



ECONOMIC AND SOCIAL INDICATORS FOR THE SOUTH AUSTRALIAN CHARTER BOAT FISHERY 2021/22

A Report for the Department of
Primary Industries and Regions

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Prepared by

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
CPI	Consumer Price Index
FRDC	Fisheries Research and Development Corporation
fte	full time equivalent
GRP	gross regional product
GSP	gross state product
GVP	gross value of production
PIRSA	Department of Primary Industries and Regions
R&M	repairs and maintenance
RBA	Reserve Bank of Australia
SA	South Australia
SARDI	South Australian Research and Development Institute

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EXECUTIVE SUMMARY

This report presents a set of economic and social performance indicators for the South Australian Charter Boat Fishery for 2021/22. The aim is to develop a consistent time series of economic and social information to aid management of the fishery in future years.

In November 2019 the Snapper fishery was closed and due to reopen in January 2023, however the closure has since been extended until June 2026 (PIRSA 2023). In January 2020, the COVID-19 pandemic was beginning to affect the Charter Boat Fishery. While charter boat fishing may have been permitted, closures and lockdowns preventing or discouraging travel were a major reason for the loss of clients. Even as restrictions eased, there was still an initial reluctance to travel given uncertainties around potential for lockdowns. Many bookings were cancelled, and presumably new bookings were not made because of COVID-19 restrictions.

The impact of COVID-19 and the Snapper closure resulted in the number of clients, Gross Value of Production (GVP) and number of active licence holders declining significantly in 2019/20. In 2021/22 the number of clients and the GVP of the Charter Boat Fishery recovered to pre-COVID-19 (2018/19) levels, despite ongoing challenges and fewer active licence holders.

Economic Performance Indicators

Specific strategies and performance indicators relating to the economic objectives outlined in the management plan (PIRSA 2022) are detailed in Table ES-1. These performance indicators are presented against the three-year trend in results for the Charter Boat Fishery.

Table ES-1 Charter Boat Fishery performance indicators

Performance Indicator	Trigger Reference Point	3 Year Trends (2018/19 to 2021/22)
Economic performance of Charter Boat Fishery	Economic indicators not monitored annually	Within suitable range Economic indicators reports have been prepared annually since 2009/10.
Growth of passenger numbers in the charter sector		The number of clients increased by 4% and the number of trips increased by 5% between 2018/19 and 2021/22.
Increase in trips		
Fee per licence holder	Licence fee increases by more than CPI Licence fees as a percentage of GVP are increasing	Within suitable range Real fees per licence holder increased by less than CPI overall between 2018/19 and 2021/22 (3%). Licence fees as a percentage of GVP decreased from 11.5% in 2018/19 to 10.0% in 2021/22.
Industry understand management arrangements	Licence holders indicate they do not understand management arrangements, as reported in the BDO EconSearch reports for the fishery	Within suitable range 70% of licence holders indicated they agree that fishing rules and regulations are easy to understand.

A summary of key economic indicators for the last four years is presented in Table ES-2. The Charter Boat Fishery is managed differently to other SA commercial fisheries and is effectively open access despite having restricted access to licences. There are biological controls to protect the stock (such as size limits and seasons) but the economic goal is implicitly employment. Another implicit economic goal is the utility (consumer surplus) of the clients who were able to enjoy fishing on Charter Boats.

Table ES-2 Summary of key economic indicators, 2018/19 to 2021/22^a

Indicator	2018/19	2019/20	2020/21	2021/22
Clients (no.)	13,364	7,616	12,077	13,913
Trips (no.)	2,238	1,361	2,053	2,352
GVP	\$3.4m	\$1.9m	\$3.1m	\$3.6m
Fee/licence	\$4,347	\$4,830	\$2,330	\$4,464
Fee/GVP	11.8%	20.9%	6.2%	10.0%
Return on fishing gear and equip	-7.8%	-12.9%	-9.4%	-6.8%
Return on total capital	-7.6%	-12.6%	-9.2%	-6.6%
Licence Value	\$9,733	\$7,128	\$8,243	\$9,052
Gross state product ^b	\$18.2m	\$9.6m	\$14.8m	\$17.4m
Employment ^b	181 fte	120 fte	144 fte	176 fte
Active licence holders (no.)	59	48	47	45

^a Dollar values in this table are in real 2021/22 dollars.

^b Estimates for 2019/20 and 2020/21 have been revised using updated information received in 2021/22.

Gross Value of Production

Overall between 2005/06 and 2021/22 the total number of clients in the fishery followed a declining trend, from 19,540 clients in 2005/06 to 13,913 clients in 2021/22 (29 per cent decline). As mentioned earlier, the total number of clients in 2019/20 was heavily impacted by the COVID-19 pandemic with closures and lockdowns preventing or discouraging travel, and the introduction of a State-wide Snapper fishing ban.

An 18 per cent decline in real price per client along with the 29 per cent reduction in the number of clients between 2005/06 and 2021/22 resulted in real GVP for the fishery decreasing by 48 per cent over the same period.

Management Costs

Licence fees as a percentage of GVP followed an increasing trend between 2005/06 and 2019/20, from 4.7 per cent to 20.9 per cent. This was the result of both a reduction in GVP and an increase in aggregate fees, in real terms. In 2020/21, fees as a proportion of GVP decreased significantly to 6.2 per cent. This sharp decrease was due to fees being waived by Government to aid operators who had been significantly impacted

as a result of the COVID-19 pandemic. In 2021/22 fees as a proportion of GVP increased to 10.0 per cent, which is similar to the trend prior to 2019/20.

Financial Performance Indicators

The total number of active licence holders in the fishery declined from 77 in 2009/10 to 45 by the end of 2021/22. Despite this decrease, and as a result of a reduction in fishery GVP, the average income per active boat in the fishery has decreased from approximately \$170,000 in 2009/10 to \$119,000 in 2021/22 in real terms.

Labour costs accounted for the largest share of total cash costs in 2021/22 (35 per cent of total boat cash costs). Labour costs are comprised of payments to licence owners and crew as well as an imputed wage to those licence owners and other family members who are not paid a wage directly by the business. Other significant cash costs were repairs and maintenance (18 per cent) and fuel (18 per cent).

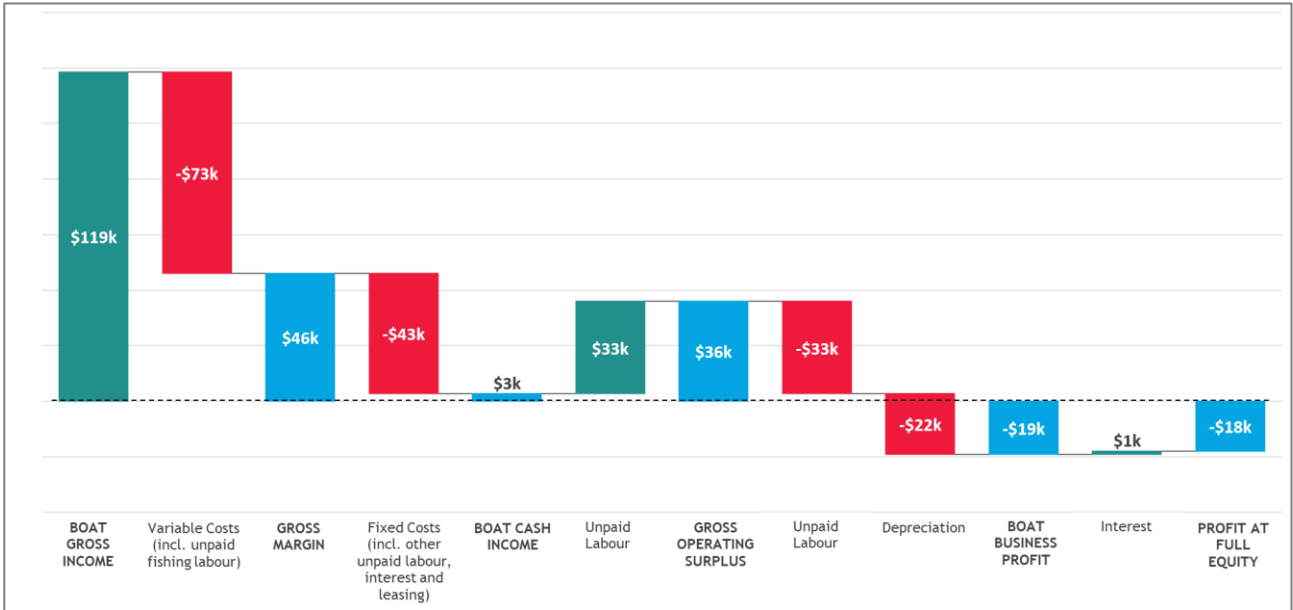
Between 2009/10 and 2021/22, the average real price per client decreased by 7 per cent. The average real cost of operating charter boats followed a rising trend over the same period, increasing by 15 per cent. A declining real price and an increasing real cost results in the squeeze of the profit earned per client for Charter Boat businesses.

Profitability measures followed an increasing trend between 2009/10 and 2012/13 but declined through to 2021/22 with fluctuations. For example, profit at full equity (in real terms) improved from around -\$27,000 in 2009/10 to \$19,000 in 2012/13 before falling to around -\$18,000 in 2021/22. A summary of boat level financial performance is illustrated in Figure ES-1 for 2021/22.

The rate of return to total capital for the fishery has fluctuated year to year but generally followed an increasing trend through to 2012/13. It has since fallen sharply and was estimated to be -6.6 per cent in 2021/22.

The Charter Boat Fishery has restricted access with no new licences currently being issued (PIRSA 2022) but the fact that these Charter Boat licences have any value is unusual. These licences have historically provided the holder with the opportunity to create negative profit at full equity and, as indicated by the large number of unused licences, these licences are not scarce. As there is a large number of inactive licences, it is likely that the small licence value is needed to encourage holders to sell to a willing buyer.

Figure ES-1 Summary of boat level financial performance in the Charter Boat Fishery, 2021/22



Contribution to South Australian Economy

Output, household income, contribution to GSP and employment all followed a declining trend in the fishery between 2009/10 and 2021/22 despite a recovery since 2019/20. The decrease of contributions in recent years can be explained by the reduced GVP of the fishery. In 2021/22, the Charter Boat Fishery contributed \$17.4m to South Australia’s gross state product (GSP), supported 176 fte jobs and contributed \$10.2m to household income.

1. INTRODUCTION

Under the *Fisheries Management Act 2007*, all the major fisheries in South Australia (SA) operate in accordance with fishery management plans that determine the primary management objectives of the fishery. Economic performance indicators are a feature of these plans and annual reports on them are required for the Minister for Primary Industries and Regional Development to meet the obligations of section 7 of the *Fisheries Management Act 2007*. PIRSA released the current management plan, *Management Plan for the South Australian Charter Boat Fishery*, in August 2022 (PIRSA 2022). Like other commercial fisheries in South Australia, licences are limited and transferrable.

This report is the twelfth annual economic indicators report for the South Australian Charter Boat Fishery. The objective is to provide an update of the economic indicators based on the fifth survey of Charter Boat licence holders, undertaken in 2021.

This analysis was carried out for the 2021/22 financial year. The aim is to present a set of economic and social performance indicators for the fishery as well as to develop a consistent time series of economic information to aid management of the fishery in future years. The economic and social indicators detailed in this report include:

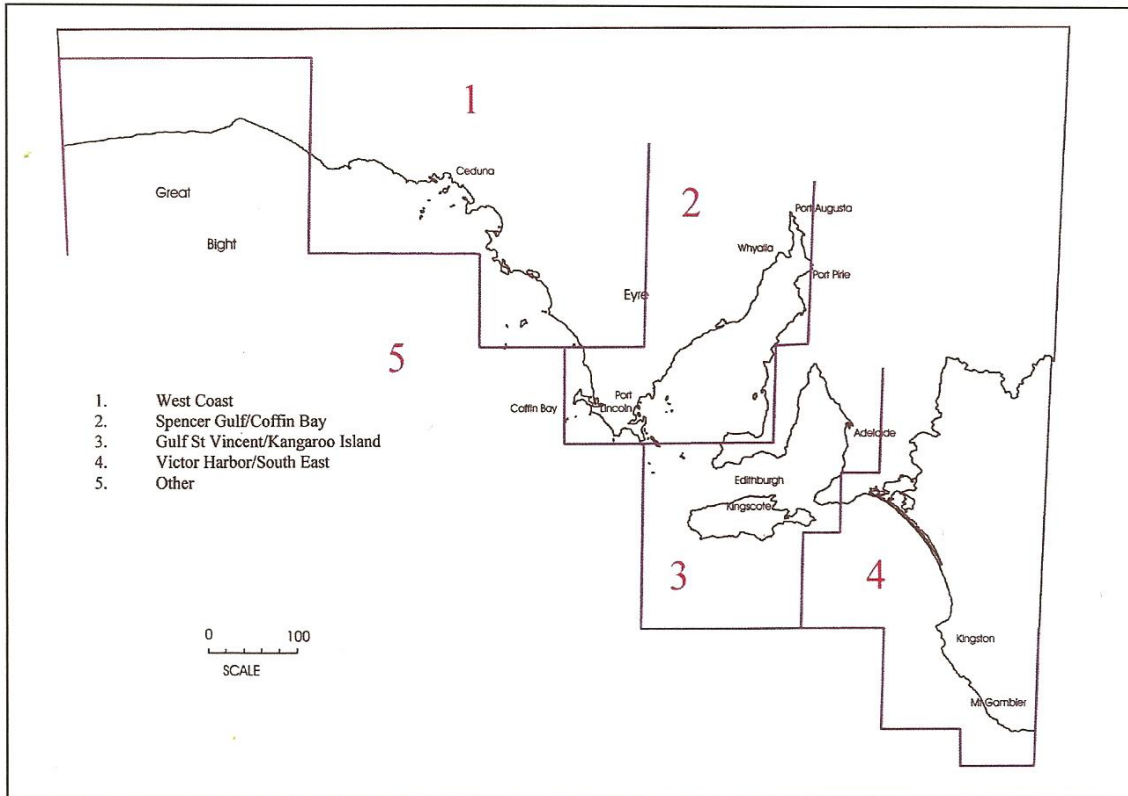
- gross value of production (clients and price)
- factors affecting costs in the fishery
- cost of management of the fishery
- financial performance (income, costs, profit and return on investment)
- economic contribution of the fishery, both local and state.

For purposes of comparison, summary economic indicators for all South Australian commercial fisheries, up to 2020/21, are presented in Appendix 3.

Financial performance estimates and economic contributions are presented on a regional basis in accordance with SARDI's region classifications. Fishing regions in SA are illustrated in Figure 1-1. Regional economic indicators have not been reported for fishing regions 1, 4 and 5 as there were insufficient survey responses from these regions. Responses from these regions have, however, been included in the results for the state as a whole.

In 2016, 2018 and 2021, the economic indicators survey of commercial fisheries was extended to include the collection of social indicators. The results of the social indicators component of the survey are detailed in BDO EconSearch (2022a).

Figure 1-1 Fishing reporting regions, SA Charter Boat Fishery



Source: SARDI Aquatic Sciences

2. METHOD OF ANALYSIS AND DEFINITION OF TERMS

2.1. Survey of Licence Holders, 2020/21

The questionnaire for the 2021 survey of licences holders was based on previous economic and social indicator surveys. The questionnaire was drafted and subsequently modified after consultation with the Charter Boat Association of South Australia.

In September 2021 all licence holders in the fishery were sent an introductory letter and a copy of the survey. Licence holders were then contacted and to undertake the survey via telephone interviews.

The completed responses from licence holders in the fishery represented 57 per cent of the active fishery licences, with 23 respondents in total covering 27 of the 47 active licences. This survey response rate was an increase from the previous survey (undertaken in 2019) where the survey response rate was 40 per cent of the active fishery license, covering 23 of the 58 active licences.

Of the 47 active licence holders in the fishery, 20 did not provide a response to the survey as they: could not be contacted, were too busy, or were not interested in participating in the survey.

2.2. Updating the Indicators, 2021/22

The 2021/22 economic indicators for the SA Charter Boat Fishery were derived using a range of primary and secondary data and survey-based 2020/21 indicators. The following information was used to adjust the 2020/21 indicators to reflect the fisheries' performance in 2021/22.

- SARDI data were used to reflect changes in effort between 2020/21 and 2021/22. Effort data were used to estimate the average total boat income in the fishery.
- Information on change in fishing effort (number of days fished) between 2020/21 and 2021/22 was used to adjust the cost of inputs that were assumed to vary with fishing effort. These inputs included fuel, repairs and maintenance, ice and provisions.
- The consumer price index (CPI) for Adelaide and components of the CPI were used to adjust the cost of inputs to reflect local levels of inflation (ABS 2022a).

2.3. Definition of Terms

Total Boat Income (TBI): refers to the cash receipts received by an individual firm and is expressed in dollar terms. For the Charter Boat Fishery total boat income is calculated as clients (no.) multiplied by 'average price' (\$/person). Total boat income is the contribution of an individual licence holder to the GVP of a fishing sector or fishery.

Total Boat Variable Costs: are costs which are dependent upon the amount of time spent fishing. As fishing time increases, variable costs also increase. Variable costs are measured in current dollar terms and include the following individual cost items:

- fuel, oil and grease for the boat
- ice
- provisions
- crew payments
- fishing equipment, purchase and repairs (nets, pots, lines, etc.)
- repairs & maintenance: ongoing (slipping, painting, overhaul motor).

Boat Gross Margin: is defined as *Total Boat Income* less *Total Boat Variable Costs*. This is a basic measure of profit which assumes that capital has no alternative use and that as fishing activity (days fished) varies there is no change in capital or fixed costs.

Total Boat Fixed Costs: are costs that remain fixed regardless of the amount of time spent fishing. As such these costs, measured in current dollar terms, are likely to remain relatively constant from one year to the next. Examples of fixed cost include:

- insurance
- licence and industry fees
- office & business administration (communication, stationery, accountancy fees)
- interest on loan repayments and overdraft.

Total Boat Cash Costs (TBCC): defined as *Total Boat Variable Costs* plus *Total Boat Fixed Costs*

Gross Operating Surplus: (GOS) is defined as *Total Boat Income* less *Total Boat Cash Costs* and is expressed in current dollar terms. GOS may be used interchangeably with the term Gross Boat Profit. A GOS value of zero represents a breakeven position for the business, where TBCC equals TBCR. If GOS is a negative value the firm is operating at a cash loss and if positive the firm is making a cash profit. GOS does not include a value for owner/operator wages, unpaid family work, or depreciation.

Owner-operator and Unpaid Family Labour: in many fishing businesses there is a component of labour that does not draw a direct wage or salary from the business. This will generally include owner/operator labour and often also include some unpaid family labour. The value of this labour needs to be accounted for which involves imputing a labour cost based on the estimated number of days spent on unpaid labour and equivalent wages rate. In the above calculations this labour cost can be included simply as another cost so that Gross Operating Surplus takes account of this cost. Alternatively, it can be deducted from GOS to give a separate indicator called Boat Cash Income. Owner-operator and unpaid family labour is separated into variable labour which is adjusted by the number of days fished (fishing and repairs and maintenance) and overhead labour which is fixed (management and administration).

Boat Cash Income: is defined as Gross Operating Surplus less imputed wages for owner- operator and unpaid family labour.

Boat Capital: includes capital items that are required by the licence holder to earn the boat income. It includes boat hull, engine, electronics and other permanent fixtures and tender boats. Other capital items such as motor vehicles, sheds, cold-rooms, and jetty/moorings can be included to the extent that they are used in the fishing business. The fishing licence/permit value is included in total boat capital.

Depreciation: Depreciation refers to the annual reduction in the value of boat capital due to general wear and tear or the reduction in value of an item over time.

Boat Business Profit: is defined as *GOS* less *Depreciation* less *Owner-operator and Unpaid Family Labour*. Boat Business Profit represents a more complete picture of the actual financial status of an individual firm, compared with GOS, which represents the cash in-cash out situation only.

Profit at Full Equity: is calculated as *Boat Business Profit* plus *rent, interest and lease* payments. Profit at Full Equity represents the profitability of an individual licence holder, assuming the licence holder has full equity in the operation, i.e. there is no outstanding debt associated with the investment in boat capital. Profit at Full Equity is a useful absolute measure of the economic performance of fishing firms.

Rate of Return to Capital: is calculated as *Profit at Full Equity* divided by *Boat Capital* multiplied by 100. This measure is expressed in percentage terms and is calculated for an individual licence holder. It refers to the economic return to the total investment in capital items, and is a useful relative measure of the performance of individual firms. Rate of return to capital is useful to compare the performance of various licence holders, and to compare the performance of other types of operators, and with other industries.

Gross value of production (GVP): refers to the value of the total annual catch for individual fisheries, fishing sectors or the fishing industry as a whole, and is measured in dollar terms. GVP, generally reported on an annual basis, is the quantity of catch for the year multiplied by the average monthly landed beach prices. However, since Charter Boat operators do not take fish for sale, GVP is measured as the total number of clients multiplied by the average price per person (estimated from survey data).

Beach price: for Charter Boat operators it is 'average price' (excluding GST) paid by fishing clients and passengers.

Cost of management services: in a commercial fishery management services will generally include biological monitoring and reporting; policy, regulation and legislation development; compliance and enforcement services; licensing services; and research. Where a commercial fishery operates under full cost recovery, licence fees will be set to cover the cost of managing the fishery or at least the commercial sector's share of the resource.

In fisheries where there is full cost recovery, it can be assumed that the cost of providing these management services to the commercial sector will be equal to the gross receipts from licence fees in the fishery. With information on licence fee receipts, GVP, catch and the number of commercial fishers in the fishery, the following indicators can be readily calculated:

- aggregate licence fee receipts for the fishery (\$)
- licence fee/GVP (%)
- licence fee/clients (\$/client)
- licence fee/licence holder (\$/licence holder).

3. ECONOMIC INDICATORS FOR THE SA CHARTER BOAT FISHERY

3.1. Economic Objectives of the SA Charter Boat Fishery

The Management Plan for the South Australian Charter Boat Fishery (PIRSA 2022) sets out four goals, namely:

- Goal 1 - Charter Boat Fishery resources harvested within ecologically sustainable limits
- Goal 2 - Optimum utilisation and equitable distribution of the Charter Boat Fishery resources for the benefit of the community
- Goal 3 - Fishery impacts on the ecosystem are minimised
- Goal 4 - Cost-effective, efficient and participative management of the fishery.

In order to achieve these goals the management plan sets out specific biological, ecological, social and economic objectives for the fishery. Specific strategies and performance indicators relating to the economic objectives outlined in the management plan are detailed in Table 3-1. These performance indicators and others are presented in the following sections.

Table 3-1 Selected economic and social objectives of the management plan

Goal	Objective	Strategies	Performance Indicator	Description	Trigger Reference Point
Goal 2 Optimum utilisation and equitable distribution of the Charter Boat Fishery resources for the benefit of the community.	2b. Allocation framework and management arrangements provide for development of the Charter Boat Fishery.	2b(i). Regulatory reform is undertaken to allow for more flexibility in business operation and management arrangements within established sustainable catch limits. Work with relevant organisations to explore strategies that support sustainable growth in tourism-related activities associated with the sector.	Economic performance of Charter Boat Fishery Growth of passenger numbers in the charter sector Increase in trips	Management framework enables changes / increases in fishing activities within the established allocated share. The management plan provides processes for managing within existing shares and adjusting allocations, if required. There is an annual process to provide economic information.	Economic indicators not monitored annually
Goal 4 Cost-effective, efficient and participative management of the fishery.	4a. Cost-effective and efficient management of the fishery, in line with government's cost recovery policy.	4a(i). Develop and implement management arrangements that are effective at achieving management objectives and optimising costs.	Fee per licence holder	Licence fees include the costs of management, compliance and research. A breakdown of major cost items as a proportion of total boat cash costs.	Licence fee increases by more than CPI. Licence fees as a percentage of GVP are increasing.

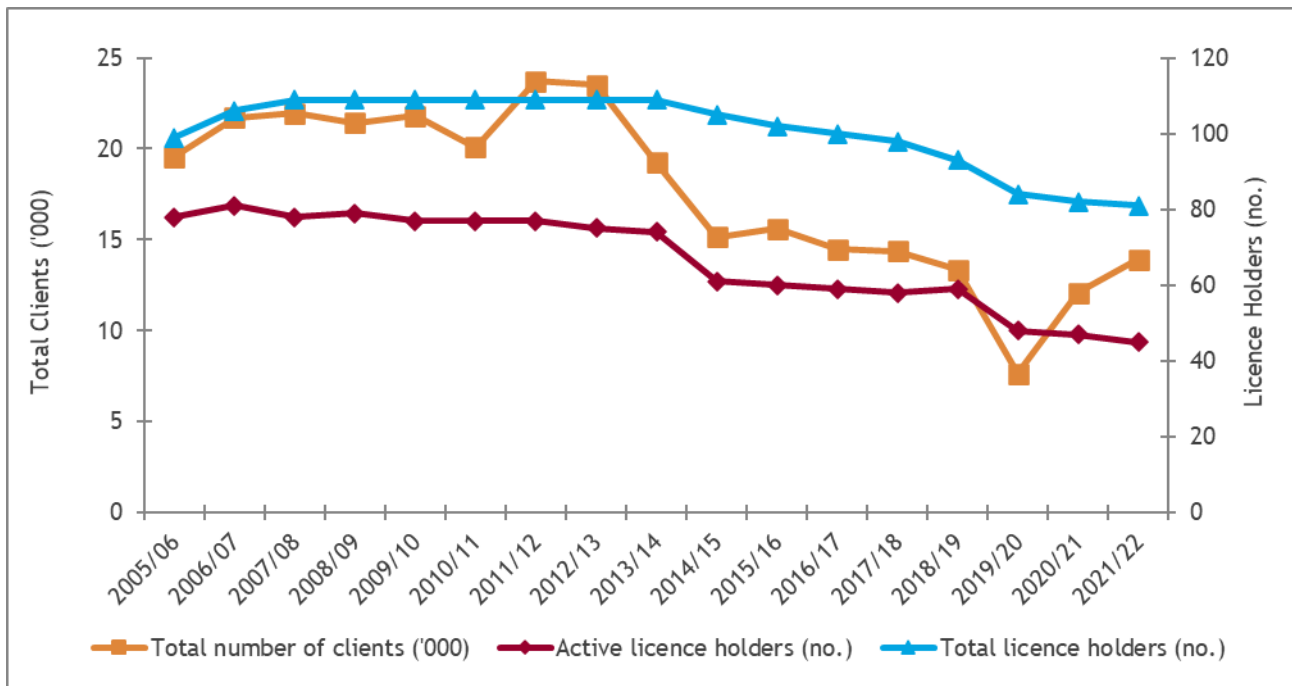
Goal	Objective	Strategies	Performance Indicator	Description	Trigger Reference Point
	4d. Compliance with management arrangements.	4d(ii). Develop and implement management arrangements that are clear and uncomplicated to promote voluntary compliance and assist with successful enforcement.	Industry understands management arrangements	Achieving sustainable management of fisheries requires fishers to comply with regulations regarding fishing activities, and to be responsible for their fishing activities. A key objective of fisheries management is therefore to ensure fishers are aware of their social responsibilities and are motivated to comply with these.	Licence holders indicate they do not understand management arrangements, as reported in the BDO EconSearch reports for the fishery.

Source: PIRSA Fisheries and Aquaculture (2022)

3.2. Gross Value of Production

The principal information used to estimate the gross value of production (GVP) for the South Australian Charter Boat Fishery is derived from the catch and effort database administered by SARDI Aquatic Sciences. This information includes the reported total number of clients, licence holders and active licence holders in the Charter Boat Fishery and is shown in Figure 3-1 for the period 2005/06 to 2021/22.

Figure 3-1 Total number of clients, licence holders and active licence holders, Charter Boat Fishery, 2005/06^a to 2021/22



^a Data for 2005/06 was collected from August 2005 to June 2006 only.

Source: SARDI Aquatic Sciences.

The total number of clients in the fishery increased between 2005/06 and 2011/12, before decreasing gradually from 2012/13 to 2018/19. In 2019/20 the total number of clients decreased to a low of 7,616 before increasing to 13,913 in 2021/22.

The total number of clients decreased significantly between 2012/13 and 2014/15, and again between 2018/19 and 2019/20 (Figure 3-1). The first significant decrease is likely partially explained by the December Snapper closure introduced in 2013 (see BDO EconSearch 2022a for more information). The second decrease was partly attributable to the State-wide closure of the Snapper fishery, which began in November 2019, combined with the COVID-19 pandemic which began in February 2020.

The total number of active licence holders followed a downward trend between 2005/06 and 2021/22, from 78 to 45. This decline in total number of active licences (42 per cent) was greater than the decrease in total number of licences (20 per cent), indicating that there was an increase in inactive licences over the period (Figure 3-1).

A breakdown of active licence holders by the number of clients for the period 2012/13 to 2021/22 is provided in Table 3-1. A large number of licence holders (44 per cent) did not operate in 2021/22 and were, therefore,

considered inactive. Of the remaining active licence holders 47 per cent took 200 or fewer clients for the year (Table 3-1).

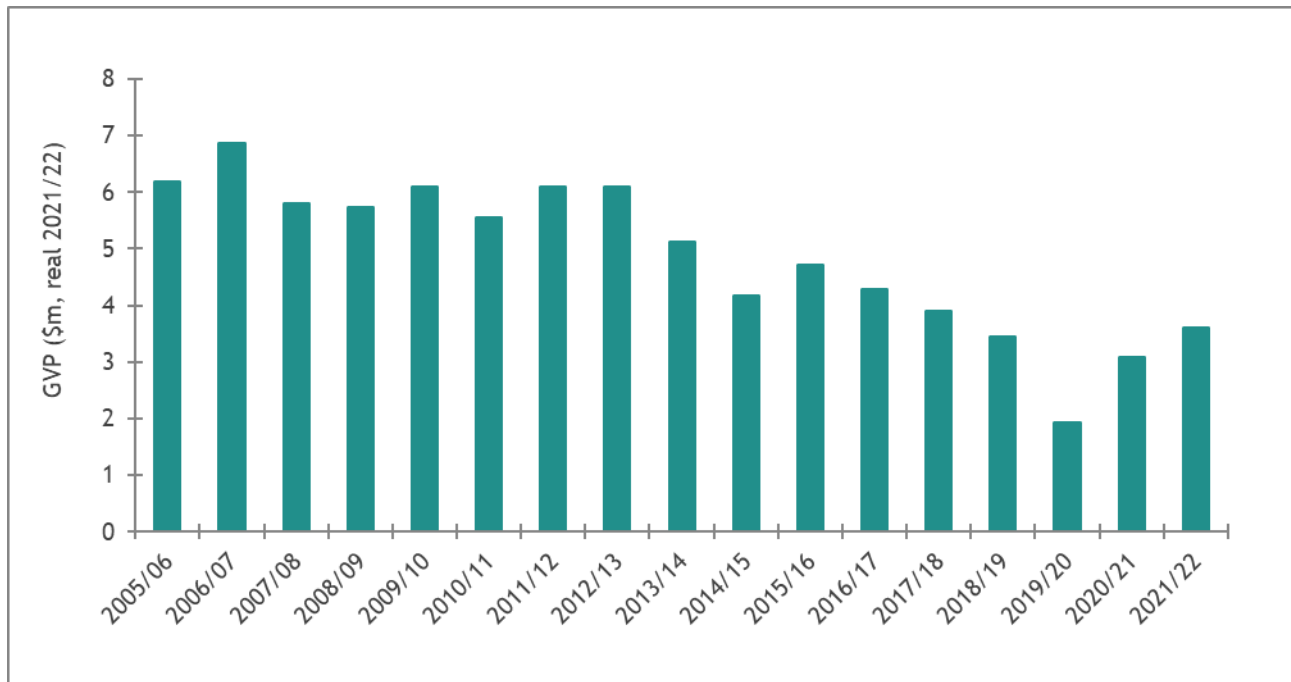
Table 3-1 Number of active licence holders by number of clients, 2012/13 to 2021/22

Number of Clients	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
1-200	36	41	30	29	30	28	36	33	24	21
201-400	22	22	19	20	17	20	10	10	14	12
401+	17	11	12	11	12	10	7	5	9	12
Total	75	74	61	60	59	58	53	48	47	45

Source: SARDI Aquatic Sciences

The estimated GVP in the Charter Boat Fishery for the period 2005/06 to 2021/22 is shown in Figure 3-2. In each year, GVP was calculated based on the average price per client from the most recent survey and the total number of clients from SARDI. The average price was adjusted for survey bias based on trip-length. An 18 per cent decline in real price per client along with the 29 per cent reduction in the number of clients between 2005/06 and 2021/22 resulted in real GVP for the fishery decreasing by 48 per cent over the same period (Figure 3-2).

Figure 3-2 Gross value of production, Charter Boat Fishery, 2005/06^a to 2021/22



^a Data for 2005/06 was collected from August 2005 to June 2006 only.

Source: SARDI Aquatic Sciences, ABS 2021a and BDO EconSearch analysis

3.3. Summary of Factors Affecting Costs in the SA Charter Boat Fishery

The information in Table 3-2 was used to adjust the 2020/21 financial performance indicators to reflect the costs incurred in the fishery in 2021/22.

Table 3-2 Factors affecting costs in the SA Charter Boat Fishery, 2020/21 and 2021/22

	2020/21	2021/22	Change
Total number of clients ^a	12,077	13,913	15%
Price of fuel - transportation index ^b	105.7	119.7	13%
Interest charges (% per annum) ^c	6.51%	6.59%	1%
CPI Adelaide ^d	117.8	125.3	6%
Wage price index ^e	136.4	139.3	2%

^a SARDI Aquatic Sciences

^b Transportation index (component of CPI) for Adelaide (ABS 2022a)

^c RBA indicator lending rate for small business (RBA 2022)

^d Consumer price index (CPI) for Adelaide (ABS 2022a)

^e Wage price index for SA (ABS 2022b)

The following data were used and adjustments were made.

- Information from SARDI on the change in fishing effort (total days fished) was used to adjust costs that vary depending on the amount of time spent fishing. These costs include the cost of fuel, repairs and maintenance, bait and provisions.
- The ABS Transportation Index for Adelaide was used to adjust the cost of fuel.
- Interest charges were adjusted in accordance with the Reserve Bank of Australia indicator lending rate (i.e. weighted average interest rate for small businesses with outstanding credit).
- The CPI for Adelaide was used to adjust other costs. Other costs associated with operating in the fishery include, legal and accounting costs, office and administration, telephone expenses and other incidental costs.
- The Wage Price index was used to adjust the cost of labour.

3.4. Cost of Management

The Charter Boat Fishery is a commercial platform for undertaking recreational fishing and has transferable licences. In 2021/22, there were 81 licensed Charter Boat operators of which only 45 were active (i.e. undertook one or more fishing trips during that year). Although the fishery is classified as a commercial fishery, unlike other commercial fisheries charter operators cannot take fish for sale, trade or transfer. As such, Charter Boat licence holders are considered commercial operators rather than commercial fishers (Knight et al. 2007).

Licence fees from SA Charter Boat Fishery licence holders are collected in accordance with the PIRSA Cost Recovery Policy and the Australian Government's Cost Recovery Guidelines (July 2014). Accordingly, licence fees are set to cover the cost of managing the SA Charter Boat Fishery. For the purpose of this analysis, the cost of providing these management services has been assumed to be equal to the gross receipts from licence fees in the fishery (PIRSA, pers. comm.), although this excludes some known small subsidies, such as federal government grants for research and development.

Management services include:

- annual reports on biological and economic indicators
- policy and management services
- regulatory/legislation and licensing services
- compliance services
- directorate services
- consultative services
- strategic planning services.

Table 3-3 shows the cost of management for the fishery for the period 2005/06 to 2022/23.

Table 3-3 Costs of management in the Charter Boat Fishery, 2005/06 to 2022/23 ^a

	Licence Fee	GVP	Fee/GVP	Clients		Licences	Fee/Licence
	(\$'000)	(\$'000)	(%)	(persons)	(\$/client)	(No.)	(\$/licence)
2005/06	293	6,189	4.7%	19,540	15	99	2,962
2006/07	351	6,869	5.1%	21,697	16	106	3,309
2007/08	335	5,806	5.8%	21,962	15	109	3,077
2008/09	330	5,731	5.8%	21,430	15	109	3,028
2009/10	367	6,103	6.0%	21,822	17	109	3,366
2010/11	327	5,561	5.9%	20,097	16	109	3,004
2011/12	443	6,092	7.3%	23,711	19	109	4,060
2012/13	433	6,106	7.1%	23,525	18	109	3,976
2013/14	438	5,130	8.5%	19,227	23	109	4,022
2014/15	438	4,174	10.1%	15,129	29	105	4,174
2015/16	422	4,722	8.9%	15,597	27	102	4,141
2016/17	415	4,289	9.7%	14,459	29	100	4,151
2017/18	402	3,907	10.3%	14,382	28	98	4,099
2018/19	404	3,440	11.8%	13,364	30	93	4,347
2019/20	406	1,937	20.9%	7,616	53	84	4,830
2020/21 ^b	191	3,092	6.2%	12,077	16	82	2,330
2021/22	362	3,603	10.0%	13,913	26	81	4,464
2022/23	376	n.a.	-	n.a.	-	79	4,765

^a Licence fees and GVP are presented in real 2021/22 dollars. The Adelaide CPI was used to convert nominal figures to 2021/22 dollars. Estimates for 2022/23 have not been adjusted. Cost of management in nominal values is provided in Appendix Table 4-1.

^b Aggregate licence fees of approximately \$180,000, or \$2,191 on average per licence holder, were waived by Government to aid operators who have been significantly impacted as a result of COVID-19. This was funded from the Marshall Liberal Government's \$650 million Jobs Rescue Package.

Source: PIRSA Fisheries and Aquaculture, SARDI Aquatic Sciences and BDO EconSearch analysis

Between 2005/06 and 2021/22 the following trends can be observed:

- The total cost of managing the fishery followed an increasing trend (23 per cent between 2005/06 and 2021/22). This is despite a significant decrease in 2020/21 which was due to fees being waived by Government to aid operators who were significantly impacted as a result of the COVID-19 pandemic. This was funded from the Marshall Liberal Government's \$650 million Jobs Rescue Package.
- GVP followed a downward trend between 2005/06 and 2021/22, resulting in fees as a proportion of GVP gradually increasing over this period.
- Fees per client followed an increasing trend between 2005/06 and 2021/22, from \$15 to \$26 per client, due to increased real aggregate licence fees and reduced clients over this period.
- Fees charged per licence holder trended upwards between 2005/06 and 2021/22, from \$2,962 to \$4,464 in real terms. This increase is despite a fee reduction in 2020/21 which reduced fees per license holder to \$2,330.

Following the introduction of formal Charter Boat licences in 2006/07 there was a period of adjustment where licences were processed based on prior Charter Boat operations. As a result, the number of licences increased from 99 in 2005/06 to 109 in 2007/08. The total number of licences has since fallen to 81 in 2021/22 (Table 3-3). As the Charter Boat Fishery has restricted entry to assist in ensuring that species targeted in the Charter Boat Fishery are harvested sustainably (PIRSA 2022), a number of licence holders are choosing to pay these licence fees and keep their licences despite being inactive. This is most likely in the hopes that there is an upturn in business conditions in the future.

3.5. Financial Performance Indicators

The major measures of the financial performance of licence holders in the Charter Boat Fishery for SA for 2019/20 to 2021/22 are shown in Table 3-4. The estimates for 2019/20 are based on the 2019 licence holder survey, and estimates for 2020/21 and 2021/22 are based on the 2021 licence holder survey. Financial performance estimates for the years 2009/10 to 2018/19 are presented in Appendix 1. As estimates of financial performance are based on different survey results, some of the differences between years are attributable to sampling variability. This is as each survey may contain different fishers with larger or smaller businesses affecting estimated averages.

Estimates of financial performance for 2021/22 are also presented on a regional basis (i.e. for Spencer Gulf/Coffin Bay (SG/CB), Gulf St Vincent/Kangaroo Island (GSV/KI)) and Victor Harbour/South East (VH/SE) in Table 3-5.

Given the sample size of 23 respondents covering 27 licences, it was possible to divide the 2021 survey responses into four groups (quartiles) according to rate of return to total capital. The first quartile comprises the 25 per cent of boats with the lowest rate of return to capital and the fourth quartile includes the 25 per cent with the highest return to capital. This quartile analysis illustrates the wide variability in profitability in the fishery. The 2021/22 financial performance measures for 'return to capital' quartiles are detailed in Table 3-6 as an average per licence and in Table 3-7 as an average per client.

Table 3-4 Financial performance in the Charter Boat Fishery, 2019/20 to 2021/22^a

	2019/20			2020/21			2021/22		
	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b
(1) Total Boat Gross Income	\$66,899	\$123		\$95,682	\$229		\$118,585	\$246	
Variable Costs									
Fuel	\$16,257	\$30	17%	\$16,015	\$38	16%	\$20,769	\$43	18%
Repairs & Maintenance ^c	\$10,848	\$20	11%	\$17,007	\$41	17%	\$20,725	\$43	18%
Bait/Ice	\$2,732	\$5	3%	\$3,525	\$8	4%	\$4,295	\$9	4%
Provisions	\$1,811	\$3	2%	\$854	\$2	1%	\$1,040	\$2	1%
Labour - paid	\$13,836	\$25	14%	\$6,185	\$15	6%	\$7,237	\$15	6%
(2) Labour - unpaid ^d	\$10,071	\$19	10%	\$13,126	\$31	13%	\$15,357	\$32	13%
Advertising & Promotion	\$2,702	\$5	3%	\$1,870	\$4	2%	\$1,989	\$4	2%
Other	\$1,719	\$3	2%	\$1,096	\$3	1%	\$1,167	\$2	1%
(3) Total Variable Costs	\$59,978	\$110	61%	\$59,679	\$143	60%	\$72,580	\$151	63%
Fixed Costs									
Licence Fee	\$4,992	\$9	5%	\$4,185	\$10	4%	\$8,425	\$17	7%
Insurance	\$4,703	\$9	5%	\$4,179	\$10	4%	\$4,445	\$9	4%
(4) Interest	\$2,092	\$4	2%	\$1,141	\$3	1%	\$1,156	\$2	1%
(5) Labour - unpaid ^d	\$8,547	\$16	9%	\$17,493	\$42	18%	\$17,865	\$37	15%
Legal & Accounting	\$2,107	\$4	2%	\$2,030	\$5	2%	\$2,159	\$4	2%
Telephone etc.	\$2,322	\$4	2%	\$1,296	\$3	1%	\$1,379	\$3	1%
Slipping & Mooring	\$3,689	\$7	4%	\$2,193	\$5	2%	\$2,332	\$5	2%
Travel	\$916	\$2	1%	\$659	\$2	1%	\$701	\$1	1%
Office & Admin	\$8,523	\$16	9%	\$7,027	\$17	7%	\$4,804	\$10	4%
(6) Total Fixed Costs	\$37,891	\$70	39%	\$40,203	\$96	40%	\$43,267	\$90	37%
(7) Total Boat Cash Costs (3+6)	\$97,869	\$180	100%	\$99,882	\$239	100%	\$115,847	\$240	100%
Boat Gross Margin (1-3)	\$6,921	\$13		\$36,003	\$86		\$46,005	\$95	
(8) Total Unpaid Labour (2+5)	\$18,618	\$34		\$30,618	\$73		\$33,222	\$69	
Gross Operating Surplus (1-7+8)	-\$12,352	-\$23		\$26,418	\$63		\$35,960	\$75	
(9) Boat Cash Income (1-7)	-\$30,970	-\$57		-\$4,200	-\$10		\$2,738	\$6	
(10) Depreciation	\$11,495	\$21		\$22,687	\$54		\$21,848	\$45	
(11) Boat Business Profit (9-10)	-\$42,465	-\$78		-\$26,887	-\$64		-\$19,110	-\$40	
(12) Profit at Full Equity (11+4)	-\$40,374	-\$74		-\$25,746	-\$62		-\$17,953	-\$37	
Boat Capital									
(13) Fishing Gear & Equip	\$312,822	\$576		\$273,514	\$654		\$263,395	\$546	
Licence Value	\$6,520	\$12		\$7,750	\$19		\$9,052	\$19	
(14) Total Boat Capital	\$319,341	\$588		\$281,264	\$672		\$272,447	\$565	
Rate of Return on Fishing Gear & Equip (12/13*100)	-12.9%			-9.4%			-6.8%		
Rate of Return on Total Boat Capital (12/14*100)	-12.6%			-9.2%			-6.6%		

^a Estimates of financial performance for 2019/20 are based on the 2019 licence holder survey, and estimates for 2020/21 and 2021/22 are based on the 2021 licence holder survey.

^b Total boat cash costs.

^c Repairs and maintenance costs have been classified as a variable cost although it is noted that some of these costs may be fixed (e.g. regulated maintenance).

^d Unpaid labour was divided between variable (time spent fishing and on repairs and maintenance) and fixed (management and administrative duties) based on survey responses.

Source: Licence holder survey and BDO EconSearch analysis

Table 3-5 Financial performance in the Charter Boat Fishery, by fishing region, 2021/22^a

	GSV/KI			SG/CB			VH/SE		
	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b
(1) Total Boat Gross Income	\$150,901	\$261		\$93,940	\$248		\$130,632	\$241	
Variable Costs									
Fuel	\$24,769	\$43	19%	\$19,362	\$51	15%	\$26,853	\$50	28%
Repairs & Maintenance ^c	\$23,894	\$41	18%	\$24,795	\$65	19%	\$5,797	\$11	6%
Bait/Ice	\$5,034	\$9	4%	\$4,531	\$12	3%	\$4,361	\$8	5%
Provisions	\$984	\$2	1%	\$1,898	\$5	1%	\$579	\$1.07	1%
Labour - paid	\$13,500	\$23	10%	\$7,237	\$19	6%	\$0	\$0	0%
(2) Labour - unpaid ^d	\$12,808	\$22	10%	\$21,611	\$57	17%	\$15,563	\$29	16%
Advertising & Promotion	\$2,536	\$4.39	2%	\$1,975	\$5	2%	\$1,915	\$4	2%
Other	\$1,195	\$2	1%	\$729	\$2	1%	\$1,292	\$2	1%
(3) Total Variable Costs	\$84,719	\$147	64%	\$82,138	\$216	63%	\$56,359	\$104	58%
Fixed Costs									
Licence Fee	\$8,842	\$15	7%	\$9,692	\$26	7%	\$8,139	\$15	8%
Insurance	\$4,492	\$8	3%	\$4,209	\$11	3%	\$4,676	\$9	5%
(4) Interest	\$1,427	\$2	1%	\$1,810	\$5	1%	\$1,325	\$2	1%
(5) Labour - unpaid ^d	\$21,056	\$36	16%	\$21,213	\$56	16%	\$15,328	\$28	16%
Legal & Accounting	\$2,373	\$4	2%	\$1,930	\$5	1%	\$1,899	\$4	2%
Telephone etc.	\$1,080	\$2	1%	\$2,310	\$6	2%	\$942	\$2	1%
Slipping & Mooring	\$3,036	\$5	2%	\$1,504	\$4	1%	\$2,264	\$4	2%
Travel	\$695	\$1	1%	\$425	\$1	0%	\$836	\$2	1%
Office & Admin	\$5,333	\$9	4%	\$4,369	\$12	3%	\$4,949	\$9	5%
(6) Total Fixed Costs	\$48,334	\$84	36%	\$47,462	\$125	37%	\$40,359	\$75	42%
(7) Total Boat Cash Costs (3+6)	\$133,053	\$230	100%	\$129,600	\$342	100%	\$96,718	\$179	100%
Boat Gross Margin (1-3)	\$66,182	\$115		\$11,802	\$31		\$74,273	\$137	
(8) Total Unpaid Labour (2+5)	\$33,864	\$59		\$42,824	\$113		\$30,891	\$57	
Gross Operating Surplus (1-7+8)	\$51,712	\$89		\$7,165	\$19		\$64,805	\$120	
(9) Boat Cash Income (1-7)	\$17,848	\$31		-\$35,660	-\$94		\$33,914	\$63	
(10) Depreciation	\$22,552	\$39		\$18,082	\$48		\$23,447	\$43	
(11) Boat Business Profit (9-10)	-\$4,704	-\$8		-\$53,742	-\$142		\$10,467	\$19	
(12) Profit at Full Equity (11+4)	-\$3,277	-\$6		-\$51,932	-\$137		\$11,792	\$22	
Boat Capital									
(13) Fishing Gear & Equip	\$253,385	\$438		\$271,193	\$715		\$279,777	\$517	
Licence Value	\$7,457	\$13		\$6,007	\$16		\$10,908	\$20	
(14) Total Boat Capital	\$260,842	\$451		\$277,200	\$731		\$290,685	\$537	
Rate of Return on Fishing Gear & Equip (12/13*100)	-1.3%	-1.3%		-19.1%	-19.1%		4.2%	4.2%	
Rate of Return on Total Boat Capital (12/14*100)	-1.3%	-1.3%		-18.7%	-18.7%		4.1%	4.1%	

^a Financial performance results have not been presented for the West Coast fishing region due to the limited number of responses from this region.

^b Total boat cash costs.

^c Repairs and maintenance costs have been classified as a variable cost although it is noted that some of these costs may be fixed (e.g. regulated maintenance).

^d Unpaid labour was divided between variable (time spent fishing and on repairs and maintenance) and fixed (management and administrative duties) based on survey responses.

Source: Licence holder survey and BDO EconSearch analysis

Table 3-6 Financial performance in the Charter Boat Fishery, by return to capital quartile, 2021/22 (average per licence)

	Lowest 25%	Second Quartile	Third Quartile	Highest 25%	All Licences
(1) Total Boat Gross Income	\$88,349	\$72,055	\$118,094	\$208,717	\$118,585
Variable Costs					
Fuel	\$16,306	\$40,108	\$12,653	\$12,882	\$20,769
Repairs & Maintenance ^a	\$46,915	\$13,317	\$10,741	\$10,459	\$20,725
Bait/Ice	\$4,278	\$5,832	\$1,863	\$5,362	\$4,295
Provisions	\$870	\$957	\$870	\$1,533	\$1,040
Labour - paid	\$17,216	\$167	\$10,480	\$58	\$7,237
(2) Labour - unpaid ^b	\$16,039	\$16,474	\$10,140	\$19,346	\$15,357
Advertising and Promotion	\$2,477	\$2,310	\$912	\$2,305	\$1,989
Other	\$258	\$547	\$2,796	\$1,046	\$1,166
(3) Total Variable Costs	\$104,359	\$79,712	\$50,454	\$52,991	\$72,579
Fixed Costs					
Licence Fee	\$7,995	\$8,254	\$9,634	\$7,717	\$8,425
Insurance	\$4,923	\$4,701	\$3,905	\$4,219	\$4,445
(4) Interest	\$1,448	\$1,303	\$1,709	\$0	\$1,156
(5) Labour - unpaid ^b	\$23,254	\$11,200	\$10,678	\$27,738	\$17,865
Legal & Accounting	\$2,614	\$1,641	\$1,413	\$3,102	\$2,159
Telephone etc.	\$1,064	\$2,006	\$1,474	\$904	\$1,379
Slipping & Mooring	\$3,571	\$3,069	\$1,185	\$1,365	\$2,332
Travel	\$532	\$1,140	\$380	\$762	\$701
Office & Admin	\$2,553	\$4,764	\$6,128	\$3,573	\$8,002
(6) Total Fixed Costs	\$47,953	\$38,077	\$36,506	\$49,381	\$46,465
(7) Total Boat Cash Costs (3+6)	\$152,311	\$117,790	\$86,960	\$102,372	\$119,043
Boat Gross Margin (1-3)	-\$16,010	-\$7,657	\$67,640	\$155,726	\$46,006
(8) Total Unpaid Labour (2+5)	\$39,292	\$27,673	\$20,817	\$47,084	\$33,222
Gross Operating Surplus (1-7+8)	-\$24,670	-\$18,061	\$51,951	\$153,430	\$32,763
(9) Boat Cash Income (1-7)	-\$63,963	-\$45,735	\$31,134	\$106,346	-\$459
(10) Depreciation	\$17,424	\$26,070	\$21,303	\$22,718	\$21,848
(11) Boat Business Profit (9-10)	-\$81,387	-\$71,804	\$9,831	\$83,628	-\$22,306
(12) Profit at Full Equity (11+4)	-\$79,939	-\$70,501	\$11,539	\$83,628	-\$21,150
Boat Capital					
(13) Fishing Gear & Equip	\$181,753	\$303,660	\$292,161	\$278,108	\$263,395
Licence Value	\$8,677	\$4,463	\$5,923	\$18,493	\$9,052
(14) Total Boat Capital	\$190,430	\$308,124	\$298,085	\$296,602	\$272,447
Rate of Return on Fishing Gear & Equip (12/13*100)	-44.0%	-23.2%	3.9%	30.1%	-8.0%
Rate of Return on Total Boat Capital (12/14*100)	-42.0%	-22.9%	3.9%	28.2%	-7.8%

^a Repairs and maintenance costs have been classified as a variable cost although it is noted that some of these costs may be fixed (e.g. regulated maintenance).

^b Unpaid labour was divided between variable (time spent fishing and on repairs and maintenance) and fixed (management and administrative duties) based on survey responses.

Source: Licence holder survey and BDO EconSearch analysis

Table 3-7 Financial performance in the Charter Boat Fishery, by return to capital quartile, 2021/22 (average per client)

	Lowest 25%	Second Quartile	Third Quartile	Highest 25%	All Licences
(1) Total Boat Gross Income	\$280	\$295	\$320	\$227	\$283
Variable Costs					
Fuel	\$52	\$164	\$34	\$14	\$50
Repairs & Maintenance ^a	\$149	\$55	\$29	\$11	\$50
Bait/Ice	\$14	\$24	\$5	\$6	\$10
Provisions	\$3	\$4	\$2	\$2	\$2
Labour - paid	\$55	\$1	\$28	\$0	\$17
(2) Labour - unpaid ^b	\$51	\$68	\$27	\$21	\$37
Advertising and Promotion	\$8	\$9	\$2	\$3	\$5
Other	\$1	\$2	\$8	\$1	\$3
(3) Total Variable Costs	\$331	\$327	\$137	\$58	\$173
Fixed Costs					
Licence Fee	\$25	\$34	\$26	\$8	\$20
Insurance	\$16	\$19	\$11	\$5	\$11
(4) Interest	\$5	\$5	\$5	\$0	\$3
(5) Labour - unpaid ^b	\$74	\$46	\$29	\$30	\$43
Legal & Accounting	\$8	\$7	\$4	\$3	\$5
Telephone etc.	\$3	\$8	\$4	\$1	\$3
Slipping & Mooring	\$11	\$13	\$3	\$1	\$6
Travel	\$2	\$5	\$1	\$1	\$2
Office & Admin	\$8	\$20	\$17	\$4	\$19
(6) Total Fixed Costs	\$152	\$156	\$99	\$54	\$111
(7) Total Boat Cash Costs (3+6)	\$483	\$483	\$236	\$111	\$285
Boat Gross Margin (1-3)	-\$51	-\$31	\$183	\$169	\$110
(8) Total Unpaid Labour (2+5)	\$125	\$113	\$56	\$51	\$79
Gross Operating Surplus (1-7+8)	-\$78	-\$74	\$141	\$167	\$78
(9) Boat Cash Income (1-7)	-\$203	-\$188	\$84	\$115	-\$1
(10) Depreciation	\$55	\$107	\$58	\$25	\$52
(11) Boat Business Profit (9-10)	-\$258	-\$294	\$27	\$91	-\$53
(12) Profit at Full Equity (11+4)	-\$253	-\$289	\$31	\$91	-\$51
Boat Capital					
(13) Fishing Gear & Equip	\$576	\$1,245	\$792	\$302	\$630
Licence Value	\$28	\$18	\$16	\$20	\$22
(14) Total Boat Capital	\$604	\$1,264	\$808	\$322	\$651
Rate of Return on Fishing Gear & Equip (12/13*100)	-44.0%	-23.2%	3.9%	30.1%	-8.0%
Rate of Return on Total Boat Capital (12/14*100)	-42.0%	-22.9%	3.9%	28.2%	-7.8%

^a Repairs and maintenance costs have been classified as a variable cost although it is noted that some of these costs may be fixed (e.g. regulated maintenance).

^b Unpaid labour was divided between variable (time spent fishing and on repairs and maintenance) and fixed (management and administrative duties) based on survey responses.

Source: Licence holder survey and BDO EconSearch analysis

Income

The average gross income per active surveyed licence in the Charter Boat Fishery in 2021/22 was almost \$119,000, up from \$96,000 in 2020/21 and \$67,000 in 2019/20 (Table 3-4). There was some variation in gross income between the regions. Estimated mean gross income ranged from almost \$94,000 in the SG/CB region to over \$130,000 in the VH/SE region, and to almost \$151,000 in the GSV/KI region. On a per client basis, average income was highest in the GSV/KI region (\$261), followed by the SG/CB region (\$248) and the VH/SE region (\$241) (Table 3-5). In 2021/22 boat gross income in the GSV/KI region was 21 per cent lower than it was in 2018/19, and in the SG/CB region was 20 per cent lower than 2018/19 (BDO EconSearch 2022a). The VH/SE region was not reported separately prior to 2020/21.

The average income for boats in the first quartile was 25 per cent below the average for all boats and in the second quartile it was 39 per cent below the average. The third quartile of boat income was almost equal to the average for the whole fishery, while boats in the fourth quartile had the highest income (\$209,000), 76 per cent above the average (Table 3-6).

Costs

Table 3-4 to Table 3-7 show total boat costs separated into variable and fixed costs. Variable costs (63 per cent of total boat cash costs in 2021/22) represented a significantly greater proportion of total boat cash costs than fixed costs (37 per cent). This is consistent with other fisheries where the variable costs are generally in the range of 60 to 80 per cent and fixed costs in the range of 20 to 40 per cent.

It was estimated that total boat cash costs increased by 16 per cent between 2020/21 and 2021/22. This was the result of an 8 per cent increase in fixed costs and a 22 per cent rise in variable costs. Approximately 35 per cent of total cash costs were attributable to fixed and variable labour costs (about \$40,000 including unpaid labour), by far the largest individual cost item (Table 3-4).

The labour costs reported in Table 3-4 to Table 3-7 are comprised of payments to licence owners and crew as well as an imputed wage to those licence owners and other family members who are not paid a wage directly by the business. Paid labour (\$7,000) accounted for 6 per cent of total cash costs. Imputed unpaid labour (\$33,000) was split into variable (fishing and repairs and maintenance) and fixed (management and administration) components based on the 2021 licence holder survey. In total, imputed unpaid labour accounted for around 29 per cent of total cash costs. Other significant cash costs were repairs and maintenance, and fuel which each made up 18 per cent of total boat cash costs.

Total boat cash costs were highest on average in the GSV/KI region (\$133,000) followed by the SG/CB region (\$130,000) and the VH/SE region (\$97,000) (Table 3-5). Total boat cash costs in the first quartile were 49 per cent higher than average boat cash costs in the fourth quartile (Table 3-6).

Cash Income and Profit

The separation of total cash costs into variable and fixed costs enables the calculation of boat gross margin (total boat income less total boat variable costs) as a basic measure of profit (assuming that capital has no alternative use and that as fishing activity varies there is no change in capital or fixed costs). There was an increase in estimated boat gross margin in 2021/22 (\$46,000) compared to the previous year (\$36,000) as a result of the increase in boat gross income (24 per cent) combined with a smaller change in variable costs (22 per cent) (Table 3-4).

As mentioned above, the fourth quartile has above average income and lower than average costs. Due to the significant difference in total costs, boat gross margin was significantly higher in the fourth quartile

(\$156,000) compared to the other quartiles. Despite the third quartile having similar income to the average, the costs are significantly lower, this resulted in an above average boat gross margin for the third quartile of almost \$68,000.

Gross operating surplus (GOS) is calculated as gross income minus total boat cash costs, excluding imputed wages for operator and family members. The average GOS of all boats in 2021/22 was estimated to be \$36,000, significantly higher than in 2020/21 (\$26,000). Boat cash income is measured as gross operating surplus with imputed wages (unpaid labour) included as cash costs. The estimated average boat cash income in 2021/22 was approximately \$2,700 per licence, up from approximately -\$4,200 in 2020/21 (Table 3-4). This is the first year that boat cash income has been positive since 2015/16.

GOS and boat cash income give an indication of the capacity of an operator to remain in the fishery in the short to medium term. The average operator in the fishery has not been performing well in this regard. Negative boat cash income indicates that the business revenue is not sufficient to cover total cash costs. However, it is an encouraging indicator that GOS has been positive for two years (2020/21 and 2021/22).

Boat business profit indicates the capacity of the operator to remain in the fishery in the medium to long term. In 2021/22, the average boat business profit was around -\$19,000 (Table 3-4). This was an improvement from the average boat business profit in the previous year (-\$27,000). The average boat business profit was highest in the VH/SE region (\$10,000), followed by the GSV/KI region (-\$4,700) and the GSV/KI region (-\$54,000) (Table 3-5). A negative boat business profit suggests that business revenue is insufficient to fully cover depreciation costs and therefore has or will have difficulty funding capital replacement in the longer term and earning a return on that capital.

Profit at full equity is a measure of the profitability of an individual licence holder, assuming the licence holder has full equity in the operation. It is a useful absolute measure of the economic performance of fishing businesses. Average profit at full equity in the Charter Boat Fishery in 2021/22 was estimated to be approximately -\$18,000, an improvement on 2020/21 (-\$26,000) (Table 3-4). The average profit at full equity was higher in the VH/SE region (\$12,000) than in the GSV/KI region (-\$3,300) and the SG/CB region (-\$52,000), mostly due to the lower boat cash costs in the VH/SE region (Table 3-5).

Average profit at full equity was positive in the third and fourth quartiles and negative for the first and second quartiles. Total boat cash costs appeared to be a significant determinant of profitability for boats in the fishery (Table 3-6).

The discussion provided above is on economic profit, not accounting profit. Businesses are viable in the long run with zero economic profit. Indeed, this is the normal state of most small businesses and it means that labour and capital costs are fully covered but not earning an above normal profit. It is also worth noting that in businesses such as these there may be non-financial benefits (e.g. enjoyment of fishing) that means operators are willing to forego income in return for lifestyle. As a result, negative economic profits can be sustainable in the long run as unpaid labour cost is partially offset by these non-monetary benefits.

Rate of Return to Capital

For the purpose of this analysis, 'investment' is considered to be the capital employed by a licence holder in the fishery. Capital includes boats, licence, fishing gear, sheds, vehicles and other capital items used as part of the fishing enterprise. It does not include working capital or capital associated with other businesses operated by the licence holder.

The average total investment in fishing gear and licence in the Charter Boat Fishery in 2021/22 was estimated to be around \$272,000 per fisher. This included the licence holder's estimate of the value of their

licence¹ (\$9,000) and investment in boats and fishing gear (\$263,000 per licence). The average total investment in fishing gear and licence was a decrease on the average total investment for 2020/21 (\$281,000). Licence holders indicated that, due to the inherent variability in the fishery, little money is spent on boats and gear in difficult years, as they try to keep costs to a minimum. No significant increase in the estimated value of capital may be indicative of difficulties for the fishery as a whole. However, in more profitable years investment in boats and gear increases, with surplus supplies being purchased and stored for use in years when fishing incomes decline.

For the Charter Boat Fishery as a whole, the average rate of return to fishing gear and equipment was estimated to be -6.8 per cent in 2021/22, while rate of return to total capital (gear and licence) was estimated to be -6.6 per cent (Table 3-4).

The average rate of return to total capital was highest for operators in the VH/SE region (4.1 per cent) followed by GSV/KI region (-1.3 per cent) and the SG/CB region (-18.7 per cent) (Table 3-5). The rate of return to total capital since 2018/19 in the GSV/KI region improved from -6.7 per cent to -1.3 per cent, but decreased in the SG/CB region from -5.7 per cent to -18.7 per cent (BDO EconSearch 2022a). The VH/SE region was not reported separately prior to 2020/21. The average rate of return to total capital was estimated to be -42.0 per cent in the first quartile and 28.2 per cent in the fourth quartile (Table 3-6).

There appears to be consistency in the total boat capital across the second, third and fourth quartiles, all between \$296,000 and \$309,000. However, the first quartile has only \$190,000 total boat capital on average. The absence of capital investment appears to increase other costs, notably repairs and maintenance which is 250 per cent higher than the second quartile, and approximately 340 per cent higher than the third and fourth quartiles (Table 3-6). This lower level of investment significantly reduces profitability measures and return to capital for the first quartile.

The question of what is a 'reasonable' average rate of return should be considered in light of the riskiness of the industry. Operating a Charter Boat fishing business is a moderately risky activity, with some of the major risks arising from seasonal variability (environmental risk and market demand) and uncertainty regarding long-term resource security (institutional risk).

Licence values

The reported average licence value of about \$9,000 for 2021/22 is a slight increase from the estimated value for 2020/21 (almost \$8,000) but a significant decline from a peak of almost \$40,000 (in nominal terms) in 2011/12. The value of licences represents a small proportion (3 per cent) of the total capital used by each licence holder in the fishery. The reported average licence value of \$9,000 for all licence types was based on the fishers' own estimates of the value of their licence provided in the 2021 survey of licence holders and updated for changes in profitability (Table 3-4). There was a large degree of variability in licence holder estimates of licence value in the 2021 survey. Estimates ranged from \$0 to \$50,000 per licence and some licence holders suggested that due to the large amount of latent effort (36 licences were inactive in 2021/22) the market value is low and declining. It is worth noting that the value of these licences would ideally be revealed through an active market with transparent and open reporting of trades. As this was not available, the survey of operators provided an alternative method of valuing licences.

¹ The estimate of the 2021/22 licence value reflects licence holders own estimates of the value of their licence in the 2021 survey updated for changes in profitability.

The Charter Boat Fishery has restricted access with no new licences currently being issued (PIRSA 2022) but the fact that these Charter Boat licences have any value is unusual. These licences have historically provided the holder with the opportunity to create negative profit at full equity and, as indicated by the large number of unused licences, these licences are not scarce. As there is a large number of inactive licences, it is likely that the small licence value is needed to encourage holders to sell to a willing buyer.

3.6. State and Regional Economic Contribution

Estimates of the economic contribution of the Charter Boat fishing industry in the South Australian and regional economies in 2021/22 are outlined below.

3.6.1. Measuring direct and flow-on effects

Economic contributions at the state and regional levels were based on input-output models prepared for the Department of Premier and Cabinet (BDO EconSearch 2021).

One aspect of the direct economic contribution of the sector is the income, expenditure and employment generated by Charter Boat businesses actively operating in the fishery. In order to compile a representative cost structure for the Charter Boat fishing sector, costs per boat were derived from data provided by operators in the fishery in the 2021 survey and updated as previously described. On an item-by-item basis, the expenditures were allocated between those occurring in South Australia and those goods and services imported from outside the state.

A second component of the direct economic contribution is the expenditures made by Charter Boat clients in their visit to the region in addition to the payment of the fee for their Charter Boat fishing experience. This includes expenditures on food, travel and, if relevant, accommodation.

The method used to estimate a profile of visitor expenditure is consistent with that used by the ABS (ABS 2017) and uses data published by Tourism Research Australia (TRA 2021). Based on the proportion of clients who participated in half day, full day or overnight trips (ranging from one to five nights), it was assumed that 60 per cent of clients attending a half day Charter Boat trip, 51 per cent of clients attending a full day trip and 57 per cent of clients attending a one night trip were day visitors. The remainder in each category and 100 per cent of all clients attending two to over five night trips were overnight visitors spending on average 3 nights on accommodation (that is attributable to the Charter Boat fishing experience). These proportions and average visitor nights per trip are based on the findings from the survey conducted for the FRDC project *A market research-driven and co-management approach to developing an industry strategy for the SA Charter Boat Fishery*, project number 2018-154 (AMR et al. 2019) which was run in parallel with the 2017/18 economic indicators analysis.

Regional visitor expenditure profiles were estimated for the SG/CB and GSV/KI regions based on the number of clients for each of these regions (provided by SARDI). In 2021/22, 83 per cent of trips occurred within these two regions, covering 85 per cent of clients. The remainder of trips were provided in a combined total, occurring across the VH/SE and WC regions. As the distribution between these regions could not be determined accurately, economic impacts could not be generated for these regions.

Each activity undertaken by Charter Boat operators and other businesses servicing Charter Boat clients generates flow-on effects to other sectors through purchases of inputs and the employment of labour. These flow-on effects have been estimated using input-output analysis. Input-output analysis is widely used in economic impact analysis and is a practical method for measuring economic contributions at regional and state levels.

Economic contributions have been specified in terms of the following economic indicators:

- value of output
- employment
- household income
- contribution to gross state or regional product.

Value of output is a measure of the gross revenue of goods and services produced by commercial organisations plus gross expenditure by government agencies. This indicator needs to be used with care as it includes elements of double counting.

Employment is a measure of the number of working proprietors, managers, directors and other employees, in terms of the number of full-time equivalent jobs.

Household income is a component of Gross State Product (GSP) and Gross Regional Product (GRP) and is a measure of wages and salaries, drawings by owner operators and other payments to labour including overtime payments and income tax, but excluding payroll tax.

Contribution to GSP or GRP is a measure of the net contribution of an activity to the state/regional economy. Contribution to GSP or GRP is measured as value of output less the cost of goods and services (including imports) used in producing the output. It can also be measured as household income plus other value added (gross operating surplus and all taxes, less subsidies). It represents payments to the primary inputs of production (labour, capital and land). Using contribution to GSP or GRP as a measure of economic contribution avoids the problem of double counting that may arise from using value of output for this purpose.

3.6.2. Economic contributions at the state and regional levels

Estimates of the economic contribution generated in 2021/22 by the Charter Boat fishing industry in South Australia and in the Spencer Gulf/Coffin Bay (SG/CB) and Gulf St Vincent/Kangaroo Island (GSV/KI) are detailed in Table 3-8 through to Table 3-10. Estimates for 2020/21 are provided in Appendix 2.

For each measure of economic activity, the contributions at the state level are greater than regional level contributions. This is to be expected, as the regional contribution is simply a component, albeit a significant one, of the total state contribution.

The direct contribution measures fishing and downstream activities (i.e. visitor and capital expenditure). The flow-on contribution measures the economic effects in other sectors of the economy (trade, manufacturing, etc.) generated by the fishing industry activities, that is, the multiplier effects.

Value of output

The value of output generated directly in South Australia and the regions by Charter Boat fishing enterprises summed to \$3.6 million in 2021/22 (Table 3-8), while output generated in South Australia including associated downstream activities (visitor activities and capital expenditure) summed to \$14.7 million. Total direct output (including downstream activities) generated regionally was estimated to be \$3.2 million in the SG/CB region (Table 3-9) and \$7.1 million GSV/KI region (Table 3-10).

Flow-on output to other sectors of the state economy added another \$20.1 million in output (\$2.5 million in the SG/CB region and \$9.1 million in the GSV/KI region). The sectors most affected were business services, manufacturing, trade and finance & insurance sectors. The total output contribution in SA (direct plus

indirect) was estimated to be \$34.8 million in 2021/22 (\$5.7 million in the SG/CB region and \$16.2 million in the GSV/KI region).

Table 3-8 The economic contribution of the Charter Boat fishing industry in SA, 2021/22

Sector	Output		Employment ^a		Household Income		Contribution to GSP	
	(\$m)	%	(fte jobs)	%	(\$m)	%	(\$m)	%
Direct effects								
Charter Boats	3.6	10.3%	39	22.2%	0.9	8.4%	0.9	5.4%
Visitor Activities								
Trade	2.8	8.1%	18	10.1%	1.2	11.2%	1.6	9.4%
Accom, rest, cafes	2.5	7.1%	17	9.6%	0.7	7.0%	1.3	7.7%
Transport	1.9	5.5%	6	3.4%	0.5	4.4%	0.7	4.2%
Manufacturing	1.8	5.3%	4	2.4%	0.3	2.8%	0.5	2.9%
Other Sectors	1.7	5.0%	5	3.0%	0.4	3.5%	1.0	5.6%
Capital expenditure ^b	0.3	0.9%	2	0.9%	0.1	1.1%	0.2	0.9%
Total Direct ^c	14.7	42.2%	91	51.8%	3.9	38.5%	6.3	36.2%
Flow-on effects								
Trade	2.3	6.6%	14	7.8%	0.9	8.9%	1.3	7.7%
Manufacturing	2.7	7.7%	7	3.9%	0.5	4.9%	0.8	4.6%
Business Services	3.4	9.8%	21	11.8%	1.6	15.6%	1.9	10.6%
Finance, Insurance	1.5	4.4%	3	1.9%	0.3	3.3%	1.0	5.6%
Other Sectors	10.2	29.3%	40	22.8%	3.0	28.8%	6.1	35.3%
Total Flow-on ^c	20.1	57.8%	85	48.2%	6.3	61.5%	11.1	63.8%
Total ^c	34.8	100.0%	176	100.0%	10.2	100.0%	17.4	100.0%
Total/Direct	2.4	-	1.9	-	2.6	-	2.8	-
Total/Client	\$2,500	-	0.01	-	\$700	-	\$1,200	-

^a Full-time equivalent jobs. Direct employment in the fishing industry was comprised of 26 full-time jobs and 52 part-time jobs, that is, 78 jobs in aggregate, which was estimated to be equal to 39 fte jobs.

^b Capital expenditure includes expenditure on boats, fishing gear and equipment, sheds and buildings, motor vehicles and other equipment.

^c Totals may not sum due to rounding.

Source: BDO EconSearch analysis

Table 3-9 The economic contribution of the Charter Boat fishing industry in Spencer Gulf/Coffin Bay region, 2021/22

Sector	Output		Employment ^a		Household Income		Contribution to GSP	
	(\$m)	%	(fte jobs)	%	(\$m)	%	(\$m)	%
Direct effects								
Charter Boats	1.0	17.2%	13	37.2%	0.3	16.3%	0.2	7.5%
Visitor Activities								
Trade	0.6	11.1%	4	11.7%	0.3	15.7%	0.4	13.4%
Accom, rest, cafes	0.6	11.1%	4	12.2%	0.2	10.6%	0.3	12.4%
Transport	0.3	4.5%	1	2.5%	0.1	4.1%	0.1	4.0%
Manufacturing	0.2	4.3%	1	3.0%	0.1	4.1%	0.1	3.7%
Other Sectors	0.4	7.8%	1	2.5%	0.1	3.5%	0.2	7.3%
Capital expenditure ^b	0.1	1.0%	0	1.0%	0.0	1.4%	0.0	1.0%
Total Direct ^c	3.2	56.9%	25	70.1%	0.9	55.7%	1.4	49.4%
Flow-on effects								
Trade	0.2	2.9%	2	5.7%	0.1	8.0%	0.2	7.1%
Manufacturing	0.1	2.3%	0	1.1%	0.0	1.7%	0.0	1.5%
Business Services	0.4	6.6%	2	6.3%	0.2	9.7%	0.2	7.2%
Finance, Insurance	0.1	1.9%	0	0.6%	0.0	1.2%	0.1	2.9%
Other Sectors	1.7	29.4%	6	16.2%	0.4	23.7%	0.9	31.9%
Total Flow-on ^c	2.5	43.1%	11	29.9%	0.7	44.3%	1.4	50.6%
Total ^c	5.7	100.0%	36	100.0%	1.7	100.0%	2.8	100.0%
Total/Direct	1.8	-	1.4	-	1.8	-	2.0	-
Total/Client	\$1,500	-	0.01	-	\$400	-	\$700	-

^a Full-time equivalent jobs. Direct employment in the fishing industry was comprised of 9 full-time jobs and 18 part-time jobs, that is, 27 jobs in aggregate, which was estimated to be equal to 13 fte jobs.

^b Capital expenditure includes expenditure on boats, fishing gear and equipment, sheds and buildings, motor vehicles and other equipment.

^c Totals may not sum due to rounding.

Source: BDO EconSearch analysis

Table 3-10 The economic contribution of the Charter Boat fishing industry in Gulf St Vincent/Kangaroo Island region, 2021/22

Sector	Output		Employment ^a		Household Income		Contribution to GSP	
	(\$m)	%	(fte jobs)	%	(\$m)	%	(\$m)	%
Direct effects								
Charter Boats	2.1	13.0%	18	21.7%	0.5	9.0%	0.7	8.4%
Visitor Activities								
Trade	1.4	8.9%	10	12.0%	0.6	12.3%	0.8	9.9%
Accom, rest, cafes	1.4	8.9%	9	11.3%	0.4	8.8%	0.8	9.5%
Transport	0.6	3.6%	2	2.6%	0.2	3.8%	0.3	3.1%
Manufacturing	0.5	3.3%	2	1.9%	0.1	1.7%	0.1	1.5%
Other Sectors	0.9	5.7%	3	3.4%	0.2	4.1%	0.6	6.5%
Capital expenditure ^b	0.1	0.5%	1	0.7%	0.0	0.7%	0.0	0.5%
Total Direct ^c	7.1	43.8%	44	53.7%	2.0	40.4%	3.4	39.5%
Flow-on effects								
Trade	1.1	6.9%	7	8.2%	0.5	9.8%	0.7	7.8%
Manufacturing	0.9	5.7%	3	3.3%	0.2	3.5%	0.3	3.1%
Business Services	1.6	9.6%	9	10.7%	0.7	14.2%	0.8	9.8%
Finance, Insurance	0.9	5.5%	2	2.3%	0.2	3.5%	0.6	6.5%
Other Sectors	4.6	28.5%	18	21.9%	1.4	28.6%	2.8	33.3%
Total Flow-on ^c	9.1	56.2%	38	46.3%	3.0	59.6%	5.2	60.5%
Total ^c	16.2	100.0%	83	100.0%	5.0	100.0%	8.5	100.0%
Total/Direct	2.3	-	1.9	-	2.5	-	2.5	-
Total/Client	\$1,900	-	0.01	-	\$600	-	\$1,000	-

^a Full-time equivalent jobs. Direct employment in the fishing industry was comprised of 12 full-time jobs and 24 part-time jobs, that is, 36 jobs in aggregate, which was estimated to be equal to 18 fte jobs.

^b Capital expenditure includes expenditure on boats, fishing gear and equipment, sheds and buildings, motor vehicles and other equipment.

^c Totals may not sum due to rounding.

Source: BDO EconSearch analysis

Employment and household income

In 2021/22, the Charter Boat Fishery was responsible for direct employment of around 39 full-time equivalents (13 fte jobs in the SG/CB region and 18 in the GSV/KI region) and downstream activities supported employment of around 52 fte jobs state-wide (12 fte jobs in the SG/CB region and 26 in the GSV/KI region). Flow-on business activity was estimated to generate a further 85 fte jobs state-wide. These state-wide jobs were concentrated in the business services (21), trade (14) and manufacturing (7) sectors. The total employment contribution in SA was estimated to be 176 fte jobs, 36 fte jobs in the SG/CB region and 83 fte jobs in the GSV/KI region. This is an important outcome for the Charter Boat Fishery as it is managed to create employment. This contrasts with the other SA fisheries where employment is secondary in favour of maximising net economic return.

Personal income of \$0.9 million, was earned in the Charter Boat fishing sector (wages of employees and estimated drawings by owner/operators) and \$3.1 million in downstream activities in SA. An additional \$6.3 million was earned by wage earners in other businesses in the state as a result of Charter Boat fishing and associated downstream activities. The total household income contribution was \$10.2 million in SA (\$1.7 million in the SG/CB region and \$5.0 million in the GSV/KI region).

Contribution to GSP and GRP

As noted above, contribution to GSP or GRP is measured as value of output less the cost of goods and services (including imports) used in producing the output. In 2021/22, total Charter Boat fishing industry related contribution to GSP in South Australia was \$17.4 million (\$2.8 million in the SG/CB region and \$8.5 million in the GSV/KI region). \$0.9 million of GSP was generated by Charter Boat fishing directly, \$5.4 million generated by downstream activities and \$11.1 million generated in other sectors of the state economy.

Total contributions over time

Figure 3-3 and Figure 3-4 illustrate the total economic contribution of the fishery in the SA economy between 2009/10 and 2021/22. Estimates of economic contribution are expressed in real 2021/22 terms.

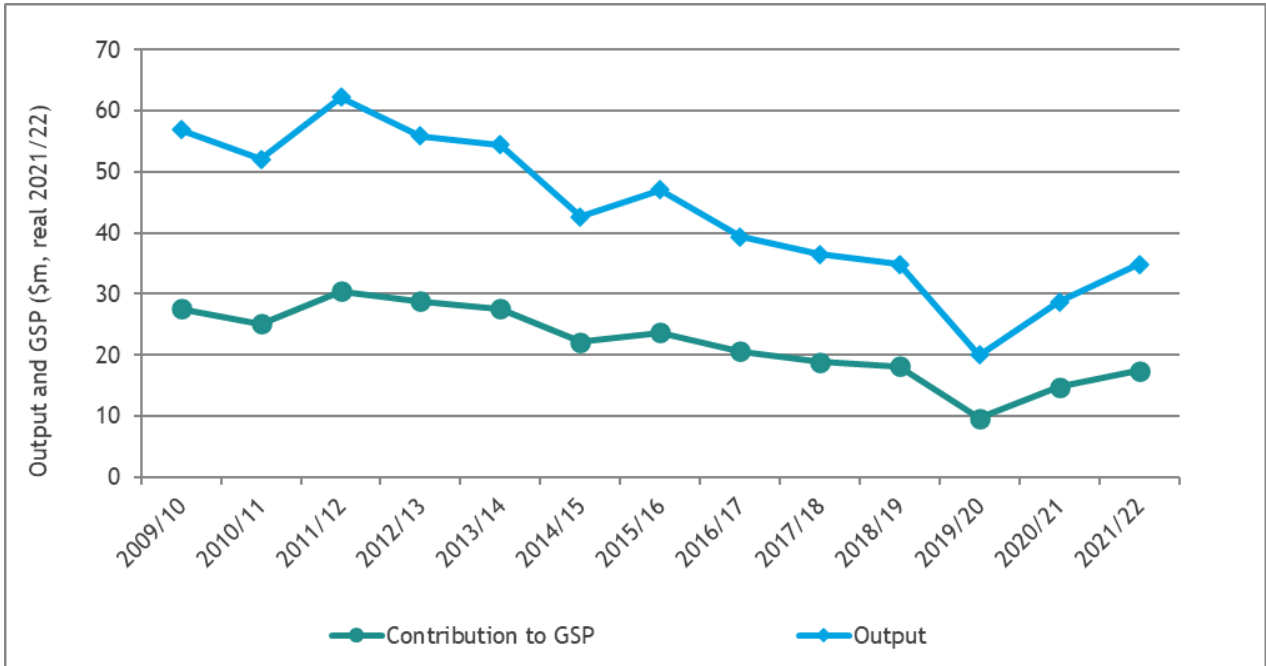
Estimates of economic contribution for 2021/22 and 2020/21 are based on the most recent licence holder survey, conducted in 2021. Estimates of economic contribution in earlier years were based on surveys conducted in 2011, 2014, 2017 and 2019. As economic contribution estimates for the years 2009/10 to 2019/20 are based on different survey samples and techniques, some of the variability between years, is therefore, attributable to sampling variability.

Care should be taken when using value of output as a measure of economic contribution as it includes elements of double counting. Contribution to GSP is the preferred measure of net contribution to the SA economy.

Output, contribution to GSP, employment and household income have all declined over the period from 2009/10 to 2021/22 (Figure 3-3 and Figure 3-4). In 2021/22 there was improvement in output, contribution to GSP and income which is primarily due to an increase in fishery income and total expenditure.

In 2021/22, the Charter Boat Fishery contributed \$17.4 million to South Australia's gross state product (GSP), supported 176 fte jobs and contributed \$10.2 million to household income.

Figure 3-3 Total gross state product and output contribution of the SA Charter Boat Fishery on the SA economy, 2009/10 to 2021/22^{a,b}

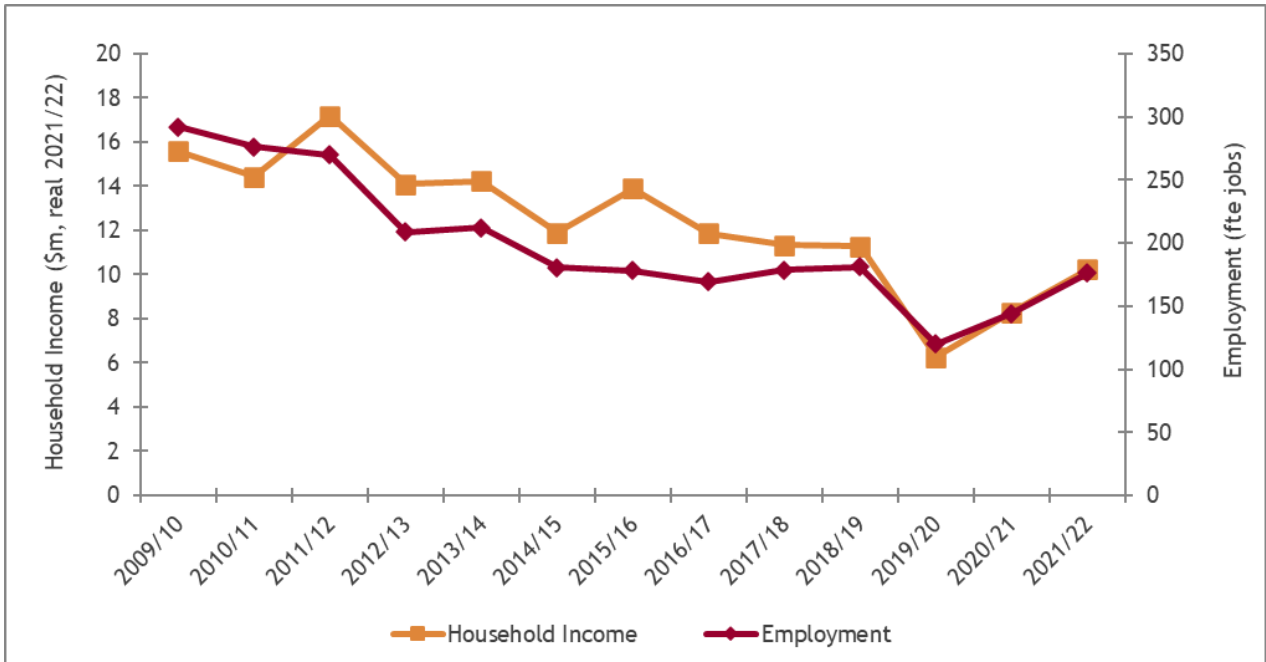


^a Monetary values have been converted to 2021/22 dollars using the Adelaide CPI (ABS 2022a and previous editions).

^b Estimates for 2019/20 and 2020/21 have been revised using updated information received in 2021/22.

Source: BDO EconSearch (2022a) and BDO EconSearch analysis

Figure 3-4 Total employment and household income contribution of the SA Charter Boat Fishery on the SA economy, 2009/10 to 2021/22^{a,b}



^a See notes for Figure 3-3

^b Estimates for 2019/20 and 2020/21 have been revised using updated information received in 2021/22.

Source: BDO EconSearch (2022a) and BDO EconSearch analysis

4. OTHER INDICATORS

4.1. Snapper Fishery Closure

In June 2019, the South Australian Research and Development Institute (SARDI) provided updated information on Snapper which identified that over the past five years, biomass in Spencer Gulf has reduced by an estimated 23 per cent and biomass in Gulf St Vincent has reduced by an estimated 87 per cent (Fowler et al. 2019). The Snapper assessment reports since 2019 have classified the Snapper stocks in Spencer Gulf/West Coast as 'depleted' and in Gulf St Vincent as 'depleting' (Fowler et al. 2019, 2020 and Drew et al. 2022).

These findings supported the need for urgent action to protect the future of Snapper stocks in South Australia. Therefore, two Snapper fishing closures are in place to help Snapper stocks recover. During these closures the targeting, take and possession of Snapper is prohibited in the West Coast/Spencer Gulf and Gulf St Vincent regions. The total Snapper fishing closure began on 1 November 2019 and is currently in place until June 2026 (PIRSA 2023).

The closure potentially contributed to the decline in number of clients and GVP since 2019/20, though these numbers returned to trend in 2021/22. The closure may have also impacted the economic contribution in the regions. Total contribution to GRP in the SG/CB region was 20 per cent lower in 2021/22 when compared to 2018/19 in real terms, and 2 per cent lower in the GSV/KI region in 2021/22 than in 2018/19 (BDO EconSearch 2022a).

4.2. COVID-19

In January 2020, the COVID-19 pandemic was beginning to affect the Charter Boat Fishery. While charter boat fishing may have been permitted, closures and lockdowns preventing or discouraging travel were a major reason for the loss of clients. Even as restrictions eased, there was still an initial reluctance to travel given uncertainties around potential for lockdowns. Many bookings were cancelled, and presumably new bookings were not made because of COVID-19 restrictions. The impact of the COVID-19 pandemic was most significant in 2019/20, and the fishery recovered almost to 2018/19 levels in 2020/21 despite on-going challenges. The estimated impacts of COVID-19 in 2019/20 on various operational aspects of the Charter Boat Fishery is provided in BDO EconSearch (2022a).

4.3. Contribution to the Community

The operation of the SA Charter Boat Fishery (and the employment the fishery generates and households it maintains) either directly or indirectly contributes to keeping families in regional communities.

As a part of the 2021 survey, license holders were asked to provide information relating to the ways in which they contribute to their local community. Their responses were summarised in BDO EconSearch (2022a).

4.4. Social Indicators

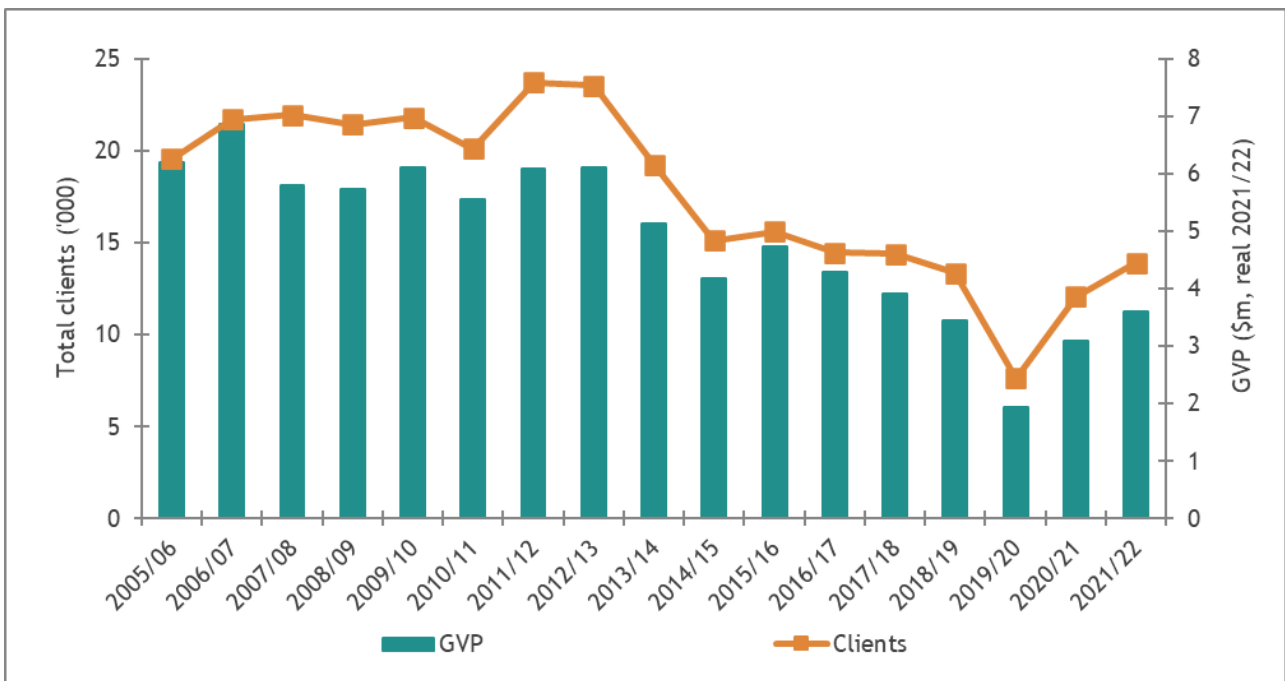
In 2016, 2018 and 2021, the economic indicators survey of commercial fisheries was extended to include the collection of social indicators. The results of the social indicators component of the survey are detailed in BDO EconSearch (2022a).

5. ECONOMIC TRENDS IN THE FISHERY

5.1. Clients and Gross Value of Production

Figure 5-1 illustrates that the total number of clients in the fishery decreased between 2005/06 and 2021/22, from 19,540 to 13,913 (29 per cent decline). Together with an 18 per cent decline in the real price per client over the same period, real GVP for the fishery decreased by 42 per cent between 2005/06 (\$6.2 million) and 2021/22 (\$3.6 million). This is also highlighted in Figure 5-2 where catch, GVP and price indices for the fishery are illustrated. The downward trend in GVP in Figure 5-1 can be explained by a number of issues impacting the Charter Boat Fishery including the annual December Snapper state-wide closure, spatial spawning closures, changes in boat limits and, since 2019/20, the ban on Snapper fishing and COVID-19 pandemic related effects.

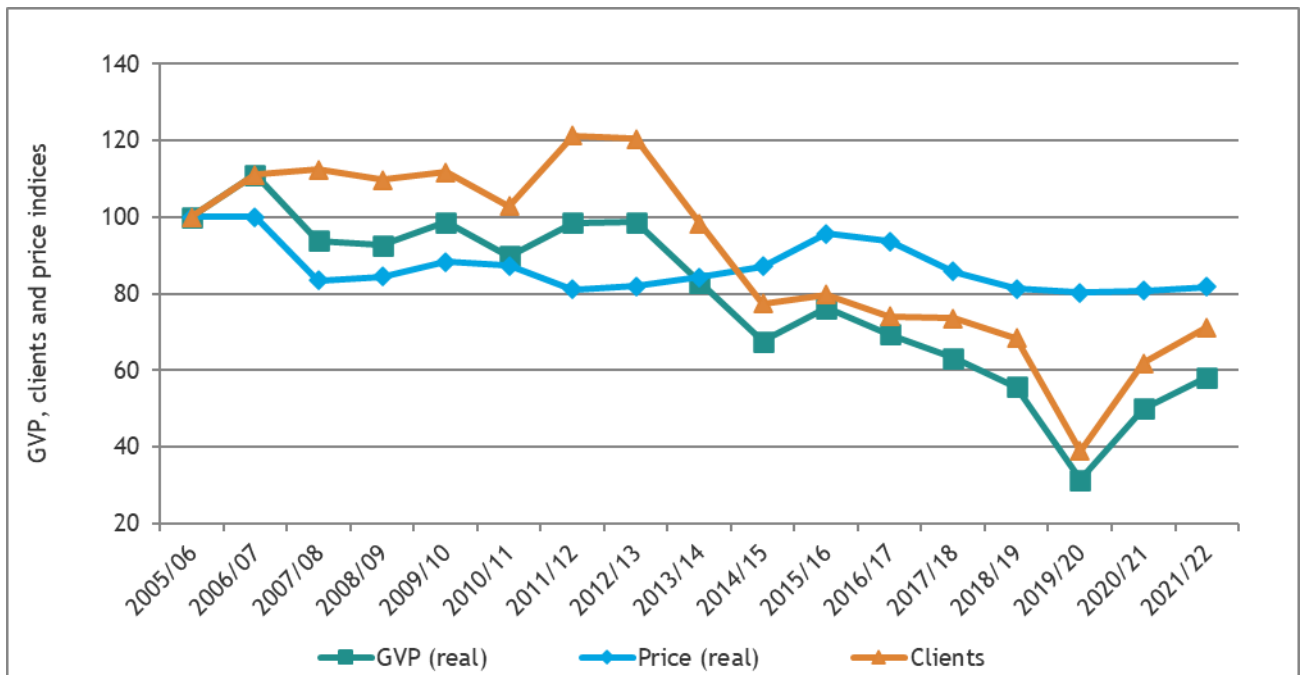
Figure 5-1 SA Charter Boat Fishery clients and GVP, 2005/06 to 2021/22



Source: Table 3-1 and Figure 3-2

Figure 5-3 shows that between 2005/06 and 2021/22 the 19 per cent increase in nominal average price per client was equivalent to an 18 per cent decline in real price.

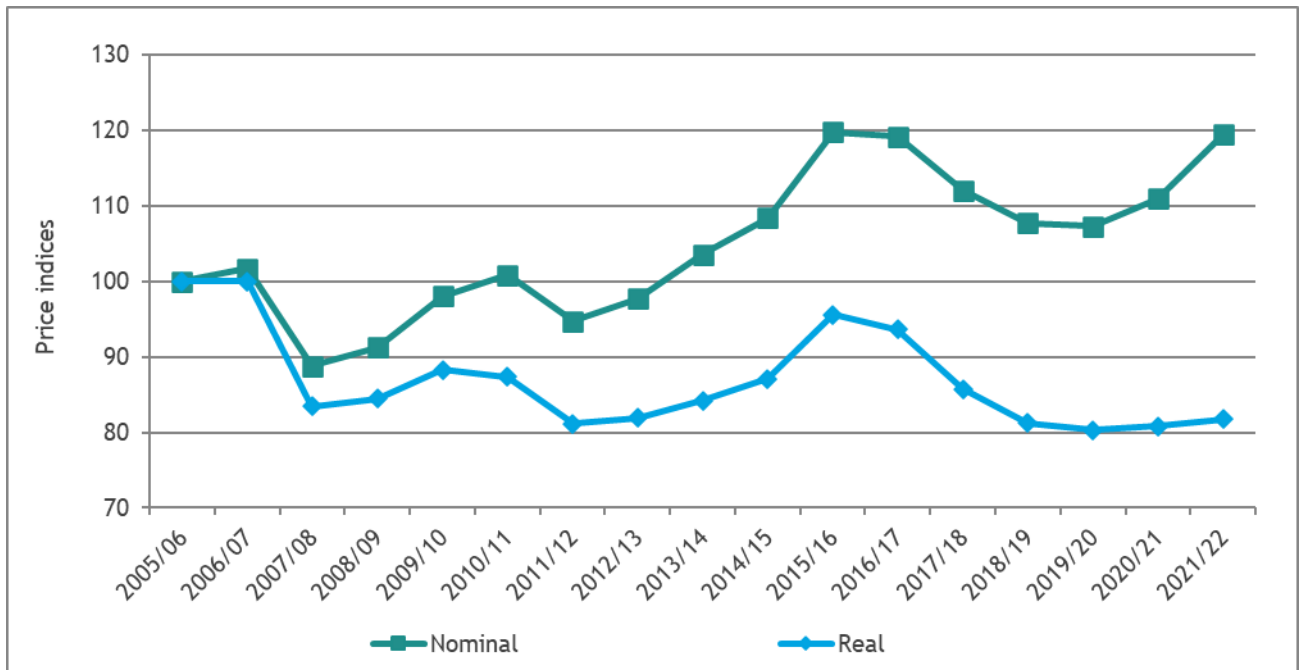
Figure 5-2 GVP, clients and price per client indices for the SA Charter Boat Fishery (2005/06 = 100)^a



^a Estimates are expressed in real dollars.

Source: Table 3-1 and Figure 5-3

Figure 5-3 Price per client indices for the Charter Boat Fishery (2005/06 = 100)^a



^a Nominal price refers to the price in the current year's dollars. Real price is the nominal price adjusted for the purchasing power of money. The CPI (consumer price index) has been used to make this adjustment (ABS 2022a). It enables meaningful comparisons of prices to be made between years.

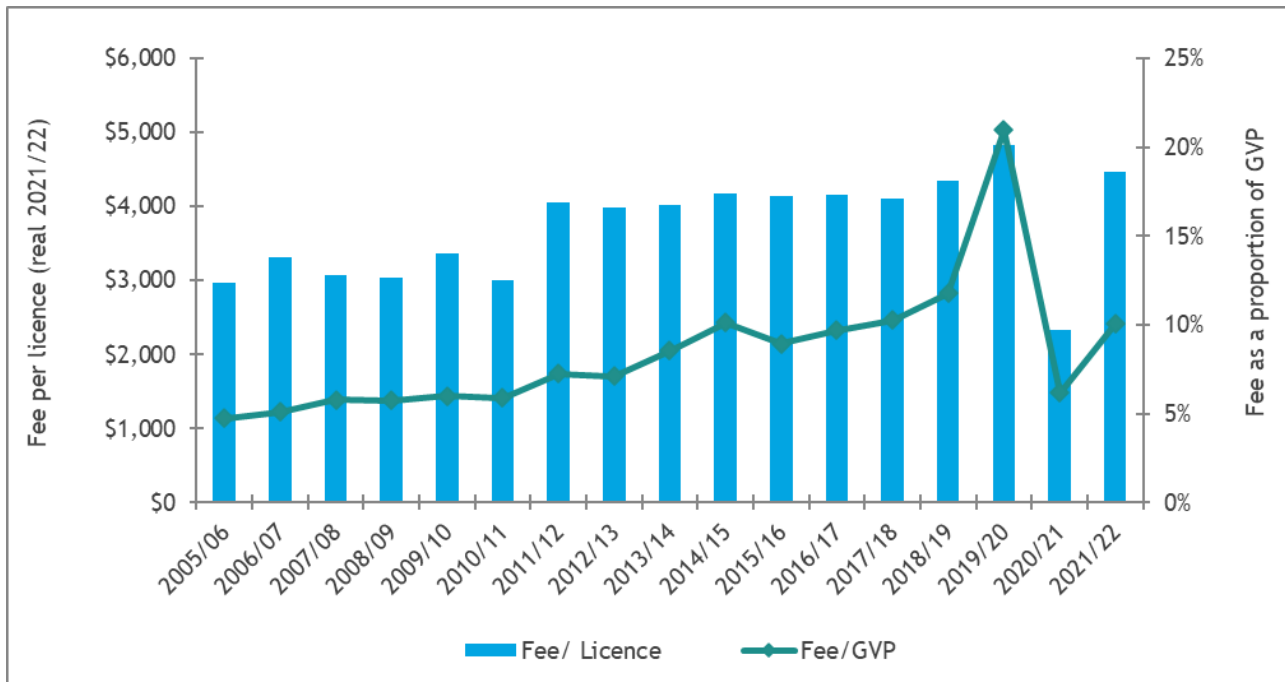
Source: Table 3-1 and Figure 3-2

5.2. Management Costs

The average management fee per licence holder and licence fees as a proportion of GVP are illustrated in Figure 5-4. Licence fees as a percentage of GVP followed an increasing trend between 2005/06 and 2019/20, from 4.7 to 20.9 per cent. This is the result of a reduction in GVP and an increase in aggregate fees, in real terms. In 2020/21 there was a sharp decline in licence fees as a percentage of GVP, which fell to 6.2 per cent, due to fees being waived by Government to aid operators who have been significantly impacted as a result of the COVID-19 pandemic. Licence fees as a percentage of GVP increased in 2021/22 (10.0 per cent) similar to the years prior to 2019/20 which were all around 10 per cent.

The average management cost per licence holder increased from \$2,962 in 2005/06 to \$4,464 in 2021/22, in real terms (Figure 5-4). This rise is a result of both an increase in the real cost of management and a reduction in the number of licences over the period.

Figure 5-4 Management fee per licence holder and as a proportion of GVP, SA Charter Boat Fishery, 2005/06 to 2021/22 ^a



^a Estimates are expressed in real 2021/22 dollars.

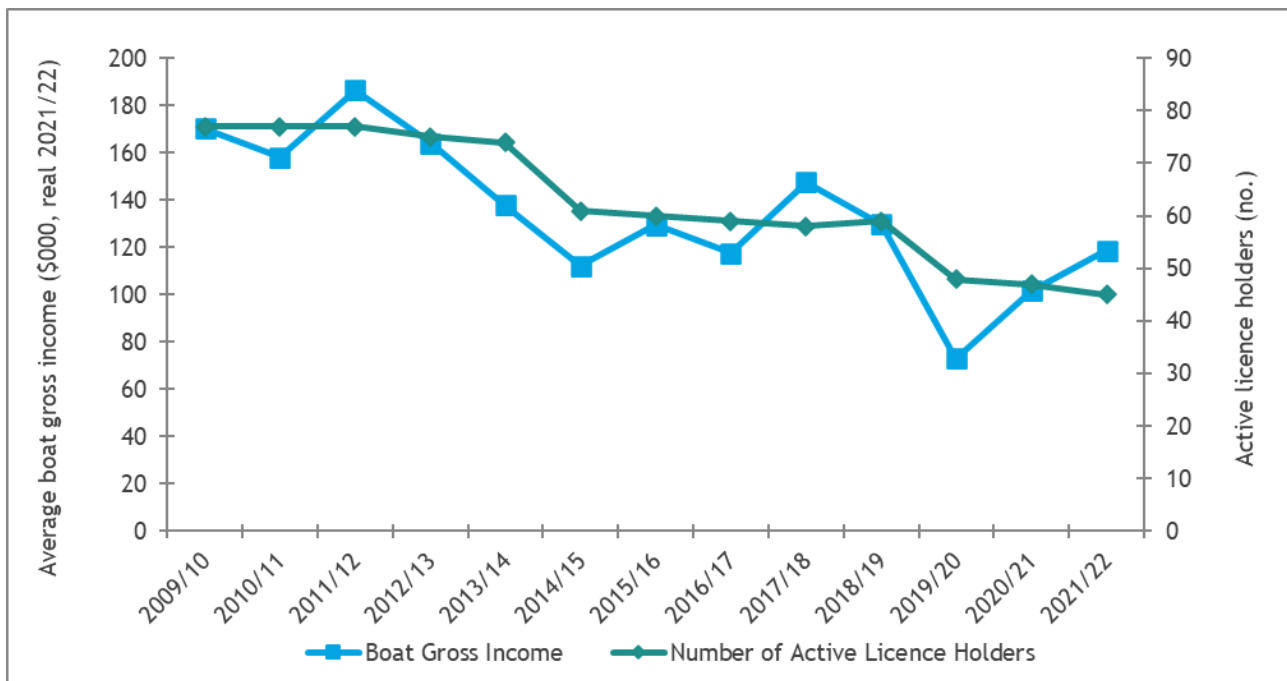
Source: Table 3-3

5.3. Financial Performance Indicators

Average income

Average income and total number of licences in the fishery for the period 2009/10² to 2021/22 are illustrated in Figure 5-5. The total number of active licence holders in the fishery declined from 77 in 2009/10 to 45 by the end of 2021/22. Despite this decrease and as a result of a reduction in fishery GVP, the average income per boat in the fishery has decreased from approximately \$170,000 in 2009/10 to \$119,000 in 2021/22 (real 2021/22 dollars) (Figure 5-5).

Figure 5-5 Average income per active licence holder in the SA Charter Boat Fishery, 2009/10 to 2021/22^a



^a Estimates are expressed in real 2021/22 dollars.

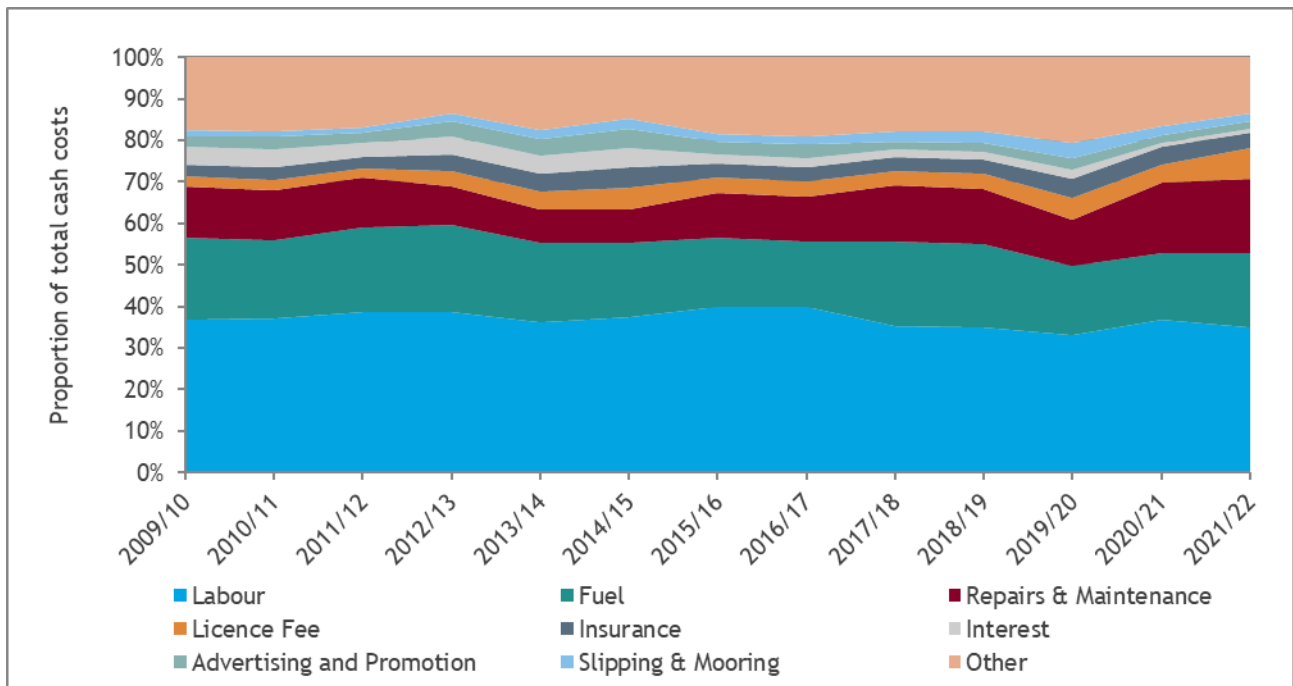
Source: Table 3-4, Appendix Table 1-1 and Appendix Table 1-2

Operating cost trends

A breakdown of major cost items as a proportion of total cash costs is illustrated in Figure 5-6. Labour costs accounted for the largest share of total cash costs across the period 2009/10 to 2021/22. Labour costs are comprised of payments to licence owners and crew as well as an imputed wage to those licence owners and other family members who are not paid a wage directly by the business. Other significant cash costs over the period were fuel and repairs and maintenance (Figure 5-6).

² Financial performance indicators are only reported from 2009/10 onwards from when economic indicators for the Charter Boat Fishery were first reported.

Figure 5-6 Cost shares in the SA Charter Boat Fishery, 2009/10 to 2021/22^a

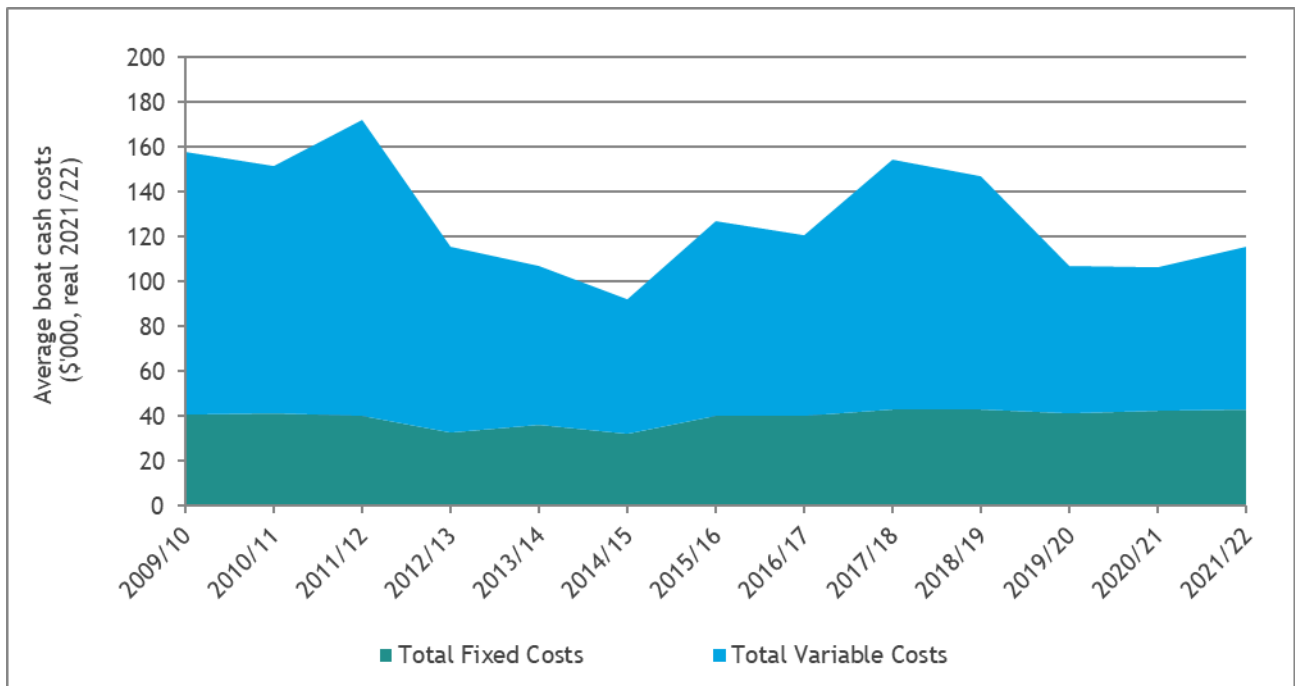


^a Financial performance estimates were based on different survey samples and techniques. Some of the difference between years is, therefore, attributable to sampling variability.

Source: Table 3-4, Appendix Table 1-1 and Appendix Table 1-2

The cash costs detailed in Figure 5-6 can be categorised as either variable or fixed costs. Total variable costs and total fixed costs are illustrated in Figure 5-7 on an average per boat basis. Total variable costs have fluctuated between years but generally followed a declining trend over the period 2009/10 to 2014/15. Total fixed costs have fluctuated much less from year to year but have followed a slight decreasing trend over the period 2009/10 to 2014/15 and have followed an increasing trend thereafter. The decline in average total costs per boat between 2011/12 and 2012/13 and the increase between 2014/15 to 2018/19 is due, in part, to a change in the composition of the survey samples.

Figure 5-7 Average total costs in the SA Charter Boat Fishery 2009/10 to 2021/22^a



^a Estimates of average costs are expressed in real 2021/22 dollars.

Source: Table 3-4, Appendix Table 1-1 and Appendix Table 1-2

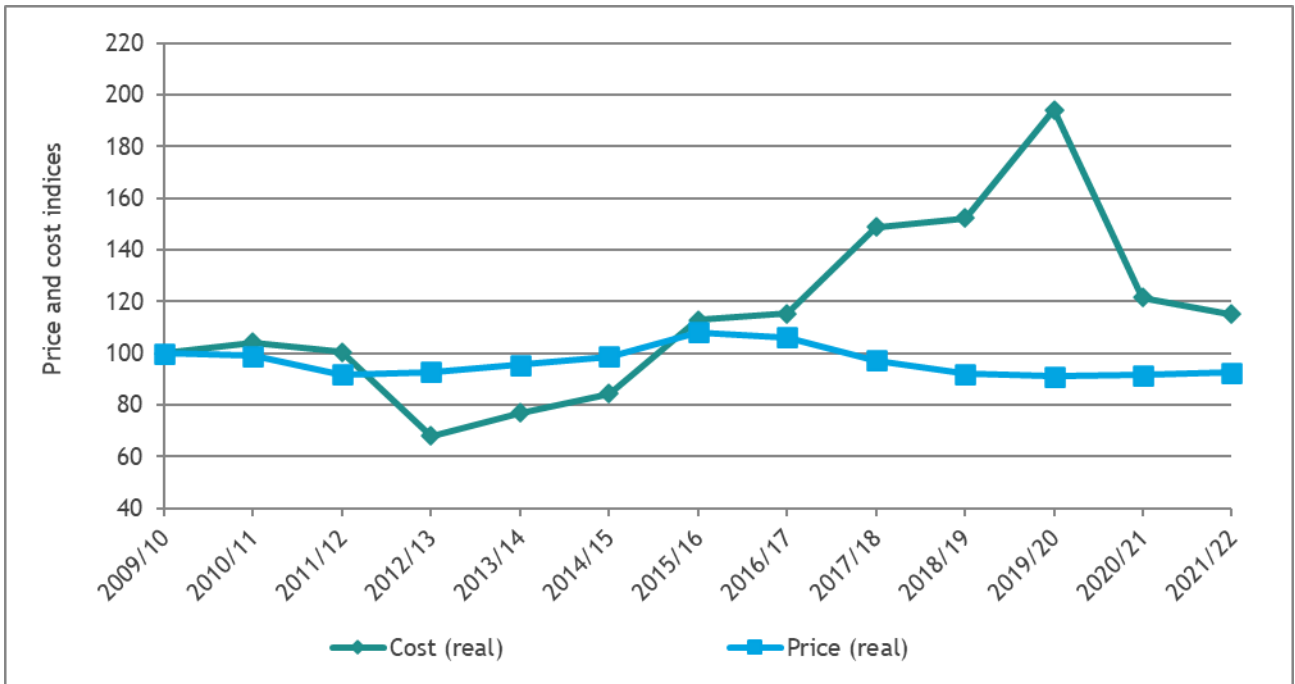
Cost Price Squeeze

Price and cost indices for the years 2009/10 to 2021/22 are summarised in Figure 5-8. These indicators were derived from the average price and average cost per client. Between 2009/10 and 2021/22 the average price per client decreased by approximately 7 per cent in real terms. The average cost of operating charter boats followed a rising trend over the same period, increasing by 15 per cent in real terms despite a sharp drop in 2020/21. The cost per client increased significantly in 2019/20 as a result of the pandemic but has since fallen significantly. The sharp decrease in cost per client since 2019/20 is due to the increase in the number of clients between 2019/20 and 2021/22 (83 percent). In comparison, total boat cash costs only increased by 8 per cent over the same period.

Profitability

Selected measures of profitability are summarised in Figure 5-9 for the years 2009/10 to 2021/22. Changes in each of the profitability measures for the fishery were closely related to the average income earned and costs incurred. Profitability measures followed an increasing trend between 2009/10 and 2012/13 but declined over the seven years to 2019/20 with fluctuations before increasing in 2020/21 and 2021/22 (Figure 5-9).

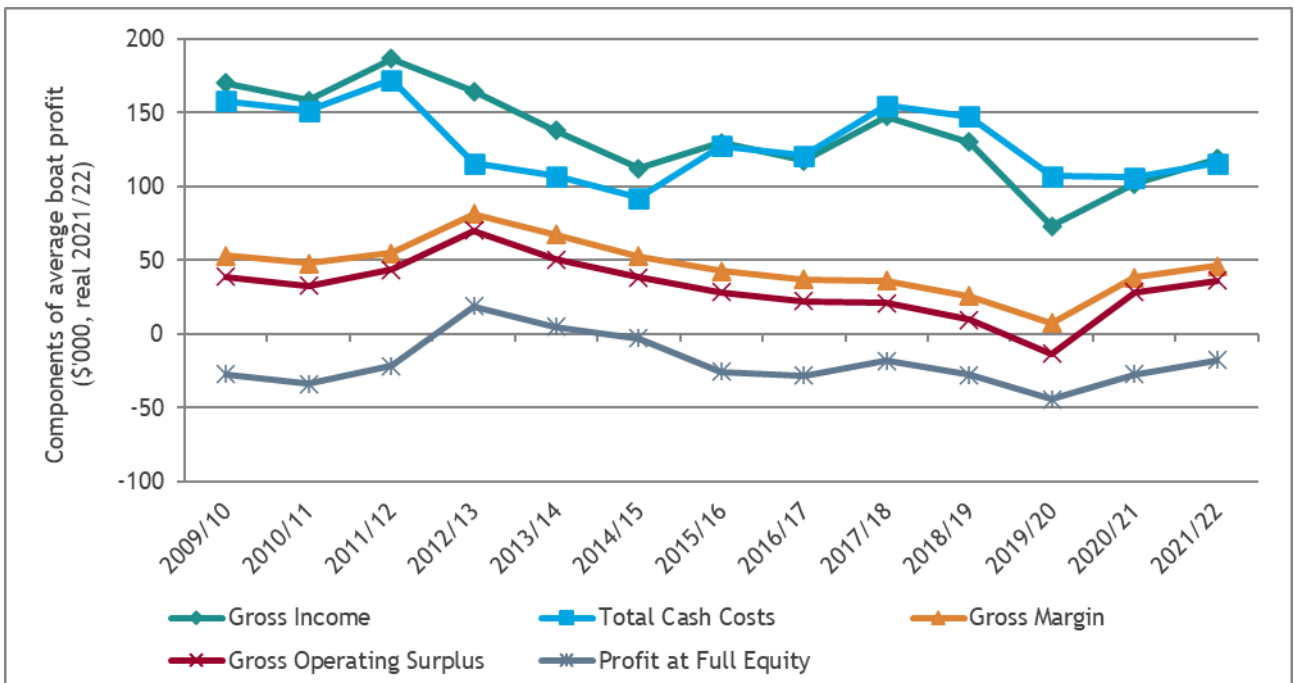
Figure 5-8 Price and cost indices for the SA Charter Boat Fishery (2009/10 = 100)^a



^a Estimates of price and cost are expressed in real 2021/22 dollars.

Source: Table 3-4, Appendix Table 1-1 and Appendix Table 1-2

Figure 5-9 Average income and profit per boat in the SA Charter Boat Fishery, 2009/10 to 2021/22^a



^a Estimates of income and profitability measures are expressed in real 2021/22 dollars.

Source: Table 3-4, Appendix Table 1-1 and Appendix Table 1-2

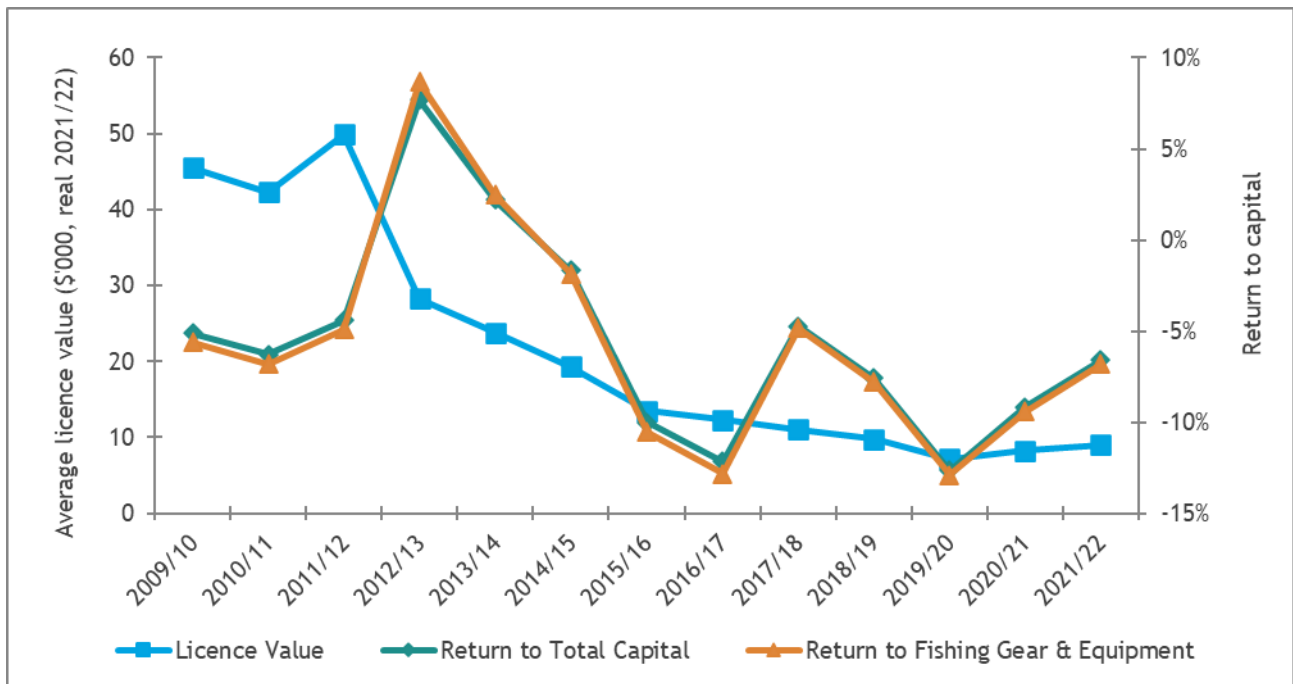
Return to capital

Estimates of the average licence value and the rate of return to capital are illustrated Figure 5-10. Total capital includes boats, licence/quota, fishing gear, sheds, vehicles and other capital items used as part of the fishing enterprise. Return to total capital is calculated to be profit at full equity as a percentage of both total capital employed and total capital excluding the licence value.

Overall, the rate of return to total capital for the fishery increased between 2009/10 and 2012/13 but declined steeply in the four years to 2016/17 from where it fluctuated thereafter. The recent rise in 2020/21 and 2021/22 is likely attributable to a combination of recovery from the impacts of COVID-19 and sampling variation. The average value of licences in the fishery increased between 2009/10 and 2011/12 but has declined considerably since (Figure 5-10).

The Charter Boat Fishery has restricted access with no new licences currently being issued (PIRSA 2022) but the fact that these Charter Boat licences have any value is unusual. These licences have historically provided the holder with the opportunity to create negative profit at full equity and, as indicated by the large number of unused licences, these licences are not scarce. As there is a large number of inactive licences, it is likely that the small licence value is needed to encourage holders to sell to a willing buyer.

Figure 5-10 Return to capital in the SA Charter Boat Fishery, 2009/10 to 2021/22



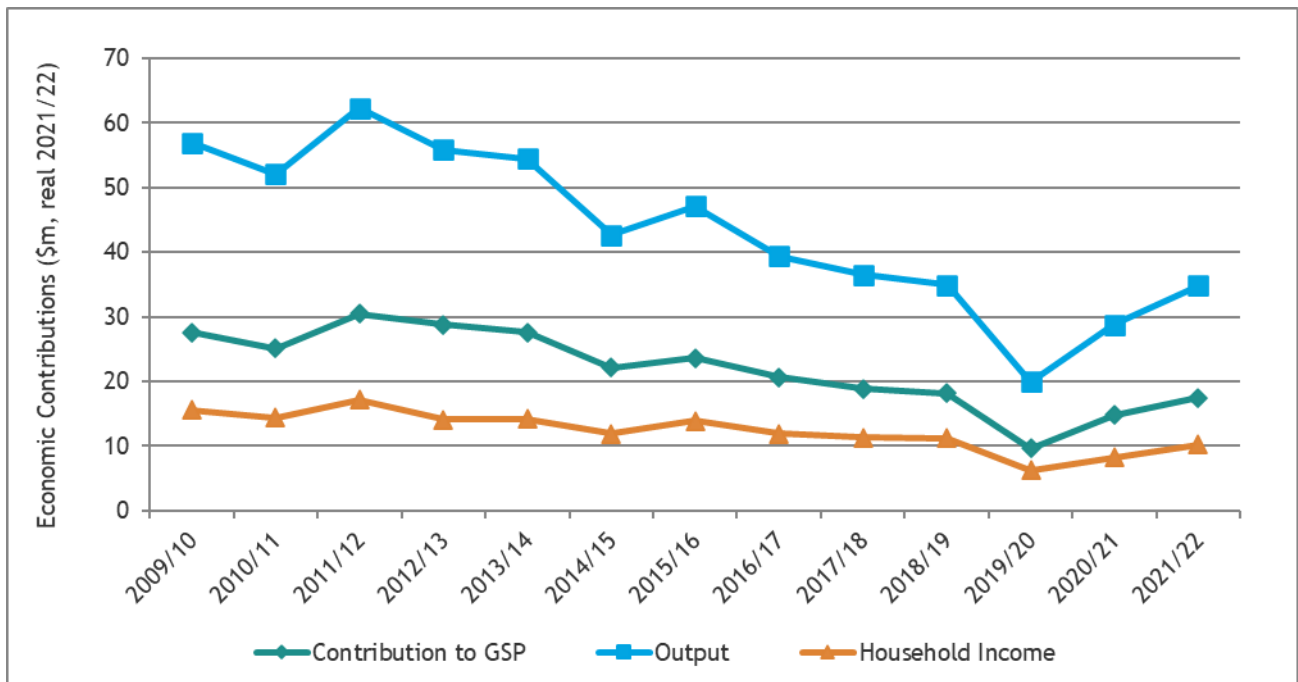
Source: Table 3-4, Appendix Table 1-1 and Appendix Table 1-2

5.4. Contribution to SA Economy

Figure 5-11 and Figure 5-12 illustrate the total economic contribution of the fishery on the SA economy between 2009/10 to 2021/22. Total economic contribution refers to the direct fishing industry contributions (Charter Boat fishing and other visitor expenditure) and the indirect contributions of these activities on other sectors of the economy.

The change in total output and GSP contributions are closely related to changes in fishery GVP. Output, household income, contribution to GSP and employment all followed a declining trend in the fishery between 2009/10 and 2019/20, before increasing in 2020/21 and 2021/22 as illustrated in Figure 5-11. The significant decrease in employment between 2011/12 and 2012/13 can, in part, be attributed to sampling variation in the 2012/13 survey (i.e. more responses from smaller businesses employing fewer people). The decrease of contributions from 2012/13 to 2019/20 can be explained by the reduced GVP of the fishery, which has since seen some recovery.

Figure 5-11 Total gross state product, output and household income contribution of the SA Charter Boat Fishery to the SA economy, 2009/10 to 2021/22^{a,b}

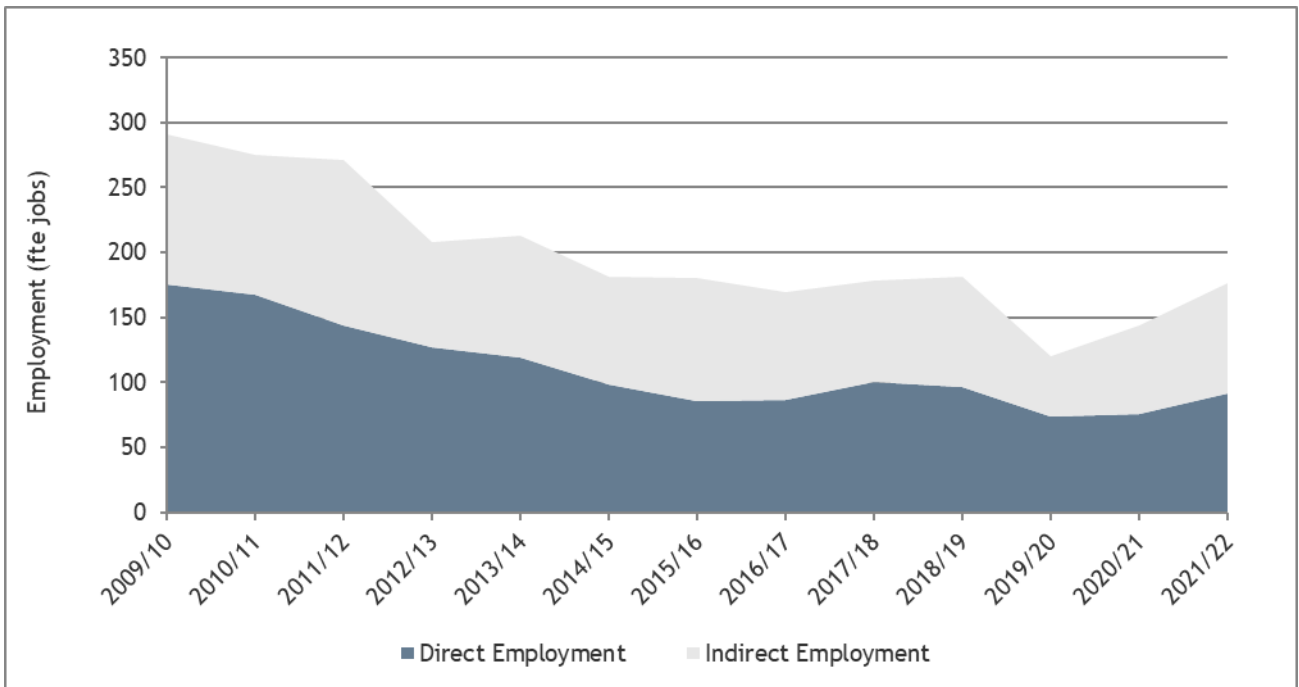


^a Estimates of output, GSP and household income are expressed in real 2021/22 dollars.

^b Estimates for 2019/20 and 2020/21 have been revised using updated information received in 2021/22.

Source: Table 3-8 and BDO EconSearch 2022a

Figure 5-12 Total direct and indirect employment contribution of the SA Charter Boat Fishery to the SA economy, 2009/10 to 2021/22^a



^a Estimates for 2019/20 and 2020/21 have been revised using updated information received in 2021/22.

Source: Table 3-8 and BDO EconSearch 2022a

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Disclaimer

The assignment is a consulting engagement as outlined in the ‘Framework for Assurance Engagements’, issued by the Auditing and Assurances Standards Board, Section 17. Consulting engagements employ an assurance practitioner’s technical skills, education, observations, experiences and knowledge of the consulting process. The consulting process is an analytical process that typically involves some combination of activities relating to: objective-setting, fact-finding, definition of problems or opportunities, evaluation of alternatives, development of recommendations including actions, communication of results, and sometimes implementation and follow-up.

The nature and scope of work has been determined by agreement between BDO and the Client. This consulting engagement does not meet the definition of an assurance engagement as defined in the ‘Framework for Assurance Engagements’, issued by the Auditing and Assurances Standards Board, Section 10.

Except as otherwise noted in this report, we have not performed any testing on the information provided to confirm its completeness and accuracy. Accordingly, we do not express such an audit opinion and readers of the report should draw their own conclusions from the results of the review, based on the scope, agreed-upon procedures carried out and findings.

APPENDIX 1 Financial Performance Indicators, 2009/10 - 2018/19

Appendix Table 1-1 Financial performance in the Charter Boat Fishery, 2009/10 to 2011/12^a

	2009/10			2010/11			2011/12		
	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b
(1) Total Boat Gross Income	\$129,415	\$196		\$124,952	\$187		\$149,125	\$189	
Variable Costs									
Fuel	\$23,906	\$36	20%	\$22,666	\$34	19%	\$27,901	\$35	20%
Repairs & Maintenance ^c	\$14,699	\$22	12%	\$14,202	\$21	12%	\$16,949	\$21	12%
Bait/Ice	\$4,111	\$6	3%	\$3,972	\$6	3%	\$4,740	\$6	3%
Provisions	\$5,562	\$8	5%	\$5,374	\$8	4%	\$6,414	\$8	5%
Labour - paid	\$24,145	\$37	20%	\$24,129	\$36	20%	\$29,771	\$38	22%
(2) Labour - unpaid ^d	\$12,511	\$19	10%	\$12,503	\$19	10%	\$15,427	\$20	11%
Advertising and Promotion	\$3,282	\$5	3%	\$3,410	\$5	3%	\$3,449	\$4	3%
Other	\$770	\$1	1%	\$800	\$1	1%	\$809	\$5	1%
(3) Total Variable Costs	\$88,987	\$135	74%	\$87,055	\$130	73%	\$105,460	\$136	77%
Fixed Costs									
Licence Fee	\$2,753	\$4	2%	\$3,146	\$5	3%	\$2,944	\$4	2%
Insurance	\$3,425	\$5	3%	\$3,558	\$5	3%	\$3,600	\$5	3%
(4) Interest	\$5,092	\$8	4%	\$5,256	\$8	4%	\$4,834	\$6	4%
(5) Labour - unpaid ^d	\$7,465	\$11	6%	\$7,726	\$12	6%	\$7,987	\$10	6%
Legal & Accounting	\$1,414	\$2	1%	\$1,469	\$2	1%	\$1,486	\$2	1%
Telephone etc.	\$2,421	\$4	2%	\$2,515	\$4	2%	\$2,544	\$3	2%
Slipping & Mooring	\$1,637	\$2	1%	\$1,701	\$3	1%	\$1,720	\$2	1%
Travel	\$1,108	\$2	1%	\$1,151	\$2	1%	\$1,165	\$1	1%
Office & Admin	\$5,778	\$9	5%	\$6,002	\$9	5%	\$6,072	\$8	4%
(6) Total Fixed Costs	\$31,093	\$47	26%	\$32,524	\$49	27%	\$32,351	\$41	23%
(7) Total Boat Cash Costs (3+6)	\$120,080	\$182	100%	\$119,579	\$179	100%	\$137,811	\$177	100%
Boat Gross Margin (1-3)	\$40,429	\$61		\$37,898	\$57		\$43,665	\$52	
(8) Total Unpaid Labour (2+5)	\$19,976	\$30		\$20,229	\$30		\$23,414	\$30	
Gross Operating Surplus (1-7+8)	\$29,312	\$44		\$25,602	\$38		\$34,728	\$41	
(9) Boat Cash Income (1-7)	\$9,336	\$14		\$5,374	\$8		\$11,314	\$11	
(10) Depreciation	\$35,212	\$53		\$37,256	\$56		\$33,439	\$56	
(11) Boat Business Profit (9-10)	-\$25,876	-\$39		-\$31,883	-\$48		-\$22,125	-\$44	
(12) Profit at Full Equity (11+4)	-\$20,784	-\$31		-\$26,627	-\$40		-\$17,291	-\$38	
Boat Capital									
(13) Fishing Gear & Equip	\$370,142	\$561		\$391,633	\$585		\$351,510	\$445	
Licence Value	\$34,621	\$52		\$33,427	\$50		\$39,893	\$50	
(14) Total Boat Capital	\$404,763	\$613		\$425,060	\$635		\$391,403	\$495	
Rate of Return on Fishing Gear & Equip (12/13*100)	-5.6%			-6.8%			-4.9%		
Rate of Return on Total Boat Capital (12/14*100)	-5.1%			-6.3%			-4.4%		

^a Estimates of financial performance for 2009/10 to 2011/12 are based on the 2011 licence holder survey.

^{b-d} See Table 3-4 footnotes.

Source: Licence holder survey and BDO EconSearch analysis

Appendix Table 1-2 Financial performance in the Charter Boat Fishery, 2012/13 to 2014/15^a

	2012/13			2013/14			2014/15			
	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b	
(1) Total Boat Gross Income	\$134,048	\$234		\$116,160	\$248		\$95,676	\$260		
Variable Costs										
Fuel	\$19,765	\$35	21%	\$17,095	\$37	19%	\$14,078	\$38	18%	
Repairs & Maintenance ^c	\$8,643	\$15	9%	\$7,439	\$16	8%	\$6,355	\$17	8%	
Bait/Ice	\$4,275	\$7	5%	\$3,680	\$8	4%	\$3,143	\$9	4%	
Provisions	\$1,239	\$2	1%	\$1,066	\$2	1%	\$911	\$2	1%	
Labour - paid	\$18,784	\$33	20%	\$16,186	\$35	18%	\$14,007	\$38	18%	
(2) Labour - unpaid ^d	\$10,814	\$19	11%	\$9,319	\$20	10%	\$8,065	\$22	10%	
Advertising and Promotion	\$3,528	\$6	4%	\$3,638	\$8	4%	\$3,683	\$10	5%	
Other	\$699	\$1	1%	\$1,136	\$2	1%	\$729	\$2	1%	
(3) Total Variable Costs	\$67,747	\$118	72%	\$59,559	\$127	66%	\$50,971	\$139	65%	
Fixed Costs										
Licence Fee	\$3,690	\$6	4%	\$3,848	\$8	4%	\$3,895	\$11	5%	
Insurance	\$3,720	\$7	4%	\$3,836	\$8	4%	\$3,883	\$11	5%	
(4) Interest	\$4,008	\$7	4%	\$3,903	\$8	4%	\$3,693	\$10	5%	
(5) Labour - unpaid ^d	\$6,953	\$12	7%	\$7,179	\$15	8%	\$7,363	\$20	9%	
Legal & Accounting	\$1,048	\$2	1%	\$1,081	\$2	1%	\$1,094	\$3	1%	
Telephone etc.	\$1,990	\$3	2%	\$2,052	\$4	2%	\$2,078	\$6	3%	
Slipping & Mooring	\$1,835	\$3	2%	\$1,892	\$4	2%	\$1,916	\$5	2%	
Travel	\$511	\$1	1%	\$527	\$1	1%	\$534	\$1	1%	
Office & Admin	\$3,033	\$5	3%	\$6,295	\$13	7%	\$3,167	\$9	4%	
(6) Total Fixed Costs	\$26,788	\$47	28%	\$30,614	\$65	34%	\$27,623	\$75	35%	
(7) Total Boat Cash Costs (3+6)	\$94,535	\$165	100%	\$90,174	\$193	100%	\$78,593	\$214	100%	
Boat Gross Margin (1-3)	\$66,301	\$116		\$56,601	\$121		\$44,705	\$122		
(8) Total Unpaid Labour (2+5)	\$17,767	\$31		\$16,498	\$35		\$15,427	\$42		
Gross Operating Surplus (1-7+8)	\$57,281	\$100		\$42,485	\$91		\$32,510	\$88		
(9) Boat Cash Income (1-7)	\$39,513	\$69		\$25,986	\$56		\$17,083	\$46		
(10) Depreciation	\$28,263	\$49		\$25,883	\$55		\$23,472	\$64		
(11) Boat Business Profit (9-10)	\$11,250	\$20		\$103	\$0		-\$6,389	-\$17		
(12) Profit at Full Equity (11+4)	\$15,258	\$27		\$4,007	\$9		-\$2,696	-\$7		
Boat Capital										
(13) Fishing Gear & Equip	\$175,487	\$307		\$160,707	\$344		\$145,737	\$396		
Licence Value	\$23,120	\$40		\$20,034	\$43		\$16,501	\$45		
(14) Total Boat Capital	\$198,606	\$347		\$180,741	\$387		\$162,238	\$441		
Rate of Return on Fishing Gear & Equip (12/13*100)	8.70%			2.50%			-1.8%			
Rate of Return on Total Boat Capital (12/14*100)	7.70%			2.20%			-1.7%			

^a Estimates of financial performance 2012/13 to 2014/15 are based on the 2014 licence holder survey.

^{b-d} See Table 3-4 footnotes.

Source: Licence holder survey and BDO EconSearch analysis

Appendix Table 1-3 Financial performance in the Charter Boat Fishery, 2015/16 to 2017/18^a

	2015/16			2016/17			2017/18		
	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b	Average per Licence	Average per Client	Share of TBCC ^b
(1) Total Boat Gross Income	\$95,676	\$260		\$110,994	\$250		\$131,987	\$243	
Variable Costs									
Fuel	\$14,078	\$38	21%	\$18,099	\$41	17%	\$28,170	\$52	20%
Repairs & Maintenance ^c	\$6,355	\$17	9%	\$12,000	\$27	11%	\$18,805	\$35	14%
Bait/Ice	\$3,143	\$9	5%	\$3,170	\$7	3%	\$4,737	\$9	3%
Provisions	\$911	\$2	1%	\$2,964	\$7	3%	\$3,139	\$6	2%
Labour - paid	\$14,007	\$38	20%	\$21,222	\$48	19%	\$23,443	\$43	17%
(2) Labour - unpaid ^d	\$8,065	\$22	11%	\$9,266	\$21	8%	\$17,065	\$31	12%
Advertising and Promotion	\$3,683	\$10	4%	\$3,447	\$8	3%	\$2,643	\$5	2%
Other	\$729	\$2	1%	\$4,342	\$10	4%	\$1,682	\$3	1%
(3) Total Variable Costs	\$50,971	\$139	72%	\$74,509	\$168	68%	\$99,684	\$184	72%
Fixed Costs									
Licence Fee	\$3,895	\$11	4%	\$3,777	\$9	3%	\$4,835	\$9	3%
Insurance	\$3,883	\$11	4%	\$3,700	\$8	3%	\$4,601	\$8	3%
(4) Interest	\$3,693	\$10	4%	\$2,319	\$5	2%	\$2,457	\$5	2%
(5) Labour - unpaid ^d	\$7,363	\$20	7%	\$13,030	\$29	12%	\$8,171	\$15	6%
Legal & Accounting	\$1,094	\$3	1%	\$1,405	\$3	1%	\$2,061	\$4	1%
Telephone etc.	\$2,078	\$6	2%	\$1,875	\$4	2%	\$2,271	\$4	2%
Slipping & Mooring	\$1,916	\$5	2%	\$2,001	\$5	2%	\$3,609	\$7	3%
Travel	\$534	\$1	1%	\$901	\$2	1%	\$896	\$2	1%
Office & Admin	\$3,167	\$9	3%	\$5,623	\$13	5%	\$9,839	\$18	7%
(6) Total Fixed Costs	\$27,623	\$75	28%	\$34,631	\$78	32%	\$38,739	\$71	28%
(7) Total Boat Cash Costs (3+6)	\$78,593	\$214	100%	\$109,140	\$246	100%	\$138,423	\$255	100%
Boat Gross Margin (1-3)	\$44,705	\$122		\$36,484	\$82		\$32,303	\$60	
(8) Total Unpaid Labour (2+5)	\$15,427	\$42		\$22,295	\$50		\$25,236	\$46	
Gross Operating Surplus (1-7+8)	\$32,510	\$88		\$24,149	\$54		\$18,800	\$35	
(9) Boat Cash Income (1-7)	\$17,083	\$46		\$1,853	\$4		-\$6,436	-\$12	
(10) Depreciation	\$23,472	\$64		\$26,121	\$59		\$12,389	\$23	
(11) Boat Business Profit (9-10)	-\$6,389	-\$17		-\$24,268	-\$55		-\$18,825	-\$35	
(12) Profit at Full Equity (11+4)	-\$2,696	-\$7		-\$21,949	-\$49		-\$16,369	-\$30	
Boat Capital									
(13) Fishing Gear & Equip	\$145,737	\$396		\$208,001	\$469		\$337,145	\$621	
Licence Value	\$16,501	\$45		\$11,592	\$26		\$9,891	\$18	
(14) Total Boat Capital	\$162,238	\$441		\$219,593	\$495		\$347,036	\$639	
Rate of Return on Fishing Gear & Equip (12/13*100)	-1.8%			-10.6%			-4.9%		
Rate of Return on Total Boat Capital (12/14*100)	-1.7%			-10.0%			-4.7%		

^a Estimates of financial performance for 2015/16 and 2016/17 are based on the 2017 licence holder survey. Estimates of financial performance for 2017/18 are based on the 2019 licence holder survey.

^{b-d} See Table 3-4 footnotes.

Source: Licence holder survey and BDO EconSearch analysis

APPENDIX 2 Economic Contribution of the SA Charter Boat Fishery, 2020/21

Appendix Table 2-1 Economic contribution of the Charter Boat fishing industry, SA, 2020/21^d

Sector	Output		Employment ^a		Household Income		Contribution to GSP	
	(\$m)	%	(fte jobs)	%	(\$m)	%	(\$m)	%
Direct effects								
Charter Boats	2.9	10.8%	32	21.9%	0.6	7.6%	1.2	8.6%
Visitor Activities								
Trade	2.3	8.4%	15	10.6%	0.9	11.9%	1.3	9.5%
Accom, rest, cafes	2.0	7.3%	14	10.0%	0.6	7.3%	1.1	7.7%
Transport	1.5	5.7%	5	3.5%	0.4	4.7%	0.6	4.2%
Manufacturing	1.5	5.4%	4	2.6%	0.2	2.9%	0.4	3.0%
Other Sectors	1.4	5.1%	5	3.2%	0.3	3.7%	0.8	5.6%
Capital expenditure ^b	0.3	0.9%	1	1.0%	0.1	1.2%	0.1	0.9%
Total Direct ^c	11.8	43.7%	76	52.8%	3.1	39.3%	5.5	39.6%
Flow-on effects								
Trade	1.7	6.4%	11	7.6%	0.7	8.8%	1.0	7.2%
Manufacturing	2.0	7.5%	6	3.9%	0.4	5.0%	0.6	4.4%
Business Services	2.6	9.5%	17	11.7%	1.2	15.4%	1.4	10.0%
Finance, Insurance	1.2	4.4%	3	1.9%	0.3	3.3%	0.7	5.4%
Other Sectors	7.7	28.5%	32	22.1%	2.2	28.3%	4.6	33.4%
Total Flow-on ^c	15.2	56.3%	68	47.2%	4.7	60.7%	8.4	60.4%
Total ^c	27.0	100.0%	144	100.0%	7.8	100.0%	13.9	100.0%
Total/Direct	2.3	-	1.9	-	2.5	-	2.5	-
Total/Client	\$2,200	-	0.01	-	\$600	-	\$1,100	-

^a Full-time equivalent jobs. Direct employment in the fishing industry was comprised of 21 full-time jobs and 42 part-time jobs, that is, 63 jobs in aggregate, which was estimated to be equal to 32 fte jobs.

^b Capital expenditure includes expenditure on boats, fishing gear and equipment, sheds and buildings, motor vehicles and other equipment.

^c Totals may not sum due to rounding.

^d Values have been revised using updated information received in 2021/22.

Source: BDO EconSearch analysis

Appendix Table 2-2 Economic contribution of the Charter Boat fishing industry in Spencer Gulf/Coffin Bay region, 2020/21^d

Sector	Output		Employment ^a		Household Income		Contribution to GRP	
	(\$m)	%	(fte jobs)	%	(\$m)	%	(\$m)	%
Direct effects								
Charter Boats	0.9	14.9%	12	32.0%	0.2	14.2%	0.2	6.4%
Visitor Activities								
Trade	0.7	12.0%	5	13.3%	0.3	17.0%	0.4	14.2%
Accom, rest, cafes	0.7	11.9%	5	13.9%	0.2	11.4%	0.4	13.2%
Transport	0.3	4.9%	1	2.8%	0.1	4.5%	0.1	4.2%
Manufacturing	0.3	4.6%	1	3.3%	0.1	4.3%	0.1	3.9%
Other Sectors	0.5	8.3%	1	3.0%	0.1	3.9%	0.2	7.8%
Capital expenditure ^b	0.1	0.9%	0	1.0%	0.0	1.2%	0.0	0.9%
Total Direct ^c	3.3	57.5%	25	69.2%	1.0	56.5%	1.4	50.7%
Flow-on effects								
Trade	0.2	2.8%	2	5.8%	0.1	7.8%	0.2	6.8%
Manufacturing	0.1	2.3%	0	1.2%	0.0	1.7%	0.0	1.5%
Business Services	0.4	6.7%	2	6.8%	0.2	9.8%	0.2	7.2%
Finance, Insurance	0.1	1.9%	0	0.6%	0.0	1.1%	0.1	2.9%
Other Sectors	1.7	28.8%	6	16.5%	0.4	23.0%	0.9	30.9%
Total Flow-on ^c	2.4	42.5%	11	30.8%	0.7	43.5%	1.4	49.3%
Total ^c	5.8	100.0%	37	100.0%	1.7	100.0%	2.8	100.0%
Total/Direct	1.7	-	1.4	-	1.8	-	2.0	-
Total/Client	\$1,600	-	0.01	-	\$400	-	\$700	-

^a Full-time equivalent jobs. Direct employment in the fishing industry was comprised of 8 full-time jobs and 16 part-time jobs, that is, 24 jobs in aggregate, which was estimated to be equal to 12 fte jobs.

^b Capital expenditure includes expenditure on boats, fishing gear and equipment, sheds and buildings, motor vehicles and other equipment.

^c Totals may not sum due to rounding.

^d Values have been revised using updated information received in 2021/22.

Source: BDO EconSearch analysis

Appendix Table 2-3 Economic contribution of the Charter Boat fishing industry in Gulf St Vincent/Kangaroo Island region, 2020/21^d

Sector	Output		Employment ^a		Household Income		Contribution to GRP	
	(\$m)	%	(fte jobs)	%	(\$m)	%	(\$m)	%
Direct effects								
Charter Boats	1.6	12.0%	14	19.3%	0.3	7.3%	0.8	10.4%
Visitor Activities								
Trade	1.3	9.5%	10	13.2%	0.6	13.5%	0.8	10.3%
Accom, rest, cafes	1.3	9.4%	9	12.2%	0.4	9.5%	0.7	9.8%
Transport	0.5	3.8%	2	2.8%	0.2	4.1%	0.2	3.2%
Manufacturing	0.5	3.6%	2	2.1%	0.1	1.8%	0.1	1.6%
Other Sectors	0.8	6.2%	3	3.8%	0.2	4.5%	0.5	6.8%
Capital expenditure ^b	0.1	0.4%	0	0.6%	0.0	0.6%	0.0	0.5%
Total Direct ^c	6.1	44.9%	39	54.1%	1.7	41.3%	3.1	42.5%
Flow-on effects								
Trade	0.9	6.6%	6	8.0%	0.4	9.6%	0.5	7.3%
Manufacturing	0.8	5.7%	2	3.3%	0.1	3.5%	0.2	3.0%
Business Services	1.3	9.5%	8	10.9%	0.6	14.2%	0.7	9.4%
Finance, Insurance	0.8	5.5%	2	2.4%	0.1	3.5%	0.5	6.4%
Other Sectors	3.8	27.8%	16	21.4%	1.2	27.9%	2.3	31.5%
Total Flow-on ^c	7.5	55.1%	33	45.9%	2.5	58.7%	4.3	57.5%
Total ^c	13.7	100.0%	73	100.0%	4.2	100.0%	7.4	100.0%
Total/Direct	2.2	-	1.8	-	2.4	-	2.4	-
Total/Client	\$1,900	-	0.01	-	\$600	-	\$1,000	-

^a Full-time equivalent jobs. Direct employment in the fishing industry was comprised of 10 full-time jobs and 19 part-time jobs, that is, 29 jobs in aggregate, which was estimated to be equal to 14 fte jobs.

^b Capital expenditure includes expenditure on boats, fishing gear and equipment, sheds and buildings, motor vehicles and other equipment.

^c Totals may not sum due to rounding.

^d Values have been revised using updated information received in 2021/22.

Source: BDO EconSearch analysis

APPENDIX 3 Summary Economic Indicators for SA Commercial Fisheries

Appendix Table 3-1 Commercial fisheries catch, South Australia, 2001/02 to 2020/21 (tonnes)^a

Year	Abalone	GSV Prawns ^a	SGWC Prawns ^a	Sth'n Zone Rock Lobster ^a	Nth'n Zone Rock Lobster ^a	Blue Crabs	Lakes and Coorong ^b	Sardines	Marine Scalefish	Misc ^c	Total SA Fisheries ^d
2001/02	850	322	2,309	1,717	675	481	1,640	12,165	4,801	-	24,960
2002/03	890	232	1,508	1,766	595	515	1,979	21,741	4,243	-	33,469
2003/04	879	172	1,958	1,896	504	559	2,180	33,160	4,221	-	45,529
2004/05	902	213	1,960	1,897	446	584	2,277	56,952	3,857	-	69,089
2005/06	896	175	1,891	1,889	476	600	2,440	28,626	3,234	-	40,227
2006/07	883	209	2,024	1,895	492	617	2,443	30,355	2,855	-	41,773
2007/08	889	229	2,088	1,850	459	625	2,146	29,692	2,925	28	40,931
2008/09	837	273	1,915	1,407	403	604	2,023	27,850	2,998	28	38,338
2009/10	855	250	2,445	1,243	310	539	1,916	36,573	3,330	24	47,485
2010/11	815	178	2,115	1,244	313	591	1,681	33,220	3,068	24	43,249
2011/12	822	125	1,840	1,242	307	611	1,641	36,962	3,208	25	46,783
2012/13	875	0	1,881	1,234	325	511	1,811	35,065	2,603	28	44,333
2013/14	661	0	1,805	1,247	331	571	1,852	33,197	2,302	22	41,988
2014/15	744	249	1,848	1,238	321	576	1,598	36,020	2,582	22	45,198
2015/16	625	218	2,357	1,244	347	625	1,646	41,103	2,550	21	50,736
2016/17	743	225	2,205	1,238	320	627	1,847	39,745	2,519	22	49,491
2017/18	700	237	2,197	1,246	308	603	1,873	43,293	2,303	22	52,782
2018/19	658	212	2,121	1,245	294	616	1,861	40,041	2,099	22	49,169
2019/20	509	133	1,743	1,203	226	620	1,978	39,889	2,130	17	48,448
2020/21	493	110	1,837	1,275	251	592	1,926	38,024	1,689	18	46,215

^a Excludes retained by-catch of Octopus and Southern Calamari.

^b The River fishery was closed from July 2003. There are 6 River fishery licences with access to non-native species and their production is included in this table.

^c Prior to 2007/08 catch from the Miscellaneous Fishery was included in the Marine Scalefish Fishery.

^d Excludes retained by-catch of Octopus, Southern Calamari and Bugs (39t of Octopus, 21t of Southern Calamari and 3t of Bugs in 2019/20) from the Rock Lobster and Prawn Fisheries. Excludes catch from Charter Boat Fishery, aquaculture and south east non-trawl and deep water trawl Commonwealth Fisheries.

Source: BDO EconSearch (2022b)

Appendix Table 3-2 Commercial fisheries gross value of production, South Australia, 2001/02 to 2020/21 (\$m)

Year	Abalone	GSV Prawns ^a	SGWC Prawns ^a	Sth'n Zone Rock Lobster ^a	Nth'n Zone Rock Lobster ^a	Blue Crabs	Lakes and Coorong ^b	Sardines	Marine Scalefish	Misc ^c	Charter Boat	Total SA Fisheries ^d
2001/02	54	9	62	98	41	5	7	13	30	-	-	319
2002/03	54	6	41	96	28	5	7	27	31	-	-	296
2003/04	46	5	58	72	18	5	8	33	33	-	-	277
2004/05	46	5	45	77	17	5	8	41	30	-	-	274
2005/06	46	4	46	90	21	7	8	22	24	-	6	275
2006/07	42	4	53	106	24	7	10	25	26	-	6	305
2007/08	40	4	41	98	21	7	10	21	26	1	5	274
2008/09	41	4	38	108	25	7	11	22	27	1	5	290
2009/10	35	3	34	87	19	5	8	28	28	1	6	254
2010/11	33	3	36	80	17	6	8	23	26	1	5	238
2011/12	34	2	29	93	20	6	9	24	27	1	6	252
2012/13	34	0	32	82	18	6	11	24	28	1	6	241
2013/14	25	0	31	99	22	7	11	21	24	1	5	246
2014/15	28	5	32	112	25	7	9	24	26	1	4	272
2015/16	24	4	42	124	27	8	9	28	24	2	4	297
2016/17	30	5	42	108	22	9	10	26	25	2	4	281
2017/18	29	5	46	103	26	9	12	28	24	2	4	287
2018/19	30	4	43	115	26	9	14	27	21	2	3	295
2019/20	22	2	23	106	19	9	13	27	20	2	2	247
2020/21	18	2	36	71	12	8	14	24	19	1	3	209

^a Excludes retained by-catch of Octopus and Southern Calamari.

^b The River fishery was closed from July 2003. There are 6 River fishery licences with access to non-native species and their production is included in this table.

^c Prior to 2007/08 catch from the Miscellaneous Fishery was included in the Marine Scalefish Fishery.

^d Excludes retained by-catch of Octopus, Southern Calamari and Bugs (\$444,000 of Octopus, \$542,000 of Southern Calamari and \$46,000 of Bugs in 2019/20) from the Rock Lobster and Prawn Fisheries. Excludes catch of aquaculture and south east non-trawl, tuna, deep water trawl Commonwealth Fisheries. All values are expressed in real 2018/19 dollars.

Source: BDO EconSearch (2022b)

Appendix Table 3-3 Cost of management in South Australian commercial fisheries, 2020/21

	Licence Fees (\$'000)	GVP (\$'000)	Fees/ GVP (%)	Catch ^a (t)	Fees/ Catch (\$/kg)	Licence Holders (no.)	Fees/ Licence (\$/licence)
Abalone	2,431	18,337	13.3%	493	\$4.93	34	\$71,505
Charter Boats ^b	180	2,907	6.2%	12,077	\$14.87	82	\$2,191
GSV Prawns	410	2,093	19.6%	110	\$3.73	10	\$40,991
SG Prawns ^c	1,055	35,653	3.0%	1,837	\$0.57	39	\$27,049
Sth'n Zone Rock Lobster	3,444	71,299	4.8%	1,275	\$2.70	180	\$19,131
Nth'n Zone Rock Lobster	1,601	11,643	13.8%	251	\$6.38	63	\$25,414
Blue Crabs	320	8,410	3.8%	592	\$0.54	9	\$35,565
Lakes and Coorong	704	13,721	5.1%	1,926	\$0.37	36	\$19,562
Marine Scalefish ^d	1,973	19,103	10.3%	1,689	\$1.17	305	\$6,469
Miscellaneous	119	1,484	8.0%	18	\$6.60	15	\$7,916
Sardines	893	23,955	3.7%	38,024	\$0.02	14	\$63,769
Total SA	13,129	208,604	6.3%	46,215	\$0.28	787	\$16,683

^a Total catch for the Charter Boat Fishery is the total number of clients rather than total volume of catch and has therefore been excluded from the total catch for all SA commercial fisheries.

^b Management costs for the Charter Boat Fishery are reported per client rather than per kg of catch.

^c Excludes West Coast Prawn Fishery.

^d Licence fees include access/entitlement fees paid by rock lobster and Lakes and Coorong licence holders. Number of licence holders and average fee per licence holder relates only to Marine Scalefish licence holders and excludes access/entitlement holders from other fisheries.

Source: BDO EconSearch (2022b)

Appendix Table 3-4 Financial performance in South Australian commercial fisheries, 2020/21, (average per boat) ^a

	Abalone	Charter Boats	GSV Prawns	SG Prawns	Sth'n Zone Rock Lob	Nth'n Zone Rock Lob	Blue Crabs ^a	Marine Scalefish	Sardine	Lakes and Coorong
(1) Total Boat Gross Income	585,788	95,682	418,600	858,836	440,222	250,721	8,409,508	122,224	1,726,433	517,480
Variable Costs										
Fuel	15,214	16,015	60,732	80,931	24,940	24,264	530,977	13,025	108,435	16,878
Repairs &	24,130	17,007	41,471	97,439	35,796	17,104	438,956	8,151	130,409	12,430
Bait/Ice	527	3,525	0	5,001	14,584	13,170	134,934	2,411	1,591	1,542
Provisions	3,806	854	2,477	4,605	1,067	6,159	29,862	980	1,385	610
Labour - paid	185,740	6,185	212,626	361,846	158,999	113,626	2,462,702	12,639	432,268	66,979
(2) Labour - unpaid	1,342	13,126	9,867	2,001	7,280	15,902	9,604	18,510	2,801	14,746
Other	3,593	2,967	37,985	367	1,312	3,581	1,781	1,568	427	1,123
(3) Total Variable Costs	234,353	59,679	365,158	552,190	243,978	193,805	3,608,815	57,283	677,316	114,309
Fixed Costs										
Licence Fee	72,620	4,185	81,983	27,634	23,122	26,786	343,300	5,769	68,666	16,136
Insurance	8,283	4,179	9,796	20,831	8,734	7,461	198,233	3,036	39,123	5,302
(4) Interest	18,080	1,141	4,154	38,018	12,378	3,411	388,980	4,239	86,292	4,012
(5) Labour - unpaid	13,418	17,493	23,796	3,419	10,693	3,971	127,993	5,041	24,916	9,522
(6) Leasing	0	0	0	5,365	4,452	42,432	320,184	0	0	7,111
Legal & Accounting	9,191	2,030	6,579	4,872	6,764	4,206	26,823	2,292	5,872	4,537
Telephone etc.	2,451	1,296	1,805	2,995	2,518	1,032	5,696	1,266	1,098	1,911
Slipping & Mooring	1,271	2,193	20,061	21,804	6,383	5,825	70,083	1,629	7,704	276
Travel	5,482	659	0	570	1,363	1,598	3,561	594	883	927
Office & Admin	6,229	7,027	3,869	30,556	6,869	11,429	144,778	7,369	17,988	8,919
(7) Total Fixed Costs	137,025	40,203	152,042	156,062	83,275	108,151	1,629,632	31,234	252,542	58,654
(8) Total Boat Cash Costs (3 + 7)	371,377	99,882	517,201	708,252	327,254	301,957	5,238,447	88,517	929,858	172,962
Boat Gross Margin (1 - 3)	351,435	36,003	53,442	306,646	196,243	56,916	4,800,692	64,941	1,049,117	403,171
(9) Total Unpaid Labour (2 + 5)	14,760	30,618	33,662	5,420	17,973	19,872	137,597	23,550	27,717	24,268
Gross Operating Surplus (1- 8+ 9)	229,170	26,418	-64,938	156,004	130,942	-31,363	3,308,657	57,258	824,292	368,786
(10) Boat Cash Income (1 - 8)	214,411	-4,200	-98,601	150,584	112,968	-51,235	3,171,061	33,707	796,575	344,518
(11) Depreciation	53,300	22,687	73,852	110,310	41,973	47,587	740,508	19,848	328,118	54,278
(12) Boat Business Profit (10 - 11)	161,111	-26,887	-172,453	40,274	70,995	-98,823	2,430,552	13,859	468,457	290,239
(13) Profit at Full Equity (12 + 4 + 6)	179,191	-25,746	-168,299	83,656	87,825	-52,980	3,139,717	18,097	554,748	301,363
Boat Capital										
(14) Fishing Gear & Licence Value	369,703	273,514	1,136,412	1,435,546	512,056	514,497	8,036,811	150,058	3,132,734	432,446
(15) Total Boat Capital	6,326,294	7,750	2,000,000	4,198,095	5,257,050	2,296,864	47,285,237	226,097	6,076,511	1,469,734
(15) Total Boat Capital	6,695,997	281,264	3,136,412	5,633,641	5,769,107	2,811,360	55,322,048	376,155	9,209,245	1,902,180
Rate of Return on										
Fishing Gear & Equip (13 / 14 * 100)	48.5%	-9.4%	-14.8%	6%	17%	-10.3%	39.1%	12.1%	17.7%	69.7%
Rate of Return on										
Total Boat Capital (13 / 15 * 100)	2.7%	-9.2%	-5.4%	1.5%	1.5%	-1.9%	5.7%	4.8%	6.0%	15.8%

^a Excludes aquaculture and Commonwealth fisheries including; the Southern Eastern Scalefish and Shark fishery, Southern Bluefin Tuna fishery, Great Australian Bight fishery, Western Skipjack fishery, the Western Tuna and Billfish fishery

^b Estimates of financial performance for the blue crab fishery have been presented on a whole of fishery basis.

Source: BDO EconSearch (2022b)

Appendix Table 3-5 Costs as a percentage of total cash costs in South Australian commercial fisheries, 2020/21 ^a

	Abalone	Charter Boats	Gulf St Vincent Prawns	Spencer Gulf Prawns	Sth'n Zone Rock Lob	Nth'n Zone Rock Lob	Blue Crabs	Marine Scalefish	Sardines	Lakes and Coorong
Variable Costs										
Fuel	4%	16%	12%	11%	8%	8%	10%	15%	12%	10%
R&M	6%	17%	8%	14%	11%	6%	8%	9%	14%	7%
Bait/Ice	0%	4%	0%	1%	4%	4%	3%	3%	0%	1%
Provisions	1%	1%	0%	1%	0%	2%	1%	1%	0%	0%
Labour - paid	50%	6%	41%	51%	49%	38%	47%	14%	46%	39%
Labour - unpaid	0%	13%	2%	0%	2%	5%	0%	21%	0%	9%
Other	1%	3%	7%	0%	0%	1%	0%	2%	0%	1%
Fixed Costs										
Licence Fee	20%	4%	16%	4%	7%	9%	7%	7%	7%	9%
Insurance	2%	4%	2%	3%	3%	2%	4%	3%	4%	3%
Interest	5%	1%	1%	5%	4%	1%	7%	5%	9%	2%
Labour - unpaid	4%	18%	5%	0%	3%	1%	2%	6%	3%	6%
Leasing	0%	2%	0%	1%	1%	14%	6%	0%	0%	4%
Legal & Accounting	2%	1%	1%	1%	2%	1%	1%	3%	1%	3%
Telephone etc.	1%	2%	0%	0%	1%	0%	0%	1%	0%	1%
Slipping & Mooring	0%	1%	4%	3%	2%	2%	1%	2%	1%	0%
Travel	1%	7%	0%	0%	0%	1%	0%	1%	0%	1%
Office & Admin	2%	40%	1%	4%	2%	4%	3%	8%	2%	5%
Total Variable Costs	63%	60%	71%	78%	75%	64%	69%	65%	73%	66%
Total Fixed Costs	37%	40%	29%	22%	25%	36%	31%	35%	27%	34%
Total Cash Costs	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

^a Excludes aquaculture and Commonwealth fisheries including; the Southern Eastern Scalefish and Shark fishery, Southern Bluefin Tuna fishery, Great Australian Bight fishery, Western Skipjack fishery, the Western Tuna and Billfish fishery.

Source: Derived from BDO EconSearch (2022b)

Appendix Table 3-6 Economic contributions of South Australian commercial fisheries, 2020/21 ^{a,b}

	Abalone	Charter Boats	Gulf St Vincent Prawn	SG Prawns	Sth'n Zone Rock Lob	Nth'n Zone Rock Lob	Blue Crabs	Marine Scalefish	Sardines	Lakes and Coorong	All Fisheries
Output (\$m)											
Direct											
Fishing	18.3	2.9	2.1	35.7	71.7	11.7	8.4	19.1	24.0	13.7	207.6
Downstream	15.2	5.7	2.2	35.9	29.8	6.1	7.5	8.7	2.2	6.6	119.9
All other sectors	56.9	14.4	7.3	91.4	125.3	29.5	18.4	57.3	22.1	19.5	442.3
Total	90.5	23.0	11.6	163.0	226.8	47.3	34.4	85.1	48.3	39.8	769.8
Total/Direct	2.7	2.7	2.7	2.3	2.2	2.7	2.2	3.1	1.8	2.0	2.4
Total/Tonne (\$)	\$183,500	\$1,900	\$105,600	\$88,700	\$172,300	\$182,500	\$58,000	\$50,300	\$1,200	\$24,900	\$16,000
Contribution to GSP (\$m)											
Direct											
Fishing	13.9	1.2	0.9	24.3	51.1	3.8	6.5	7.9	18.7	11.3	139.6
Downstream	13.8	2.8	1.3	20.6	14.8	3.0	3.8	4.2	1.1	3.2	68.6
All other sectors	18.1	8.1	4.1	50.9	71.5	16.8	10.4	32.8	12.5	11.1	236.4
Total	45.9	12.1	6.3	95.9	137.4	23.7	20.8	44.8	32.3	25.5	444.6
Total/Direct	1.7	3.1	2.9	2.1	2.1	3.5	2.0	3.7	1.6	11.1	2.1
Total/Tonne (\$)	\$93,000	\$1,000	\$56,900	\$52,100	\$104,400	\$91,300	\$35,000	\$26,500	\$800	\$26	\$9,200
Employment (fte jobs)											
Direct											
Fishing	51	32	18	116	327	89	29	211	82	109	1,064
Downstream	125	29	19	305	194	39	58	55	13	40	876
All other sectors	148	68	33	413	584	139	82	274	104	88	1,934
Total	323	128	70	834	1,105	268	169	540	199	238	3,874
Total/Direct	1.8	2.1	1.9	2.0	2.1	2.1	2.0	2.0	2.1	1.6	2.0
Total/Tonne	0.7	0.0	0.6	0.5	0.8	1.0	0.3	0.3	0.0	0.1	0.1
Household Income (\$m)											
Direct											
Fishing	6.8	0.6	1.2	14.3	28.0	6.2	2.6	8.7	6.4	3.3	78.2
Downstream	6.6	1.6	0.9	15.1	11.0	2.2	2.7	3.0	0.8	2.3	46.1
All other sectors	10.4	4.9	2.4	28.5	41.2	9.8	5.9	19.8	7.2	6.5	136.4
Total	23.8	7.1	4.5	57.9	80.1	18.3	11.2	31.5	14.3	12.0	260.7
Total/Direct	1.8	3.2	2.1	2.0	2.1	2.2	2.1	2.7	2.0	2.2	2.1
Total/Tonne (\$)	\$48,200	\$500	\$41,100	\$31,500	\$60,800	\$70,400	\$18,800	\$18,600	\$300	\$7,500	\$5,400

^a Excludes aquaculture and Commonwealth fisheries including; the Southern Eastern Scalefish and Shark fishery, Southern Bluefin Tuna fishery, Great Australian Bight fishery, Western Skipjack fishery, the Western Tuna and Billfish fishery.

^b Downstream activities include net value of processing, transport services and retail/food services trade.

Source: BDO EconSearch (2022b)

Appendix Table 3-7 Net economic return (NER) in South Australian commercial fisheries, 2020/21 (\$m)

	Abalone	GSV Prawns	SGWC Prawns	Sth'n Zone Rock Lob	Nth'n Zone Rock Lob	Blue Crabs	Marine Scalefish	Sardines	Lakes and Coorong	All Fisheries ^a
Gross Income	18.3	2.1	35.7	71.7	11.7	8.4	19.1	24.0	13.7	204.6
Less Labour	6.3	1.2	15.0	28.8	6.2	2.6	5.7	6.4	2.4	74.6
Less Materials & Services	4.8	1.3	12.1	21.7	5.7	1.9	9.0	5.3	2.1	64.0
Less Depreciation	1.7	0.4	4.5	6.8	2.2	0.7	3.1	4.6	1.4	25.4
Less Opportunity Cost of Capital (@10%)	1.2	0.6	5.8	8.3	2.4	0.8	2.3	4.3	1.1	27.0
NER	4	-1	-2	6	-5	2	-1	3	7	14
NER/GVP	24%	-64%	-5%	8%	-42%	28%	-5%	14%	49%	5%

^a Excludes aquaculture and Commonwealth fisheries including; the Southern Eastern Scalefish and Shark fishery, Southern Bluefin Tuna fishery, Great Australian Bight fishery, Western Skipjack fishery, the Western Tuna and Billfish fishery.

Source: BDO EconSearch (2022b)

APPENDIX 4 Nominal Licence Fees and Net Economic Return

Appendix Table 4-1 Nominal costs of management in the SA Charter Boat Fishery, 2005/06 to 2022/23 ^a

	Licence Fee	GVP (\$'000)	Fee/GVP	Clients		Licences	Fee/Licence
	(\$'000)	(\$'000)	(%)	(persons)	(\$/client)	(No.)	(\$/licence)
2005/06	201	4,238	4.7%	19,540	10	99	2,028
2006/07	244	4,786	5.1%	21,697	11	106	2,305
2007/08	244	4,230	5.8%	21,962	11	109	2,242
2008/09	244	4,240	5.8%	21,430	11	109	2,241
2009/10	279	4,642	6.0%	21,822	13	109	2,560
2010/11	259	4,394	5.9%	20,097	13	109	2,374
2011/12	354	4,872	7.3%	23,711	15	109	3,246
2012/13	354	4,985	7.1%	23,525	15	109	3,246
2013/14	369	4,320	8.5%	19,227	19	109	3,386
2014/15	374	3,558	10.5%	15,129	25	105	3,558
2015/16	362	4,051	8.9%	15,597	23	102	3,552
2016/17	362	3,738	9.7%	14,459	25	100	3,617
2017/18	359	3,495	10.3%	14,382	25	98	3,667
2018/19	367	3,121	11.8%	13,364	27	93	3,944
2019/20	371	1,772	20.9%	7,616	49	84	4,418
2020/21	180	2,907	6.2%	12,077	15	82	2,191
2021/22	362	3,603	10.0%	13,913	26	81	4,464
2022/23	376	n.a.	-	n.a.	-	79	4,765

^a Values are in nominal terms.

Source: PIRSA Fisheries and SARDI Aquatic Sciences



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