



ECONOMIC AND SOCIAL INDICATORS FOR THE QUEENSLAND CHARTER FISHERY IN 2019/20

A Report for the Fisheries Queensland

20 September 2022

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GLOSSARY

Active Business: refers to a fisher operating a fishing business which fished at least one day during the relevant period.

Business Profit: is defined as *Gross Operating Surplus (GOS)* less *Depreciation* less *Owner-operator and Unpaid Family Labour*. Business Profit represents a more complete picture of the actual financial status of an individual firm, compared with GOS.

Business Profit before Depreciation: is defined as *Gross Operating Surplus* less imputed wages for *Owner-operator and Unpaid Family Labour*.

Client days: refers to the total number of 'single client day trip equivalents' by converting multi-day trips to day trip equivalents and counting each trip once for each client on it. For example, if a charter fisher undertook 10 day trips with 4 clients on each trip plus 2 multi-day trips that went for 3 days with 2 clients on each trip the fisher undertook $(10 \text{ day trips} \times 4 \text{ clients}) + (2 \text{ multi-day trips} \times 3 \text{ days} \times 2 \text{ clients}) = 52$ client days. Client days data were sourced from Fisheries Queensland logbooks and collected in the survey to allow scaling up of the sample by this variable. What represents a paying client is unclear in Charter Fishery logbooks as an entry is required for 'number of fishers' and 'number of guests'. The most common entries for 'number of guests' are zero or the number entered for 'number of fishers' so the number of paying clients was assumed to be the maximum of these two numbers on any one trip.

Cost of Management Services: management services will generally include biological monitoring and reporting; policy, regulation and legislation development; compliance and enforcement services; licensing services; and research.

Depreciation: refers to the annual reduction in the value of total capital due to general wear and tear or the reduction in value of an item over time. Note this is a measure of economic depreciation not accounting depreciation¹.

Employment: is a measure of the number of working proprietors, managers, directors and other employees, in terms of the number (total jobs) or full-time equivalent (fte) jobs. One fte is considered to be 37.5 hours for 42 week per year.

Gross Income: refers to the cash receipts received by an individual firm and is expressed in dollar terms. *Gross income* is calculated as the number of client days for the year multiplied by the average trip price per client per day.

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

Gross Operating Surplus (GOS): is defined as *Gross income* less *Total Costs* and is expressed in current dollar terms. GOS does not include a value for owner/operator wages, unpaid family work, or depreciation.

Gross State Product (GSP) and Gross Regional Product (GRP): are measures 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).

¹ Accounting depreciation allocates the cost of an asset over its useful life.

Gross Value of Production (GVP): refers to the value of the total annual trips for the Charter Fishery or a sector of it and is measured in dollar terms. GVP, generally reported on an annual basis, is the number of client days for the year multiplied by the average trip price per client per day. It is equivalent to *Gross Income*.

Household Income (economic contribution): 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.

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 amount of time and equivalent wages rate. In profitability 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 *Business Profit before Depreciation* in this report. Owner-operator and unpaid family labour is separated into variable labour (fishing and repairs and maintenance) and overhead labour (management and administration).

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

Rate of Return on Total Capital at Full Equity: is calculated as *Profit at Full Equity* divided by *Total Capital at Full Equity* multiplied by 100. This rate of return is expressed in percentage terms and is calculated for an individual fishing business. 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 Total Capital at Full Equity* is useful to compare the performance of various fishing businesses, and to compare the performance of other types of operators, and with other industries.

Total Costs: defined as *Total Variable Costs* plus *Total Fixed Costs*. It does not include *depreciation*.

Total Fixed Costs: are costs that remain fixed regardless of the level of catch or 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
- administrative and industry fees
- office & business administration (communication, stationery, accountancy fees)
- interest on loan repayments and overdraft
- advertising or marketing
- leasing.

Total Variable Costs: are costs which are dependent upon the number of client days or, more commonly, the amount of time spent on trips. As clients or 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 (net of diesel fuel rebate)
- bait
- ice
- provisions

- crew payments
- fishing equipment, purchase and repairs (lines, etc.)
- repairs & maintenance: ongoing (slipping, painting, overhaul motor).

Trip days: refers to the total number of 'day trip equivalents' by converting multi-day trips to daytrip equivalents. For example, a 3 day trip converts to '3 trip days'. Trip days data were sourced from Fisheries Queensland logbooks and collected in the survey to allow scaling up of the sample by this variable.

Total Capital: includes capital items that are required by the fishing business to earn the income. It includes boat hull, engine, electronics and other permanent fixtures and tender boats. Other capital items such as motor vehicles, sheds, and jetty/moorings are included to the extent that they are used in the fishing business. The value of capital utilised by the business is included in total capital whether the business owns or leases it. Total capital should not be confused with financial capital which is money provided by lenders for a price (interest).

ABBREVIATIONS

ABS	Australian Bureau of Statistics
CPI	Consumer Price Index
fte	full time equivalent
GRP	gross regional product
GSP	gross state product
GVP	gross value of production
R&M	repairs and maintenance
RBA	Reserve Bank of Australia

ACKNOWLEDGMENTS

In the preparation of economic and social indicators for the Charter Fishery, 2019/20, BDO EconSearch has relied heavily on the voluntary cooperation of fishing operators in providing data for the surveys and are particularly grateful for the time and cooperation generously provided by fishing businesses in responding to the rather lengthy questionnaire. BDO EconSearch is also indebted to various individuals and institutions for providing the necessary information to supplement the survey data. Industry representatives and Fisheries Queensland officers provided assistance, were supportive of the data collection and offered valuable advice.

DOCUMENT HISTORY AND STATUS

Doc Version	Doc Status	Issued To	Qty elec	Qty hard	Date	Reviewed	Approved
1	Draft	James Webley Tobias Probst	1 Word 1 PDF	-	19/11/2022 1	ADM	ADM
2	Draft	James Webley Tobias Probst	1 Word 1 PDF	-	26/11/2022 1	ADM	ADM
3	Draft	James Webley Tobias Probst	1 Word 1 PDF	-	13/12/2022 1	ADM	ADM
4	Final Draft	James Webley Tobias Probst	1 Word 1 PDF	-	11/2/2022	ADM	ADM
5	Final	James Webley Tobias Probst	1 Word 1 PDF	-	18/3/2022	ADM	ADM
6	Final	James Webley Tobias Probst	1 Word 1 PDF	-	20/9/2022	ADM	ADM

Last Saved: 9/11/2022 9:46:00 AM

File Name: I:\CLIENTS\BDO (Brisbane)\ES2056_QLD Commercial Fishing
Indicators\Reports\Charter report
FY20\Economic_and_Social_Indicators_1920_Charter_Final_220920.docx

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Name of Client: Department of Agriculture and Fisheries (Queensland)

Name of Project: Economic and Social Indicators for the Queensland Charter Fishery, 2019/20

Document Version: 6

Job Number: 2056

SUMMARY

This report presents economic and social indicators for the Charter Fishery for the 2019/20 financial year.

BDO EconSearch was contracted by Fisheries Queensland to develop economic and social indicators to inform stakeholders with published financial, economic and social information about professional fishers (i.e. commercial fishers and charter operators) in Queensland. Data was previously collected for the financial years 2017/18 and 2018/19 (BDO EconSearch 2020). This report presents the results for the 2019/20 financial year.

For the purpose of this report, the Charter Fishery includes all businesses that provide charter fishing services in Queensland under a Charter Fishing licence provided by Fisheries Queensland. These businesses typically charge a fee to take clients on recreational fishing trips with a broad range of objectives ranging from low-cost day trips in rivers or bays to multi-day trips targeting sport fish on luxury boats. Some businesses may offer guided fishing trips in waters shallower than 2 meters and are currently not required to be licenced as a charter operator. Businesses which are not licenced charter operators are not included in this report. A summary of key economic indicators is presented in Table ES-1.

In January 2020, the COVID-19 pandemic was beginning to affect the Charter Fishery. While charter 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. A survey based estimate of the impact of COVID-19 on the Charter Fishery is presented in this report.

Table ES-1 Summary of key economic indicators, 2017/18 to 2019/20 for the charter fishery

Indicator	2017/18	2018/19	2019/20
Client days (no.)	132,276	120,331	74,919
Trips (no.)	15,255	14,081	8,953
Gross Value of Production (GVP)	\$35.8m	\$33.1m	\$24.6m
Export value	\$5.9m	\$5.4m	\$1.2m
Active businesses (no.)	180	176	149
Return on Total Capital at Full Equity	-0.6%	-2.9%	0.9%
Gross State Product (GSP) (direct + flow-on) ^a	\$53.1m	\$50.3m	\$33.5m
Employment (direct + flow-on) (fte jobs) ^a	464	449	306

^a Gross State Product and Employment contributions for all years have been revised to include consumption induced flow-on effects to be consistent with the other commercial fisheries.

Overview of Approach

Development of economic and social indicators for the Charter Fishery occurred in parallel to similar research in Queensland's commercial fisheries. The Charter Fishery research included a separate data collection process and analysis.

The approach followed the below steps:

1. Collect administrative business level data
2. Collect fishery level data

3. Survey fishing businesses
4. Estimate the active population of charter fishers
5. Scale up the survey sample to represent the population
6. Calculate indicators

A total of 55 usable responses were received, including 52 that were used for economic indicators and 55 for calculating social indicators. Only licenced Charter operators were included in the sample in 2019/20 and the scope of research was smaller, resulting in a smaller number of responses required (compared to 100 responses in 2018/19). The responses that could be used for calculating economic indicators represented 35 per cent of the estimated population of active charter fishers in 2019/20. More active businesses are better represented in the sample with almost half of the most active half of businesses responding to the survey and less than one quarter of the least active half of businesses responding. The confidentiality of responses was made clear to respondents including that no individual response would be identifiable in reporting or provided to Fisheries Queensland and that any statistic published would be based on at least five responses.

Survey participants were asked to estimate the percentage change COVID-19 had on different aspects of their Charter fishing business including, price, number of clients, number of trips, business revenue, wage costs and non-wage costs. This was then applied to their actual 2019/20 estimates and scaled up to the fishery total using the same weights used for the 2019/20 indicators. Participants were also asked to describe any government assistance received which were also scaled up to the population using these same weights.

Clients, Gross Value of Production and Exports

The total client days in the Charter Fishery decreased from 120,000 in 2018/19 to just under 75,000 in 2019/20, a decline of 38 per cent. Consequently, Charter Fishery GVP declined between 2018/19 (\$33.1m) and 2019/20 (\$24.6m). The value of exports² accounted for approximately 16 per cent of GVP in 2018/19 but only 5 per cent in 2019/20.

Prices and Customers

Average price (per client day) increased to \$329 in 2019/20 from \$275 in 2018/19 and varied across business model and main trip length of operator. By business model, the highest average price per client day in 2019/20 was \$424 for game fishing focused businesses and the lowest was \$204 for inshore focused businesses. By main trip length, operators focused on day trips had a slightly higher average price per client day (\$330/day) than multi-day focused operators (\$327/day).

The most significant market for the Charter Fishery in 2019/20 was Australia. Surveyed businesses reported that 95 per cent of customers were domestic compared to 84 per cent in 2018/19. As mentioned above, 2019/20 was impacted by COVID-19 pandemic closures and lockdowns preventing or discouraging travel. By business model, game fishing focused businesses derived the highest proportion of their income from international customers in 2019/20 (12 per cent) and coral reef focused operators the lowest (1 per cent). Day trip and multi-day focused operators derived a similar proportion of their income from international customers (5 per cent each).

² Exports were estimated by applying each fishing business's estimate of the total proportion of their customers that are international visitors to their total revenue.

Management Costs

Estimated total Fisheries Queensland management costs for the Charter Fishery were \$1.4m in 2019/20, an increase from \$1.2m in both 2017/18 and 2018/19. This represented 3.3 per cent of GVP in 2017/18, 3.6 per cent in 2018/19 and 5.8 per cent in 2019/20.

Business Financial Indicators

In 2019/20, the average business's activity in the Charter Fishery generated a positive gross operating surplus (\$39,000) and profit at full equity (\$6,000), leading to a return on investment of 0.9 per cent. This means the average business earned enough income to cover its costs, the imputed cost of unpaid labour used to operate the business, and the cost of capital depreciation.

Return on investment varied widely across regions in 2019/20 from 42.3 percent in the Dry Tropics and Mackay, Isaac and Whitsunday region to -5.1 per cent in Fitzroy and Wide Bay Burnett. The higher profitability region in 2019/20 (Dry Tropics and Mackay, Isaac and Whitsunday) was characterised by high volume, low price and low-cost operations compared to the state average.

Economic Contribution

In 2019/20, the Charter Fishery contributed an estimated \$33.5m in gross state product (GSP) and 306 full-time equivalent jobs to the Queensland economy. This contribution included \$12.5m in GSP and 115 fte jobs from direct fishing activity, and \$0.7m in GSP and 9 fte jobs from direct capital expenditure by fishing businesses. Flow-on effects in other sectors of the Queensland economy added a further \$20.3m in GSP and 182 fte jobs.

Impact of COVID-19

In January 2020, the COVID-19 pandemic was beginning to affect the charter sector. Survey participants estimated that without the COVID-19 pandemic, GVP in 2019/20 would have been 33 per cent higher than it actually was and similar to that estimated for 2018/19. Without COVID-19, businesses expected that client days would likely have decreased between 2018/19 and 2019/20, but that this would have been offset by an increase in average price, leaving GVP similar in 2019/20 (without COVID) to 2018/19.

For Queensland as a whole, the average rate of return was estimated to be 8.0 per cent without the COVID-19 pandemic compared to the actual 0.9 per cent for 2019/20. All regions would have seen an improvement in average rate of return without the COVID-19 pandemic.

The estimated total economic impact of the COVID-19 pandemic's effect on the Charter Fishery on the state as a whole was a reduction of \$11.9m in output, the loss of 17 fte jobs, a reduction of \$1.3m in household income and \$8.8m in GSP.

In addition, support was received by a number of Charter fishing businesses to assist them through the pandemic. The estimated support was \$861,000 in JobKeeper and other government grants supporting around 21 fte jobs³ and \$21,000 in licence fee and other fee waivers.

³ Based on the average fishery wage for 2019/20.

1. INTRODUCTION

This report presents economic and social indicators for the Charter Fishery for the 2019/20 financial year.

The Queensland Sustainable Fisheries Strategy 2017-2027 (SFS) sets out a comprehensive reform plan with a number of actions which will improve the management of Queensland fisheries. With respect to actions relating to fisheries monitoring, the SFS requires Fisheries Queensland to deliver a practical and cost-effective system to collect data on economic and social indicators from Queensland fishers and directly related stakeholders (e.g. fish processors, wholesalers, community groups). These indicators will be used by Fisheries Queensland to better understand the economic and social aspects of each fishery and of the different types of fishers (e.g. level of activity, region of activity, mode of fishing) within each fishery.

These economic and social indicators will be used to inform management decisions and to monitor progress towards desired targets. As these surveys continue, they will provide an appropriate time series that can be used to understand the economic impact of management decisions.

BDO EconSearch was contracted by Fisheries Queensland to develop economic and social indicators to inform stakeholders with published financial, economic and social information about professional fishers (i.e. commercial fishers and charter operators) in Queensland. Data was previously collected for the financial years 2017/18 and 2018/19 (BDO EconSearch 2020). This report presents the results for the 2019/20 financial year.

Considering the diverse nature of Queensland's fisheries, management decision making involves a complex mix of biological, economic and social considerations. There is a need to identify and explore cost-effective and efficient ways to incorporate economic and social information in decision-making processes.

In January 2020, the COVID-19 pandemic was beginning to affect the Charter Fishery. While charter 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. A survey based estimate of the impact of COVID-19 on the Charter Fishery is presented in this report.

1.1. Fishery Background

For the purpose of this report, the Charter Fishery includes all businesses that provide charter fishing services in Queensland under a Charter Fishing licence provided by Fisheries Queensland. These businesses typically charge a fee to take clients on recreational fishing trips with a broad range of objectives ranging from low-cost day trips in rivers or bays to multi-day trips targeting sport fish on luxury boats. Some businesses may offer guided fishing trips in waters shallower than 2 meters and are currently not required to be licenced as a charter operator. Businesses which are not licenced charter operators are not included in this report.

In 2019/20, Fisheries Queensland licensing data and logbooks record 306 businesses licenced in this definition of the Charter Fishery but only 149 of them provided activity information through logbooks. Some charter fishing businesses are not required to hold a licence and these businesses are not required to report their fishing activity to Fisheries Queensland. This means the complete scale of the charter fishing activity in Queensland is not represented in full in this economic analysis.

1.2. Report Structure

Provided in Section 2 of this report is the method of analysis and a description of the survey of fishing businesses.

Indicator results are presented in Sections 3, 4 and 5 for the 2019/20 financial year and include:

- gross value of production
- average trip prices
- the cost of management
- business financial indicators (income, costs, profit and return on investment)
- economic contribution of the Charter Fishery
- impact of COVID-19
- social indicators
- demographic indicators.

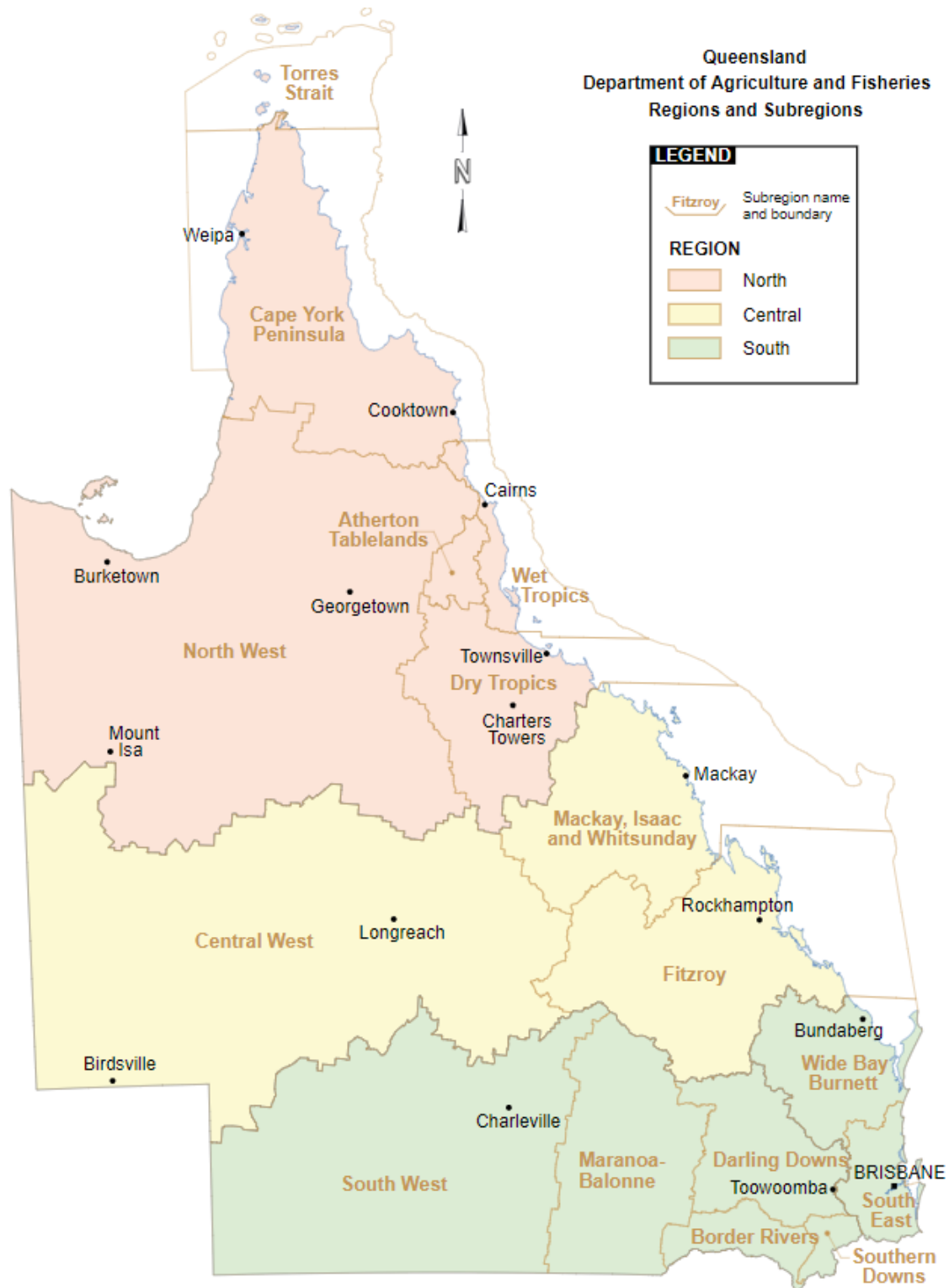
Economic contribution results and business financial indicators are presented for Queensland as a whole and on a regional basis in accordance with the Department of Agriculture and Fisheries Subregion definitions (Figure 1-1). Only coastal regions are reported:

- North West
- Cape York Peninsula (includes Torres Strait)
- Wet Tropics
- Dry Tropics
- Mackay, Isaac and Whitsunday
- Fitzroy
- Wide Bay Burnett
- South East.

To maintain confidentiality of survey respondents, some regions have been combined and the resulting groups are reported:

- North West, Cape York Peninsula and Wet Tropics
- Dry Tropics and Mackay, Isaac and Whitsunday
- Fitzroy and Wide Bay Burnett
- South East.

Figure 1-1 Department of Agriculture and Fisheries Subregions used for reporting



Source: Business Queensland (2019)

2. METHOD OF ANALYSIS AND DEFINITION OF TERMS

2.1. Overview of Approach

Development of economic and social indicators for the Charter Fishery occurred in parallel to similar research in Queensland's commercial fisheries. The Charter Fishery research included a separate data collection process and separate analysis.

The approach followed the below steps:

1. **Collect administrative business level data:** logbook client data and effort and fishery access. All were collected for 2019/20.
2. **Collect fishery level data:** cost of management for 2019/20.
3. **Survey fishing businesses:** trip types and prices, operating costs, employment (including unpaid), capital value and depreciation, social and demographic information for 2019/20. Data were collected respecting the confidentiality of fishing businesses and were used by BDO EconSearch to produce the economic and social indicator reports. The data were not distributed outside of BDO EconSearch and have not been provided to Fisheries Queensland.
4. **Estimate the active population of charter fishers:** The scale of charter fishing activity in Queensland is uncertain so total activity was assumed to be only that which was described in either logbook data (step 1) or the survey of fishing businesses (step 3). This involved adding activity described in the survey by licenced charter fishing businesses that had not completed logbooks to the activity of those that had completed logbooks. This increased the estimated population of active charter fishing businesses from 140 to 149, increased trip days from 8,500 to 9,000 and increased client days from 72,000 to 75,000. This is a conservative estimate of the scale of activity as it is likely that some licenced charter fishers were active but did not complete logbooks or participate in the survey.
5. **Scale up the survey sample to represent the population:** a set of weights was developed to scale up the sample to represent the estimated population activity in each subregion in each financial year in terms of: active businesses, trip days and client days. The weights were applied to the relevant data items i.e. capital and fixed costs were weighted by number of active businesses, most variable costs (such as fuel and variable labour) were weighted by trip days, and revenue and some variable costs (such as provisions) were weighted by client days.
6. **Calculate indicators:**
 - a. Business financial indicators are disaggregated by region, return on investment, business model, and main trip length.
 - b. Fishery economic indicators are reported at the fishery level as well as disaggregated by fishing region, business model, main trip length and return on investment.
 - c. Economic contribution indicators are reported for Queensland and for each of the coastal Subregions (Figure 1-1) with each business attributed to the region of their 'main port' as provided in the survey.
 - d. Social indicators are reported unweighted and at the fishery level.

2.2. Survey of Fishing Businesses

A survey of fishing businesses with respect to the 2019/20 financial year was carried out between March and May, 2021. This coincided with the time of uncertainty around the COVID-19 pandemic and associated government responses impacted fishing businesses. For this reason, the survey was piloted with a small sample of businesses before collecting the full sample. It was determined that the data collected was of sufficient quality to complete data collection over this period. The survey asked about the 2019/20 financial year and specific questions were asked about how fishing businesses were impacted by the COVID-19 pandemic, including what government support was received.

The survey involved collecting data from charter fishing businesses on trip types and prices, operating costs, employment (including unpaid), capital value and depreciation, social and demographic information. The survey was implemented using a questionnaire that was developed in collaboration with Fisheries Queensland and with industry representatives. Businesses were asked to only include the amounts that were attributable to their Queensland charter fishing business. If exact figures were not available (e.g. from a tax return), then they were asked to provide careful estimates.

Businesses were invited to participate through multiple email and phone call invitations as well as through the endorsement of various industry groups. They were invited to respond through an online form or over the phone. Most responses were provided over the phone.

The confidentiality of responses was made clear to respondents including that no individual response would be identifiable in reporting or provided to Fisheries Queensland and that any statistic published would be based on at least five responses. This 'five business rule' is commonly used to maintain confidentiality when reporting professional fishing statistics, including by Fisheries Queensland.

A total of 55 usable responses were received, including 52 that were used⁴ for economic indicators and 55 for calculating social indicators. The responses that could be used for calculating economic indicators represented 35 per cent of the estimated population of active licenced charter fishers in 2019/20. More active businesses are better represented in the sample with almost half of the most active half of businesses responding to the survey and less than one quarter of the least active half of businesses responding. (Table 2-1). This sample was sufficient to confidently prepare the economic indicators with the regional and activity based disaggregations that follow in this report. The population and sample size in each disaggregation appears in the same table as the results to illustrate the representativeness of each.

⁴ Responses could only be used to estimate indicators if they were complete for the relevant section. For example, a response that included capital values but not operating costs could not be used to estimate economic indicators. However, if it included responses to demographic and social questions it could still be used to estimate social indicators.

Table 2-1 Survey sample in the Charter Fishery, by main region and client days quartiles

	Active businesses (no.)		Proportion of active businesses that responded to the survey	Proportion of GVP represented by the sample ^a
	Population	Sample		
Fishing region				
North West	2	2	100%	12%
Cape York Peninsula	17	4	24%	79%
Wet Tropics	27	10	37%	56%
Dry Tropics	7	7	100%	100%
Mackay, Isaac and Whitsunday	23	1	4%	1%
Fitzroy	23	9	39%	40%
Wide Bay Burnett	14	3	21%	82%
South East	27	16	59%	63%
Client days quartiles				
0 to 64 client days	37	2	5%	
65 to 249 client days	40	16	40%	
250 to 789 client days	37	17	46%	
790 to 10,000 client days	35	17	49%	
Queensland	149	52	35%	46%

^a Not reported for days fished groups as population level GVP is unknown for these categories.

Source: BDO EconSearch analysis

2.3. Impact of COVID-19

Survey participants were asked to estimate the impact COVID-19 had on different aspects of their Charter fishing business including, price, number of clients, number of trips, business revenue, wage costs and non-wage costs. The percentage change for each of the different aspects from each survey respondent was applied to their actual 2019/20 estimates. These estimates were then scaled up to the fishery total using the same weights as described in Section 2.1. Participants were also asked to describe any government assistance received. These estimates were also scaled up to the population using the same weights.

3. ECONOMIC INDICATORS FOR THE QUEENSLAND CHARTER FISHERY

3.1. Clients, Gross Value of Production and Exports

The total client days, shown in Table 3-1, in the Charter Fishery decreased from 132,000 in 2017/18 to just under 75,000 in 2019/20, a decline of 43 per cent. Consequently, Charter Fishery GVP declined between 2017/18 (\$35.8m) and 2019/20 (\$24.6m). The value of exports⁵ accounted for approximately 17 per cent of GVP in 2017/18 but declined to only 5 per cent in 2019/20 (Table 3-1).

In January 2020, the COVID-19 pandemic was beginning to affect the Charter Fishery. While charter fishing may have been permitted, closures and lockdowns preventing or discouraging travel were a major reason for the loss of clients. Even as things 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.

Table 3-1 Clients, GVP and export value of the Charter Fishery, 2017/18 to 2019/20

	2017/18	2018/19	2019/20
Client days (no.)	132,276	120,331	74,919
GVP (\$m)	35.8	33.1	24.6
Export value (\$m)	5.9	5.4	1.2

Source: Fisheries Queensland and 2018/19 and 2019/20 surveys

3.2. Prices and Customers

Average price (per client day) was \$271 in 2017/18, \$275 in 2018/19 (BDO EconSearch 2020) but increased to \$329 in 2019/20 and varied across business model and main trip length of operator. By business model, the highest average price per client day in 2019/20 was \$424 for game fishing focused businesses and the lowest was \$204 for inshore focused businesses. By main trip length, operators focused on day trips had a slightly higher average price per client day (\$330/day) than multi-day focused operators (\$327/day) (Table 3-2).

The most significant market for the Charter Fishery in 2019/20 was Australia. Surveyed businesses reported that 95 per cent of customers were domestic compared to 84 per cent in 2018/19 (Table 3-2 and BDO EconSearch 2020). As mentioned above, 2019/20 was impacted by COVID-19 pandemic closures and lockdowns preventing or discouraging travel. By business model, international customers spent the most in game fishing focused businesses in 2019/20 (12 per cent) and the least on coral reef focused operators (1 per cent). International customers spent a similar amount in day trip and multi-day focused operators (5 per cent each) (Table 3-2).

⁵ Exports were estimated by applying each fishing business's estimate of the total proportion of their customers that are international visitors to their total revenue.

Table 3-2 Client days, Price, GVP and customers for Charter Fishery, 2019/20 financial year

Region	Client days	Price (\$/client/day)	GVP (\$m)	Customers	
				Domestic (%)	International (%)
Fishing region					
North West, Cape York Peninsula and Wet Tropics	14,747	477.30	7.0	86%	14%
Dry Tropics and Mackay, Isaac and Whitsunday	14,449	362.47	5.2	100%	0%
Fitzroy and Wide Bay Burnett	26,651	311.29	8.3	99%	1%
South East	19,072	213.57	4.1	96%	4%
Business model					
Game fishing	14,384	423.69	6.1	88%	12%
Sports fishing	15,610	209.11	3.3	94%	6%
Coral reef	22,597	406.91	9.2	99%	1%
Rock reef	8,934	375.86	3.4	98%	2%
Inshore ^a	13,395	204.15	2.7	97%	3%
Main trip length					
Multi-day & live aboard (>24hrs)	20,151	326.88	6.6	95%	5%
Day trips (<24hrs)	54,768	329.73	18.1	95%	5%
Queensland	74,919	328.96	24.6	95%	5%

^a Includes estuary, rivers, freshwater, impoundments.

Source: BDO EconSearch analysis

3.3. Cost of Management

The costs incurred by Fisheries Queensland in managing Queensland's fisheries is not equal to the administration fees or licence fees charged by Fisheries Queensland to the fishing businesses. This section discusses the costs incurred by Fisheries Queensland and not the administration and licence fees charged by Fisheries Queensland to professional fishing businesses.

While the total cost of managing Queensland's commercial fisheries is known, the precise cost of managing each individual fishery is difficult to determine. This is because the costs of activities such as fishery monitoring, assessment, management and compliance overlap several fisheries. For example a single fishery monitoring activity can collect information for several fisheries which in turn inputs into the management of several different fisheries. Allocating the costs of managing fisheries requires a degree of subjective assessment based on the benefits derived by the individual fisheries from those activities. The costs of managing the commercial sector for each fishery were provided to BDO EconSearch by Fisheries Queensland. Costs were allocated to the fisheries based on the cost being incurred to enable the management of the fishery and then proportionally attributed to the respective sectors based on the benefits of management to the fishery. This was done for the purpose of developing economic indicators and should not be relied upon for any other purpose.

Estimated total management costs, as detailed in Table 3-3, for the Charter Fishery increased to \$1.4m in 2019/20 from \$1.2m in both 2017/18 and 2018/19. These costs were incurred while delivering the following services:

- policy and management services
- regulatory/legislation and licensing services
- compliance services
- directorate services
- fishery monitoring and research services.

As a proportion of GVP total management costs were 3.3 per cent in 2017/18, 3.6 per cent in 2018/19, increasing to 5.8 per cent in 2019/20 as a result of a slight increase in management costs and a decline in GVP (Table 3-3).

Table 3-3 Costs of management in the Charter Fishery, 2017/18, 2018/19 and 2019/20

	2017/18	2018/19	2019/20
Management costs (\$m)	1.2	1.2	1.4
GVP (\$m)	35.8	33.1	24.6
Management costs/GVP (%)	3.3%	3.6%	5.8%

Source: Fisheries Queensland and 2018/19 and 2019/20 surveys

3.4. Business Financial Indicators

The major measures of the financial performance of active businesses in the Charter Fishery for the 2017/18, 2018/19 and 2019/20 financial years are presented in Section 3.4.1. The estimates for 2017/18 and 2018/19 were developed from an earlier survey (BDO EconSearch 2020). The 2019/20 estimates were developed from this survey and are based on the weighted sample as described in point 5 of Section 2.1. The weights applied to the logbook and other data aim to generate reliable estimates at the scale of the fishery, or average business. Average financial performance masks significant variation across types of businesses and their activities. To describe this variation, the same indicators are presented in Section 3.4.2 with businesses disaggregated by return on investment quartile, business model, main trip length and main fishing region.

3.4.1. Fishery average between 2018/19 and 2019/20

Business financial indicators are presented in Table 3-4 for average business and total activity in the Charter Fishery for the 2018/19 and 2019/20 financial years. This section summarises the key points from the table.

Income

The average gross income for business activity in the Charter Fishery was estimated to be \$165,000 in 2019/20, a decline from \$188,000 in 2018/19. Client days fell by more than gross income over the same period, however prices were relatively higher in 2019/20 (see Section 3.2).

Costs

Total costs are separated into variable costs and fixed costs, the sum of the two is total costs. In 2019/20, the total of variable costs (43 per cent of total costs) was slightly lower than the total of fixed costs. Variable costs as a proportion of total costs remained stable in 2019/20 at 43 per cent.

Average total costs declined by 25 per cent between 2018/19 and 2019/20, a result of a 25 per cent decrease in variable costs and a 25 per cent fall in fixed costs. In 2019/20, for the fishery as a whole, around 24 per

cent of the total costs were attributable to labour costs (both paid and imputed), the biggest cost item. Imputed unpaid labour (\$9,000) was divided into variable (fishing and repairs and maintenance) (\$4,000) and fixed (management and administration) (\$5,000) components based on survey data. Other significant costs were repairs and maintenance (14 per cent of total costs) and fuel (13 per cent).

Licence fees are as reported by respondents to the survey and may include other licences that respondents hold in addition to the Fisheries Queensland licence to undertake charter fishing operations. At the time of writing, Fisheries Queensland charged a \$346.85 fee per year for a charter fishing licence (Business Queensland 2019b).

Income and Profit

Gross margin is calculated as gross income less total variable costs and is a basic measure of profit. Gross margin was almost \$107,500 in 2019/20 and \$111,000 in 2018/19, a 3 per cent decrease due to a decrease in gross income and despite a decline in variable costs.

Gross operating surplus is calculated at gross income less total costs (excluding imputed wages for operator and family members as a cost item). This measure of profit gives an indication of the capacity of the operator to remain in the fishery in the short term as unpaid labour does not affect business cash flow in the short term. Gross operating surplus was \$39,000 in 2019/20 and \$36,000 in 2018/19, an increase of approximately 9 per cent. This was due to a decline in costs and despite a decrease in revenue.

Business Profit before Depreciation is calculated as gross income less total costs (including imputed wages). Business profit before depreciation was \$29,000 in 2019/20 and \$7,400 in 2018/19, a reduction in costs appeared to drive this increase. Positive business profit before depreciation indicates that the average fishing business earned enough income to cover its costs and the imputed cost of unpaid labour used to operate the business.

Business profit is calculated as gross income less total costs (including imputed wages) and less depreciation. This represents a more complete picture of the actual financial status of an individual firm and their capacity to remain in the fishery in the long term as a positive business profit is required to pay imputed wages and replace capital at the rate it depreciates. Business profit was \$1,200 in 2019/20 and -\$25,000 in 2018/19. Therefore, sufficient income was earned by the average business to cover the imputed cost of labour and depreciation of capital in 2019/20, but the income earned in 2018/19 was insufficient.

Profit at full equity is a measure of the profitability of an individual fishing business, assuming the business has full equity in their operation (i.e. it excludes interest and borrowing costs). It is a useful absolute measure of the economic performance of firms. Profit at full equity was \$5,800 in 2019/20 and -\$17,500 in 2018/19.

Table 3-4 Financial performance in the Charter Fishery, 2018/19 and 2019/20

	2018/19			2019/20		
	Average per Business	Total for the Whole Fishery	%	Average per Business	Total for the Whole Fishery	%
Charter Businesses						
Active Businesses (no.)	176	176		149	149	
Sample Size (n)	92	92		52	52	
Charter Activity						
Trip days (no.)	80	14,081		60	8,953	
Client days (no.)	684	120,331		503	74,919	
Employment						
FTE Jobs	1.0	177		0.8	115	
Total Jobs	2.0	354		1.6	245	
(1) Gross Income	\$187,945	\$33,078,369		\$165,406	\$24,645,444	
Variable costs						
Fuel	\$25,369	\$4,464,860	14%	\$18,054	\$2,690,112	13%
Ice & Bait	\$6,317	\$1,111,799	3%	\$3,583	\$533,798	3%
Fishing tackle	\$2,928	\$515,407	2%	\$2,549	\$379,769	2%
Provisions	\$12,314	\$2,167,344	7%	\$11,637	\$1,733,903	9%
Labour - paid	\$17,867	\$3,144,664	10%	\$13,228	\$1,971,021	10%
(2) Labour - unpaid	\$12,194	\$2,146,231	7%	\$4,415	\$657,769	3%
Repairs and maintenance	-	n.a	-	\$4,465	\$665,239	3%
(3) Total Variable Costs	\$76,990	\$13,550,304	43%	\$57,930	\$8,631,611	43%
Fixed costs						
Licence Fee	\$1,107	\$194,878	1%	\$300	\$44,703	0%
Repairs and maintenance	\$30,909	\$5,440,044	17%	\$19,142	\$2,852,130	14%
Insurance	\$8,770	\$1,543,484	5%	\$10,361	\$1,543,795	8%
(4) Interest	\$4,859	\$855,116	3%	\$3,241	\$482,959	2%
Labour - paid	\$10,442	\$1,837,846	6%	\$9,739	\$1,451,167	7%
(5) Labour - unpaid	\$15,900	\$2,798,342	9%	\$4,944	\$736,706	4%
(6) Leasing and rent	\$5,961	\$1,049,136	3%	\$2,742	\$408,583	2%
Rates	\$816	\$143,689	0%	\$690	\$102,861	1%
Power	\$1,111	\$195,581	1%	\$991	\$147,594	1%
Communications	\$2,521	\$443,636	1%	\$2,310	\$344,163	2%
Legal & Accounting	\$2,624	\$461,830	1%	\$2,468	\$367,684	2%
Slipping, Mooring & survey	\$11,580	\$2,038,029	6%	\$6,901	\$1,028,286	5%
Travel	\$1,100	\$193,647	1%	\$924	\$137,639	1%
Protective clothing & Uniforms	\$1,196	\$210,462	1%	\$868	\$129,276	1%
Membership, Assoc. expenses	\$360	\$63,430	0%	\$393	\$58,556	0%
Advertising	\$3,622	\$637,540	2%	\$5,016	\$747,344	4%
Other	\$641	\$112,861	0%	\$7,106	\$1,058,737	5%
(7) Total Fixed Costs	\$103,520	\$18,219,552	57%	\$78,135	\$11,642,184	57%
(8) Total Costs (3+7)	\$180,511	\$31,769,856	100%	\$136,066	\$20,273,795	100%
Gross Margin (1-3)	\$110,955	\$19,528,065		\$107,475	\$16,013,833	
(9) Total Unpaid Labour (2+5)	\$28,094	\$4,944,572		\$9,359	\$1,394,475	
Gross Operating Surplus (1-8+9)	\$35,529	\$6,253,085		\$38,699	\$5,766,124	
(10) Business Profit before Depreciation (1-8)	\$7,435	\$1,308,513		\$29,340	\$4,371,649	
(11) Depreciation	\$32,765	\$5,766,609		\$28,131	\$4,191,571	
(12) Business Profit (10-11)	-\$25,330	-\$4,458,096		\$1,209	\$180,078	
(13) Profit at Full Equity (12+4+6*)	-\$17,491	-\$3,078,411		\$5,821	\$867,328	
(14) Fishing Gear and Equipment	\$593,297	\$104,420,286		\$684,736	\$102,025,647	
Rate of Return on Fishing Gear and Equipment at Full Equity (13/14*100)	-2.9%	-2.9%		0.9%	0.9%	

^a Part of leasing and rent is assumed to cover depreciation of buildings and equipment so is excluded from profit at full equity.

Source: 2018/19 and 2019/20 surveys

Return to Capital at Full Equity

There are a number of interpretations of return to capital at full equity. For the purpose of this analysis it is appropriate to consider the capital employed by an average business in the fishery, that is total capital at full equity for this fishery. Capital includes boats, fishing gear, sheds, vehicles and other capital items used as part of the fishing enterprise. It does not include capital associated with non-fishing activities undertaken by the business. The average rate of return on total capital at full equity was 0.9 per cent in 2019/20, an improvement from 2018/19 (-2.9 per cent).

Summary

In 2019/20, the average business's activity in the Charter Fishery generated a positive gross operating surplus (\$39,000) and profit at full equity (\$6,000), leading to a return on investment of 0.9 per cent. This means the average business earned enough income to cover its costs, the imputed cost of unpaid labour used to operate the business, and the cost of capital depreciation.

3.4.2. Disaggregation of business financial indicators for 2019/20

The tables in this section present financial indicators for the fishery with the population of active businesses disaggregated across various dimensions: return on investment quartile, business model, main trip length and main fishing region. Grouping businesses in different ways and comparing the financial indicators between groups provides insight into the relationships between business characteristics and financial performance. The tables disaggregate the same weighted sample as appears in Section 3.4.1.

Return on Investment Quartiles

Business financial indicators are presented in Table 3-5 for the sample of active businesses split into quarters of approximately equal size based on return on investment in 2019/20. This provides insight into the differences between the most and least profitable businesses such as cost relative to income, itemised cost amounts, capital utilised, scale of operation, etc.

Only the top quartile has a positive profit at full equity on average and a positive return on investment. The top quartile is characterised by being more active than average and having more revenue as a consequence, but also having low variable and fixed cost and using less capital.

Business Model

Business financial indicators are presented in Table 3-6 for the sample of active businesses split into business model groups (Game fishing, Sports fishing, Coral reef, Rock reef and Inshore). Businesses were divided into business models based on their identification of the most important model to their business in the survey.

Profitability varies widely between the different models in terms of return on investment. In 2019/20, the most profitable model was coral reef (10.9 per cent return on investment) and the least was inshore (-10.5 per cent return on investment).

Main Trip Length

Business financial indicators are presented in Table 3-7 for the population of active businesses in this fishery split into groups that focus more on day trips or multi-day trips. Businesses were divided into these groups based on their identification of the most important type to their business in the survey.

In 2019/20, return on investment including endorsement value was above the fishery average for businesses that focus on day trips (1.4 per cent) and below average for those that focus on multi-day trips (0.1 per cent).

Fishing Regions

Business financial indicators are presented in Table 3-8 by main fishing region. Each business was allocated to the region of their 'main port' as provided in the survey.

Return on investment varied widely across regions in 2019/20 from 42.3 percent in the Dry Tropics and Mackay, Isaac and Whitsunday region to -5.1 per cent in Fitzroy and Wide Bay Burnett. The higher profitability region in 2019/20 (Dry Tropics and Mackay, Isaac and Whitsunday) was characterised by high volume, low price and low-cost operations compared to the state average.

Table 3-5 Financial performance in the Charter Fishery, by return on investment quartile, 2019/20

	Average per Business				
	Lowest 25%	Second Quartile	Third Quartile	Highest 25%	All Businesses
Trip days (no.)	56	70	47	63	60
Client days (no.)	242	747	383	563	503
Employment (fte)	0.3	1.5	1.2	0.3	0.8
Employment (total)	1.1	2.3	2.1	1.3	1.6
Active Businesses (no.)	33	37	28	50	149
Sample Size (n)	13	13	13	13	52
(1) Gross Income	81,227	\$192,359	\$170,425	\$198,733	\$165,406
Variable costs					
Fuel	\$10,395	\$30,700	\$24,714	\$10,020	\$18,054
Ice & Bait	\$2,145	\$4,873	\$3,346	\$3,715	\$3,583
Fishing tackle	\$1,866	\$2,523	\$3,792	\$2,326	\$2,549
Provisions	\$1,274	\$32,073	\$5,805	\$6,630	\$11,637
Labour - paid	\$4,564	\$27,797	\$25,314	\$1,386	\$13,228
(2) Labour - unpaid	\$6,138	\$4,482	\$3,735	\$3,596	\$4,415
Repairs and maintenance	\$2,590	\$4,444	\$6,782	\$4,430	\$4,465
(3) Total Variable Costs	\$28,973	\$106,892	\$73,487	\$32,103	\$57,930
Fixed costs					
Licence Fee	\$360	\$307	\$305	\$252	\$300
Repairs and maintenance	\$9,391	\$43,397	\$12,288	\$11,459	\$19,142
Insurance	\$9,278	\$11,434	\$12,816	\$8,907	\$10,361
(4) Interest	\$3,503	\$8,351	\$1,935	\$0	\$3,241
Labour - paid	\$2,730	\$19,526	\$21,090	\$762	\$9,739
(5) Labour - unpaid	\$3,343	\$8,325	\$4,431	\$3,788	\$4,944
(6) Leasing and rent	\$1,354	\$5,284	\$4,645	\$710	\$2,742
Rates	\$228	\$2,331	\$0	\$167	\$690
Power	\$141	\$1,222	\$3,119	\$190	\$991
Communications	\$1,735	\$3,322	\$3,763	\$1,124	\$2,310
Legal & Accounting	\$3,157	\$3,380	\$3,555	\$718	\$2,468
Slipping, Mooring & survey	\$15,716	\$4,963	\$5,791	\$3,082	\$6,901
Travel	\$444	\$1,917	\$959	\$485	\$924
Protective clothing & Uniforms	\$518	\$1,287	\$1,340	\$524	\$868
Membership, association expenses	\$132	\$707	\$399	\$331	\$393
Advertising	\$2,753	\$10,090	\$7,624	\$1,286	\$5,016
Other	\$14,235	\$10,385	\$1,993	\$2,779	\$7,106
(7) Total Fixed Costs	\$69,018	\$136,228	\$86,053	\$36,562	\$78,135
(8) Total Costs (3+7)	\$97,991	\$243,120	\$159,541	\$68,666	\$136,066
Gross Margin (1-3)	\$52,255	\$85,467	\$96,937	\$166,629	\$107,475
(9) Total Unpaid Labour (2+5)	\$9,481	\$12,806	\$8,165	\$7,384	\$9,359
Gross Operating Surplus (1-8+9)	-\$7,283	-\$37,955	\$19,049	\$137,451	\$38,699
(10) Business Profit before Depreciation (1-8)	-\$16,764	-\$50,761	\$10,884	\$130,067	\$29,340
(11) Depreciation	\$10,204	\$51,163	\$25,963	\$24,185	\$28,131
(12) Business Profit (10-11)	-\$26,968	-\$101,924	-\$15,079	\$105,882	\$1,209
(13) Profit at Full Equity (12+4+6*)	-\$22,788	-\$90,932	-\$10,822	\$106,236	\$5,821
(14) Fishing Gear and Equipment	\$265,106	\$1,224,295	\$759,659	\$521,439	\$684,736
Rate of Return on Fishing Gear and Equipment at Full Equity (13/14*100)	-8.6%	-7.4%	-1.4%	20.4%	0.9%

^a Part of leasing and rent is assumed to cover depreciation of buildings and equipment so is excluded from profit at full equity.

Source: 2019/20 survey

Table 3-6 Financial performance in the Charter Fishery, by business model, 2019/20

		Average per Business				
		Game fishing	Sports fishing	Coral reef	Rock reef	Inshore ^a
						All Businesses
Charter Businesses						
	Active Businesses (no.)	37	23	44	14	31
	Sample Size (n)	14	11	9	6	12
Charter Activity						
	Trip days (no.)	68	65	62	58	45
	Client days (no.)	393	665	519	636	427
Employment						
	FTE Jobs	1.0	0.8	0.5	1.1	0.9
	Total Jobs	1.7	1.5	1.4	3.1	1.4
(1)	Gross Income	\$166,668	\$139,016	\$211,259	\$238,919	\$87,152
Variable costs						
	Fuel	\$18,307	\$18,247	\$12,660	\$31,141	\$19,238
	Ice & Bait	\$3,445	\$1,089	\$4,565	\$5,763	\$3,268
	Fishing tackle	\$2,796	\$1,052	\$3,242	\$3,161	\$2,146
	Provisions	\$4,179	\$5,025	\$5,058	\$75,343	\$5,868
	Labour - paid	\$21,384	\$12,395	\$8,828	\$12,962	\$10,572
(2)	Labour - unpaid	\$3,353	\$5,193	\$2,644	\$10,136	\$4,963
	Repairs and maintenance	\$3,476	\$4,031	\$3,648	\$3,430	\$7,539
(3)	Total Variable Costs	\$56,964	\$46,992	\$40,643	\$141,935	\$53,594
Fixed costs						
	Licence Fee	\$442	\$351	\$98	\$259	\$396
	Repairs and maintenance	\$21,546	\$10,708	\$13,844	\$53,818	\$14,468
	Insurance	\$10,002	\$7,714	\$9,383	\$9,358	\$14,566
(4)	Interest	\$4,603	\$1,323	\$2,660	\$3,876	\$3,612
	Labour - paid	\$14,901	\$6,631	\$7,204	\$11,303	\$8,866
(5)	Labour - unpaid	\$8,694	\$1,811	\$3,500	\$2,751	\$5,906
(6)	Leasing and rent	\$2,028	\$2,972	\$2,098	\$6,338	\$2,686
	Rates	\$472	\$0	\$0	\$4,574	\$679
	Power	\$601	\$362	\$1,719	\$1,185	\$817
	Communications	\$3,015	\$2,112	\$1,991	\$3,206	\$1,678
	Legal & Accounting	\$4,212	\$1,977	\$1,401	\$3,139	\$1,980
	Slipping, Mooring & survey	\$5,097	\$2,107	\$15,128	\$1,742	\$3,491
	Travel	\$506	\$1,151	\$743	\$1,941	\$1,037
	Protective clothing & Uniforms	\$899	\$913	\$681	\$1,202	\$906
	Membership, association expenses	\$450	\$406	\$343	\$413	\$378
	Advertising	\$2,057	\$7,736	\$1,333	\$11,309	\$8,717
	Other	\$22,124	\$1,095	\$2,969	\$4,151	\$1,164
(7)	Total Fixed Costs	\$101,660	\$49,352	\$65,094	\$120,565	\$71,347
(8)	Total Costs (3+7)	\$158,625	\$96,342	\$105,738	\$262,500	\$124,941
	Gross Margin (1-3)	\$109,706	\$92,022	\$170,616	\$96,985	\$33,558
(9)	Total Unpaid Labour (2+5)	\$12,047	\$7,003	\$6,144	\$12,886	\$10,869
	Gross Operating Surplus (1-8+9)	\$20,413	\$49,176	\$111,665	-\$10,694	-\$26,920
(10)	Business Profit before Depreciation (1-8)	\$8,476	\$42,001	\$105,521	-\$23,581	-\$37,789
(11)	Depreciation	\$29,325	\$12,844	\$31,863	\$56,546	\$20,278
(12)	Business Profit (10-11)	-\$33,928	\$49,524	\$73,659	-\$80,126	-\$58,068
(13)	Profit at Full Equity (12+4+6*)	-\$12,928	\$28,379	\$77,368	-\$73,082	-\$53,113
(14)	Fishing Gear and Equipment Rate of Return on Fishing Gear and Equipment at Full Equity (13/14*100)	-1.7%	7.8%	10.9%	-5.6%	-10.5%

^a Includes estuary, rivers, freshwater, impoundments.

^b Part of leasing and rent is assumed to cover depreciation of buildings and equipment so is excluded from profit at full equity.

Source: 2019/20 survey

Table 3-7 Financial performance in the Charter Fishery, by main trip length, 2019/20

	Average per business		
	Multi-day trips & live aboard (>24hrs)	Day trips (<24hrs)	All Businesses
Charter Businesses			
Active Businesses (no.)	39	110	149
Sample Size (n)	16	36	52
Charter Activity			
Trip days (no.)	79	53	60
Client days (no.)	522	496	503
Employment			
FTE Jobs	0.8	0.8	0.8
Total Jobs	2.0	1.5	1.6
(1) Gross Income	\$170,520	\$163,616	\$165,406
Variable costs			
Fuel	\$19,960	\$17,388	\$18,054
Ice & Bait	\$2,789	\$3,860	\$3,583
Fishing tackle	\$2,517	\$2,560	\$2,549
Provisions	\$6,422	\$13,462	\$11,637
Labour - paid	\$14,205	\$12,886	\$13,228
(2) Labour - unpaid	\$6,630	\$3,639	\$4,415
Repairs and maintenance	\$7,006	\$3,575	\$4,465
(3) Total Variable Costs	\$59,530	\$57,370	\$57,930
Fixed costs			
Licence Fee	\$416	\$259	\$300
Repairs and maintenance	\$13,847	\$20,995	\$19,142
Insurance	\$10,020	\$10,481	\$10,361
(4) Interest	\$2,506	\$3,499	\$3,241
Labour - paid	\$11,005	\$9,296	\$9,739
(5) Labour - unpaid	\$6,133	\$4,528	\$4,944
(6) Leasing and rent	\$4,065	\$2,279	\$2,742
Rates	\$413	\$787	\$690
Power	\$500	\$1,162	\$991
Communications	\$2,045	\$2,402	\$2,310
Legal & Accounting	\$2,435	\$2,479	\$2,468
Slipping, Mooring & survey	\$5,529	\$7,381	\$6,901
Travel	\$1,170	\$838	\$924
Protective clothing & Uniforms	\$1,143	\$771	\$868
Membership, association expenses	\$271	\$436	\$393
Advertising	\$2,736	\$5,814	\$5,016
Other	\$1,913	\$8,923	\$7,106
(7) Total Fixed Costs	\$66,147	\$82,331	\$78,135
(8) Total Costs (3+7)	\$125,677	\$139,702	\$136,066
Gross Margin (1-3)	\$110,989	\$106,246	\$107,475
(9) Total Unpaid Labour (2+5)	\$12,763	\$8,167	\$9,359
Gross Operating Surplus (1-8+9)	\$57,605	\$32,082	\$38,699
(10) Business Profit before Depreciation (1-8)	\$44,842	\$23,914	\$29,340
(11) Depreciation	\$48,281	\$21,079	\$28,131
(12) Business Profit (10-11)	-\$3,439	\$2,835	\$1,209
(13) Profit at Full Equity (12+4+6^a)	\$1,099	\$7,474	\$5,821
(14) Fishing Gear and Equipment Rate of Return on Fishing Gear and Equipment at Full Equity (13/14*100)	\$1,116,587 0.1%	\$533,592 1.4%	\$684,736 0.9%

^a Part of leasing and rent is assumed to cover depreciation of buildings and equipment so is excluded from profit at full equity.

Source: 2019/20 survey

Table 3-8 Total financial performance in the Charter Fishery, by fishing region, 2019/20

	Region Total				
	North West, Cape York Peninsula and Wet Tropics	Dry Tropics and Mackay, Isaac and Whitsunday	Fitzroy and Wide Bay Burnett	South East	Queensland
Charter Businesses					
Active Businesses (no.)	51	31	38	29	149
Sample Size (n)	16	8	12	16	52
Charter Activity					
Trip days (no.)	2,776	1,393	2,418	2,366	8,953
Client days (no.)	14,747	14,449	26,651	19,072	74,919
Employment					
FTE Jobs	38	6	49	23	115
Total Jobs	68	35	88	54	245
Gross Income	\$7,038,787	\$5,237,374	\$8,296,115	\$4,073,168	\$24,645,444
Total Variable Costs	\$2,465,803	\$523,360	\$3,944,516	\$1,697,931	\$8,631,611
Total Fixed Costs	\$4,244,150	\$791,290	\$4,923,099	\$1,683,645	\$11,642,184
Total Costs	\$6,709,953	\$1,314,650	\$8,867,616	\$3,381,576	\$20,273,795
Gross Margin	\$4,572,984	\$4,714,014	\$4,351,599	\$2,375,237	\$16,013,833
Total Unpaid Labour	\$353,249	\$94,204	\$593,014	\$354,008	\$1,394,475
Gross Operating Surplus	\$682,083	\$4,016,928	\$21,514	\$1,045,600	\$5,766,124
Business Profit before Depreciation	\$328,834	\$3,922,724	-\$571,500	\$691,592	\$4,371,649
Depreciation	\$1,145,826	\$340,591	\$2,404,491	\$300,663	\$4,191,571
Business Profit	-\$816,993	\$3,582,133	-\$2,975,991	\$390,929	\$180,078
Profit at Full Equity	-\$543,858	\$3,612,339	-\$2,755,658	\$554,505	\$867,328
Fishing Gear and Equipment	\$29,858,970	\$8,530,572	\$54,288,444	\$9,347,661	\$102,025,647
Rate of Return on Fishing Gear and Equipment at Full Equity	-1.8%	42.3%	-5.1%	5.9%	0.9%

Source: 2019/20 survey

3.5. State and Regional Economic Contribution

Estimates of the economic contribution of the Charter Fishery to the Queensland and regional economies in 2019/20 are outlined in this section. Contribution analysis is a descriptive analysis that traces the gross economic activity of the fishery as dollars of expenditure cycle through the regional and state economies. The analysis has utilised the detailed industry specific data reported above in combination with other regional/state data that highlight the current linkages that exist within the economy to estimate indicators such as gross regional product and employment. The analysis has been undertaken within a modelling framework known as input-output analysis, with the purpose being to determine how much direct and indirect economic activity is associated with the fishery. This is because the contribution of the fishery extends beyond the initial round of output, income and employment generated by the fishery. These indirect or flow-on effects are part of the contribution of fishing related businesses to the economy and must be added to the direct effects in order to get a full appreciation of the economic contribution of the fishery. This method was recommended by the National Fisheries and Aquaculture Industry Contributions Study (FRDC project 2017-210) (BDO EconSearch 2019b). Though charter fishing was not in scope of the study, the method transfers well to charter fishing.

The terms 'contribution' and 'impact' are often used interchangeably, particularly in the context of regional economic analysis where decision makers wish to use the results from such analyses to inform policy decisions, to facilitate industry development or support a particular business strategy. However, they are

distinctly different types of analysis. At the most basic level, a contribution analysis can be thought of as a ‘footprint’ or ‘snapshot’ analysis of economic activity, whereas an impact analysis can be thought of as an analysis of a change in economic activity. An economic impact analysis is an appropriate approach where an industry is generating new revenues that would otherwise not occur, keeping revenues in the region that would otherwise be lost, or being subject to changes that result in existing revenues being lost. Economic impact analysis will generally require more data than a contribution analysis and may require more sophisticated models, such as an extended input-output model or a properly specified computable general equilibrium model, or means to estimate people’s likely behaviour in response to the change (Watson et al. 2014).

3.5.1. Measuring direct and flow-on effects

The activities have been included in the quantifiable economic contribution:

- operation of charter fishing businesses
- capital expenditure by charter fishing businesses.

Each of these activities generates flow-on effects to other sectors through purchases of inputs and the employment of labour. As noted above, these flow-on effects have been estimated using input-output analysis.

Since charter fishing involves providing an experience to visitors, it is likely that the activity draws visitors to the regions where it takes place that would not otherwise have visited. These visitors spend in the region, causing further flow-on economic effects. Significant uncertainty surrounds quantification of this type of economic effect so it has been excluded from this analysis. Further research into the effect that charter fishing has on visitation to the regions is recommended to quantify this economic contribution.

In order to compile a representative cost structure for the Charter Fishery, costs per business were derived from survey data provided by operators in the fishery (for detail see Section 1.2). On an item-by-item basis, the expenditures were allocated between those occurring in the fishing region, those occurring in Queensland and those goods and services imported from outside the state.

Estimates of the capital expenditure per fishing business were derived from the survey of fishing businesses and regional economic models.

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 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.

3.5.2. Economic contribution to Queensland

Estimates of the economic contribution to Queensland generated in 2019/20 by the Charter Fishery are outlined in Table 3-9. This section summarises the key points from these tables.

Direct contribution measures charter fishing activity and associated capital expenditure. The flow-on contribution measures the economic effects in other sectors of the economy (retail and wholesale trade, manufacturing, etc.) generated by direct activity, that is, the multiplier effects. Flow-on effects are disaggregated by industry with the top 10 industries shown separately in each on the table. Capital expenditures are assumed to be the same as depreciation which may or may not be the case in a given year but is a reasonable assumption in the long-run. Economic contribution of capital expenditure should, therefore, be interpreted as a long-run average.

Value of Output

The value of output (GVP) generated directly in the Charter Fishery was \$24.6m in 2019/20 while output generated by associated capital expenditure was \$1.4m.

Flow-on effects to other sectors of the state economy added another \$38.1m. The sectors most affected were personal and other services, administrative and support services, insurance and other financial services, professional, scientific and technical services, and retail trade. The total output contribution to Queensland (direct plus flow-on) was estimated to be \$64.1m.

Employment

The Charter Fishery was responsible for the direct employment of an estimated 115 full-time equivalent (fte) jobs in 2019/20 while capital expenditure supported another 9 fte jobs. Flow-on business activity was estimated to support a further 182 fte jobs state-wide. These jobs were concentrated in the personal and other services, administrative and support services, retail trade and professional, scientific and technical services sectors. The total employment contribution to Queensland was estimated to be 306 fte jobs.

Household Income

Personal income of \$4.8m was earned in 2019/20 in the Charter Fishery (wages of employees and estimated drawings by owner/operators). A further \$0.5m of income was earned in capital expenditure activities. An additional \$12.4m was earned by wage earners in other businesses in Queensland from the flow-on effects of fishing and associated activities. The total household income contribution in Queensland was \$17.8m.

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. Total Charter Fishery related contribution to GSP in Queensland was \$33.5m in 2019/20, with \$12.5 generated by charter fishing directly, \$0.7m generated by capital expenditure activities and \$20.3m supported in other sectors of the state economy.

Table 3-9 Economic contribution of the Charter Fishery to Queensland, 2019/20

Sector	Output (\$m)	GSP (\$m)	Household Income (\$m)	Employment (fte)	Employment (total)
Direct effects					
Charter Fishing	24.6	12.5	4.8	115	245
CAPEX	1.4	0.7	0.5	9	9
Total Direct	26.1	13.2	5.4	124	254
Flow-on effects					
Personal & Other Serv	4.1	2.4	2.1	33	34
Admin Support Serv	3.0	1.9	1.9	30	31
Retail Trade	2.5	1.5	1.1	23	27
Prof Scientific Tech Serv	2.6	1.4	1.4	15	14
Food & Beverage Services	1.1	0.6	0.4	11	14
Insurance & Other Fin Serv	3.0	1.4	0.9	11	10
Health & Community Serv	1.2	0.9	0.8	10	12
Education & Training	1.1	0.7	0.7	10	10
Wholesale Trade	1.5	0.8	0.6	8	7
Road Transport	1.2	0.5	0.4	4	4
Other Sectors	16.6	8.0	2.0	28	25
Total Flow-on	38.1	20.3	12.4	182	186
Total	64.1	33.5	17.8	306	440
<i>Total/Direct</i>	<i>2.5</i>	<i>2.5</i>	<i>3.3</i>	<i>2.5</i>	<i>1.7</i>

Source: BDO EconSearch analysis

3.5.3. Regional economic contributions

Direct economic contribution of fishing activity by fishing region in 2019/20 is detailed in Table 3-10. This includes direct activity only and excludes flow-on activity. The regions appear in the table in order of the magnitude of economic contribution to fte employment.

On the following pages (Table 3-11 to Table 3-14), estimates of the economic contribution of the Charter Fishery to each fishing region are presented in detail for the 2019/20 year. Estimates presented in the tables can be interpreted in the same way as those presented at the state level (see Section 3.5.2).

Table 3-10 Direct economic contribution of fishing activity in the Charter Fishery to regions, 2019/20

	Output (\$m)	GSP (\$m)	Household Income (\$m)	Employment (fte)	Employment (total)
Queensland	26.1	13.2	5.4	124	254
Fitzroy & Wide Bay-Burnett	9.1	3.0	2.3	54	93
North West, Cape York Peninsula & Wet Tropics	7.3	3.2	1.7	40	70
South East	4.2	2.5	1.0	24	55
Dry Tropics & Mackay, Isaac and Whitsunday	5.4	4.5	0.3	7	36

Source: BDO EconSearch analysis

Table 3-11 Economic contribution of the Charter Fishery to North West, Cape York Peninsula and Wet Tropics, 2019/20

Sector	Output (\$m)	GSP (\$m)	Household Income (\$m)	Employment (fte)	Employment (total)
Direct effects					
Charter Fishing	7.0	3.1	1.6	38	68
CAPEX	0.3	0.2	0.1	2	2
Total Direct	7.3	3.2	1.7	40	70
Flow-on effects					
Admin Support Serv	0.4	0.2	0.2	3	3
Personal & Other Serv	0.2	0.2	0.2	2	2
Prof Scientific Tech Serv	0.2	0.1	0.1	1	1
Retail Trade	0.1	0.1	0.0	1	1
Education & Training	0.0	0.0	0.0	0	0
Health & Community Serv	0.0	0.0	0.0	0	0
Food & Beverage Services	0.0	0.0	0.0	0	0
Fishing, Hunting & Trapping	0.0	0.0	0.0	0	0
Public Admin & Regltry Serv	0.0	0.0	0.0	0	0
Rental Hiring Real Estate	0.1	0.0	0.0	0	0
Other Sectors	0.6	0.3	0.1	1	1
Total Flow-on	1.7	1.0	0.7	9	9
Total	9.0	4.3	2.4	49	80
<i>Total/Direct</i>	<i>1.2</i>	<i>1.3</i>	<i>1.4</i>	<i>1.2</i>	<i>1.1</i>

Source: BDO EconSearch analysis

Table 3-12 Economic contribution of the Charter Fishery to Dry Tropics and Mackay, Isaac and Whitsunday, 2019/20

Sector	Output (\$m)	GSP (\$m)	Household Income (\$m)	Employment (fte)	Employment (total)
Direct effects					
Charter Fishing	5.2	4.4	0.3	6	35
CAPEX	0.1	0.1	0.0	1	1
Total Direct	5.4	4.5	0.3	7	36
Flow-on effects					
Admin Support Serv	0.1	0.1	0.1	1	1
Personal & Other Serv	0.2	0.1	0.1	1	1
Retail Trade	0.1	0.1	0.1	1	1
Prof Scientific Tech Serv	0.1	0.1	0.1	1	1
Food & Beverage Services	0.0	0.0	0.0	0	1
Health & Community Serv	0.0	0.0	0.0	0	0
Wholesale Trade	0.1	0.0	0.0	0	0
Education & Training	0.0	0.0	0.0	0	0
Road Transport	0.1	0.0	0.0	0	0
Insurance & Other Fin Serv	0.0	0.0	0.0	0	0
Other Sectors	0.6	0.3	0.1	1	1
Total Flow-on	1.5	0.8	0.5	7	7
Total	6.8	5.3	0.8	14	43
<i>Total/Direct</i>	<i>1.3</i>	<i>1.2</i>	<i>2.5</i>	<i>2.1</i>	<i>1.2</i>

Source: BDO EconSearch analysis

Table 3-13 Economic contribution of the Charter Fishery to Fitzroy and Wide Bay-Burnett, 2019/20

Sector	Output (\$m)	GSP (\$m)	Household Income (\$m)	Employment (fte)	Employment (total)
Direct effects					
Charter Fishing	8.3	2.6	2.0	49	88
CAPEX	0.8	0.4	0.3	5	5
Total Direct	9.1	3.0	2.3	54	93
Flow-on effects					
Personal & Other Serv	2.2	1.2	1.1	16	16
Retail Trade	1.0	0.6	0.4	9	10
Admin Support Serv	0.8	0.5	0.5	8	8
Food & Beverage Services	0.3	0.2	0.1	3	4
Health & Community Serv	0.3	0.2	0.2	3	3
Prof Scientific Tech Serv	0.4	0.2	0.2	2	2
Wholesale Trade	0.4	0.2	0.2	2	2
Education & Training	0.2	0.1	0.1	2	2
Road Transport	0.4	0.2	0.1	2	1
Fishing, Hunting & Trapping	0.1	0.0	0.0	1	1
Other Sectors	5.5	2.5	0.6	8	7
Total Flow-on	11.6	6.0	3.6	55	56
Total	20.7	9.0	5.8	109	150
<i>Total/Direct</i>	<i>2.3</i>	<i>3.0</i>	<i>2.6</i>	<i>2.0</i>	<i>1.6</i>

Source: BDO EconSearch analysis

Table 3-14 Economic contribution of the Charter Fishery to South East, 2019/20

Sector	Output (\$m)	GSP (\$m)	Household Income (\$m)	Employment (fte)	Employment (total)
Direct effects					
Charter Fishing	4.1	2.4	1.0	23	54
CAPEX	0.1	0.1	0.0	1	1
Total Direct	4.2	2.5	1.0	24	55
Flow-on effects					
Personal & Other Serv	0.6	0.3	0.3	5	5
Admin Support Serv	0.4	0.3	0.3	4	4
Retail Trade	0.4	0.2	0.2	3	4
Prof Scientific Tech Serv	0.3	0.2	0.2	2	2
Insurance & Other Fin Serv	0.5	0.2	0.2	2	2
Health & Community Serv	0.2	0.1	0.1	1	2
Food & Beverage Services	0.1	0.1	0.1	1	2
Education & Training	0.2	0.1	0.1	1	1
Wholesale Trade	0.2	0.1	0.1	1	1
Rental Hiring Real Estate	0.2	0.1	0.0	1	1
Other Sectors	2.1	1.1	0.3	4	3
Total Flow-on	5.2	2.8	1.7	25	26
Total	9.4	5.3	2.8	49	81
<i>Total/Direct</i>	<i>2.3</i>	<i>2.1</i>	<i>2.7</i>	<i>2.1</i>	<i>1.5</i>

Source: BDO EconSearch analysis

3.6. Impact of COVID-19

In January 2020, the COVID-19 pandemic was beginning to affect the Charter Fishery. While charter 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 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.

GVP, prices and customers for 2017/18, 2018/19 and 2019/20 with, and estimates of without, the impact of COVID-19 are detailed in Table 3-15. Survey participants estimated that, had the COVID-19 pandemic not occurred, GVP in 2019/20 would have been 33 per cent higher than it actually was and similar to that estimated for 2018/19. Without COVID-19, businesses expected that client days would likely have decreased between 2018/19 and 2019/20, but that this would have been offset by an increase in average price, leaving GVP similar in 2019/20 (without COVID) to 2018/19. A common theme amongst 2019/20 survey respondents was that in addition to COVID-19 pandemic challenges, changing rules and regulations were making Charter fishing more difficult and this may have contributed to the fall in client days without COVID-19.

Table 3-15 GVP, prices and customers for Charter Fishery, 2017/18, 2018/19, 2019/20 (with and without COVID-19)

	2017/18	2018/19	2019/20 With COVID-19 ^a	2019/20 Without COVID-19
Client days (no.)	132,276	120,331	74,919	91,280
GVP (\$m)	35.8	33.1	24.6	32.8
Price (\$/client/day)	271	275	329	359

^a 2019/20 actual.

Source: BDO EconSearch analysis

The financial performance estimates by fishing region (Table 3-8) were estimated without the impact of the COVID-19 pandemic (Table 3-16). For Queensland as a whole, the average rate of return was estimated to be 8.0 per cent without the COVID-19 pandemic compared to the actual 0.9 per cent for 2019/20. All regions were estimated to have had an improvement in average rate of return without the COVID-19 pandemic.

The estimated economic impact on Queensland of the effects of COVID-19 on the Charter Fishery is presented in Table 3-17. The impact on employment was a loss of 17 fte jobs, including 10 fte jobs in Charter businesses and 7 fte jobs in other areas of the economy. The loss in total GSP was approximately \$8.8m, including \$7.3m directly from Charter fishing businesses and \$1.4m in other sectors.

In addition, government support was received for a number of Charter fishing businesses to assist through the pandemic. The estimated total support for the whole industry was:

- JobKeeper and other government grants: \$861,000⁶ (supporting around 21 fte jobs⁷)
- Licence fee and other waivers: \$21,000

⁶ Grants received by Charter fishing businesses have not been included in the business financial indicator modelling.

⁷ Based on the average fishery wage for 2019/20.

Table 3-16 Total financial performance in the Charter Fishery, by fishing region, 2019/20, estimate of 'without COVID-19'

	Region Total				
	North West, Cape York Peninsula and Wet Tropics	Dry Tropics and Mackay, Isaac and Whitsunday	Fitzroy and Wide Bay Burnett	South East	Queensland
Trip days (no.)	4,216	2,497	3,534	3,389	13,637
Client days (no.)	17,155	15,017	34,570	24,538	91,280
Employment (fte)	41	6	50	28	126
Employment (total)	72	35	90	59	255
Active Businesses (no.)	51	31	38	29	149
Sample Size (n)	16	8	12	16	52
Gross Income	\$9,274,642	\$6,155,666	\$11,862,998	\$5,495,239	\$32,788,546
Total Variable Costs	\$2,644,296	\$527,092	\$4,034,660	\$1,956,287	\$9,162,335
Total Fixed Costs	\$7,119,147	\$1,322,503	\$9,034,082	\$3,874,077	\$21,349,809
Total Costs	\$6,630,346	\$5,628,574	\$7,828,339	\$3,538,952	\$23,626,211
Gross Margin	\$6,630,346	\$5,628,574	\$7,828,339	\$3,538,952	\$23,626,211
Total Unpaid Labour	\$388,952	\$94,621	\$624,150	\$426,000	\$1,533,722
Gross Operating Surplus	\$2,544,447	\$4,927,784	\$3,453,066	\$2,047,162	\$12,972,459
Business Profit before Depreciation	\$2,155,495	\$4,833,163	\$2,828,916	\$1,621,162	\$11,438,737
Depreciation	\$1,145,826	\$340,591	\$2,404,491	\$300,663	\$4,191,571
Business Profit	\$1,009,669	\$4,492,573	\$424,425	\$1,320,499	\$7,247,166
Profit at Full Equity	\$1,373,309	\$4,538,659	\$690,619	\$1,574,707	\$8,177,294
Fishing Gear and Equipment	\$29,858,970	\$8,530,572	\$54,288,444	\$9,347,661	\$102,025,647
Rate of Return on Fishing Gear and Equipment at Full Equity	4.6%	53.2%	1.3%	16.8%	8.0%

Source: BDO EconSearch analysis

Table 3-17 Economic impact of the COVID-19 pandemic on the Charter Fishery, 2019/20

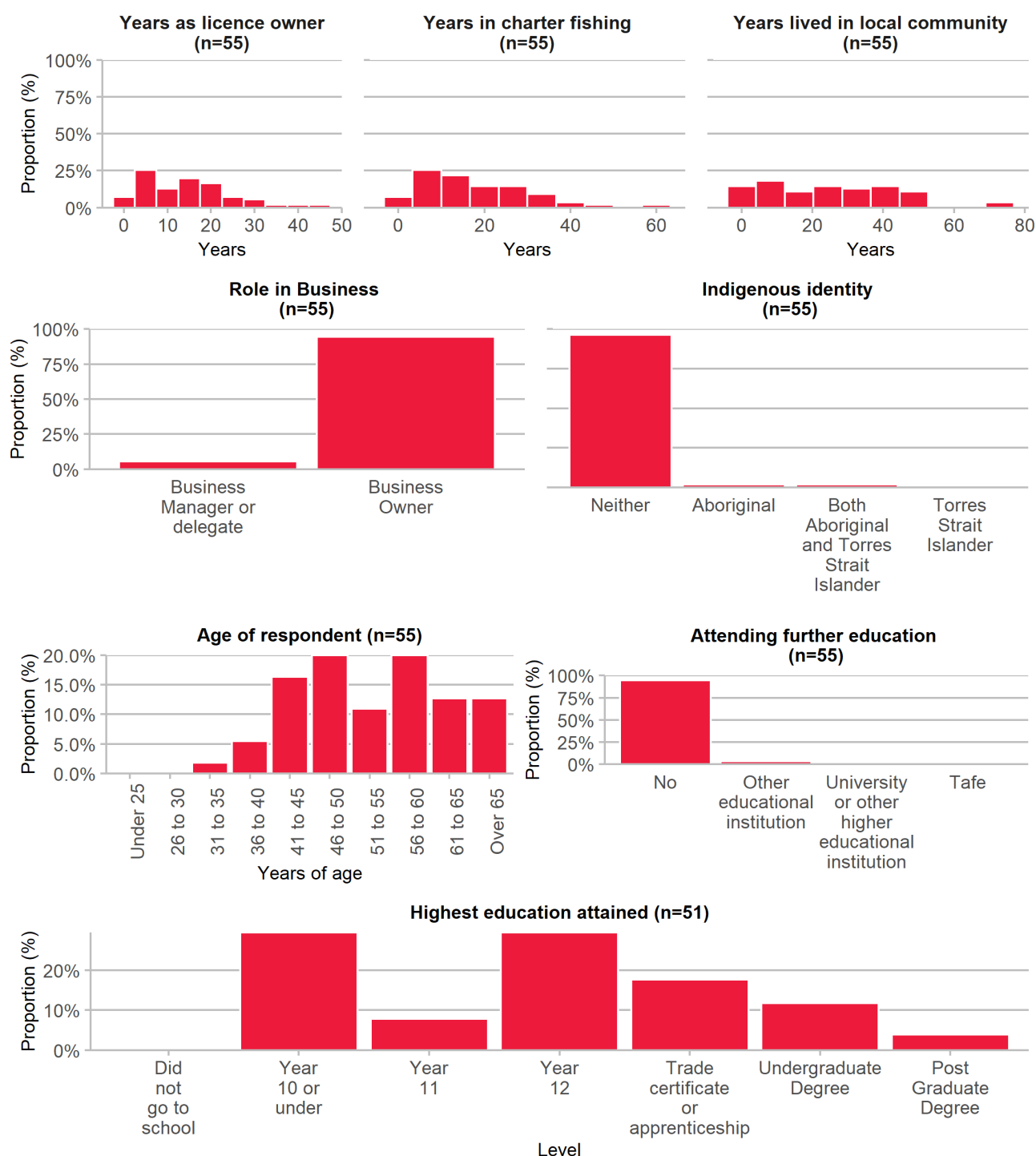
Sector	Output (\$m)	GSP (\$m)	Household Income (\$m)	Employment (fte)	Employment (total)
Charter Fishing	-8.1	-7.3	-0.4	-10	-10
Total Flow-on	-3.7	-1.4	-0.9	-7	-6
Total	-11.9	-8.8	-1.3	-17	-16

Source: BDO EconSearch analysis

4. DEMOGRAPHIC INDICATORS

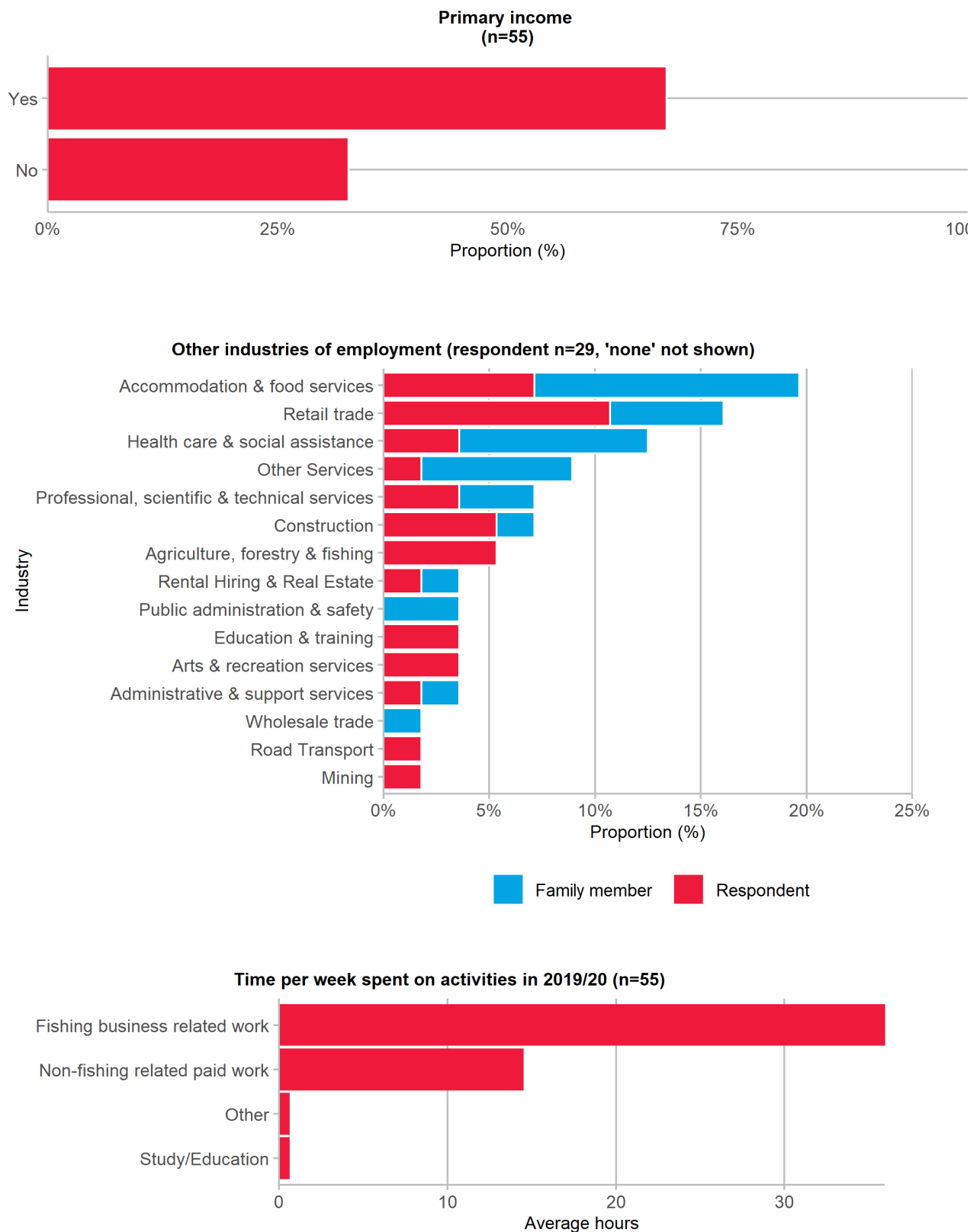
The charts below and on the following page present a demographic profile of fishers who accessed the Charter fishery in Queensland in 2019/20.

Figure 4-1 Demographic profile of the Charter fishery in 2019/20 - part 1



Source: BDO EconSearch analysis

Figure 4-2 Demographic profile of the Charter fishery in 2019/20 - part 2



Source: BDO EconSearch analysis

5. SOCIAL INDICATORS

Fishers may derive non-financial benefits or costs from the Charter fishery and may contribute to the community in different ways. This section presents a series of social indicators including:

- Perceptions of management
- Lifestyle and satisfaction
- Personal wellbeing
- Community contribution.

5.1. Management

Figure 5-1 presents fishers' perceptions of different aspects of fishery management and participation in management.

High levels of stewardship amongst fishers are associated with a good understanding of the rules and regulations that apply to fishing activities and ease of compliance. Over three quarters of fishers who access the Charter fishery feel that they understand the fishery management arrangements for the fishery. However, over half feel that changes in fishery management in the last few years have made it more difficult to run their business and that it has become more difficult to have a say in management. Overall, this suggests that fishers who access the Charter fishery perceive fishery management to be difficult to comply with and have a say in and may be associated with higher costs of management and compliance activities.

Figure 5-1 Perceptions of fishery management in the Charter fishery (2019/20)



Source: BDO EconSearch analysis

5.2. Lifestyle and Satisfaction

Figure 5-2 presents indicators of continuity, importance and satisfaction with different aspects of fishers' activity in the Charter fishery.

Fishers who access the Charter fishery were satisfied with most aspects of being a charter fisher. However, over half were dissatisfied with the predictability of their income and with current fishing regulations.

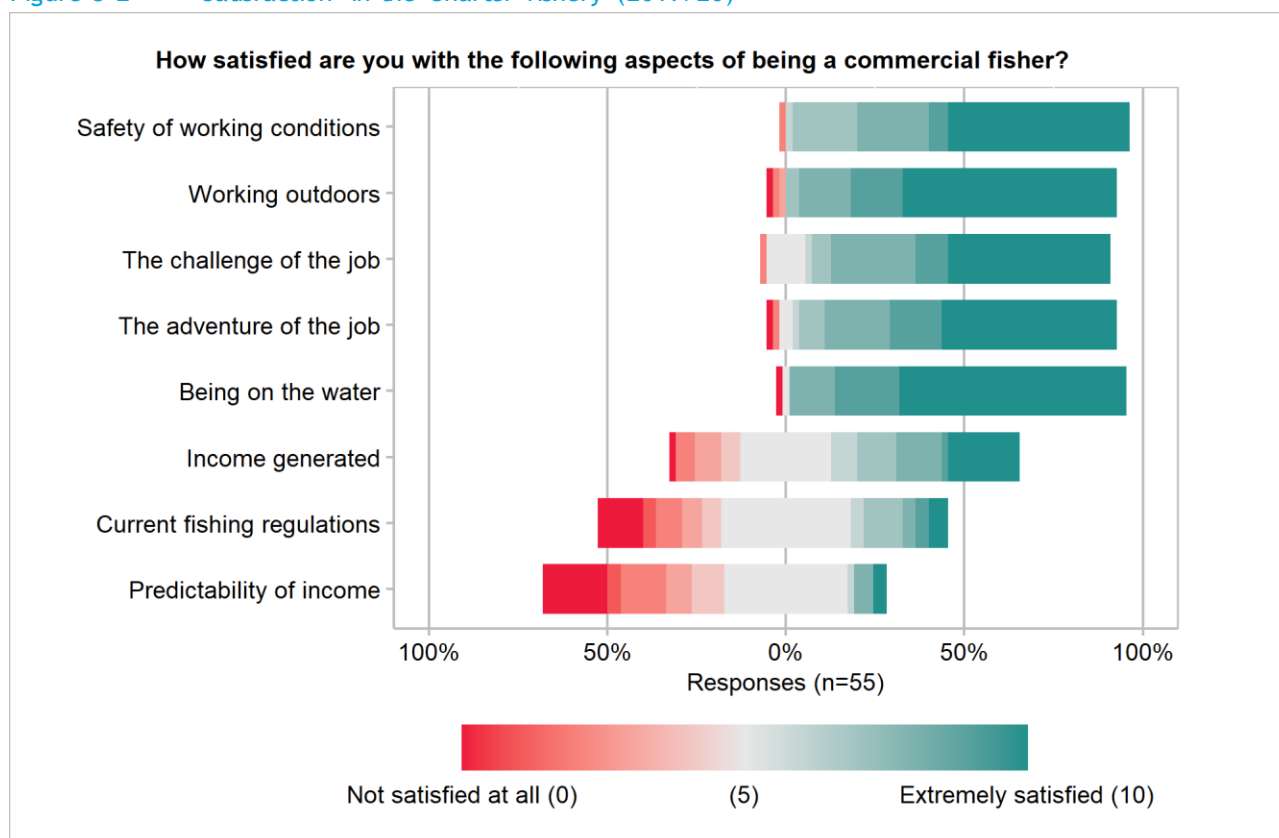
Fishers who access the Charter fishery were near unanimous in agreement that fishing is an important aspect of their lives and lifestyle and that, if given the opportunity, they would not choose to do a different job. There was also near unanimous agreement that charter fishing is a rewarding job that makes fishers feel that they are doing something worthwhile.

Fishers who access the Charter fishery indicated that they had very high levels of personal wellbeing across all PWI domains. However, a small number of fishers who access the Charter fishery indicated that they were dissatisfied with their future security.

Overall, these results indicate that fishing activities are making a significant, positive contribution to the overall satisfaction and personal wellbeing of fishers that access the Charter fishery.

There was strong agreement amongst fishers who access the Charter fishery that charter fishing is financially risky and insecure. There was also near unanimous agreement amongst respondents that it is stressful to be a charter fisher and that changing regulations makes it difficult to be successful. However, about half of respondents indicated that they are able to cope with changes to fisheries regulations. Importantly, over half of respondents indicated that being a charter fisher does not have negative mental health impacts on them. Around three quarters also indicated that because of charter fishing, they have a good quality of life. These results suggest that fishers who access the Charter fishery enjoy their role as charter fishers.

Figure 5-2 Satisfaction in the Charter fishery (2019/20)



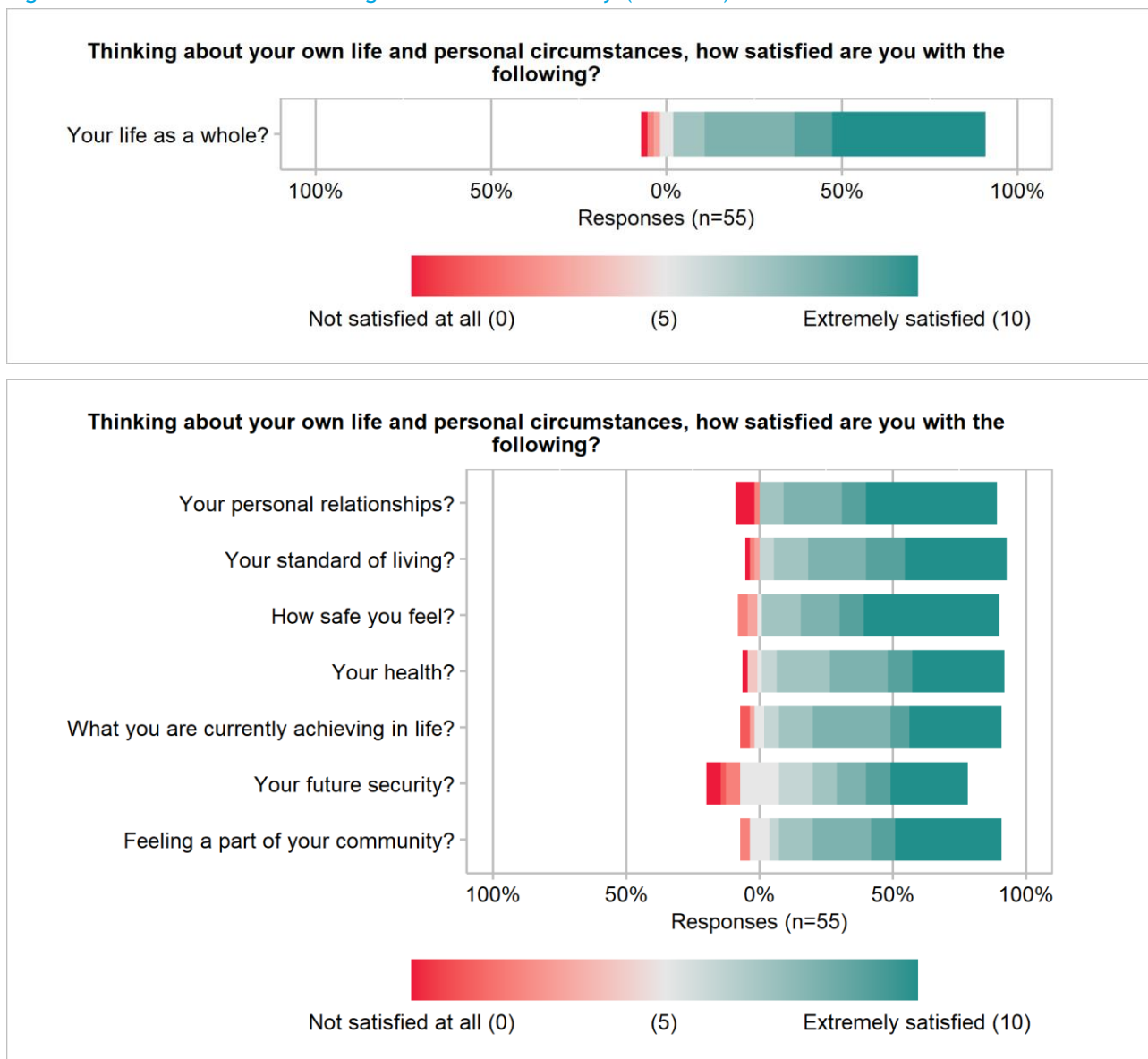
Source: BDO EconSearch analysis

5.3. Personal Wellbeing

The Personal Wellbeing Index (PWI) is a validated measure of wellbeing with established benchmarks that are useful for comparing between groups. A higher PWI means higher subjective wellbeing. It is calculated from the data presented in the charts below though the charts themselves also provide useful information about the levels of different domains of wellbeing for fishers that access the Charter fishery. The PWI for the Charter fishery, presented in Figure 5-3, is compared against the average for Australia, Queensland and regional Queensland, as reported in the Regional Wellbeing Survey (UC 2020), below:

- Australia: 70.4
- Queensland: 69.2
- Regional Queensland: 71.5
- Charter fishery: 80.4.

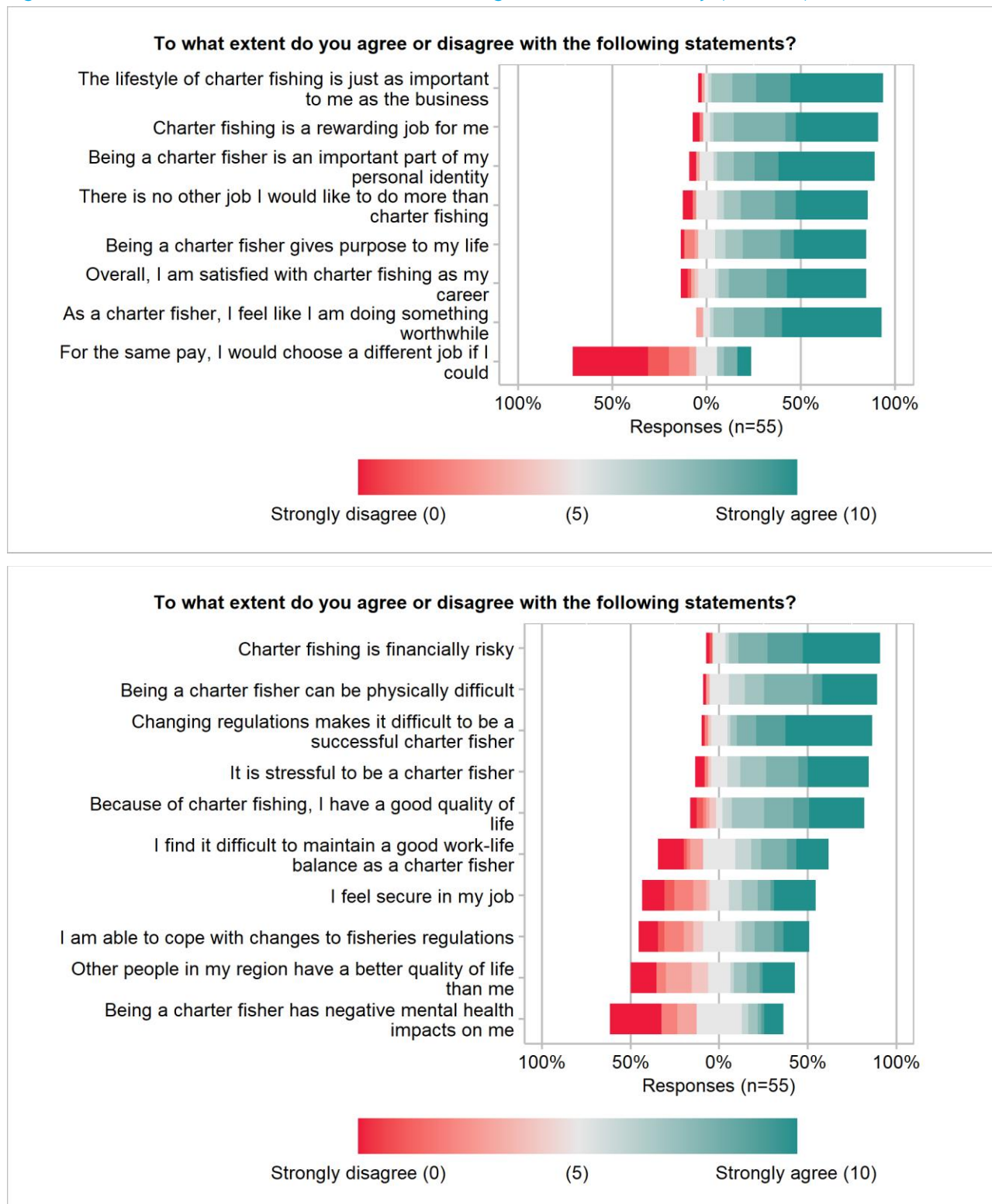
Figure 5-3 Personal wellbeing in the Charter fishery (2019/20)



Source: BDO EconSearch analysis

Fishers may derive non-financial benefits or costs from the Charter fishery. Figure 5-4 presents the perceptions of fishers about these benefits and costs.

Figure 5-4 Social costs and benefits to wellbeing in the Charter fishery (2019/20)

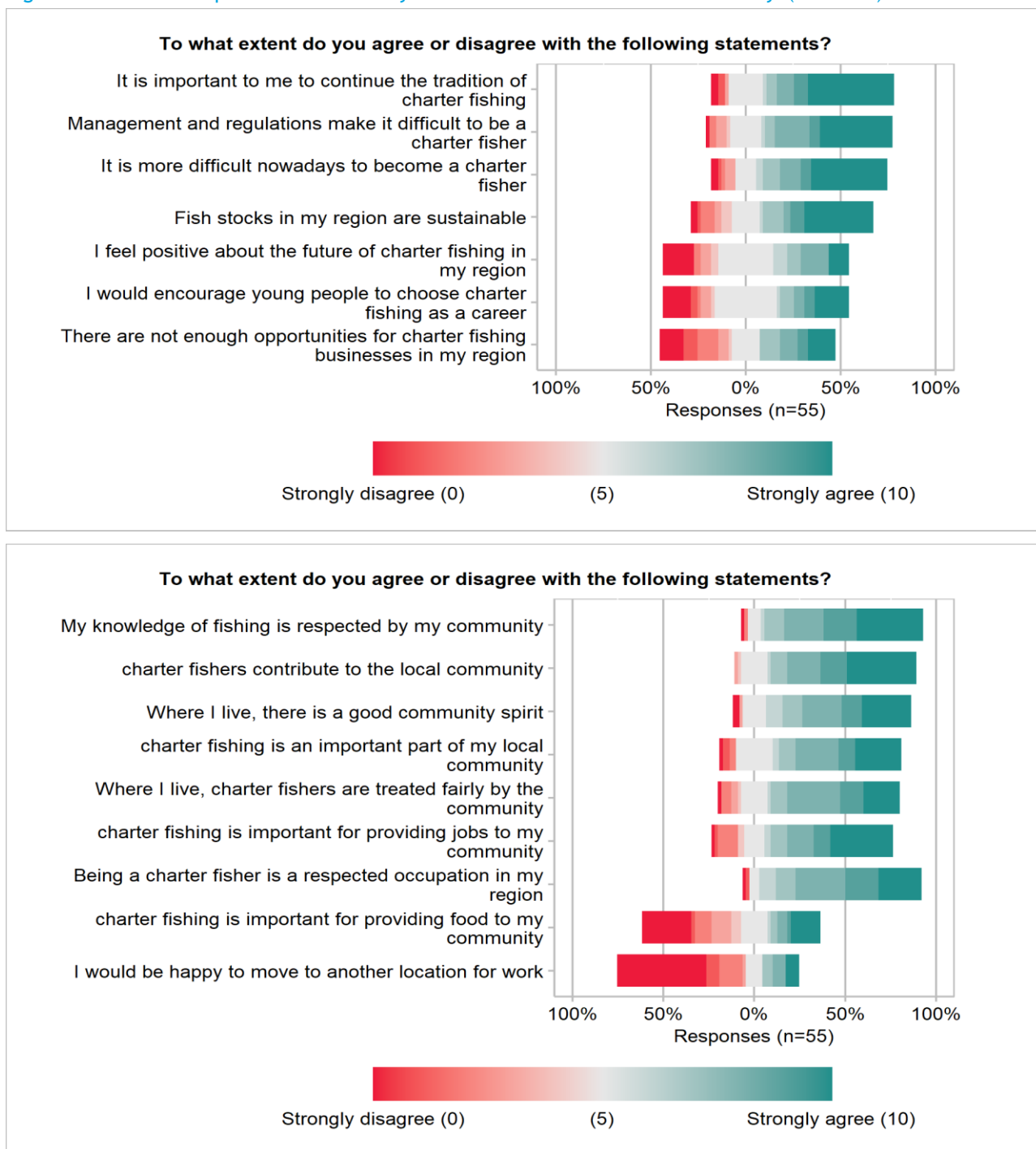


Source: BDO EconSearch analysis

5.4. Community

Perceptions of community connectedness in the Charter fishery is presented in Figure 5-5. Around three quarters of fishers who access the Charter fishery indicated that it was important to them to continue the tradition of charter fishing. Over half also indicated that they feel positive about the future of charter fishing in their region and that they would encourage young people to choose charter fishing as a career.

Figure 5-5 Perceptions of community connectedness in the Charter fishery (2019/20)

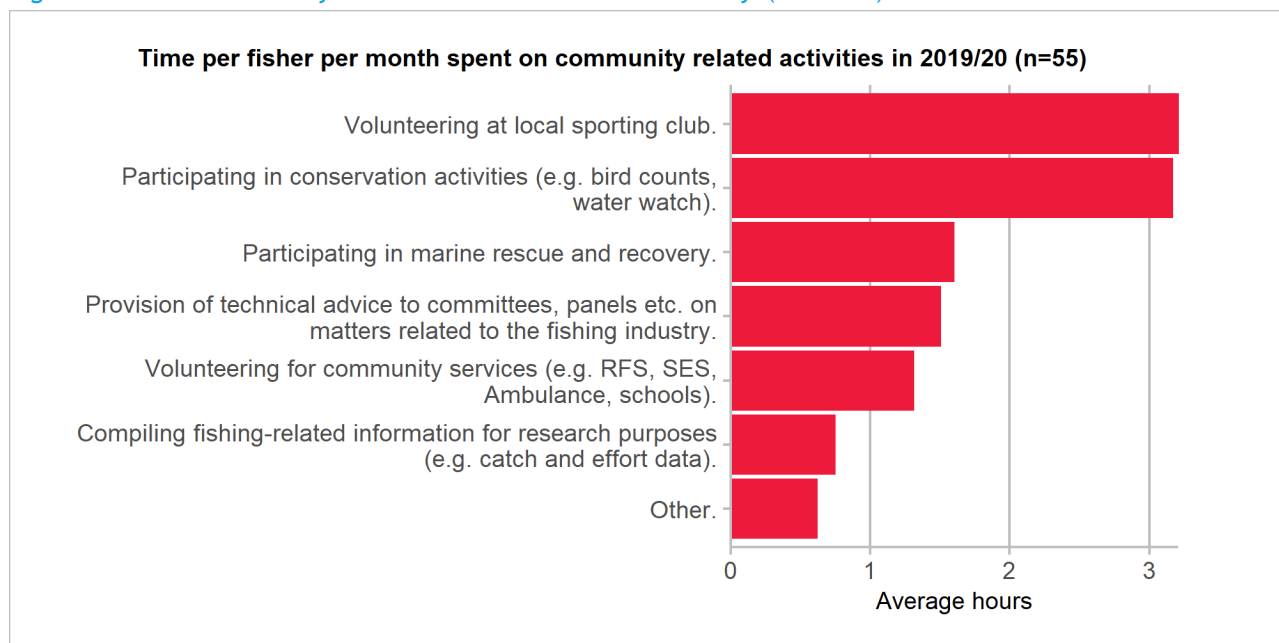


Source: BDO EconSearch analysis

Fishers who access the Charter fishery indicated that they make a contribution to the community. This was particularly in the form of time spent volunteering at local sporting clubs and participating in conservation activities such as bird counts.

Fishers that access the Charter fishery spend some of their time contributing to the community through various activities. The average number of hours contributed per month is presented in Figure 5-6.

Figure 5-6 Community contribution in the Charter fishery (2019/20)



Source: BDO EconSearch analysis

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- BDO EconSearch 2019, *Australian Fisheries and Aquaculture Industry 2017/18: Economic Contributions Estimates Report*, report prepared for Fisheries Research and Development Corporation, FRDC project 2017-210, Adelaide, October.
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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.



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