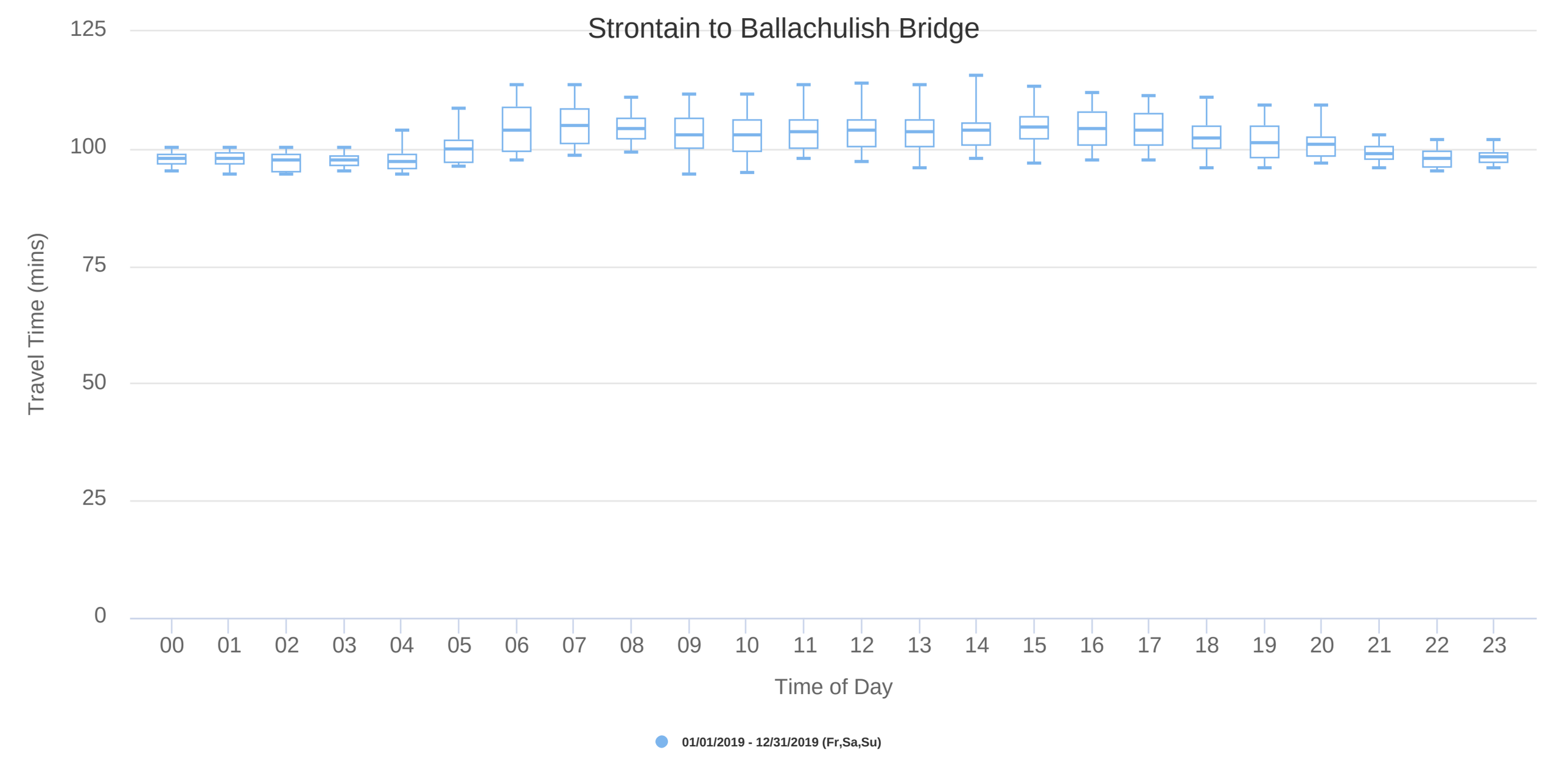

Lochaline to Ballachulish Bridge (Ferry)
Travel Time (mins)
100
80
60
40
20
0
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)
01/01/2019 - 12/31/2019 (Fr,Sa,Su)


Lochaline to Ballachulish Bridge (Ferry)
80
60
40
20
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)


Lochaline to Ballachulish Bridge
Travel Time (mins)
200
175
150
125
100
75
50
25
0
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)


Lochaline to Ballachulish Bridge
Travel Time (mins)
200
175
150
125
100
75
50
25
0
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)


Strontain to Ballachulish Bridge
125
100
75
50
25
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Mo,Tu,We,Th)


Strontain to Ballachulish Bridge
125
100
75
50
25
0
Travel Time (mins)
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Time of Day
01/01/2019 - 12/31/2019 (Fr,Sa,Su)

17.0 APPENDIX F

Project Name: A861 Corran Narrows Socio-Economic Study

Project Number: 50965

50965-STN-00-XX-BQ-D-0001 P1 - Road Upgrade Cost Estimate

The cost estimate has been prepared using approximate estimating rates extracted from 'SPON's Civil Engineering and Highway Works Price Book 2019'.

The cost estimate does not include allowances for:
- Statutory approvals/ consents.
- Surveys and Investigations.
- Value Added Tax (VAT) and inflation, as the date of construction is yet to be established.
- Third party land purchase.

No formal assessment of risk has been undertaken in preparing the cost estimates due to the limited information available at present.

No site visit has been undertaken as part of this cost estimate exercise.

It should be noted that costs could increase or decrease once more information becomes available and the design process advances. Consequently, the estimates provided should only be used as a broad indication of construction costs for the proposed works.

This is an engineering budget estimate, if specific cost advice is required then it is recommended that a specialist cost consultant is appointed.

	Name	Position	Date
Prepared by	D. Greiner/B. Reid	Engineer / P. Engineer	09/06/2021
Reviewed by	D. Macleod	Senior Associate	09/06/2021
Approved by	M. Parkinson	Director	09/06/2021

Stantec

Project Name: A861 Corran Narrows Socio-Economic Study **Summary**
Project Number: 50965
49766-STN-00-XX-BQ-D-0001 P1 - Cost Estimate

Civil Construction Cost		**£ 95,329,896.20**

Sub-Total		**£ 95,329,896.20**
Optimism Bias @	*44.00%*	*£ 41,945,154.33*
Design Fees @	*10.00%*	*£ 9,532,989.62*
Construction Prelims @	*15.00%*	*£ 14,299,484.43*
Utility Diversions@	*30.00%*	*£ 28,598,968.86*

TOTAL	**£ 189,706,493.44**

Stantec

Project Name: A861 Corran Narrows Socio-Economic Study
Project Number: 50965
49766-STN-00-XX-BQ-D-0001 P1 - Road Cost Estimate

Chainage								
Section ID	Start	End	Length	Description	Section Reference	Cross Section Rate		Cost
1	0	10	10	Junction Upgrade		£	75,000.00	£ 750,000.00
2	10	110	100	New Road Construction (Offline)	F	£	1,750.00	£ 175,000.00
3	110	160	50	Bridge Section, demolition and replacement of existing bridge.	E	£	56,141.88	£ 2,807,094.00
4	110	160	50	Provisional Sum for Network Rail Interface		£	100,000.00	£ 100,000.00
5	160	200	40	New Road Construction (Offline)	F	£	1,750.00	£ 70,000.00
6	200	250	50	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£ 60,375.00
7	250	430	180	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£ 499,734.00
8	430	670	240	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£ 289,800.00
9	670	790	120	Bridge Section, demolition and replacement of existing bridge.	E	£	56,141.88	£ 6,737,025.60
10	790	2260	1470	New Road Construction on fairly flat land near water's edge.	A	£	1,357.50	£ 1,995,525.00
11	2260	2280	20	Bridge Section, demolition and replacement of existing bridge.	E	£	56,141.88	£ 1,122,837.60
12	2280	2930	650	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£ 784,875.00
13	2930	3060	130	Bridge Section, demolition and replacement of existing bridge.	E	£	56,141.88	£ 7,298,444.40
14	3060	5600	2540	New Road Construction on fairly flat land near water's edge.	A	£	1,357.50	£ 3,448,050.00
15	5600	6100	500	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£ 603,750.00
16	6100	6110	10	Bridge Section, demolition and replacement of existing bridge.	E	£	56,141.88	£ 561,418.80
17	6110	6920	810	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£ 978,075.00
18	6920	8960	2040	New Road Construction on fairly flat land near water's edge.	A	£	1,357.50	£ 2,769,300.00
19	8960	8980	20	Bridge Section, demolition and replacement of existing bridge.	E	£	56,141.88	£ 1,122,837.60
20	8980	10480	1500	New Road Construction on fairly flat land near water's edge.	A	£	1,357.50	£ 2,036,250.00
21	10480	10500	20	Bridge Section, demolition and replacement of existing bridge.	E	£	56,141.88	£ 1,122,837.60
22	10500	12370	1870	New Road Construction on fairly flat land near water's edge.	A	£	1,357.50	£ 2,538,525.00
23	12370	12840	470	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£ 1,304,861.00
24	12840	13670	830	New Road Construction on fairly flat land near water's edge.	A	£	1,357.50	£ 1,126,725.00
25	13670	14080	410	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£ 495,075.00
26	14080	16120	2040	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£ 5,663,652.00
27	16120	16510	390	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£ 1,082,757.00
28	16510	17840	1330	New Road Construction on fairly flat land near water's edge.	A	£	1,357.50	£ 1,805,475.00

Project Name: A861 Corran Narrows Socio-Economic Study
Project Number: 50965
49766-STN-00-XX-BQ-D-0001 P1 - Road Cost Estimate

29	17840	18340	500	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£	603,750.00
30	18340	19250	910	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£	2,526,433.00
31	19250	19880	630	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£	760,725.00
32	19880	19900	20	Bridge Section, demolition and replacement of existing bridge.	E	£	56,141.88	£	1,122,837.60
33	19900	20380	480	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£	579,600.00
34	20380	20950	570	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£	1,582,491.00
35	20950	21230	280	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£	777,364.00
36	21230	21630	400	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£	1,110,520.00
37	21630	21870	240	New Road Construction with Pier due to space constraints.	D	£	30,440.50	£	7,305,720.00
38	21870	23300	1430	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£	3,970,109.00
39	23300	23660	360	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£	999,468.00
40	23660	24000	340	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£	943,942.00
41	24000	26900	2900	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£	3,501,750.00
42	26900	26950	50	Bridge Section, demolition and replacement of existing bridge.	E	£	56,141.88	£	2,807,094.00
43	26950	27860	910	New Road Construction inland on fairly level surface with fencing removal.	C	£	1,207.50	£	1,098,825.00
44	27860	28090	230	New Road Construction with Pier due to space constraints.	D	£	30,440.50	£	7,001,315.00
45	28090	28800	710	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£	1,971,173.00
46	28800	29300	500	New Road Construction on fairly flat land near water's edge.	A	£	1,357.50	£	678,750.00
47	29300	30400	1100	New Road Construction near to water's edge with major earthworks.	B	£	2,776.30	£	3,053,930.00
48	30400	33040	2640	New Road Construction on fairly flat land near water's edge.	A	£	1,357.50	£	3,583,800.00

Project Name: A861 Corran Narrows Socio-Economic Study
Project Number: 50965
49766-STN-00-XX-BQ-D-0001 P1 - Road Cost Estimate

Category	Description	Rates	Cost/m
A	Lochside, fairly flat land on both sides of road. (includes property line/wall/fencing). Close proximity to water level. 	**Carriageway Widening and Resurfacing**	
		Single carriageway all purpose road (carriageway is 4m wide) S2	£960.00
		Planning - 100mm deep for 3.5m	£65.00
		Tack coat 2x layers for 3.5m	£6.50
		Binder coarse for 60mm for 3.5m	£55.00
		HRA Surface 40mm for 3.5m	£52.00
		Regulating	£52.00
		Boundary treatment	
		Fence removal and reinstatement (timber post and 4 rail fence)	£17.00
		Rock armour (assume 1.5m by 1.5m)	£150.00
		Total	£1,357.50

Stantec

Project Name: A861 Corran Narrows Socio-Economic Study
Project Number: 50965
49766-STN-00-XX-BQ-D-0001 P1 - Road Cost Estimate

Category	Description	Rates	Cost/m
B	Lochside with steep rise or fall of land. Anticipated major earthworks required. 	**Carriageway Widening and Resurfacing** Single carriageway all purpose road (carriageway is 4m wide) Planning - 100mm deep for 3.5m Tack coat 2x layers for 3.5m Binder coarse for 60mm for 3.5m HRA Surface 40mm for 3.5m Regulating **Boundary Treatment** Guardrail (inc. above) Excavation of hard material (assume 6m by 6m) Total	 £960.00 £65.00 £6.50 £55.00 £52.00 £52.00 £1,585.80 £2,776.30

Stantec

Project Name: A861 Corran Narrows Socio-Economic Study
Project Number: 50965
49766-STN-00-XX-BQ-D-0001 P1 - Road Cost Estimate

Category	Description	Rates	Cost/m
C	Inland route on fairly flat land on either side of the road. Removal of fencing required. 	**Carriageway Widening and Resurfacing**	
		Single carriageway all purpose road (carriageway is 4m wide)	£960.00
		Planning - 100mm deep for 3.5m	£65.00
		Tack coat 2x layers for 3.5m	£6.50
		Binder coarse for 60mm for 3.5m	£55.00
		HRA Surface 40mm for 3.5m	£52.00
		Regulating	£52.00
		Boundary treatment	
		Fence removal and reinstatement (assume timber post and 4 rail fence)	£17.00
		Total	£1,207.50

Stantec

Project Name: A861 Corran Narrows Socio-Economic Study
Project Number: 50965
49766-STN-00-XX-BQ-D-0001 P1 - Road Cost Estimate

Category	Description	Rates	Cost/m
D	Pier required for road widening towards lochside. 	**Carriageway Widening and Resurfacing** Single carriageway all purpose road (carriageway is 4m wide) Planning - 100mm deep for 3.5m Tack coat 2x layers for 3.5m Binder coarse for 60mm for 3.5m HRA Surface 40mm for 3.5m Regulating **Boundary treatment** Pier work/bridge (assume 6.5m) Total	 £960.00 £65.00 £6.50 £55.00 £52.00 £52.00 £29,250.00 £30,440.50

Stantec

Project Name: A861 Corran Narrows Socio-Economic Study
Project Number: 50965
49766-STN-00-XX-BQ-D-0001 P1 - Road Cost Estimate

Category	Description	Rates	Cost/m
E	New bridge structure required to pass over water. 	Reinforced concrete bridge with precast beams (12.3m) Demolition of existing structure Total	£55,350.00 £791.88 £56,141.88

Stantec

Project Name: A861 Corran Narrows Socio-Economic Study
Project Number: 50965
49766-STN-00-XX-BQ-D-0001 P1 - Road Cost Estimate

Category	Description	Rates	Cost/m
F	New Construction (Offline)	Rural all purpose road 7.3m wide	£1,750.00
		Total	£1,750.00

Stantec