Australian Government
Department of Infrastructure, Transport, Cities and Regional Development
Bureau of Infrastructure, Transport and Regional Economics

MONITORING REPORT 17

Maritime

Bass Strait Passenger Vehicle Equalisation Scheme

Bureau of Infrastructure, Transport and Regional Economics

Bass Strait Passenger Vehicle Equalisation Scheme

Monitoring Report No. 17

Department of Infrastructure, Transport, Cities and Regional Development
Canberra, Australia

ISSN: 1833-2277
ISBN: 978-1-925843-44-6
January 2020/INFRA 3490

Cover photo courtesy of TT-Line Company Pty Ltd.

An appropriate citation for this report is:

Bureau of Infrastructure, Transport and Regional Economics [BITRE], 2020, Bass Strait Passenger Vehicle Equalisation Scheme Monitoring Report No. 17, BITRE, Canberra.

Bureau of Infrastructure, Transport and Regional Economics (BITRE)
Department of Infrastructure, Transport, Cities and Regional Development
GPO Box 501, Canberra ACT 2601, Australia

Telephone (international) +61 2 6274 7210
Fax (international) +61 2 6274 6855
E-mail: bitre@infrastructure.gov.au
internet: http://www.bitre.gov.au

Foreword

This report presents the results of the Bureau of Infrastructure, Transport and Regional Economics' (BITRE) seventeenth review of the Bass Strait Passenger Vehicle Equalisation Scheme.

Clause 17 of the Ministerial Directions governing the Bass Strait Passenger Vehicle Equalisation Scheme requires BITRE to produce a monitoring report every two years.

This report covers the operation and impact of the Bass Strait Passenger Vehicle Equalisation Scheme for the period 1 July 2017 to 30 June 2019.

The report was prepared by Mark Cregan and Tim Risbey.

Gary Dolman
Head of Bureau
Bureau of Infrastructure, Transport and Regional Economics
January 2020

Acknowledgements

BITRE gratefully acknowledges the assistance provided by TT-Line, Tourism Tasmania, the Tasmanian Transport Programs team at Department of Human Services, and the Surface Transport Policy Division of the Department of Infrastructure, Transport, Cities and Regional Development.

At a glance

The Australian Government spent $104.1 million in the two years to 2018–19 ($51.3 million in 2018–19, and $52.8 million in 2017–18) on the Bass Strait Passenger Vehicle Equalisation Scheme (the Scheme).

Under the Scheme, passengers travelling with an eligible passenger vehicle across Bass Strait can receive a rebate applied against the passenger vehicle fare charged by a ferry operator. A total of 430,864 passenger vehicles received a rebate in the two years to 2018-19 (205 740 accompanied passenger vehicles in 2018-19, down from 225 124 in 2017-18).

The Ministerial Directions (2019) governing the Scheme require that the effectiveness of the Scheme be monitored every two years (this report) and that there be a separate annual review of the level of the rebate.

During the two year monitoring period (1 July 2017 to 30 June 2019):

- The rebate per passenger vehicle increased by 1.8 per cent on 1 July 2017 and 2.2 per cent on 1 July 2018.
- From 1 July 2018, the one-way rebate was $229 for a car, $117 for a motorbike, $34 for a bicycle and up to $459 for a motorhome.
- Two operators provided ferry services: TT-Line and Bass Island Line. TT-Line carried over 99 per cent of all sea passengers.
- The number of people travelling by sea increased by 2.1 per cent in 2017–18 and a further 0.8 per cent in 2018–19.
    - TT-Line made a number of changes to fares and services.
    - TT-Line offers a large number of different passenger fares and travel packages, with a wide range of conditions and dates of application.[1] BITRE's benchmark peak sea fare package provides an indication of changes in the cost of Bass Strait sea passenger travel. Over the two year monitoring period the cost of this benchmark package (with the rebate) increased to $809 one-way as at the end of June 2019.

The rebate substantially reduces the cost of freighting an accompanying eligible passenger vehicle, reducing the total cost of sea travel across Bass Strait. In 2018–19, the $229 rebate represented 22.0 per cent of BITRE's benchmark sea fare package for a couple travelling with a standard passenger car.

[1] Fares vary by season and the benchmark does not take into account availability, special or promotional fares, so it may not be representative of fares actually paid by passengers.

BITRE uses econometric modelling to estimate the impact of the Scheme on sea passenger numbers. Over the monitoring period:

- The estimated number of sea passengers with an eligible passenger vehicle was 29.2 per cent higher than without the Scheme.
- An estimated 26 000 visitors to Tasmania travelled by sea with a passenger vehicle due to the Scheme in 2018–19, down from 28 600 visitors in 2017–18. However, 43 per cent may have travelled without the Scheme as berth-only sea passengers.

BITRE estimates that the Scheme resulted in spending by new visitors to Tasmania of $169.3 million over the two years ($80.6 million in 2018–19 and $88.7 million in 2017–18).

Table 1 Key facts: 2018–19 and 2017–18[a]

	2018–19 (latest year)	*(% change)*	*2017–18*	*(% change)[f]*	*Quick reference*
Expenditure (millions)[b]	**$51.3**	(-2.8)	$52.8	(+18.1)	p.5
Eligible passenger vehicles	**205 740**	(-8.6)	225 124	(+18.0)	Table 2, p.3
Sea passengers[c]	**451 932**	(+0.9)	447 847	(+3.2)	Table 22, p.39
Air passengers[c]	**4 372 160**	(+3.9)	4 207 859	(+4.7)	Table 22, p 39
Additional sea passengers with an eligible passenger vehicle[d]	**92 040**	(+2.3)	89 892	(+1.3)	Table 13, p.26
Estimated spending by visitors to Tasmania (million)[e]	**$80.6**	(-9.1)	$88.7	(+24.2)	p.30
- Tourists	**$52.4**	-	$57.6	-	
- visiting friends and relatives	**$12.1**	-	$13.3	-	
- business visitors	**$8.0**	-	$8.9	-	
- other visitors	**$8.0**	-	$8.9		

na Not applicable.

a. Data in brackets gives percentage change from previous year. Sub-totals may not add to totals due to rounding.

b. Expenditure includes rebates paid, payments for bookings in future time. Table 4 gives rebates paid by operator.

c. One-way passengers (visitors to Tasmania, Tasmanian residents, minors and day-trippers).

d. BITRE estimate of the number of additional visitors with an eligible passenger vehicle who would not have travelled to Tasmania without the Scheme.

e. BITRE estimate of spending in Tasmania by the additional visitors' attributed to the Scheme including by tourists, business visitors, visiting friends and relatives and other (includes conference, not specified and other purpose).

f. 2017-18 estimates compared to revised 2016-17 values. The model revises the historical values. In this case the number of additional passengers with an eligible passenger vehicle in 2016–17 has been revised up from 85 339 to 88 707.

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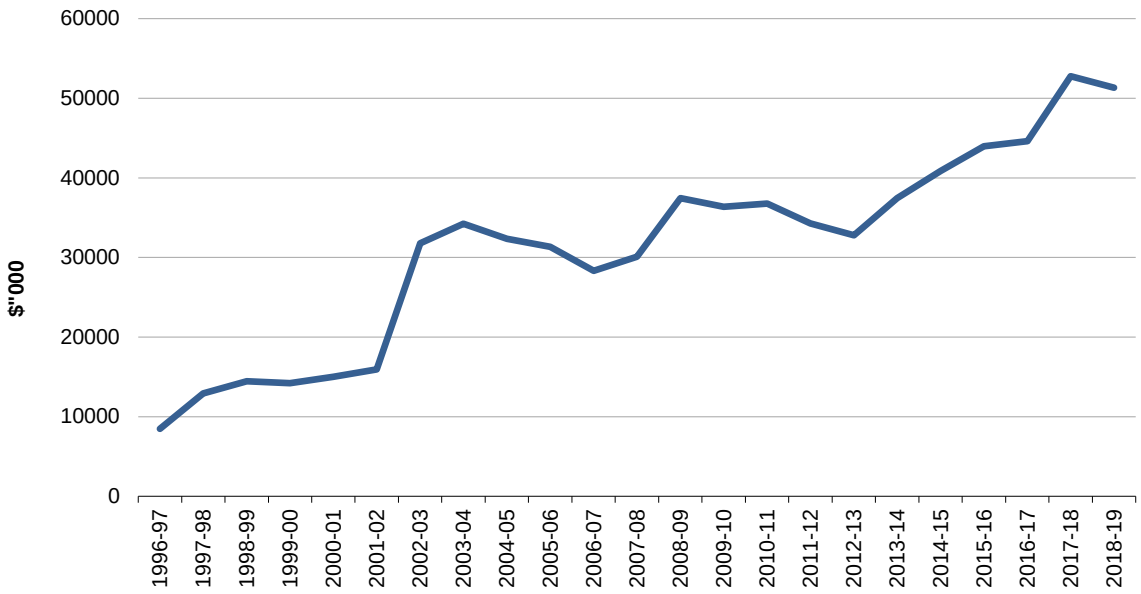
The Australian Government spent $104.1 million on the Bass Strait Passenger Vehicle Equalisation in the two years to June 2019 ($51.3 million in 2018–19 and $52.8 million in 2017–18). Figure 1 shows payments since the Scheme began in 1996-97.

Figure 1 Payments to ferry operators under the Scheme, nominal dollars



Under the Scheme, passengers travelling with an eligible passenger vehicle across Bass Strait can receive a rebate funded by the Australian Government. The rebate is applied against the passenger vehicle fare charged by a ferry operator. 430 864 accompanied passenger vehicles received a rebate in the two years to June 2019 (205 740 in 2018-19 and 225 124 in 2017-18).

The Ministerial Directions governing the Scheme require BITRE to undertake a monitoring review every two years (this report), with a separate annual review of the level of the rebate. This monitoring report must have specific regard to changes in fares and movements of passenger numbers.

Rebates for eligible passenger vehicles were increased twice over the two year monitoring period (1 July 2017 to 30 June 2019) due to annual indexing:

- Rebates increased by 1.8 per cent on 1 July 2017. One-way rebates increased up to $224 for a car, $114 for a motorbike, $33 for a bicycle and up to $449 for an eligible motor home.
- Rebates increased by 2.2 per cent on 1 July 2018. One-way rebates increased up to $229 for a car, $117 for a motorbike, $34 for a bicycle and up to $459 for an eligible motor home.

TT-Line and Bass Island Line[2] provided Bass Strait ferry services over the two year monitoring period.

TT-Line—owned by the Tasmanian Government—carried over 99 per cent of sea passengers. TT-Line's profitability improved over the period, with a reported after-tax profit of $44.1 million in 2018–19 and $44.4 million in 2017–18, up from $25.1 million in 2016–17.

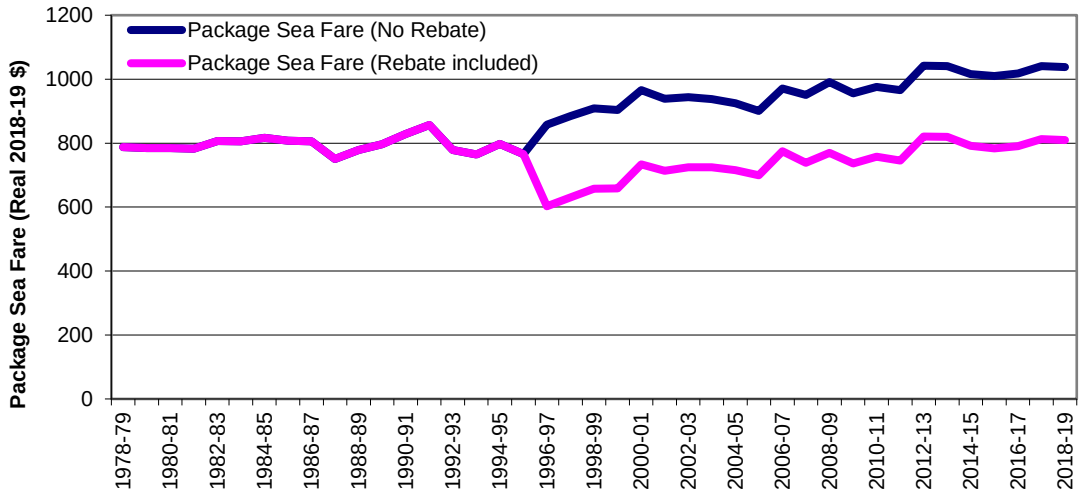
TT-Line made a number of changes to fares and services over the two year period:

- Fares increased in 2017–18, with up to a general five per cent increase in passenger fares and an increase in vehicle fares.
- Fare structures were changed. There were up to 16 different passenger fare types. A new flexible all-year round vehicle fare was introduced.
- The number of voyages operated by TT-Line increased by 8 voyages (0.9 per cent) in 2018–19 and by 21 (2.5 per cent) in 2017–18.

BITRE's benchmark TT-Line peak season sea package (calculated as the cost a passenger might pay – that is, net of the rebate) provides an indication of changes in the cost of Bass Strait sea passenger travel.[3] The cost of this sea package was $809 one-way as at June 2019, up from $798 at June 2018 and $766 at June 2017.

Figure II shows how the real cost of this benchmark sea package has changed over time and the impact of the rebate.

Figure II BITRE benchmark sea fare package, with and without the rebate, 2018-19 dollars



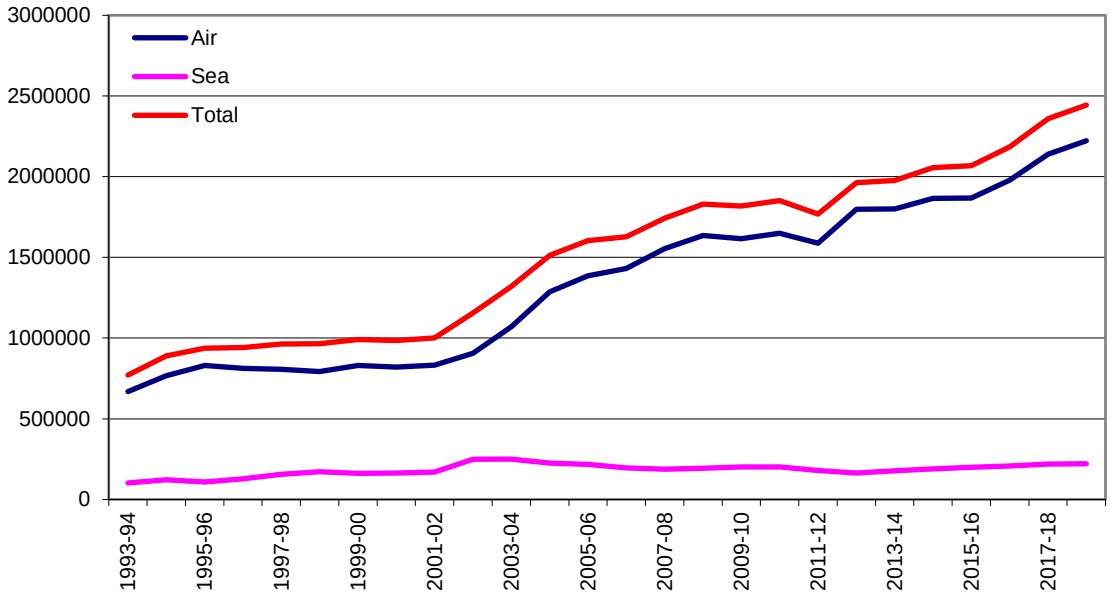
2 Sea Road Shipping ceased services on 4 April 2017. Bass Island Line (wholly owned by the Tasmanian Ports Corporation) picked up the King Island service from 5 April 2017.

3 Fares vary by season and the benchmark chosen does not take into account fare availability or special and promotional fares, so may not be representative of fares actually paid by passengers).

In real terms, the cost of BITRE benchmark sea package increased by 2.3 per cent between June 2017 and June 2019.

There were 2.44 million return trips by adult air and sea passengers in 2018–19, up from 11.8 per cent in 2016-17, with most of this growth in 2017-18 (Figure III). Less than 10 per cent of people travel by sea across Bass Strait. Return sea passenger numbers were 6.3 per cent higher in 2018-19 compared to 2016-17.[4]

Figure III Return passengers across Bass Strait



Given the importance of air travel, significant changes in air fares affect the relative affordability of, and demand for, sea travel. BITRE's air fare indices indicate that internet discount fares remained relatively low over the monitoring period with regular seasonal fluctuations, although restricted economy fares steadily increased over the period.

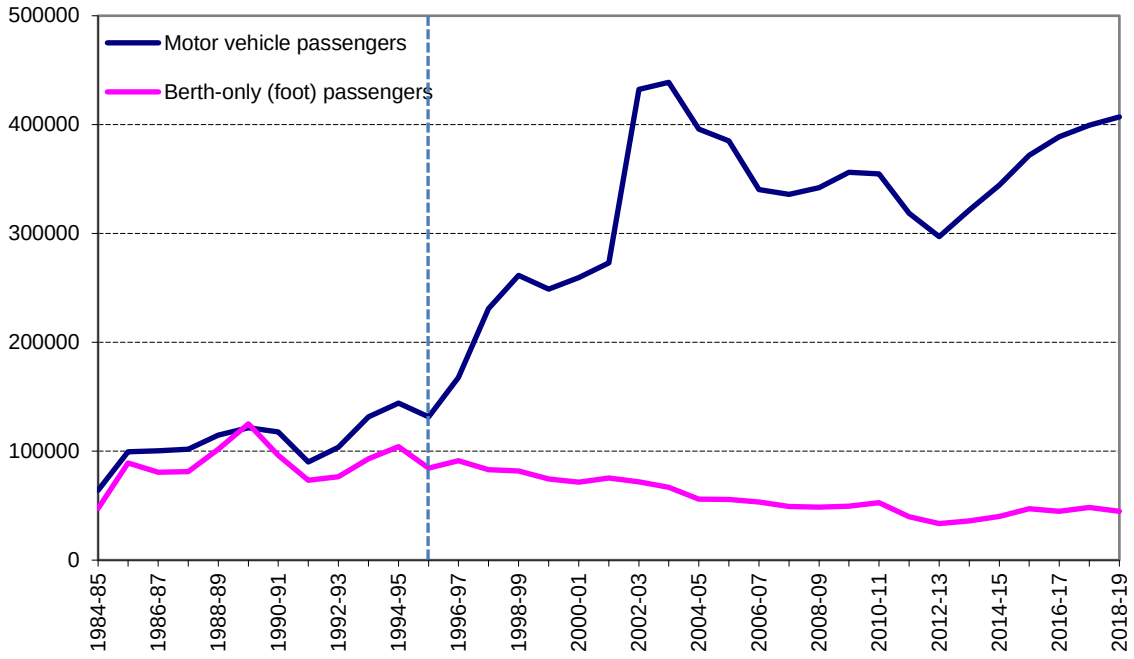
The rebate significantly reduces the cost of freighting an accompanying eligible passenger vehicle for passengers, reducing the total cost of sea travel across Bass Strait. In 2018–19 the $229 standard car rebate represented 22.0 per cent of BITRE's benchmark one-way sea fare for a couple travelling with an eligible passenger car.

The average rebate per person changes with the number of people per accompanied passenger vehicle. The average number of people per accompanied passenger vehicle decreased to 1.7 in 2017-18, then increased to 1.9 in 2018-19.

[4] Tourism Tasmania, personal communication.

BITRE estimates that number of passengers who travelled with an eligible passenger vehicle was 29.2 per cent higher than without the Scheme, with an additional 26 000 visitors travelling with an eligible passenger vehicle by sea to Tasmania in 2018–19 as a result of the Scheme (28 600 in 2017–18). However, 43 per cent of these additional passengers may have travelled without the Scheme as berth-only passengers (Figure IV).[5]

Figure IV One–way sea passenger numbers across Bass Strait



Of the estimated new visitors to Tasmania, 16 900 travelled for leisure (down from 18 600 in 2017–18); 3900 visited friends and relatives (4300 in 2017–18) and 2600 travelled for business (2800 in 2017–18).

BITRE estimates[6] that the Scheme resulted in spending by new visitors to Tasmania of $169.3 million over the two years ($80.6 million in 2018–19, down from an estimated $88.7 million in 2017–18).

5 The number of passengers who travelled with an eligible passenger vehicle in 2016–17 was revised up to 88 700 from that in previous monitoring review (BITRE 2016)

6 Spending data by journey purpose and sea passenger type was not available. BITRE estimates that average spending by sea passengers for all journey purposes was $3100 per trip per person in 2018–19 (estimate based on Tourism Tasmania data—personal comm. 2019).

CHAPTER 1
The Scheme

In August 1996, the Commonwealth Minister for Transport and Regional Development announced the introduction of the Bass Strait Passenger Vehicle Equalisation Scheme (the Scheme) from 1 September 1996, with the aim 'to reduce the cost of sea travel across Bass Strait for passengers accompanied by an eligible vehicle.'

Passengers travelling with an eligible passenger vehicle across Bass Strait can receive a rebate funded by the Australian Government under the Scheme. This rebate is applied against the fare charged by a ferry operator to transport an accompanied eligible passenger vehicle across Bass Strait. The Minister noted that the resulting fare reductions would help to increase the demand for travel across Bass Strait, with direct benefits to the tourist industry and potential growth in jobs, investment and population for Tasmania (Sharp 1996, p.1)

On 1 March 2001, the Scheme was extended to cover the carriage of passenger vehicles between King Island and mainland Australia. As sea passenger services were not provided on the King Island route, the rebate is available for eligible passenger vehicles carried by sea where the driver travelled by commercial air service on or about the same day.

The Ministerial Directions governing the Scheme were amended in June 2008. Under the changes:

- The Scheme is now monitored by BITRE every two years, and there is a separate annual review of the level of the rebate.
- Drivers with a medical condition who are unable to travel by sea may now be eligible for a reduced passenger vehicle fare when shipping their vehicle and flying across Bass Strait.
- Drivers who fly across Bass Strait between the Australian mainland and either King Island or the islands in the Furneaux Group, but ship their passenger vehicles, may also be eligible for a rebate.

The Productivity Commission (2014) reviewed the Scheme in its Tasmanian Freight and Shipping inquiry. In response, the Australian Government (2015) announced:

- That the current assistance rates under the Scheme will be maintained.
- That the aim of the Scheme is to reduce the cost of seagoing travel for eligible passengers accompanied by an eligible passenger vehicle on a Bass Strait service of the Scheme, and did not extend to equalising the cost of inbound and outbound travel across Bass Strait.
- That the Government, through BITRE, will improve evaluation of the Scheme against the stated aim by better capturing and monitoring of the broader impacts, with the scope of monitoring to include visitation and expenditure by the Business and Visiting Friends and Relatives (VFR) segments of the visitor economy.

Administration

The Scheme operates under a set of Ministerial Directions that took effect from 1 September 2002. The Ministerial Directions as amended on 17 May 2017 applied to the monitoring period. The Ministerial Directions are administered by the Department of Human Services, on behalf of the Department of Infrastructure, Transport, Cities and Regional Development (the Department).

Policy direction and funding for the Scheme is provided by the Surface Transport Policy Division of the Department. There is an annual review of the rebate allowing for indexing of the rebate if deemed appropriate.

BITRE is required to monitor the effectiveness of the Scheme every two years. Clause 17 of the Ministerial Directions state that:

17.1 A Service Operator who claims reimbursement under the Scheme shall be subject to monitoring by the BITRE.

17.2 The BITRE shall, every two years, monitor the effectiveness of the Scheme over the previous two year period (the first such period being from 1 July 2007 to 30 June 2009). The monitoring shall be done with specific regard to:

a) movement in fare prices in the relevant two year period; and

b) movement in the number of eligible passengers, eligible passenger vehicles and passengers travelling under related bookings, carried in the relevant two year period.

17.3 A Service Operator shall comply with all reasonable requests by the BITRE for information or access to documentation, in relation to the BITRE's monitoring function.

BITRE has prepared sixteen previous monitoring reports on the Scheme, the most recent covering the period from 1 July 2015 to 30 June 2017.

Operators

Two companies—TT-Line Company Pty Ltd (TT-Line) and Bass Island Line—provided Bass Strait sea services in 2017–18 and 2018–19 and lodged claims under the Scheme. Two individuals also lodged claims under the Scheme.

The total number of eligible passenger vehicles remained at record high levels over the two year period (Table 2).

Table 2 Eligible passenger vehicles carried by operator, 2017–18 and 2018–19

Operator	*2017–18 Passenger vehicles carried*	*Share of total (per cent)*	*2018–19 Passenger carried*	*Share of total (per cent)*
TT-Line	224 926	99.9	205 583	99.9
Bass Island Line	197	0.1	156	0.1
Private claims	1	0	1	0
Total passenger vehicles	225 124	100	205 740	100

Note Vehicles carried in 2018-19 include two eligible passenger vehicle adjustments.
Source Tasmanian Transport Programs team, Department of Human Services personal comm. 2019

TT-Line carried 451 932 one-way passengers and 205 583 eligible passenger vehicles in 2018–19, up in terms of one-way passengers (447 847) and down in terms of passenger vehicles (224 926) in 2017–18. The number of voyages increased by 21 or 2.5 per cent in 2017–18 and by another 8 voyages or 0.9 per cent in 2018–19.

Spirit of Tasmania I and *Spirit of Tasmania II* of TT-Line operated the Melbourne–Devonport route.[7] Each ship can carry up to 1400 passengers, with a maximum passenger capacity of 1040 passengers on night crossings, with a vehicle capacity for each vessel being 660 per sailing.

Under the Scheme, a rebate is available for eligible passenger vehicles on the Port of Melbourne-King Island route where the driver travels by commercial air service on or about the same day.

The *John Duigan* (Bass Island Line) carried 156 eligible passenger vehicles in 2018–19, down from 197 vehicles in 2017–18.[8]

This remainder of the section presents financial indicators for TT-Line, which accounts for over 99 per cent of payments under the Scheme.

TT-Line reported for 2018–19:

- a pre-tax profit of $57.6 million, compared to $63.3 million in 2017–18 and $35.8 million in 2016–17, and
- an after-tax profit of $44.1 million, compared with $44.4 million in 2017–18 and $25.1 million in 2016–17.

BITRE estimates that for 2018–19 that TT-Line had:

[7] *Spirit of Tasmania I and II* have operated the Melbourne–Devonport route since 1 September 2002 when they replaced the *Spirit of Tasmania*. These two new vessels increased the passenger capacity by 212 per cent and the available motor vehicle capacity by 185 per cent (BTRE 2004).

[8] Bass Island Line commenced operations between Tasmania, Victoria and King Island on 5 April 2017. It replaced a SeaRoad Shipping service (a once-a-week freight-only service using the *Searoad Mersey* between Port Melbourne and Grassy Port, King Island) which ceased on 4 April 2017.

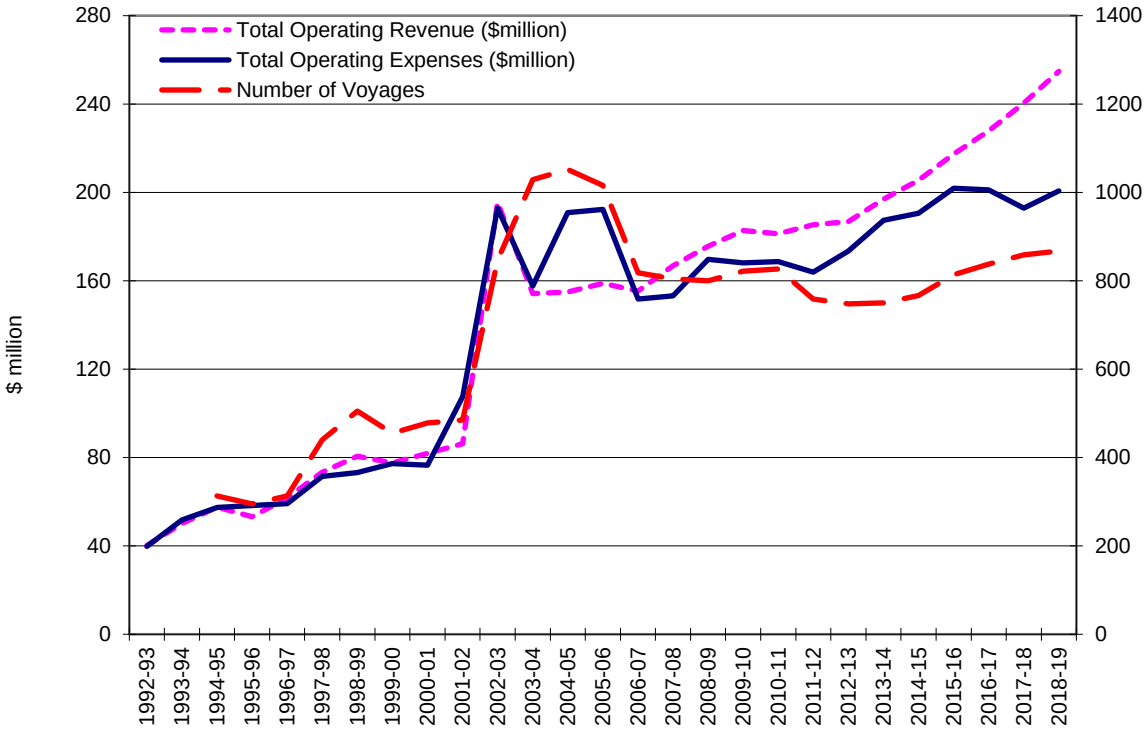
- operating revenues of $254.8 million, compared with $240.4 million in 2017–18 and $227.8 million in 2016–17, and
- operating expenses of $200.7 million, compared with $192.8 million in 2017–18 and $201.1 million in 2016–17.

After adjusting for capital items, BITRE estimates that TT-Line's:

- average revenue per voyage increased by 2.9 per cent in 2017–18 and increased by 4.9 per cent in 2018–19
- average voyage operating expenses decreased by 6.4 per cent in 2017–18 and increased by 3.1 per cent in 2018–19
- average cost per passenger decreased by 7.0 per cent in 2017–18 and increased by 3.1 per cent in 2018–19.

Figure 1 shows the gap between operating revenue and operating costs and the change in the number of TT-Line voyages.

Figure 1 **TT-Line operating revenue, expenses and number of voyages, 1992–93 to 2018–19, nominal dollars**



Note 2004–05 operating expenses exclude asset devaluation, and 2005–06 (and subsequent years) operating expenses exclude asset revaluations.

Source TT-Line (2019) and previous annual reports

Rebates paid

Vehicle rebates changed in July 2017 and July 2018. Table 3 summarises the one-way rebates for eligible passenger vehicles as at 30 June 2018 and 30 June 2019. The level of rebate is constant throughout the year.

TT-Line continues to apply a seasonal fare structure, and from 1 July 2017 introduced an all-year vehicle fare. The constant rebate reduces the aggregate sea fare for passengers with an accompanying eligible passenger vehicle. TT-Line continued to offer a seasonal fare structure as a two season (low-demand and high-demand) fare, but also introduced a new all-year vehicle fare.

Table 3 **One way rebates for eligible passenger vehicles on the main Bass Strait and King Island route (dollars)**

Eligible passenger vehicle class	*June 2018*	*June 2019*
Motor car or bus	Up to 224	Up to 229
Motor home	Up to 449	Up to 459
Eligible passenger vehicle towing a caravan	Up to 449	Up to 459
Motorcycle	Up to 114	Up to 117
Bicycle	Up to 33	Up to 34

Note The round trip rebate is exactly double the one-way trip rebate.

Sources: Department Transport and Regional Services (2002, pp.10–11). TT-Line—personal comm. 2019

The Scheme is demand driven, with expenditure varying with the number and mix of eligible passenger vehicles carried across Bass Strait.

The Australian Government spent $52.8 million under the Scheme in 2017–18 (up 18.1 per cent over 2016–17). Expenditure in 2018–19 was $51.3 million (down 2.8 per cent from 2017–18). Total expenditure includes rebates paid and payments for bookings in future time periods.

Two service providers were paid rebates in 2017–18 and 2018–19 (Table 4). Over 99 per cent of rebates under the Scheme went to passengers with an accompanying eligible passenger vehicle travelling on TT-Line services.

Table 4 **Rebates paid to Bass Strait and King Island service providers for eligible vehicles carried, 2017–18 and 2018–19 (nominal dollars)**

Service provider	*2017–18*	*2018–19*
TT-Line	52 769 147	51 323 105
Bass Island Line	44 000	35 524
Private Claims	880	229
Total rebates paid	52 814 027	51 358 858

Source Tasmanian Transport Programs, Department of Human Services—personal comm. 2019

Table 5 presents a historical series of nominal payments to TT-Line and the average reimbursement per passenger with an eligible passenger vehicle.

Table 5 **TT-Line's average reimbursement per passenger with an eligible passenger vehicle, 1996–97 to 2018–19**

	Reimbursements paid to TT-Line ($million)		*Passengers with an eligible passenger vehicle*	*Average reimbursement per passenger with an eligible passenger vehicle ($)*	
	Nominal	*Real[a]*	*(one-way)*	*Nominal*	*Real[a]*
1996–97	8.47	14.38	153 045	55.4	94.0
1997–98	12.93	21.97	231 098	56.0	95.1
1998–99	14.44	24.22	261 487	55.2	92.6
1999–00	14.21	23.27	248 745	57.1	93.5
2000–01	15.03	23.21	259 438	57.9	89.5
2001–02	15.93	23.92	272 922	58.4	87.7
2002–03	31.79	46.35	432 498	73.5	107.2
2003–04	34.23	48.74	438 841	78.0	111.1
2004–05	32.34	44.97	395 928	81.7	113.6
2005–06	31.33	42.20	384 974	81.4	109.6
2006–07	28.30	37.03	340 273	83.2	108.8
2007–08	30.10	38.10	335 881	89.6	113.4
2008–09	34.69	45.96	342 099	101.4	134.4
2009–10	36.34	43.60	356 125	102.1	122.4
2010–11	36.75	42.75	354 864	103.6	120.5
2011–12	34.26	38.96	318 615	107.5	122.3
2012–13	32.77	36.65	297 134	110.3	123.3
2013–14	37.45	40.84	321 585	116.5	127.0
2014–15	40.86	43.64	344 356	118.6	126.7
2015-16	43.98	46.28	371 789	118.3	124.5
2016-17	44.60	46.25	388 829	114.7	118.9
2017-18	52.77	53.70	399 500	132.1	134.4
2018-19	51.32	51.32	406 956	126.1	126.1

a, Real 2018–19 dollars

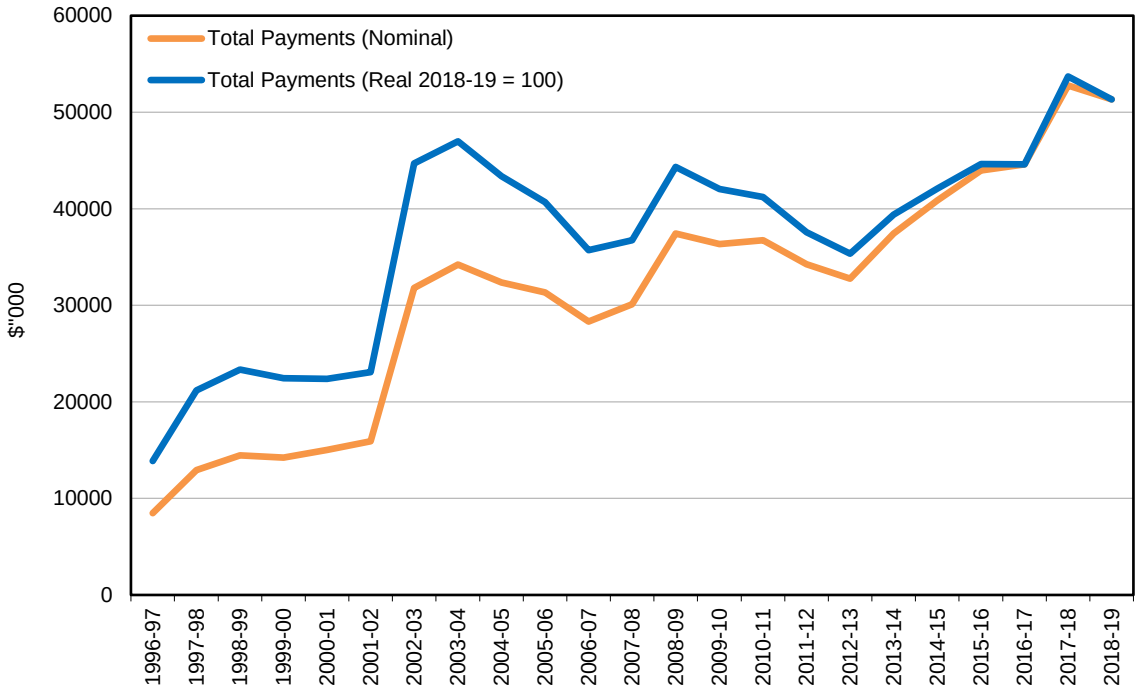
Source Tasmanian Transport Programs, Department Human Services—personal comm. 2019 and earlier; TT-Line-personal comm. 2019 and earlier

Reimbursements almost doubled in 2002–03 due to the combined effect of the increase in capacity with the introduction of *Spirit of Tasmania I* and *Spirit of Tasmania II* and changes to the Ministerial Directions from 1 September 2002 that replaced the seasonal rebate structure with a constant rebate throughout the year and extended the Scheme to include additional passenger vehicle types (Table 5 and Figure 2).

The average real rebate for each TT-Line per passenger with an eligible passenger vehicle increased from $94.00 in 1996-97 to $126.10 in 2018–19, up 34.1 per cent since the introduction of the Scheme (Table 5).

Figure 3 shows rebate reimbursements to TT-Line and TT-Line's operating revenue. Reimbursements represented 20.1 per cent of TT-Line operating revenue in 2018–19.

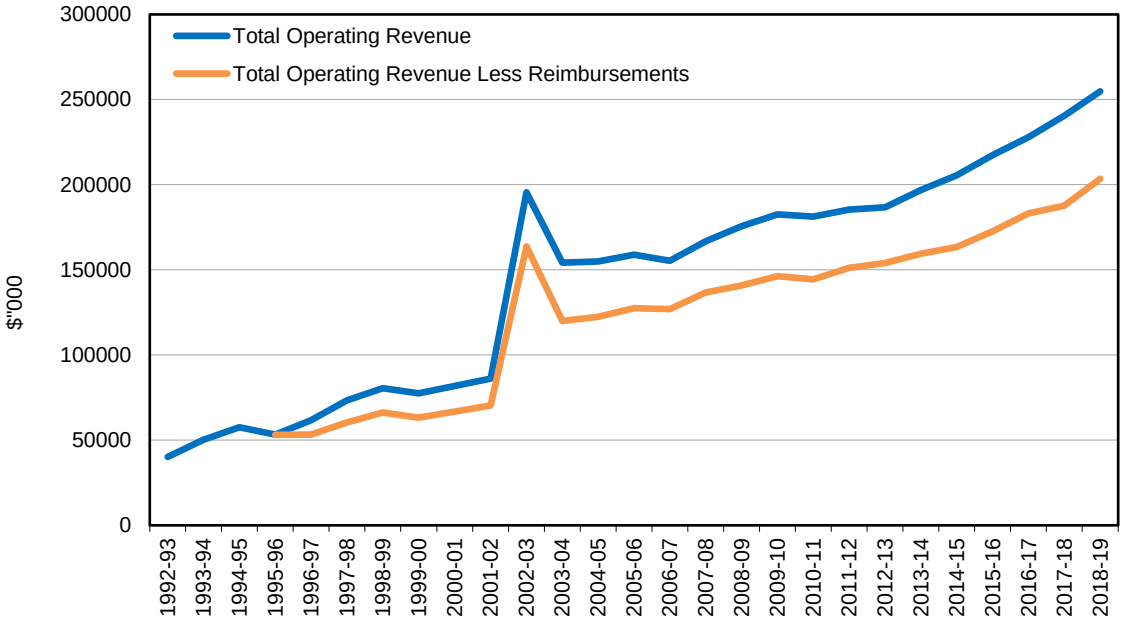
Figure 2 TT-Line reimbursements under the Scheme, 1996–97 to 2018–19



Notes Relates to vehicles shipped; excludes advanced payment numbers for scheduled bookings

Source Tasmanian Transport Programs, Department Human Services—personal comm. 2019

Figure 3 Adjusted TT-Line revenue and revenue net of Scheme rebates, 1992–93 to 2018–19



Note Excludes gross proceeds ($61.2 million) in 2002–03 from the sale of the *Spirit of Tasmania*.

Source TT-Line (2019) and previous annual reports.

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CHAPTER 2

Bass Strait sea and air travel

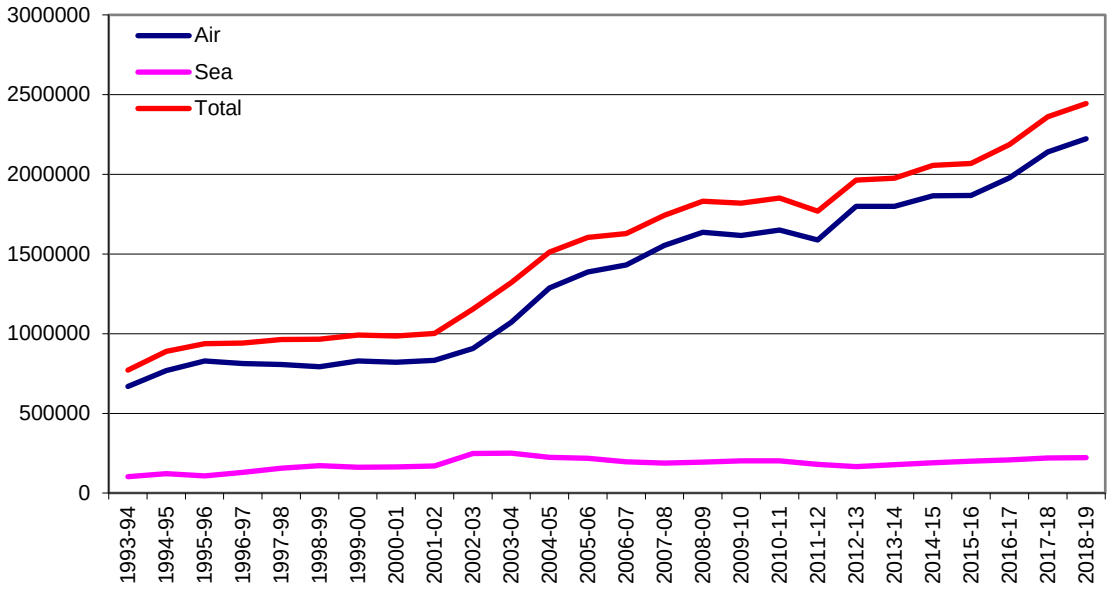
Air and sea traffic

The last five years has seen an increase of 23.7 per cent in air and sea travel across Bass Strait.[9] Tourism Tasmanian data[10] for 2017-18 and 2018-19 indicates that:

- 2.44 million adult passengers travelled by air and sea in 2018–19, up 83 700 passengers (3.5 per cent) on 2017–18.
- 2.36 million adult passengers travelled by air and sea across Bass Strait in 2017–18, an increase of 174 200 passengers (7.9 per cent) on 2016–17.

Figure 4 shows the numbers of sea and air passengers carried since 1993–94.

Figure 4 **Sea and air passengers carried across Bass Strait, return journeys, 1993–94 to 2018–19**



Note Data includes day trippers and minors.
Source Tourism Tasmania Tasmanian Visitor Survey—personal comm. various years

[9] Table 22, Appendix C.

[10] Tourism Tasmania 'Tasmanian Visitor Survey'—personal comm. 2001; 2007; 2011; 2013; 2015; 2019

The Scheme applied to sea passenger travel from 1 September 1996. There was a significant initial impact on passenger travel across Bass Strait:

- Between 1995–96 and 1998–99 sea traffic grew 60 per cent while air traffic declined four per cent.
- Between 1998–99 to 2001–02 there was a decline in sea traffic of one per cent, partly due to the breakdown of the *Spirit of Tasmania*, while air traffic increased by five per cent.

The period since 2002 has seen major changes in both the air market (entry and expansion of both Virgin Blue and Jetstar) and sea market (the replacement of the *Spirit of Tasmania* with the *Spirit of Tasmania I* and *Spirit of Tasmania II* in September 2002, introduction of the Sydney–Devonport service in January 2004 and subsequent cessation of the Sydney service in August 2006, with major impacts on travel across Bass Strait:

- Between 2001–02 to 2002–03 sea traffic grew 47 per cent and air traffic grew nine per cent, reflecting in large part the introduction in September 2002 of the larger *Spirit of Tasmania I* and *Spirit of Tasmania II*.
- Between 2002–03 and 2003–04 the number of air passengers grew by 18 per cent while sea passenger numbers grew less than one per cent despite the start of the Sydney–Devonport service in January 2004.
- Between 2004–05 and 2006–07 the numbers of air passengers grew while sea passengers declined. The latter was associated with significant falls in discount air fares.

While low cost carriers and reductions in air fares help explain the drop in sea passenger numbers since 2003–04, the reduction in 2006–07 sea passenger numbers may be explained by a combination of increasing sea fares and the cessation of the Sydney–Devonport service.

While total sea passenger numbers remained relatively flat between 2006–07 and 2012-13 (approximately 190 000–200 000 return passengers) there were significant year on year changes in both sea and air passenger numbers:

- Sea passengers declined in 2007–08, increased in 2008–09 and 2009–10, then declined slightly in 2010–11. The decline continued through 2012–13, with sea passenger numbers falling to levels not seen since 2001–02.
- Air passenger numbers declined in 2009–10 for the first time since 2000–01 then increased in 2010–11 to a new high of 1.65 million, before declining again in 2011–12.

There has been significant sustained growth in both air and sea passengers since 2012–13:

- Sea passenger numbers increased year on year up to over 220 000 passengers in 2018–19, surpassing levels last seen in 2005–06.
- Air passenger number increased significantly in 2012–13 and continued the upward trend in 2017–18 and 2018–19.
- Adult air and sea passenger numbers reached 2.44 million in 2018–19.
- Air travel's modal share decreased to 90.3 per cent in 2015–16 then increased to 90.9 per cent in 2018–19.

Sea services

The annual number of TT-Line voyages increased from 295 in 1995–96 to 1052 in 2004–05 (Table 6). Total voyages increased significantly with the introduction of the Sydney–Devonport service on 13 January 2004, before declining with the termination of the service in August 2006.

The number of Melbourne–Devonport voyages increased in 2017–18 and 2018–19.

Table 6 TT-Line one-way voyages by vessel, 1995–96 to 2018–19

Year	*Spirit of Tasmania*	*Devil Cat*	*Spirit of Tasmania I/II*	*Spirit of Tasmania III*[c]	*Total voyages*
1995–96	295	na	na	na	295
1996–97	313	na	na	na	313
1997–98	323	117	na	na	440
1998–99	334	171	na	na	505
1999–00	347	108	na	na	455
2000–01	379	99	na	na	478
2001–02	367	118	na	na	485
2002–03	-a	na	846	na	846
2003–04	na	na	894	135[b]	1029
2004–05	na	na	832	220	1052
2005–06	na	na	812	204	1016
2006–07	na	na	805	13	818
2007–08	na	na	804	na	804
2008–09	na	na	800	na	800
2009–10	na	na	822	na	822
2010–11	na	na	827	na	827
2011–12	na	na	759	na	759
2012–13	na	na	748	na	748
2013–14	na	na	750	na	750
2014–15	na	na	767	na	767
2015–16	na	na	814	na	814
2016–17	na	na	838	na	838
2017–18	na	na	859	na	859
2018–19	na	na	867	na	867

na not applicable

a. Voyages made by *Spirit of Tasmania* in 2002–03 before its replacement in September 2002 are included in the number of voyages made by *Spirit of Tasmania I* and *Spirit of Tasmania II*.

b. *Spirit of Tasmania III* began operating the Sydney–Devonport route on 13 January 2004. Voyage total for 2003–04 therefore reflects approximately six months data.

c. *Spirit of Tasmania III* operated an extra Melbourne–Devonport service on 15 December 2004 and replaced its sister ships during their biannual dry-dockings from 17 July to 7 August.

Source TT-Line (2019) and previous Annual Reports

The average number of passengers per voyage increased in 2017–18 and stabilised in 2018–19, to 521 per voyage in both years. The average number of passenger

vehicles, however, per voyage increased in 2017–18 and then decreased in 2018–19, but still remaining above 2016–17 levels at 237 (Table 7).

Table 7 TT-Line average traffic per voyage by service, 1995–96 to 2018–19

Year	*Passengers[a] per voyage*		*Passenger vehicles per voyage*	
	Melbourne	*Sydney*	*Melbourne*	*Sydney*
1995–96	732	na	214	na
1996–97	828	na	258	na
1997–98	714	na	253	na
1998–99	680	na	246	na
1999–00	710	na	264	na
2000–01	692	na	266	na
2001–02	718	na	278	na
2002–03	596	na	248	na
2003–04[b]	528	249	238	116
2004–05	472	271	226	131
2005–06	443	396	212	188
2006–07[c]	482	439	230	240
2007–08	479	na	220	na
2008–09	488	na	228	na
2009–10	493	na	228	na
2010–11	493	na	221	na
2011–12	472	na	216	na
2012–13	442	na	203	na
2013–14	477	na	226	na
2014–15	501	na	238	na
2015–16	515	na	233	na
2016–17	518	na	227	na
2017–18	521	na	262	na
2018–19	521	na	237	na

na not applicable.

a. Includes passengers with an accompanying passenger vehicle and berth-only passengers.

b. The eligible passenger vehicles per voyage figures for 2003–04 may not correspond exactly to TT-Line figures.

c. The Sydney–Devonport route represents two months of traffic data.

d. The average vessel size increased substantially with the introduction of the *Spirit of Tasmania I* and *Spirit of Tasmania II* in September 2002, increasing available capacity. TT-Line further increased the capacity of its ships by 60 vehicles per sailing in 2006–07 (TT-Line 2007).

Source TT-Line (2019) and previous Annual Reports

Sea fares

Passengers on TT-Line pay a passenger fare and fare for their vehicle.

Under the Scheme, the Australian Government pays a subsidy for eligible passenger vehicles. The Scheme does not subsidise passenger fares.

The effect of the rebate for an eligible passenger vehicle varies according to the passenger fare type (full fare or concession), season of travel (peak or off-peak), day or night sailing, any TT-Line promotional fare deals, the passenger's choice of accommodation and their passenger vehicle type.

Sea passenger fares

TT-Line continued to offer a tiered passenger fare structure (first introduced on 17 May 2010), with a base passenger fare and additional costs for cabin upgrades.

Key points for passenger fare structure for 2017–18 and 2018–19:

- A change in the use of the two period structure (introduced on 14 September 2009) with different passenger fares for high-demand and low-demand periods also with different night and day sailing passenger fares.
- A general 5 per cent price increase across fares on the 17th November 2017, with day sailing fares lower than the night sailings.
- Up to 16 passenger fare types. These include standard passenger fares (FLEXX and Spirit categories) and a variety of promotional, campaign or package deals. Limited numbers of certain promotional fares are made available subject to a range of conditions. Generally, full payment is required at the time of booking, fares may be non-refundable, and date, time or name changes may not be permitted.
- There are many TT-Line passenger fares and fare packages, with a range of conditions and applicable dates, that frequently change.

Vehicle fares

In addition to their own fare, TT-Line passengers must pay a fare for their vehicle. Under the Scheme, passengers travelling with an eligible passenger vehicle across Bass Strait can receive a rebate applied against the vehicle fare charged by a ferry operator.

On 30 June 2017, the net fare for a standard passenger car (off-peak) was $89 per vehicle (a gross vehicle fare of $309, less a rebate of $220 per vehicle).

Vehicle fares changed twice between 1 July 2017 and 30 June 2019, including changes by TT-Line and changes in vehicle rebates:

- On 1 July 2017, annual indexing was applied with a standard car fare increasing to $89 (with a $224 rebate) in the off-peak season. Standard vehicle fares were higher for peak ($99) and the new ‘all year’ category ($109).
- From 1 July 2018, vehicle fares increased by $10. This increased a standard car fare to $99 (with a $229 rebate due to the annual indexing). Standard vehicle fares were higher for peak ($109) and the new ‘all year’ category ($129).

On 30 June 2019, the net fare for a standard passenger (off-peak) car was $99 per eligible vehicle (a gross vehicle fare of $328, less a rebate of $229 per vehicle).

Table 8 gives fares for eligible passenger vehicles (net of the rebate) as at 30 June 2019. Tier 4 and 5 fares in times of low demand are lower than those presented in Table 8.

Table 8 TT-Line net vehicle fares (Tier 1,2 and 3) as at the 30 June 2019

Vehicle type – length	*Off-peak*	*Peak*	*All year Flexi_Fares*
Standard cars/vehicles and vehicles towing trailers less than 2.0 metres wide			
0.1 –5.3 metres	109	119	129
5.31–6.0 metres	109	119	129
Campervans/motor homes less than 2 metres wide			
0.1 –5.3 metres	109	119	129
5.31–6.0 metres	109	119	129
Motor homes/campervans and vehicles towing caravans			
0.1–7.0 metres	129	169	179
7.01–8.0 metres	209	259	269
8.01–9.0 metres	289	349	359
9.01–10.0 metres	369	439	449
10.01–11.0 metres	449	529	539
Over 11.01 m + $per/metre	80	90	90
Standard Vehicles towing caravans where total length is greater than 6 m or width greater than 2 m.			
0.1–7.0 metres	129	169	179
7.01–8.0 metres	209	259	269
8.01–9.0 metres	289	349	359
9.01–10.0 metres	369	439	449
10.01–11.0 metres	449	529	539
Over 11.0m + $/per metre	80	90	90
Vehicles towing trailers or vehicles other than motor homes/campervans[a] and buses			
0.1–6.0 metres	159	169	179
6.01–7.0 metres	389	399	409
7.01–8.0 metres	479	489	499
8.01–9.0 metres	569	579	589
9.01–10.0 metres	659	669	679
10.01–11.0 metres	749	759	769
Over 11.0m + $/per metre	90	90	90
Motor bikes	79	89	99
Motor bike with side car or trailer	109	119	129
Push bikes	19	19	29

a Where total length is greater than 6 metres or width greater than 2 metres. Maximum height is 4.2 metres. Maximum width is 2.4 metres.

Source TT-Line—personal comm. 2019

Vehicle fares for the Bass Island Line service (operated using the *John Duigan*) are shown in Table 9.

Table 9 Vehicle fares for Bass Island Line

	June 2018	*June 2019*
Vehicle category	*Cost one-way*[a]	*Cost one-way*[a]
Vehicle up to 4.29m in length	$487 + GST	$487 + GST
Vehicle 4.3 to 5.5 m in length	$686 + GST	$686 + GST

a. Bona fide tourist vehicles receive a free return trip, effectively halving the cost of a return trip. Conditions apply to tourist rate include: shipper must present air tickets, return trip within three months and same vehicle must be shipped both ways.

Source Bass Island Line—personal comm. 2019

Benchmark sea package

BITRE constructs a benchmark one-way sea package to illustrate changes in the cost of sea travel over time.

This benchmark sea package comprises TT-Line sea fares for two adults with an inside three to four berth cabin, a fare for a standard motor car, plus two meals purchased on board.

The passenger fare for 2017–18 and 2018–19 used in the benchmark sea package is based on a night sailing fare representative of peak season fares (Tier 1). Other fare types (Tier 2 to Tier 5) may be significantly lower but not necessarily available in the peak period. For example, Tier 5 fares for a night sailing would be expected to be available during off-peak periods.

The passenger fare component of BITRE's benchmark sea package is for an adult in the peak season. BITRE (2012) modified the methodology to take account of changes in TT-Line passenger fare structures in both 2010 and 2011 (notably, the introduction of a five tiered fare structure by TT-Line on 17 May 2010). While the benchmark sea package series since 2010 is indicative of changes in fare levels, benchmark values since 2011 are not directly comparable with previous years.

The passenger fares used in the benchmark sea package are illustrated in Table 10. Fares increased in 2017–18 and increased slightly in 2018–19 for peak season pensioners and children.

Table 10 One-way passenger fares Melbourne-Devonport ($), as at end of 2017–18 and 2018–19

	June 2018		*June 2019*	
Passenger type	*Off-Peak*	*Peak*	*Off-Peak*	*Peak*
Adult	386 (230)	396 (240)	389 (230)	399 (240)
Pensioner	296 (140)	301 (145)	299 (140)	309 (150)
Child	236 (80)	241 (85)	239 (80)	249 (90)

Notes June 2018 and 2019 fares are base per person fares with an additional cabin upgrade price of $156 ($159 in 2018–19) for an inside 3 berth cabin. June 2018 and 2019 fares in brackets are the base per person fare. Passenger fares exclude meals costs.

TT-Line list fare data applicable at 30 June of the relevant year. It does not take into account availability or special/promotional fares. Fare levels vary across the year by season. Passengers can choose different standards and prices of accommodation. These passenger fares may not be representative of average fares paid by passengers.

Source TT-Line—personal comm. 2019

Table 10 shows that the cost of the adult sea peak period passenger fare used in the benchmark package increased from $386 in June 2018 to $389 in June 2019 (an increase of $3). The most notable increases are the increases to the off-peak' passenger fares, from $231 in June 2017 to $386 in June 2018 (a 67 per cent increase).

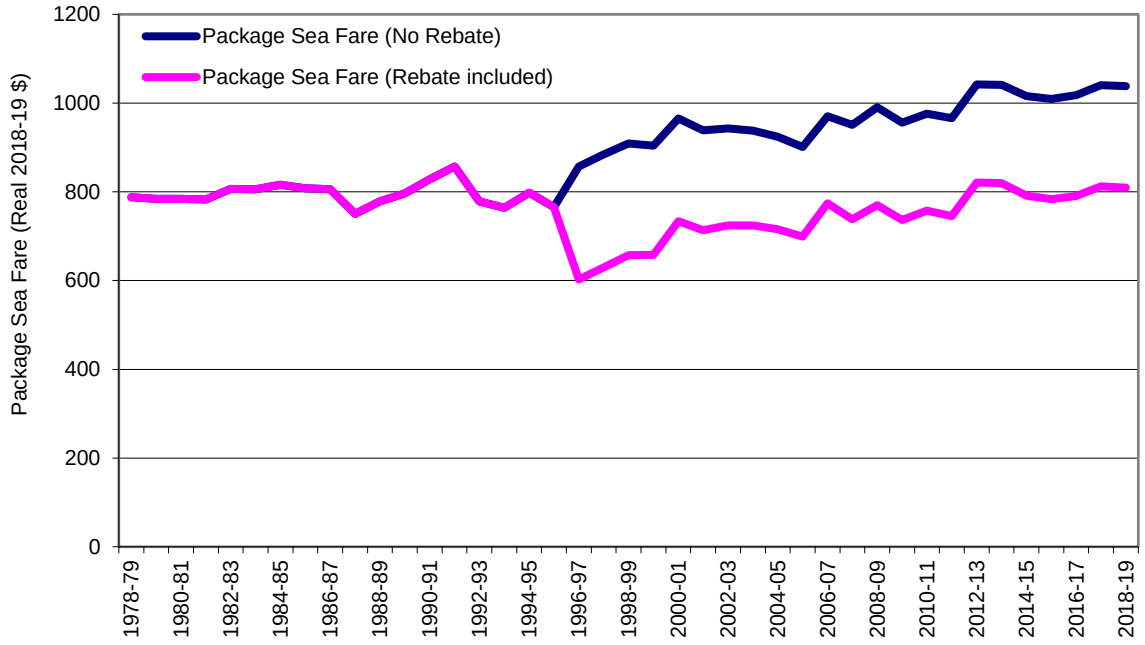
The cost of BITRE's benchmark net peak season sea package (with the rebate) at the end of June 2019 was $809 one-way. This compares with $798 at the end of June 2018 and $766 at the end of June 2017.

The effect of the Scheme on sea travel costs (as for June 2019) is illustrated in the following example:

- During the off-peak season (April to December), the cost of BITRE's sea package, including the passenger fare, the cabin upgrade, net passenger vehicle fare (with the rebate) and meals, would have been $789 one-way.
- For a return journey and average 17 night stay in Tasmania (with a $23 per day spend on transport for people taking their own passenger vehicle, up from $21), the cost of the off-peak sea package would have been $1969 (up from $1297). The cost of this off-peak package would have increased by $458 to $2427 (up from $1737) without the rebate—the Scheme reduced the cost of an off-peak sea package by 23.2 per cent (down from 25.3 per cent in June 2017).
- If it were a 7 night stay, then the cost of this off-peak sea package would have been $1739 ($2197 without the rebate—a 26.3 per cent cost reduction).

Figure 5 illustrates the effect of the standard rebate on the real (consumer price index adjusted) cost of BITRE's peak season sea package for listed TT-Line fares for two adults with a standard passenger vehicle at the end of June each year.

Figure 5 **Real sea package prices for the peak season as at the end of June, with and without the standard rebate, 2018–19 dollars**



Note Series indicative for peak season. Fares vary by season and the benchmark does not take into account availability, special or promotional fares, so it may not be representative of fares actually paid by passengers. Does not account for changes in the characteristics of the ships or that passengers can choose different standards and prices of accommodation.

Source BITRE analysis

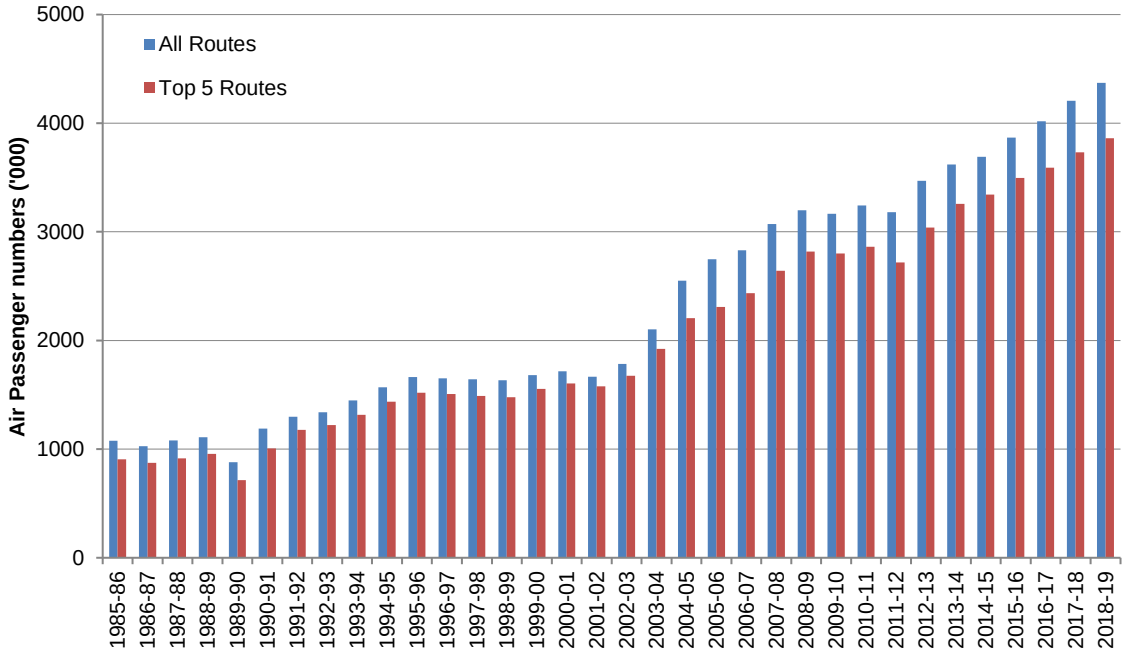
In real terms, the cost of BITRE's sea package increased 2.3 per cent between June 2017 and June 2019. The real value of this package increased 2.7 per cent between June 2017 and June 2018, then decreased 0.3 per cent between June 2018 and June 2019. Caution should be taken with comparisons over time as:

- There have been major improvements in the ships used to provide the service, including changes in the on-board service offerings
- Passengers can choose different standards and prices of accommodation (including the option of no cabin upgrade).
- This comparison is for the peak season only (particularly as TT-Line dropped shoulder season fares on 14 September 2009).

Air services and related fares

One-way trips by domestic air passengers to and from Tasmania increased to over 4.2 million in 2017–18, then increased to over 4.3 million in 2018–19. The top five routes accounted for about 3.8 million one-way trips (88 per cent) of all air passengers on Tasmanian interstate routes (Figure 6).

Figure 6 **Number of air passengers between Tasmania and the mainland, one-way trips, 1985–86 to 2018–19**



Note Passenger numbers are one-way trips by revenue passengers—those passengers paying any level of fare on scheduled domestic regular public transport services. Top five routes are Hobart–Melbourne, Launceston–Melbourne, Hobart–Sydney, Devonport–Melbourne (Brisbane-Hobart from 2009–10), and Launceston–Sydney.

Source BITRE domestic air passenger data

Low cost carriers started operations to Tasmania in 2001. Coupled with the introduction of new air routes, this has substantially increased the total number of air passengers.

The entry of low cost airlines into the Tasmanian market has resulted in substantial falls in discount air fares (Figure 7). The fall in discount air fares have driven the rapid growth in the number of air passengers between the mainland and Tasmania since 2003–04.

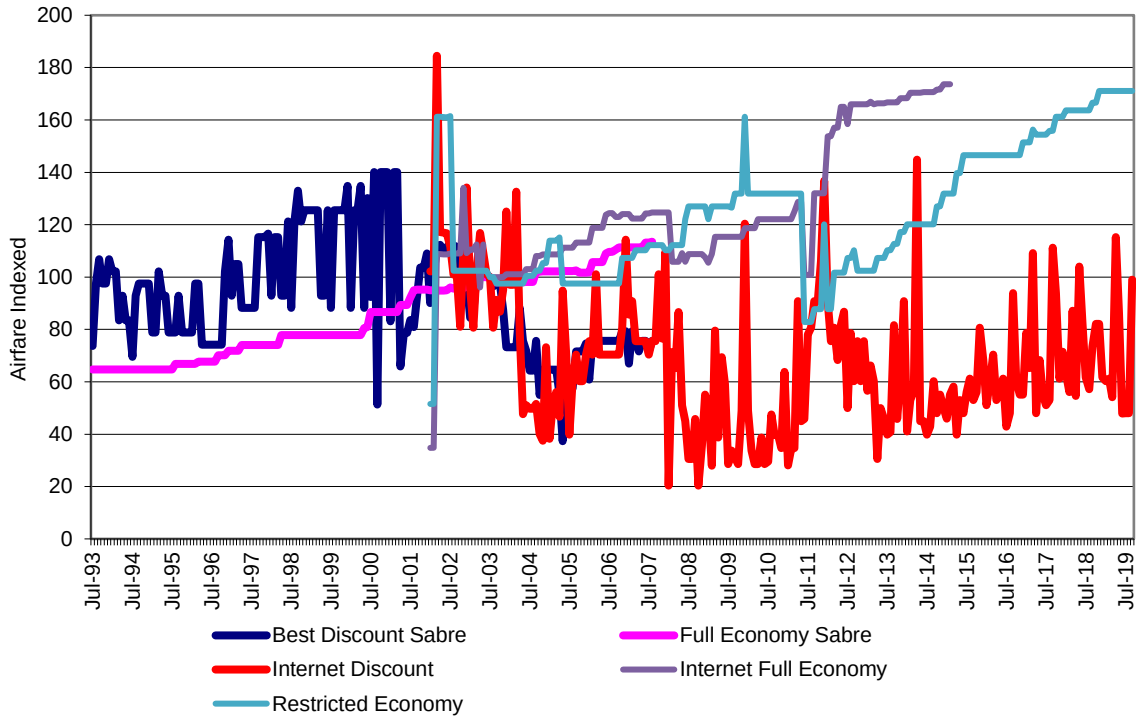
BITRE's discount air fares index remained relatively stable between June 2006 and June 2007 after an increase of 26 per cent in the previous year. Between June 2007 and June 2009 there was no clear trend with the Internet Discount Fare index fluctuating significantly over this two year period.

Between June 2009 to June 2011 the Internet Discount Fare index decreased by 23 per cent. Between June 2011 and June 2013 the Internet Discount Fare index declined steadily. Since June 2013 the Internet Discount fare has remained relatively low with minor seasonal adjustments.

BITRE's restricted Economy index declined after May 2011 then steadily increased but remained below levels seen in 2009 and 2010. After June 2013 the restricted economy index declined heavily but has recently risen to above the levels seen in 2009 and 2010. The Internet Full Economy index increased steadily from June 2011.

Since 2012 the Restricted Economy series has continued increase while the Internet Discount series remains volatile but relatively low.

Figure 7 **Melbourne–Hobart airfare indices, July 1993 to September 2019, nominal**



a. Base Index July 2003 = 100
Source BITRE domestic air passenger data

Air and sea passenger trends

This section looks at trends in travel to Tasmania for visitors, passenger vehicles and berth-only passengers, types of vehicles, and sea and air passenger numbers.

Visitor travel

Table 11 gives numbers of adult[11] visitors to Tasmania (return trips) by purpose of travel and mode over the twenty three years to 2018–19. It includes sea passengers on the Sydney–Devonport service between January 2004 and August 2006.

Tasmania experienced growth in the number of adult visitors travelling by sea for holiday and leisure purposes between 1996–97 and 2000–01.

An increase in holiday and leisure sea visitors in 2002–03 was largely due to the upgrading of the TT-Line service. At the same time, eligibility under the Scheme was extended to other vehicle types, off-peak and shoulder rebates increased—changes that be expected to have also stimulated growth in sea passenger numbers.

Between 2003–04 and 2007-08 the number of adult sea passengers travelling for holiday/leisure purposes declined, while the number travelling by air increased.

While numbers subsequently fluctuated, 2012–13 recorded the lowest number of adult sea passengers travelling for holiday/leisure purposes since 1996–97. Since 2012–13 the number of adult sea passengers travelling for leisure has steadily risen.

Visitors in the 'visiting friends and relatives' category have historically been a significant part of the TT-Line service. Since 2009–10 around fifteen to twenty per cent of sea passengers have been visiting friends or relatives, but in 2018-19 this dropped to 11 per cent.

Visitors travelling for business are the third largest group of sea passengers. Since 2002-03 'business' passengers have accounted for up to fifteen per cent of sea passengers. The 'business' sea passenger share peaked at 16.2 per cent in 2013–14, dropping to 10.1 per cent in 2018–19.

- Conversely, air travel by visitors to Tasmania travelling for business increased by 5.5 per cent in 2017–18, then increased another 11.4 per cent in 2018–19 to an estimated 219 400 passengers.

Resident travel

- Sea travel by Tasmanians travelling for business to the mainland increased by 7.5 per cent in 2017–18, then declined in 2018–19 by 13.7 per cent.

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[11] Tourism Tasmania visitor data are for adult visitors only, and are not directly comparable with TT-Line data which are expressed in terms of one-way trips and include children.

Table 11 Number of adult visitors travelling to Tasmania, purpose and mode, 1996–97 to 2018–19 ('000)

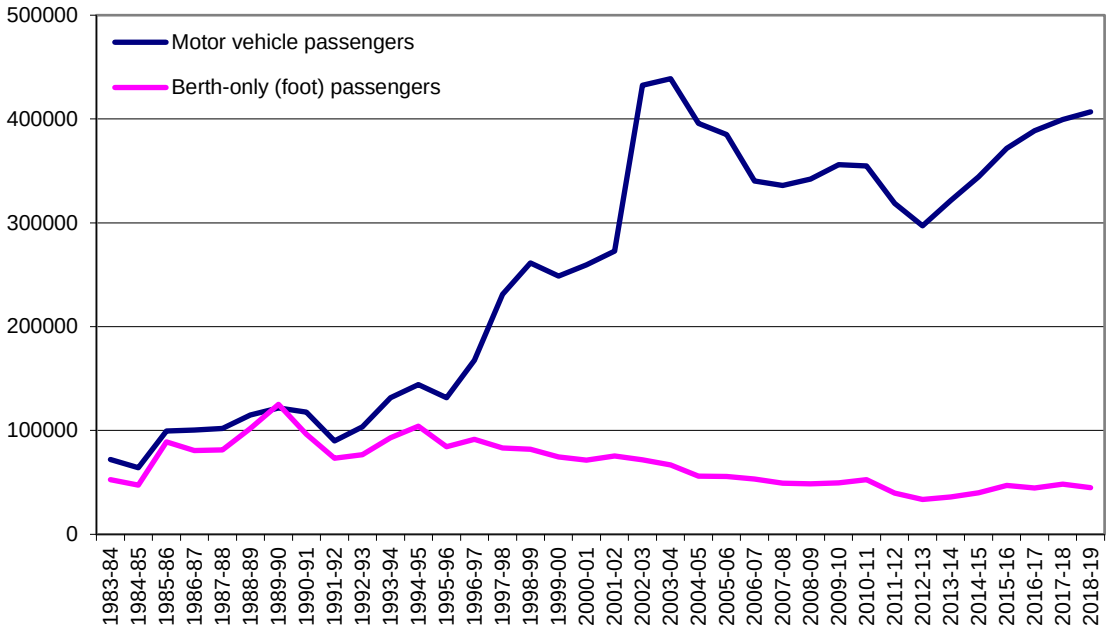
Purpose	*Holiday/leisure*		*Visiting friends and relatives*		*Business*		*Other*		*Total*	
Mode	*Sea*	*Air*	*Sea*	*Air*	*Sea*	*Air*	*Sea*	*Air*	*Sea*	*Air*
1996–97	49.5	171.8	12.8	113.5	4	75.8	7.3	47.9	73.9	409.2
1997–98	71.7	187.5	16.2	102.1	4.1	71.4	4.4	43.6	96.6	404.8
1998–99	85.2	191.3	18.3	106.9	4.9	70.3	5.5	41.3	114.1	409.8
1999–00	86	204.5	17.5	95.8	4.8	80.3	3.9	38.8	112.2	419.4
2000–01	77.9	192.9	17.2	114.7	5.2	63.8	9.2	39	109.7	410.5
2001–02	79.1	180.2	17.6	102.7	5.5	85.3	8.4	40.6	110.8	409
2002–03	120.2	222.7	33.7	113.6	13.3	96.9	11.5	39.8	179	473.2
2003–04	120.1	271.4	22.7	149	15.5	103.3	7.7	49.7	166.2	573.5
2004–05	102.7	267.1	18.6	172.9	14.6	122.2	10.4	49.1	146.3	611.2
2005–06	102.4	285.2	16.1	212.5	11.3	123	11.1	51.1	140.8	671.7
2006–07	92.3	291.1	15.8	206.1	13.6	123	6.1	79.5	127.8	699.3
2007–08	88.4	308.1	15.7	218.9	13.3	139.5	5.3	60.6	122.6	727.1
2008–09	90.4	346.1	15.4	224.9	15	126.3	6.5	82.7	127.3	779.9
2009–10	82.6	310.8	20.3	240.2	15.1	158.4	12.7	70.1	130.7	779.5
2010–11	89.6	289.5	19.2	239.3	15.1	147.3	10.2	85.2	134.1	761.3
2011-12	71.2	274.5	18.7	232	12.6	155.2	9.9	81.1	112.4	742.8
2012-13	62.8	321.1	17.9	278	13.9	171.1	7.3	89.6	101.9	859.8
2013-14	69.1	409.1	18.6	288	16.2	164.1	8.3	84.4	112.3	945.6
2014-15	79.3	462.5	19.4	301.2	14.3	173.6	8.5	87.9	121.4	1025.1
2015-16	93.6	460.3	20.4	288.4	13.1	180.4	10.1	101.6	137.1	1030.7
2016-17	96.7	526.6	23.1	319.9	16	186.5	10.3	90.6	146.1	1123.6
2017-18	101.2	544.2	21.8	312.7	11.7	196.9	11.9	99.6	146.7	1153.4
2018-19	104.8	516.8	17.7	330.6	15.1	219.4	11.2	100.0	148.7	1166.9

Note Data collected by survey and subject to sampling error.
a. Excludes minors and day trippers.
b. Includes passengers carried on the Sydney–Devonport services between January 2004 and August 2006.
c. Includes attendance at conferences, other purposes and not specified.
Sources: Tourism Tasmania 'Tasmanian Visitor Survey'—personal comm. 2001; 2007; 2011; 2013; 2015; 2017; 2019

Passenger vehicle sea passengers and berth-only passengers

Figure 8 presents data on the number of one-way sea passengers with an eligible passenger vehicle and berth-only sea passengers since 1983–84, including Sydney–Devonport passengers carried between January 2004 and August 2006.

Figure 8 **Number of sea passengers carried across Bass Strait, one-way trips, 1983–84 to 2018–19**



a. Includes both visitors and Tasmanian residents.

b. Sydney–Devonport data included for 2003–04, 2004–05, 2005–06 and 2006–07. The Sydney–Devonport services commenced 13 January 2004 and

Source TT-Line—personal comm. 2019 and earlier

The number of one-way berth-only passengers has declined by 47 per cent between 1995–96 (before the start of the Scheme) and 2018–19, while the number of one-way passengers with an eligible passenger vehicle has increased by 209 per cent over the same period.

Up until 2018-19, the average number of passengers per eligible passenger vehicle had fallen since the introduction of the Scheme. However, in 2018–19 it increased to 1.9, up from 1.8 in 2017–18.

This indicates that the Scheme caused substitution between these types of sea travel—that is, it encouraged sea passengers to take their own passenger vehicle.

Figure 8 also shows:

- A large increase in total passenger numbers carried by TT-Line in 2002–03 associated with the introduction of the new ships. This net increase in passengers was due to an increase in the number of passengers with an eligible , the number of berth-only passengers fell by 3661 (4.8 per cent).

- Sea passengers with an eligible passenger vehicle declined sharply in both 2011–12 and 2012–13, falling to levels not seen since 2001–02.

- The number of one-way sea passengers peaking at 505 639 in 2003–04. Since then total numbers have fallen by 53 700 (10.6 per cent), with the number of passengers with an eligible passenger vehicle falling 7.2 per cent and the number of berth-only passengers down 32.6 per cent.

Types of eligible passenger vehicles

Table 12 gives a breakdown of eligible passenger vehicles for which reimbursements were paid from 2001–02 to 2018–19. Cars have declined as a proportion of all eligible passenger vehicles since the Scheme was broadened in September 2002.

Total counts of passenger vehicles increased in 2017–18 and then decreased in 2018–19. The largest increases over the two years were for caravans and pushbikes. The number of eligible passenger vehicles in 2018–19 (205 740) was similar to 2005–06 (211 108).

The numbers of motorcycles and buses experienced decreases (4.2 per cent and 13.3 per cent respectively) between 2016–17 and 2018–19.

Table 12 **Eligible passenger vehicles for which reimbursements paid, 2001–02 to 2018–19**

	Motor cars	*Passenger vehicle + caravan*	*Motorcycles*	*Motor homes*	*Pushbikes*	*Buses*	*Total*
2001–02	128353	0	6303	0	0	324	134980
2002–03	196871	7359	7023	5991	1188	474	218906
2003–04	199902	9648	8699	9023	431	791	228494
2004–05	188757	10186	8791	7870	992	365	216961
2005–06	179955	10798	11402	7891	692	370	211108
2006–07	160823	10969	7720	8177	692	311	188692
2007–08	161139	11307	8917	8048	556	294	190261
2008–09	164890	11562	10373	8306	877	247	196255
2009–10	164287	12138	12384	9353	654	202	199018
2010–11	151505	12121	9650	9714	771	225	183986
2011–12	134583	11328	9496	8414	597	170	164588
2012–13	124401	10442	8336	8051	521	150	151901
2013–14	138558	11391	10062	8877	651	160	169699
2014–15	148973	12679	11043	9185	827	170	182877
2015–16	152686	13127	12907	5094	976	142	189614
2016–17	154381	12585	11656	5540	872	143	190317
2017–18	180545	15765	14867	6275	1220	166	225124
2018–19	166771	15204	11161	5689	1061	124	205740
Change from 2016–17 to 2018–19	8.0%	20.8%	-4.2%	2.7%	21.7%	-13.3%	8.1%

a. Campers included in 'Total'.

Sources: Tasmanian Transport Programs, Department of Human Services (formerly Centrelink)—personal comm. 2003 to 2019

CHAPTER 3

Effectiveness of the Scheme

The rebate reduces the cost of freighting an accompanying eligible passenger vehicle for passengers, significantly reducing the cost of sea travel across Bass Strait. In 2018–19 the $229 rebate on a standard car represented 22.0 per cent of BITRE's benchmark one-way sea fare for a couple travelling with an eligible passenger car.[12]

These reductions in vehicle fares (and hence cost of sea travel) due to the Scheme would be expected to have stimulated an increase in sea travel across Bass Strait. This would include new travellers, travellers from international destinations and other destinations in Australia, while some travellers, notably fly-drive tourists, may have switched from air to sea transport. It would also be expected that berth-only sea passengers may choose to travel with their own passenger vehicle.

Some of these factors are evident in the traffic trend comparisons. However, changes in the number of sea travellers since the introduction of the Scheme also reflect other factors such as population changes and income growth.

To help separate out these other factors BITRE uses an econometric model to estimate the impact of the Scheme on the number of sea passengers who travel with an eligible passenger vehicle.

Modelling the change in sea passenger numbers

The econometric model used to assess the impact of the Scheme estimates the relationship between the number of sea passengers with an accompanying eligible passenger vehicle and changes in population, real household disposable income, the sea package fare, the full economy air fare and the Australian dollar (AUD)/United States of America dollar (USD) exchange rate.

The model includes the AUD/USD indicative daily exchange rate as an indicator of preferences for domestic travel as opposed to international travel, depending on relative 'value for money'.

The sea model used in this monitoring report has been revised by removing two dummy variables. The revised model includes a single dummy variable to account for the large increase in capacity that resulted from the introduction of the *Spirit of Tasmania I* and *Spirit of Tasmania II* from September 2002.

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[12] Over time this proportion has generally declined. As at the end of June 2010 the standard car rebate was $183 which represented 22.9 per cent of the BITRE's peak season sea package fare.

The revised model uses a real (CPI-adjusted) fare series to remove general price inflation as an implicit variable in the growth in the number of sea passengers with an eligible passenger vehicle.

BITRE has used the real sea fare (own-price) elasticity from the revised model to calculate the net impact of the Scheme on the one-way number of sea passengers with an eligible passenger vehicle on the Melbourne–Devonport route.

Appendix A outlines the model and data, and further discusses issues related to the modelling of the Bass Strait sea service.

Estimated impact on sea passenger numbers

Table 13 presents estimates of the Scheme's impact on the number of one-way trips by passengers with an eligible passenger vehicle using a revised 2018–19 model. The model used new estimates of passenger trips for previous years which are not directly comparable to results contained in previous monitoring reports.

Table 13 Impact of the Scheme on Melbourne-Devonport motor vehicle passenger numbers, one-way trips, 1996–97 to 2018–19

	One-way trips by passengers with an eligible passenger vehicle Melbourne–Devonport			
Year	*Without Scheme (estimates)*[c]	*With Scheme (actual)*	*Difference*[c]	*Per cent Change*
1996–97 [a]	109820	153045	43225	39.4
1997–98	167279	231098	63819	38.2
1998–99	191323	261487	70164	36.7
1999–00	182889	248745	65856	36.0
2000–01	196838	259438	62600	31.8
2001–02	207068	272922	65854	31.8
2002–03 [d]	330854	432498	101644	30.7
2003–04 [b]	314312	409115	94803	30.2
2004–05 [b]	264263	343252	78989	29.9
2005–06 [b]	240768	312304	71536	29.7
2006–07	264554	335423	70869	26.8
2007–08	259101	335881	76780	29.6
2008–09	264077	342099	78022	29.5
2009–10	277784	356125	78341	28.2
2010–11	276419	354864	78445	28.4
2011–12	245877	318615	72738	29.6
2012–13	231896	297134	65238	28.1
2013–14	250816	321585	70769	28.2
2014–15	266495	344356	77861	29.2
2015–16	286812	371789	84977	29.6
2016–17	300122	388829	88707	29.6
2017–18	309608	399500	89892	29.0
2018–19	314916	406956	92040	29.2
All years	5129366	6690604	1561237	30.4

a. Data cover ten months only in 1996–97 as the Scheme commenced on 1 September 1996. Actual traffic (that is, with the Scheme) in the full year 1996–97 was 167 788 persons.

b. Excludes Sydney–Devonport data for 2003–04, 2004–05, 2005–06 and 2006–07.

c. Passenger numbers without the Scheme are estimated using the revised model for 2010–11, and values will vary from previous monitoring reports.

d. The large increase in passenger numbers in 2002–03 was due to a substantial increase in TT-Line capacity (*Spirit of Tasmania I* and *Spirit of Tasmania II* together provided more than twice the passenger capacity and over three times the car capacity of *Spirit of Tasmania*) and changes to the Scheme extended eligibility for the rebate to more vehicle types and increased off-peak and shoulder season rebates (Ministerial Directions 2002).

Sources: TT-Line data and BITRE analysis

The estimated real sea fare (own-price) elasticity of -1.32 obtained from the model indicates that a 1 per cent reduction in the sea fare leads to a 1.32 per cent increase in the number of one-way trips by passengers with an eligible passenger vehicle (see Table 15, Appendix A).

On the basis of this own-price elasticity, BITRE estimates that in 2018–19 the Scheme resulted in approximately 92 000 additional one-way trips by one-way trips by passengers with an eligible passenger vehicle between Melbourne and Devonport. This is an increase of 29.2 per cent relative to the likely situation without the Scheme (Table 13).

As can be seen from Table 13, one-way trips by passengers with an eligible passenger vehicle attributable to the Scheme increased until 1998–99, then stayed around an estimated 65 000 (revised) passengers per annum until September 2002.

Following the September 2002 changes to the TT-Line service and rebate structure, the number of one-way trips by passengers with an eligible passenger vehicle increased to an estimated 101 000 in 2002–03 (revised). This declined to an estimated 70 000 in 2006–07 (revised), then increased to approximately 78 000 in 2010–11. The next two years saw it decline to similar levels seen in 2001–02, then increase each year from 2013–14 to 2018–19 up to an estimated 92 000 extra passengers with an eligible passenger vehicle.

The 2018–19 model results indicate that the proportion of passengers on the Melbourne–Devonport route with an eligible passenger vehicle attributable to the Scheme has increased 0.8 per cent from 28.4 per cent in 2010–11 to 29.2 per cent in 2018–19 (Table 13). The (revised) proportion attributed to the Scheme has declined from 39.4 per cent for Melbourne–Devonport in 1997–98 (the first full year after the introduction of the Scheme) to 29.2 per cent in 2018–19.

Reliability of the estimates

The revised econometric model for Melbourne–Devonport performs well in terms of standard statistical tests. The variables included in the model explain 87 per cent of the variation in passengers with an eligible passenger vehicle numbers on the Melbourne and Devonport route between 1985–86 to 2018–19. In addition, all of the estimated coefficients are significant and of the expected sign.

This econometric model is affected by data limitations and detailed analysis should be interpreted with caution.[13] For example, the model uses annual data, covers a relatively short time period, and does not include some potentially relevant variables. Despite these limitations, the results provide empirical support for the view that the Scheme has contributed to increased sea passenger travel between Melbourne and Devonport.

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[13] For example, prior to 2002–03 the model's sea fare (own-price) variable included peak-period fares only—that is it did not incorporate the higher or lower off-peak and shoulder rebates. The model may therefore have under or over estimated the impact of the Scheme in those years.

Impact on visitor numbers and spending

The number of new visitors who travelled because of the rebate, and their additional spending in Tasmania, is an important, albeit partial, indicator of the impact of the Scheme.

Since the introduction of the Scheme in 1996 the number of sea passengers with an eligible passenger vehicle grew substantially to 2003–04. However, some of this growth has been at the expense of other travel demands—notably the decline in berth-only passengers, but also potentially reduced air traffic demand.

While lower sea fares may have had an impact on some categories of air travel, BITRE has not adjusted for any reduction in air travel demand as the econometric model of the Melbourne–Tasmania air market found no statistically significant relationship between aggregate air travel demand and the price of sea travel (BTRE 2006b, Appendix A).[14]

In order to assess the effectiveness of the Scheme in increasing the demand for travel, BITRE has made assumptions about the level of berth-only passengers who would have travelled without the Scheme.

Before the introduction of the Scheme, the ratio of berth-only to total sea passengers remained fairly steady, with a small peak in 1989–90 at the time of the Pilots Dispute.

The trend between 1990–91 and 1995–96 was for a steady overall growth in the number of berth-only passengers of approximately 1.5 per cent.

Sea passenger numbers peaked in 2003–04 then declined at an average rate of 5 per cent per annum between 2004–05 and 2008–09.

While generally declining since the start of the Scheme, berth-only passenger numbers increased in 2009–10 and again in 2010–11. These increases may have been due to the restructure of TT-Line passenger fares and discounted day sailings that operated through peak times.

In 2011–12 and 2012–13 berth-only passenger numbers again decreased, falling to just 33 564 passengers in 2012–13.

Berth-only passengers have increased over the last two years (2013–14 and 2014–15) but levels are still relatively low (40 000 in 2014–15). This upward trend has continued into 2017–18 and 2018–19.

The entry of low fare airlines into the Tasmania–mainland air market has resulted in a significant reduction in BITRE's discount air fare series from 2004 (Figure 7).

[14] Possible explanations include data limitations and limited substitutability of sea travel for most air passengers.

While this reduction has stimulated growth in the air travel market (Figure 6) it has also had a negative impact on the sea travel market.

BITRE has therefore reduced the growth rate for berth-only passengers in the counter-factual case (that is, without the Scheme) since 2004–05 to reflect the decline in the total number of sea passengers.

BITRE has extrapolated the growth in berth-only passenger numbers for the counter-factual case using a five-step process:

1. Increasing by 1.5 per cent per annum between 1996–97 and 2003–04.
2. Decreasing by 5 per cent per annum between 2004–05 and 2008–09.
3. Stabilising in 2009–10 and 2010–11.
4. Decreasing by 5 per cent per annum in 2011–12 and 2012–13.
5. Increasing by 5 per cent per annum from 2013–14 to 2018–19.

BITRE's analysis indicates that the rebate reduced the number of berth-only sea passenger movements in 2018–19 by approximately 40 000 (32 600 in 2017–18) compared to the level that would have been expected without the Scheme.

BITRE has assumed that the Scheme, by reducing vehicle fares, induced these berth-only sea passengers to take their passenger vehicle. BITRE therefore subtracted this estimate of 40 000 fewer berth-only passenger movements from the econometric estimate of just over 92 000 additional passenger movements with an eligible passenger vehicle in 2018–19. This implies that 43 per cent of the additional passengers with an eligible passenger vehicle may have travelled anyway as berth-only sea passengers.

The net effect of the Scheme is approximately 52 000 increase in one-way sea passengers with an eligible passenger vehicle between Melbourne and Devonport in 2018–19 (57 200 in 2017–18). Assuming each passenger made a return trip with their vehicle, this equates to 26 000 return passengers with an eligible passenger vehicle (28 600 in 2017–18).

Tourism Tasmania visitor survey data shows that most (65 per cent) were travelling for holiday or leisure purposes, with 15 per cent visiting friends and relatives and 10 per cent travelling for business (Table 19).[15]

BITRE estimates that in 2018–19 as a result of the Scheme:

- 16 900 new leisure visitors travelled by sea (18 600 in 2017–18).
- 3900 new visitors visiting friends and relatives travelled by sea (4300 in 2017–18).
- 2600 new business visitors travelled by sea (2800 in 2017–18).

[15] That is, sea passenger numbers minus the estimated number of Tasmanian residents and visitors travelling for non-leisure reasons (including visiting friends/relatives and business reasons).

- 2600 new 'other' visitors travelled by sea (2800 in 2017–18).

If each new visitor spent $3100 per person (data by purpose is not available),[16] the estimated spending by all new visitors was an additional $80.6 million in 2018–19 ($88.7 million in 2017–18) including:

- Additional spending by new leisure visitors of $52.4 million in 2018–19 ($57.6 million in 2017–18).
- Additional spending by new visitors in the 'visiting friends and relatives category' of $12.1 million in 2018–19 ($13.3 million in 2017–18).
- Additional spending by new business visitors of $8.0 million in 2018–19 ($8.9 million in 2017–18).
- Additional spending by other visitors of $8.0 million in 2018–19 ($8.9 million in 2017–18).

BITRE's spending estimates are based on assumptions about the number of berth-only passengers that would have travelled without the Scheme. It excludes:

- benefits to Tasmanian residents who travelled by sea who may have been eligible
- any incremental spending related to longer stays by berth-only visitors who decide to take a car.

Assuming visitor spending of $3100 per person, the Scheme would have needed to have increased the number of additional visitors to Tasmania by just over 17 000 in 2018–19 for the increase in visitor spending to equal the total rebate paid.

[16] Spending data by journey purpose and sea passenger type was not available. BITRE has estimated the average spending by sea passengers with an accompanying vehicle at $3100 per trip per person for all journey purposes in 2018–19 (BITRE estimate based on Tourism Tasmania data—personal communication 2019).

Appendix A

Sea passenger traffic model

This appendix outlines the revised model that used to assess the impact of the Scheme on the Melbourne–Devonport sea route. It includes the relative exchange rate between the Australian dollar (AUD) and United States of America dollar (USD). The model has been revised by removing two dummy variables.

The Melbourne-Devonport Model

The model is specified in terms of AUD/USD exchange rates, population, income, own-price and cross-price variables in the following equation:

$$lnVt = lnYt * lnPt * lnQt * lnAUDUSDt * DSPt * ut$$

where

V = Per capita number of passenger movements with an eligible passenger vehicle;

Y = Per capita real household disposable income of passengers with an eligible passenger vehicle;

P = One-way real package sea fare (including reductions due to the Scheme rebate from 1996–97);

Q = One-way real economy air fare from Melbourne to Hobart;

AUDUSD = AUD/USD daily exchange rate on the earliest available day in October

DSP = Dummy *Spirit of Tasmania* - Dummy variable to take account of the influence of an increase in the passenger capacity of TT-Line following the introduction of the *Spirit of Tasmania I* and *Spirit of Tasmania II*;

u = Error term;

t = Time period.

The influence of population on the number of passenger movements with an eligible passenger vehicle is included by specifying the model on a per capita basis using the population of Australia. BITRE re-estimated the model using annual time-series data from 1985–86 to 2018–19. The time-series data are contained in Table 14.

The AUD/USD exchange rate has been included as a proxy to take account for people's choice as to travel destinations, affecting relative costs of Australian overseas travel and travel by foreign tourists to Australia.

Table 14 Data used to re-estimate the Melbourne-Devonport econometric model

Year	Passengers with an eligible passenger vehicle (one-way)[a] ('000)	Air Fare Index[b,d]	Sea Fare[c,d] ($/package)	Real Income[e] ($ billion)	Population[f] (million)	AUD/USD[g] Exchange Rate
1985–86	99 509	20.2	291	429.0	16.0	0.7039
1986–87	100 335	22.0	317	430.3	16.3	0.6299
1987–88	101 915	23.3	317	443.8	16.5	0.7141
1988–89	114 783	24.7	353	468.5	16.8	0.7833
1989–90	121 559	27.3	390	496.3	17.1	0.7776
1990–91	117 785	29.9	427	491.1	17.3	0.8302
1991–92	90 070	31.9	450	493.5	17.5	0.7985
1992–93	103 642	29.6	413	507.1	17.7	0.7134
1993–94	131 542	29.9	413	521.4	17.9	0.6463
1994–95	144 134	32.1	445	540.3	18.1	0.7416
1995–96	131 455	33.2	445	558.5	18.3	0.7605
1996–97	167 788	35.3	355	572.0	18.5	0.7912
1997–98	231 098	37.2	371	581.2	18.7	0.7271
1998–99	261 487	38.6	392	602.6	18.9	0.5943
1999–00	248 745	38.8	402	625.0	19.2	0.6522
2000–01	259 438	43.0	475	649.1	19.4	0.5440
2001–02	272 922	47.0	475	662.7	19.7	0.4944
2002–03	432 498	48.1	497	664.6	19.9	0.5415
2003–04	409 115	48.7	509	698.4	20.1	0.6832
2004–05	343 252	50.3	515	732.1	20.4	0.7265
2005–06	312 304	51.5	519	762.5	20.7	0.7637
2006–07	335 423	55.1	592	801.7	21.1	0.7477
2007–08	335 881	52.8	583	824.3	21.4	0.8860
2008–09	342 099	49.9	627	872.0	21.9	0.7962
2009–10	356 125	53.1	677	956.4	22.0	0.8789
2010–11	354 864	54.6	690	1009.0	22.3	0.9657
2011–12	318 615	62.9	675	1030.0	22.7	0.9500
2012–13	297 134	74.3	738	1054.7	23.2	1.0305
2013–14	321 585	75.7	754	1073.4	23.5	0.9396
2014–15	344 356	77.5	742	1088.8	23.8	0.8693
2015–16	371 789	85.7	747	1134.1	24.2	0.7055
2016–17	388 829	89.7	766	1155.5	24.6	0.7672
2017–18	399 500	95.2	798	1202.5	24.6	0.7801
2018–19	406 956	100.0	809	1231.1	25.2	0.7200

Notes

a. Passengers with an eligible passenger vehicle carried across Bass Strait between Melbourne and Devonport.

b. Average one-way real economy air fare index from Melbourne to Hobart (real 2014–15 dollars).

c. Average one-way real package net fare during peak season (real 2014–15 dollars). The package net fare includes two adults, two meals and a standard vehicle.

d. The air fare and sea package fare indices are in real dollars—taking account of real movements in fare prices

e. Real household disposable income of Australians at current (2014–15) prices.

f. Population of Australia.

g. AUD/USD daily exchange rate on the earliest available day in October of the respective fincial year.

Source TT-Line (2019) and previous Annual Reports, TT-Line—personal comm. 2019 and previous years; ABS (2019), BTRE (2006a; 2006b), Reserve Bank of Australia Table F11.1 Dec 2019 and earlier years.

Results of the Melbourne-Devonport Model

The estimated regression results are presented in Table 15. The adjusted R^2 value of 0.87 suggests that the model is a good fit. It indicates that 87 per cent of the variation in the number of passengers with an eligible passenger vehicle is explained by the variables included in the model (population, income, sea fare, air fare, exchange rates and increased ship capacity). Around 13 per cent of the traffic variation is therefore attributable to factors not specified in the model, such as:

- Changes in community perceptions of Australian and overseas security risks;
- Expenditure on tourism promotion activities for Tasmania and other parts of Australia; and
- Aspects of local and overseas economic conditions such as unemployment, interest rates and fuel prices.

All of the estimated coefficients are of the expected sign and are significant at the 95 per cent confidence level.

Table 15 Regression results for Melbourne-Devonport sea model 2018–19

Variable	*Estimated coefficient*	*T-Statistics*
Y - Real Income	2.13	2.88
P – Real Sea Fare	-1.32	-3.22
Q – Real Full Economy Air fare	0.21	1.71
AUDUSD – Exchange Rates	-1.02	-4.27
Introduction of the *Spirit of Tasmania I/II* 2001–02 onwards (DSP)	0.57	4.21
Intercept	-13.36	-4.05
Adjusted R2	0.87	

Source BITRE analysis

In terms of the total impact on the number of movements by passengers with an eligible passenger vehicle, the most important variable in the 2018–19 model is per capita real household income (previously also real household income).

The coefficient of the per capita real household income (2.13) is of the expected sign and is significant at the 95 per cent confidence level. The real income estimated elasticity of 2.13 means that a 1 per cent increase (decrease) in the level of per capita real household income will result in a 2.13 per cent increase (decrease) in the number of movements by passengers with an eligible passenger vehicle.

The second most important variable in the 2018–19 model is the real sea fare (own-price) with an estimated elasticity of -1.32. This indicates that a 1 per cent decrease (increase) in the real sea fare will result in a 1.32 per cent increase (decrease) in the number of movements by passengers with an eligible passenger vehicle.

Similarly the AUD/USD exchange rate with an estimated elasticity of -1.02 is currently the third most important variable with a 1 per cent change resulting in a 1.02 per cent increase (decrease) in passengers with an eligible passenger vehicle.

The relative importance of the exchange rate may be highlighted that when the Australian dollar was near (and above) parity with the US dollar sea passenger numbers declined heavily (which may well be expected).

The full economy real air fare has an estimated elasticity of 0.21 meaning that a 1 per cent increase (decrease) in the level of the full economy air fare will result in a 0.21 per cent increase (decrease) in the number of movements by passengers with an eligible passenger vehicle. Previously the full economy real air fare has been the most important variable but is now starting to become insignificant.

Full economy fares have been used because of the lack of discount fare data series prior to October 1992.

Full economy fares have increased since budget airlines entered the Tasmanian market, rather than decreased. A priori, an increase in competition would be expected to reduce average air fares, increasing air passenger numbers and reducing sea passenger numbers. While discount air fares have fallen substantially, the discount air fare series is generally not significant[17] in explaining sea passenger movements.

The estimated coefficient of the dummy variable DSP indicates the increased ship capacity provided by TT-Line's new ships positively affected the number of passengers with an eligible passenger vehicle on the Melbourne–Devonport route.

The detailed results on the Melbourne–Devonport econometric model must be interpreted with some caution, as the analysis is constrained by data limitations and other factors.

For example, the time-series annual data cover a period of only 33 years, with the Scheme operating for just twenty-two of these years.

In addition, the data are annual rather than monthly or quarterly, and the sea fare and air fare data are based on a specific season and ticket category.

Despite these limitations, the model provides empirical support for the view that the Scheme has contributed to the number of passengers with an eligible passenger vehicle travelling by sea on the Melbourne–Devonport route since 1995–96.

[17] As already noted, the discount airfare series is only available from October 1992. When this discount fare series was used in the model, the resulting airfare coefficient was not significant. This appears to reflect limitations in the fare data—the discount airfare series is volatile with large month-to-month variations, and may not capture the underlying relationships in an annual model. Consequently, the sea model reported here uses the full economy real airfare series.

Appendix B

TT-Line financial indicators

Table 16 TT-Line selected financial information, 1998–99 to 2018–19 ($'000)

		Operating Expenses										
	Total operating revenue	*Operations-general*	*Operations-write down*	*Ship sale carrying value*	*Hotel services*	*Customer acquisition*	*Admin*	*Other*	*Total operating expense*	*Operating profit/loss*	*Abnormals/ extraordinaries*	*Profit/loss*
1996–97	61766	22357	0	0	15296	4893	6098	10556	59200	2566	0	2566
1997–98	73325[a]	22724[a]	0	0	15464	4698	6219	22406	71511	1814	780	1034
1998–99	80607	33932	0	0	17783	6015	5707	9793	73230	7377	0	7377
1999–00	77511	40865	0	0	16924	5900	4889	8697	77275	236	0	236
2000–01	81842	42864	0	0	17782	6261	6871	2696	76474	5368	0	5368
2001–02	86236	42402	30887	0	18130	6680	7462	1958	107519	-21283	0	-21283
2002–03	195518[b]	69454	0	62732	27708	11437	8902	12673	192906	2612	0	2612
2003–04	154250	90900	0	0	33878	10574	8340	13954	157646	-3396	0	-3396
2004–05	154874	118603	43237	0	34306	13222	8593	16192	234153	-79279	0	-79279
2005–06	158882	120798	-43237	0	34575	16234	8478	12245	149093	9789	0	9789
2006–07	155336	93187	0	0	26634	16466	8665	6809	151761	3575	0	3575
2007–08	166863	95246	0	0	29354	15674	7735	5161	153170	13693	0	13693
2008–09	175587	112786	0	0	29490	14379	9061	4049	169765	5822	0	5822
2009–10	182677	112815	0	0	23577	8598	7840	15252	168082	14595	0	14595
2010–11	181233	112356	0	0	21700	7685	10526	16486	168753	12480	0	12480
2011–12	185392	106941	0	0	23112	7908	9877	16027	163865	21527	0	21527
2012–13	186769	110566	0	0	27391	10204	10425	14816	173402	13367	0	13367
2013–14	196965	115601	0	0	28622	12427	11580	19116	187346	9619	0	9619
2014–15	205468	116146	0	0	28904	14139	11158	20256	190603	14865	0	14865
2015–16	217324	126321	0	0	30108	12647	11893	20928	201897	15427	0	15427
2016–17	227837	122447	0	0	31099	11845	12204	23543	201138	26699	0	26699
2017–18	240457	125753	0	0	31907	12981	11311	10920	192872	47585	0	47585
2018–19	254822	130625	0	0	33554	14180	11676	10712	200747	54075	0	54075

a. Ferry revenue and operations-general expenses in 1997–98 include the impact of the Devil Cat/catamaran trial. TT-Line booked an abnormal item of $780,000 against the trial.
b. Total operating revenue in 2002–03 included gross proceeds of $61.2 million from the sale of the *Spirit of Tasmania*.
c. The 2004–05 write down in ship values reflected the change from a 'cost' to a 'valuation' accounting method.
d. In 2005–06, the ships were re-valued based on market values for similar vessels in Europe—the major market for this type of roll-on roll-off ferry—and converted from Euros to Australian dollars using the exchange rates as at 30 June 2006. TT-Line (2006d, pp 1-2) states that—while the underlying value of the ships did not change—the translation into Australian dollars increased the value of the ships in the company accounts.
d. TT-Line undertakes annual ship revaluations and write-downs which impact on reported after-tax profit. For comparison purposes, BITRE has excluded these values from the operating profit calculations.
e. 'Operations–general' includes TT-Line employee benefits expense, cost of food and beverages, consumables, repairs and maintenance, bunker fuel and oil for 2011–12 to 2014–15.

Source TT-Line (2019) and previous Annual Reports; TT-Line (2006d, pp 1-2). TT-Line—personal comm. January 2001

Table 17 Financial indicators (adjusted) for TT-Line, 1998–99 to 2018–19

	Operating revenue per voyage[a]	*Operating expenses*[b] *per passenger*	*Operating expenses*[b] *per voyage*
1996-97	197335	228	189137
1997-98	166648	228	162525
1998-99	159618	213	145010
1999-00	170354	239	169835
2000-01	171218	231	159987
2001-02	177806	220[d]	158004[d]
2002-03	158710[c]	258[d]	153870[d]
2003-04	149903	312	153203
2004-05	147219	422[e]	181479[e]
2005-06	156380	534[f]	231857[f]
2006-07	189897	385	185527
2007-08	207541	398	190510
2008-09	219484	434	212206
2009-10	222235	414	204479
2010-11	219145	414	204054
2011-12	244258	457	215896
2012-13	249691	524	231821
2013-14	262620	524	249795
2014-15	267885	496	248505
2015-16	266983	482	248031
2016-17	271882	464	240021
2017-18	279927	431	224531
2018-19	293912	444	231542

a. Total revenue divided by the number of voyages.

b. Incorporates expenses for passengers, vehicles and freight.

c. Revenue adjusted to exclude gross proceeds from the sale of the *Spirit of Tasmania* in 2002–03.

d. Expenses adjusted to exclude write-down in carrying value of the *Spirit of Tasmania* in 2001–02 and carrying value of this ship in 2002–03.

e. Expenses adjusted to exclude write-down of $43.24 million in the total value of all three ships.

f. Expenses adjusted to exclude asset revaluation of $43.2 million.

Source TT-Line (2019) and previous Annual Reports; BITRE estimates

Table 18 TT-line reimbursements and adjusted operating revenue, 1998–99 to 2018–19

	Reimbursements paid ($'000)	*Operating revenue ($'000)*	*Reimbursements as a proportion of operating revenue*
1996-97	8 475	61 766	13.7
1997-98	12 939	73 325	17.6
1998-99	14 447	80 607	17.9
1999-00	14 211	77 511	18.3
2000-01	15 031	81 842	18.4
2001-02	15 932	86 236	18.5
2002-03	31 793	134 269	23.7
2003-04	34 236	154 250[a]	22.2
2004-05	32 350	154 874	20.9
2005-06	31 331	158 882	19.7
2006-07	28 304	155 336	18.2
2007-08	30 109	166 863	18.0
2008-09	34 699	175 587	19.8
2009-10	36 348	182 677	19.9
2010-11	36 751	181 233	20.3
2011-12	34 261	185 392	18.5
2012-13	32 771	186 769	17.5
2013-14	37 452	196 965	19.0
2014-15	40 855	205 468	19.9
2015-16	43 983	217 324	20.2
2016-17	44 599	227 837	19.6
2017-18	52 769	240 457	21.9
2018-19	51 323	254 822	20.1

a. Excludes gross proceeds ($61.2 million) from sale of the *Spirit of Tasmania* in 2002–03.

Source TT-Line (2019) and previous Annual Reports

Appendix C
Bass Strait travel

Table 19 **Estimated adult[a] return passengers travelling between Tasmania and the mainland by purpose, 2017–18 and 2018–19 ('000)**

	2017–18			*2018–19*		
Purpose of travel	*Air*	*Sea*	*Total*	*Air*	*Sea*	*Total*
Visitors to Tasmania						
Holiday/leisure	544.2	101.2	645.4	516.8	104.8	621.5
Visiting friends/relatives	312.7	21.8	334.5	330.6	17.7	348.4
Business	196.9	11.7	208.7	219.4	15.1	234.5
Conference	39.7	1.2	40.9	31.0	0.5	31.5
Other/not specified	59.9	10.7	70.6	69.1	10.7	79.7
Total visitors	1153.4	146.7	1300.0	1166.9	148.7	1315.6
Tasmanian residents						
Holiday/leisure	239.7	19.5	259.3	245.7	18.1	263.8
Visiting friends/relatives	334.0	18.3	352.3	331.2	19.4	350.6
Business	198.9	9.5	208.4	234.0	8.2	242.2
Conference	25.7	0.1	25.8	29.7	0.4	30.1
Other/not specified	100.9	18.1	118.9	113.3	19.1	132.4
Total Tasmanians	899.2	65.5	964.8	953.9	65.2	1019.1
Total passengers	2052.6	212.2	2264.8	2120.8	213.9	2334.7

a. Excludes minors and day trippers. Data collected by survey and subject to sampling error.

Source Tourism Tasmania Tasmanian Visitor Survey—personal comm. 2019

Table 20 Estimated adult return passengers travelling between Tasmania and the mainland by purpose, 2017–18 ('000)

	Air		*Sea*		*Total*	
	Number ('000)	*Percent change on 16–17*	*Number ('000)*	*Percent change on 16–17*	*Number ('000)*	*Percent change on 16–17*
Visitors						
Holiday, leisure, or visiting friend and relatives	856.8	1.2%	123.0	2.7%	979.9	1.4%
Business/conference/other	296.5	7.0%	23.7	-10.0%	320.2	5.5%
Total visitors	1153.4	2.7%	146.7	0.4%	1300.0	2.4%
Tasmanian residents						
Holiday, leisure, or visiting friend and relatives	573.7	5.0%	37.9	1.7%	611.6	4.8%
Business/conference/other	325.5	5.6%	27.7	12.8%	353.2	6.1%
Total Tasmanians	899.2	5.2%	65.5	6.1%	964.8	5.3%
Total passengers	2052.6	3.8%	212.2	2.1%	2264.8	3.6%

a. Excludes minors and day trippers. Data collected by survey and subject to sampling error.

Source Tourism Tasmania Tasmanian Visitor Survey—personal comm. 2019

Table 21 Estimated adult[a] return passengers travelling between Tasmania and the mainland by purpose, 2018–19 ('000)

	Air		*Sea*		*Total*	
	Number ('000)	*Percent change on 17–18*	*Number ('000)*	*Percent change on 17–18*	*Number ('000)*	*Percent change on 17–18*
Visitors						
Holiday, leisure, or visiting friend and relatives	847.4	-1.1%	122.5	-0.5%	969.9	-1.0%
Business/conference/other	319.5	7.7%	26.2	10.9%	345.7	8.0%
Total visitors	1166.9	1.2%	148.7	1.4%	1315.6	1.2%
Tasmanian residents						
Holiday, leisure, or visiting friend and relatives	576.9	0.6%	37.6	-0.8%	614.5	0.5%
Business/conference/other	377.0	15.8%	27.7	0.0%	404.7	14.6%
Total Tasmanians	953.9	6.1%	65.2	-0.5%	1019.1	5.6%
Total passengers	2120.8	3.3%	213.9	0.8%	2334.7	3.1%

a. Excludes minors and day trippers. Data collected by survey and subject to sampling error.

Source Tourism Tasmania Tasmanian Visitor Survey—personal comm. 2019

Table 22 Sea and air passengers across Bass Strait, one-way passenger movements 1993–94 to 2018–19

	Air passenger one-way movements		*Sea passenger one-way movements*		
Year	*Top 5 routes*	*Total air passenger movements*	*Passengers with an eligible passenger vehicle movements*	*Berth only passenger movements*	*Total TT-Line sea passenger movements*
1993–94	1 316 502	1 447 953	131 542	93 146	224 688
1994–95	1 437 299	1 570 093	144 134	104 169	248 303
1995–96	1 520 527	1 663 584	131 455	84 531	215 986
1996–97	1 506 181	1 650 496	167 788	91 381	259 169
1997–98	1 489 747	1 642 839	231 098	83 134	314 232
1998–99	1 477 718	1 635 031	261 487	81 851	343 338
1999–00	1 553 795	1 681 100	248 745	74 466	323 211
2000–01	1 603 502	1 716 439	259 438	71 523	330 961
2001–02	1 577 808	1 665 126	272 922	75 513	348 435
2002–03	1 676 710	1 783 987	432 498	71 852	504 350
2003–04	1 922 305	2 104 080	409 115	62 926	472 041
2004–05	2 204 400	2 550 200	343 252	49 139	392 391
2005–06	2 308 214	2 746 538	312 304	47 407	359 711
2006–07	2 492 935	2 831 274	335 423	52 549	387 972
2007–08	2 703 134	3 090 842	335 881	49 137	385 018
2008–09	2 815 956	3 231 898	342 099	48 633	390 732
2009–10	2 800 783	3 221 993	356 125	49 429	405 554
2010–11	2 861 367	3 296 269	354 864	52 772	407 636
2011–12	2 718 425	3 181 276	318 615	39 817	358 432
2012–13	3 040 594	3 469 685	297 134	33 564	330 698
2013–14	3 257 247	3 618 657	321 585	36 032	357 617
2014–15	3 342 484	3 691 886	344 356	40 145	384 501
2015–16	3 496 370	3 869 076	371 789	47 042	418 831
2016–17	3 589 194	4 017 692	388 829	44 720	433 549
2017–18	3 731 283	4 207 859	399 500	48 347	447 847
2018–19	3 863 124	4 372 160	406 956	44 976	451 932

Source BITRE-AVSTATS—personal comm. 2019, TT-Line—personal comm. 2019

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ISSN: 1833-2277
ISBN: 978-1-925843-44-6