

10 PORT DOUGLAS TRC

The Port Douglas TRC consists of the main towns of Port Douglas, Mossman and Wonga located on the north Queensland Coast to the north of Cairns (Figure 10.1). Port Douglas is the main township within this TRC and the primary homeport location of commercial fishers.

BUSINESS PROFILES

Location and Use of Ports

Table 10.1 shows the number of licence holders within the Port Douglas TRC and the number of survey respondents who reported having homeports within the TRC. On the basis of the sample count, it is estimated that there are 34 commercial fishers within this TRC and that the 95% confidence interval places an estimate for the number of commercial fishers within the TRC as being between 23 and 45.

Table 10.1
Location of Homeports

Town	Adj. Database Count	Sample Count	Estimated Count	Percent within TRC
Port Douglas	24	9	22	64.3
Mossman	15	3	7	21.4
Wonga	2	2	5	14.3
Newell Beach	1	0	0	0.0
Total TRC	42	14	34	100.0

95% Confidence Interval for Estimated TRC Count 23-45
Percent of Total Active Licence Holders in QLD 1.4%

Note: Adjusted database count is based on the postal address as recorded in the licencing information, which may not be the homeport of the fishing business. The adjusted database count reduces the count for latent licence holders (8.8%)
The estimated count adjusts the sample count by the sampling fraction of 2.444.

In addition to the use of Port Douglas as a homeport, several fishing businesses used Port Douglas as a port when travelling to or from fishing areas. Table 10.2 shows the majority of these businesses having their homeports in Cairns (60%).

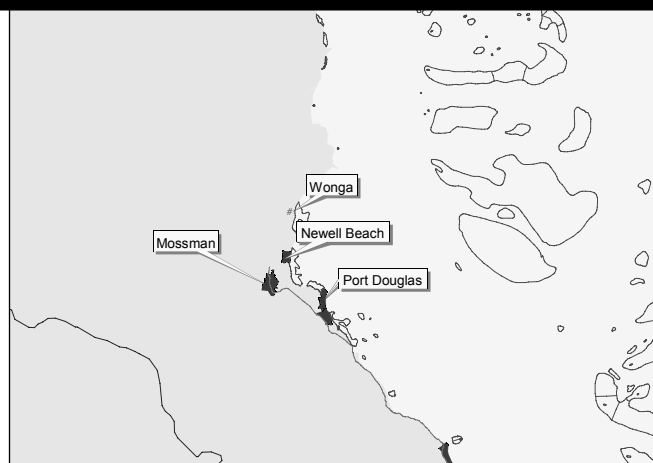


Figure 10.1 Location of the Port Douglas TRC

Table 10.2
Homeports of Businesses Using Port Douglas as a Port

Homeports	Sample Count	Percent
Cairns	3	60.0
Mackay	1	20.0
Wondalli	1	20.0
Total Businesses	5	100.0

Fishing Activity and Type

Table 10.3 shows the type of fishing activity undertaken within the last year by fishing businesses within this TRC. Line fishing (79%) is the primary fishing activity by businesses from homeports within this TRC, followed by netting (36%) and trawling (29%).

Table 10.3
Type of Fishing Activity (During the last 12 months)

Fishing Type	Sample Count	Percent within TRC
Line fishing	11	78.6
Netting	5	35.7
Trawling	4	28.6
Crabbing	1	7.1
Pearl	1	7.1
Lobster	1	7.1
Total Sample	14	100.0

Note: This is a multiple response table where all rows are independent.

Table 10.4. Co-occurrence of Fishing Activities

	Line Fishing	Trawling	Crabbing	Netting	Lobster Fishing	Pearl Fishing
Line fishing	11 <i>100.0</i>	1 <i>25.0</i>	1 <i>100.0</i>	4 <i>80.0</i>	1 <i>100.0</i>	1 <i>100.0</i>
Trawling	1 <i>9.1</i>	4 <i>100.0</i>	0 <i>0.0</i>	1 <i>20.0</i>	0 <i>0.0</i>	0 <i>0.0</i>
Crabbing	1 <i>9.1</i>	0 <i>0.0</i>	1 <i>100.0</i>	1 <i>20.0</i>	0 <i>0.0</i>	0 <i>0.0</i>
Netting	4 <i>36.4</i>	1 <i>25.0</i>	1 <i>100.0</i>	5 <i>100.0</i>	0 <i>0.0</i>	0 <i>0.0</i>
Lobster fishing	1 <i>9.1</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	1 <i>100.0</i>	0 <i>0.0</i>
Pearl fishing	1 <i>9.1</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	1 <i>100.0</i>

Note: The co-occurrence table should be read by column. Column percentages are given as italics.

As shown in Table 10.4, line fishing as the primary fishing activity only co-occurs in some instances with netting within this TRC. For instance, of the 11 fishers within the sample who undertook line fishing within the last year, four of these fisher (36%) also engaged in netting. All other fishing activities were generally independent.

Table 10.5 shows the peak months for fishing activity within the TRC to be July to November, which is very dissimilar to the overall Queensland fishery, which has its peak season between March and May.

Table 10.5.
Peak Fishing Months During Past 12 Months

Months	Sample Count	Percent within TRC	Percent of QLD Fishery
January	1	7.1	24.5
February	1	7.1	29.7
March	3	21.4	43.9
April	3	21.4	42.8
May	3	21.4	38.1
June	3	21.4	33.5
July	4	28.6	23.9
August	3	21.4	19.9
September	6	42.9	23.5
October	5	35.7	24.8
November	4	28.6	26.2
December	1	7.1	21.4

Table 10.6 provides a more detailed description of the seasonal variation in fishing activities by businesses. Line fishing is most common between October and January, netting between February and April and trawling between March and November.

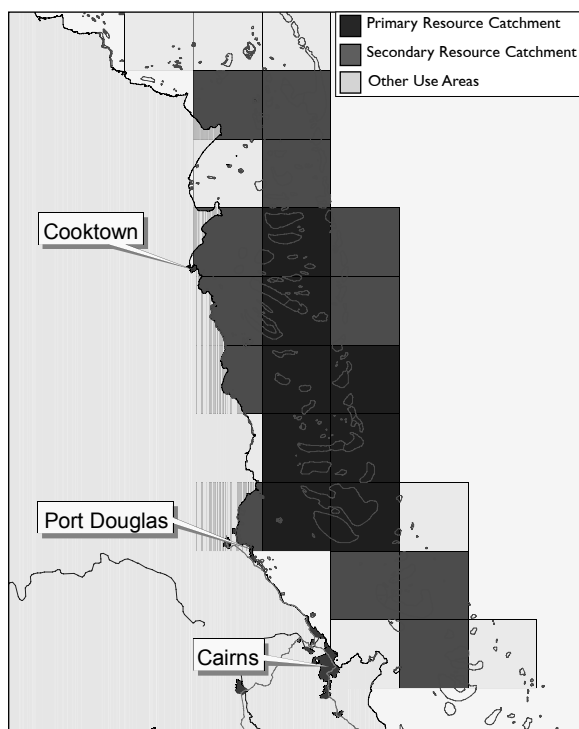


Figure 10.2 Port Douglas TRC: Location of Resource Use

Table 10.6
Seasonal Variations in Fishing Activity

Months	Sample Count	Percent within TRC	Percent of Fishery
Line Fishing			
January	9	90.0	64.6
February	7	70.0	64.3
March	6	60.0	68.1
April	7	70.0	70.4
May	8	80.0	74.7
June	8	80.0	78.7
July	8	80.0	82.0
August	7	70.0	80.8
September	8	80.0	79.7
October	9	90.0	79.7
November	9	90.0	78.2
December	10	100.0	70.6
Netting			
January	1	25.0	57.5
February	4	100.0	72.9
March	4	100.0	73.9
April	4	100.0	74.2
May	2	50.0	77.6
June	2	50.0	79.9
July	2	50.0	75.9
August	2	50.0	73.9
September	2	50.0	69.6
October	2	50.0	64.2
November	1	25.0	55.9
December	1	25.0	54.5
Trawling			
January	1	25.0	76.0
February	2	50.0	79.0
March	3	75.0	91.2
April	3	75.0	91.6
May	3	75.0	89.3
June	4	100.0	88.7
July	3	75.0	82.7
August	4	100.0	83.1
September	3	75.0	85.0
October	3	75.0	84.4
November	3	75.0	85.0
December	2	50.0	77.1

Note: Insufficient sample size for an analysis of crab, pearl and lobster activity.

Location of Resource Use

Figure 10.2 shows the location of resource use by commercial fishing operations in Port Douglas and the Port Douglas TRC. The primary resource catchment extends from Port Douglas north to reefal areas east of Cape Bedford. The secondary resource catchment, extends south to the reefal areas east of Cairns and north to coastal and reefal areas east of Cape Flattery.

Fishing Industry Employees

Table 10.7 identifies the number of employees of commercial fishing businesses within this TRC for both peak and off-peak seasons. The majority of businesses within peak and off-peak seasons have between one and three full-time employees (inc. the owner or operator). There is little part-time or casual employment by these businesses. The average number of employees per business during the peak and off-peak seasons is 1.8. In total, it is estimated that during both the peak and off-peak seasons there are 62 full-time equivalent employees.

Table 10.7
Number of Employees

Number of Employees	Full-Time Count	Full-Time Percent	Part-Time Count	Part-Time Percent	Casual Count	Casual Percent
Peak Season						
Nil	1	7.1	14	100.0	11	78.6
1	6	42.9	0	0.0	1	7.1
2-3	7	50.0	0	0.0	2	14.2
4-5	0	0.0	0	0.0	0	0.0
6-7	0	0.0	0	0.0	0	0.0
8-9	0	0.0	0	0.0	0	0.0
Total Businesses	14	100.0	14	100.0	14	100.0
Total Employees	24		0		1.5	
Mean Number of Employees per Business (Peak)		1.8				
Estimated Number Employed within the TRC		62				
Off-Peak Season						
Nil	1	7.1	14	100.0	11	78.6
1	6	42.9	0	0.0	1	7.1
2-3	7	50.0	0	0.0	2	14.2
4-5	0	0.0	0	0.0	0	0.0
6-7	0	0.0	0	0.0	0	0.0
8-9	0	0.0	0	0.0	0	0.0
Total Businesses	14	100.0	14	100.0	14	100.0
Total Employees	24		0		1.5	
Mean Nos Employees per Business (Off-Peak)		1.8				
Estimated Number Employed within the TRC		62				

Note: Part-time and casual employment is recorded as 0.5 when contributing to total employment.
Total number of employees includes the owner-operator and is the number of full-time equivalent employees.
Estimates of total employment based on an estimated 34 fishing businesses (Table 10.1)

Business Ownership and Size

Table 10.8 shows the number of years the current owner or operator has owned the fishing business. On average, businesses within this TRC had been owned for an average of 12.4 years, which is similar to the average of 14.6 years for all Queensland commercial fishing businesses.

Table 10.8
Number of Years of Current Ownership of the Fishing Business

Number of Years	Sample Count	Percent within TRC	Cumulative Percent
1-5	4	28.6	28.6
6-10	1	7.1	35.7
11-15	3	21.4	57.1
16-20	5	35.7	92.9
21-25	1	7.1	100.0
Total	14	100.0	
Mean Number of Years owned or operated			12.4
Difference of TRC mean to QLD mean (14.6)			-2.2

Note: Standard errors for number of years ownership (sample = 2.0; QLD population = 0.37).

The average number of years the business had been operating was 17.5 years, which was similar to that for all Queensland fishing businesses (18.2 years).

Table 10.9
Number of Years Business has been Operating

Number of Years	Sample Count	Percent within TRC	Cumulative Percent
1-5	3	23.1	23.1
6-10	1	7.7	30.8
11-15	2	15.4	46.2
16-20	5	38.5	84.6
21+	2	15.4	100.0
Total	13	100.0	
Mean Number of Years owned or operated			17.5
Difference of TRC mean to QLD mean (18.2)			-0.7

Note: Standard errors for number of years operated (sample = 3.8; QLD population = 0.46)

Table 10.10 shows that the majority of fishing businesses within this TRC operated one boat (86%).

Table 10.10
Number of Boats Operated by Fishing Businesses

Number of Boats	Sample Count	Percent within TRC
1	12	85.7
2	2	14.3
3	0	0.0
4	0	0.0
Total Number of Businesses	14	100.0
Mean Number of Boats Operated		1.1
Difference of TRC mean to QLD mean (1.7)		-0.6

Note: Standard errors for number of boats operated (sample = 0.1; QLD population = 0.05)

The majority of boats operated by businesses within this TRC varied in length between 4.2 metres and 14 metres (Table 10.11).

Table 10.11
Length of Boats Operated by Fishing Businesses

Length of Boat (metres)	Sample Count	Percent within TRC
3-6	5	31.2
7-10	4	25.0
11-14	6	37.5
15-18	1	6.3
Total Number of Boats	16	100.0
Mean Length of Boats Operated (metres)		9.4
Difference of TRC mean to QLD mean (9.9)		-0.5
Mean Length of Largest Boat Operated (metres)		10.1
Difference of Mean to QLD Mean (11.4)		-1.3

Note: As mean length of boats in a multiple response, standard errors cannot be computed. Standard errors for mean length of largest boat (sample = 0.9; QLD population=0.14)

Value of Production and Location of Sales

Table 10.12 shows for the 12 months prior to the survey, the wholesale value of all products sold by fishing businesses within the Port Douglas TRC. Forty-six percent of businesses within this TRC had production values of less than \$100,000 for the previous 12 months.

Within the Port Douglas TRC it is estimated that the 34 fishing businesses had a gross value of production of approximately \$4.7 million, which is approximately 1.5% of the total value of production of the Queensland commercial fishing industry.

Table 10.12
Wholesale Value of Product (Annual value)

Wholesale Value (\$,000)	Sample Count	Sample Percent	Queensland Percent
Less than \$100	6	46.2	42.8
\$101 - \$200	3	23.1	21.4
\$201 - \$300	3	23.1	16.2
\$301 - \$400	1	7.7	8.5
\$401 - \$500	0	0.0	3.8
\$501 - \$600	0	0.0	1.8
\$601 - \$700	0	0.0	1.3
\$701 - \$800	0	0.0	0.4
\$801 - \$900	0	0.0	1.0
\$901 - \$1,000	0	0.0	0.3
Over \$1,000	0	0.0	2.3
Total	13	100.0	100.0
Median GVP for TRC			\$139,077
Estimated Total GVP for TRC			\$4,729,000
Median GVP for QLD Population			\$128,629
Estimated Total GVP for QLD Population			\$314,241,000
Percent of Total Queensland Production			1.5%

Note: Estimated TRC population total is based on an estimate of 34 businesses within the TRC, with a median GVP of \$139,077. Queensland total GVP based on 2,444 businesses (2,679 licenced businesses with 8.8% latency) with a median GVP of \$128,629.

Table 10.13 shows the value of sales to specific locations within Australia for the sample of 13 businesses and the percentage of sales to each location. The sample percent of sales to each location has been used directly to estimate the total value of business sales to all locations. From Table 10.13, and as shown in Figure 10.3, 69% of sales (\$3.3 million) occur directly to Cairns, \$0.5 million occurs directly

within Port Douglas, while a further \$0.5 million was reported as being sold to overseas markets. However, it is likely that the sales to overseas markets were represented by a first point of sale within Cairns.

Table 10.13
Town Location of Sales (\$'000)

Location of Sales	Sample Value of Sales	Percent of Sample	Estimated Sales
Cairns	1,244	68.8	3,254
Port Douglas	200	11.1	523
Karumba	90	5.0	235
Bundaberg	24	1.3	63
Yeppoon	24	1.3	63
Total Sales (Australia)	1,621	89.7	4,240
Total Sales (Overseas)	187	10.3	489
Total Sales	1,808	100.0	4,729

Note: Cairns includes sales to Gordonvale. The sample value of sales is based on GVP as reported by businesses in the survey. The estimated value of business sales (Table 10.12) is proportionally distributed to all locations on the basis of sample percentages.

Business Expenditure and Debt Levels

Table 10.14 shows that approximately \$2.5 million was spent by businesses in this TRC within the previous year on business goods and services (excluding salaries and wages). The majority of this expenditure occurred in three locations (Figure 10.4), which included Port Douglas (\$0.9 million), Cairns (\$0.8 million) and Mossman (\$0.4 million).

Table 10.14
Town Location of Business Expenditure (All costs, excluding salaries and wages)

Location of Expenditure	Sample Value of Expenditure (\$'000)	Percent of Sample	Value of all Expenditure (\$'000)
Port Douglas	351	37.5	923
Cairns	310	33.1	815
Mossman	143	15.3	376
Weipa	40	4.3	105
Karumba	30	3.2	79
Bundaberg	25	2.7	66
Cooktown	13	1.4	34
Ingham	6	0.6	16
Lucinda	6	0.6	16
Yeppoon	6	0.6	16
New South Wales	4	0.4	11
Caboolture	3	0.3	8
Total Expenditure	942	100.0	2,464

Note: Business expenditure includes all non labour expenditure (ie., fuel, equipment, repairs etc). Coefficients from the QLD input-output table for 1992-1993 indicate that expenditure on local intermediate purchases and imports, accounted for 52.1% of total revenue. The amount of business expenditure occurring within specific locations is based on 52.1% of the estimated GVP for the business.

Asking each business operator, what percentage of their business assets were not owned outright by their business, identified for the purpose of this study the level of business debt. Table 10.15 shows that 60% of businesses within the Port Douglas TRC had no debt. Although based on a small sample count, the overall debt level within the TRC was 40% of business assets.

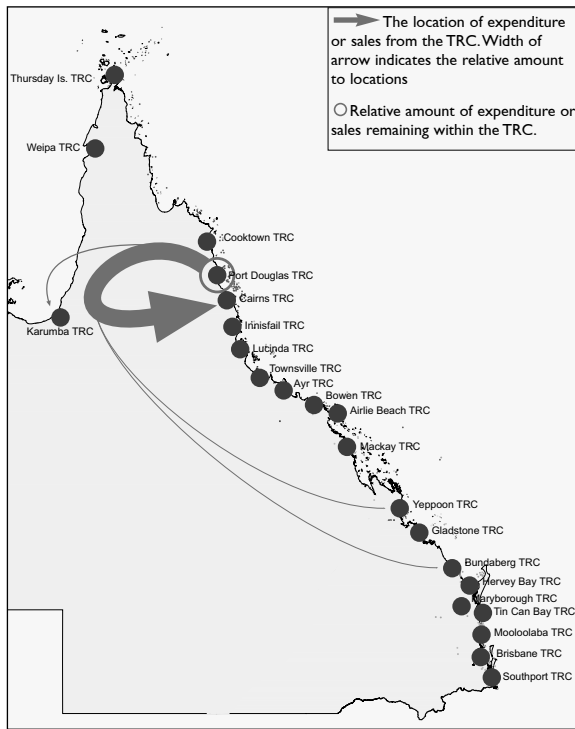


Figure 10.3 Port Douglas TRC: Location of Business Sales

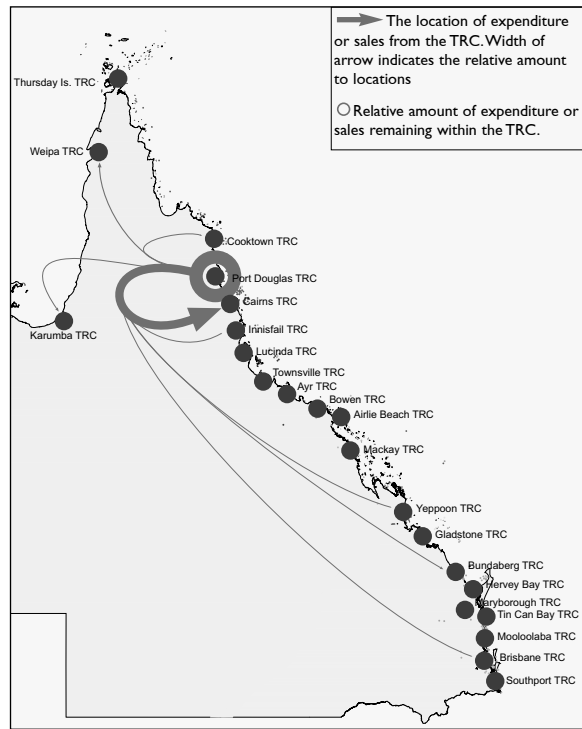


Figure 10.4 Port Douglas TRC: Location of Business Expenditure

Table 10.15
Business Debt Levels

Percent of Assets Not Owned	Sample Count	Sample Percent	Queensland Percent
Nil	4	57.1	60.1
1 – 10%	0	0.0	6.4
11 – 20%	0	0.0	5.2
21 – 30%	0	0.0	6.4
31 – 40%	0	0.0	3.3
41 – 50%	0	0.0	9.6
51 – 60%	0	0.0	1.8
61 – 70%	0	0.0	1.2
71 – 80%	0	0.0	1.1
81 – 90%	2	28.6	1.6
91 – 100%	1	14.3	3.3
Total	7	100.0	100.0

Median Debt Level for TRC 40%
 Median Debt Level for QLD Population 16.6%
 Difference of TRC Mean to QLD Mean (16.6) +23.4%

Note: Debt level defined as the percentage of total business assets not owned outright by the business.

EMPLOYEE PROFILES

Town of Residence

Table 10.16 indicates that although Port Douglas is the homeport of fishing businesses within this TRC, employees reside primarily at either Port Douglas (48%) or Mossman (37%).

Table 10.16
Town of Residence

Town of Residence	Sample Count	Percent of Sample
Port Douglas	13	48.1
Mossman	10	37.0
Wonga	4	14.9
Total	27	100.0

Months Employed in the Fishing Industry

Table 10.17 shows that during the past 12 months the majority of owner/operators and employees within this TRC were employed in the fishing industry throughout the year, with no seasonal employment patterns evident.

Table 10.17
Months Employed in the Fishing Industry During the Past 12 Months

Months	Owner/Operators	Employee	Total Within TRC	All QLD Employees
January	81.8	71.4	76.0	80.7
February	90.9	78.6	84.0	82.3
March	90.9	92.9	92.0	86.1
April	72.7	71.4	72.0	86.8
May	63.6	71.4	68.0	87.3
June	72.7	78.6	76.0	87.8
July	72.7	78.6	76.0	86.7
August	81.8	92.9	88.0	86.3
September	63.6	78.6	72.0	86.8
October	72.7	78.6	76.0	85.4
November	72.7	71.4	72.0	84.4
December	72.7	64.3	68.0	82.3

Note: Owner/operator sample of 12; employee sample of 15

Location of Household Expenditure

Table 10.18 and Figure 10.5 show the location of household expenditure related to individual income derived from employment in the fishing industry. Although Port Douglas is the homeport for most fishing businesses within this TRC, the town of Mossman attracts 42% (\$0.5 million) of all annual employee household expenditure, while Port Douglas attracts 32% (\$0.3 million) of annual household expenditure.

Table 10.18
Town Location of Household Expenditure
(all commodities and services)

Location of Household Expenditure	Sample Value of Expenditure (\$'000)	Percent of Sample	Estimated Expenditure (\$'000)
Mossman	193	42.5	460
Port Douglas	144	31.7	343
Cairns	117	25.8	279
Total Expenditure	454	100.0	1,082

Note: The gross individual annual income of fishers within this TRC was estimated as \$28,684 (Table 10.20). The Household Expenditure Survey for Queensland: 1993-1994 (ABS, 1996) indicates that for households in non-metropolitan areas 79% of gross weekly income was related to commodity and service purchases. Furthermore, of the total expenditure on commodities and services purchased by households, Queensland Input-Output tables indicate that 77% of expenditure occurs within Queensland, with the balance contributing to taxes and imports from outside Queensland. Applying these percentages to the gross individual annual income of employees indicates that direct employee expenditure on household commodities and services to be \$17,448, with total household expenditure across all 62 (Table 10.7) employees to be \$1.1 million (Table 10.18)

School and Employment Locations of Family Members

The towns in which family members attend school and are employed are shown in Table 10.19. Port Douglas (44%) and Mossman (33%) are the primary towns for school and employment.

Table 10.19
School and Employment Locations of Family Members

Location of Employment or School	Sample Count	Percent of Sample
Port Douglas	19	44.2
Mossman	14	32.6
Wonga	4	9.3
Brisbane	2	4.7
Gold Coast	2	4.7
Cairns	1	2.3
Hervey Bay	1	2.3
Total Family Members	43	100.0

Note: Counts and percentages based on all family members.

Employee Social and Demographic Profiles

Table 10.20 provides profile information about employees within the TRC. Information is provided separately for owner-operators and non owner-operator employees of businesses within the TRC. For comparative purposes, information is also provided for all employees throughout Queensland.

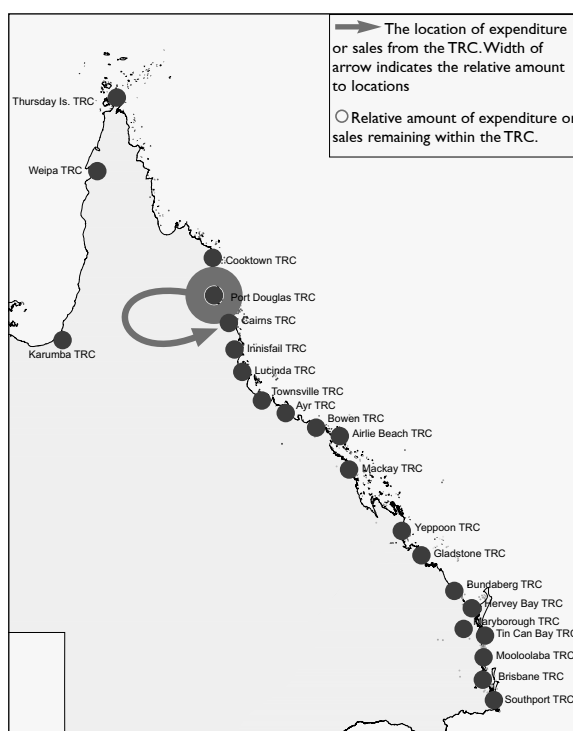


Figure 10.5 Port Douglas TRC: Location of Household Expenditure

Table 10.20 Owner-Operator and Employee Profiles

Profile	Owner/ Operators ^a	Employee	Total Within TRC	All QLD Employees
Estimated Number of Employees ^b	34	28	62	7,088
Mean age of fisher	44.3	31.2	37.3	37.3
Age range	30-58	15-49	15-58	15-79
Percent males	100.0	93.3	96.3	94.8
Mean years resident in town	21.5	10.3	15.3	19.1
Mean number of years in fishing industry	15.7	9.4	12.2	12.6
Median hours per week in fishing industry	70.0	60.0	60.0	60.0
Percent moved town to retain employment	16.7	20.0	18.5	20.5
Percent currently employed in other industry	16.7	26.7	22.2	34.2
Percent previously employed in other industry	83.3	66.7	74.1	69.2
Housing tenure				
Rent	41.7	46.7	44.4	33.6
Mortgage	25.0	26.7	25.9	20.1
Own home	25.0	26.7	25.9	31.1
Other (eg, live with parents, on boat)	8.3	0.0	3.7	15.2
Educational				
Year completed school				
Primary school	0.0	6.7	3.7	5.2
Year 8	8.3	6.7	7.4	8.0
Year 9	16.7	6.7	11.1	11.9
Year 10	66.7	20.0	40.7	44.4
Year 11	0.0	33.3	18.5	10.1
Year 12	8.3	26.7	18.5	20.2
Percent completed trade or TAFE certificate	54.5	53.3	53.8	37.7
Percent completed industry or business course	16.7	20.0	18.5	15.2
Percent with business plan ^c	18.2	—	18.2	22.9
Percent active fishing group member	81.8	13.3	40.7	25.7
Marital Status				
Percent married or relationship	58.3	46.7	51.9	62.0
Percent with partner employed in business ^d	57.1	—	57.1	56.1
Median hours per week employed in business	70.0	—	70.0	20.0
Partners Income^{de}				
Full-time employment	57.1	42.9	50.0	28.3
Part-time employment	14.3	28.6	21.4	18.5
Casual employment	14.3	0.0	7.1	11.6
Not employed	14.3	28.6	21.4	41.5
Family Composition				
Mean family size	2.9	2.3	2.6	2.6
Estimated number of total family members	99	64	163	18,429
Dependency Ratios				
Age Dependency Ratio ^f	20.7	68.4	39.6	33.4
Elderly Dependency Ratio	3.4	0.0	2.1	2.3
Child Dependency Ratio	17.2	68.4	37.5	31.2
Family Member Industry Dependency Ratio ^g	35.0	16.7	30.8	23.9
Gross Individual Income				
Less than \$16,000	11.1	10.0	50.0	34.6
\$16,000 - \$26,000	33.3	20.0	16.7	19.6
\$26,000 - \$36,000	33.3	50.0	16.7	22.1
\$36,000 - \$52,000	22.2	20.0	0.0	11.7
\$52,000 - \$78,000	0.0	0.0	0.0	6.6
Over \$78,000	0.0	0.0	16.7	5.4
Average Income (\$)	28,000	29,300	28,684	27,471

Note: ^a Owner/operator sample of 12, employee sample = 15.

^b Based on peak estimates derived in Table 10.7.

^c Percentages for owner-operators only.

^d Percentage based on those fishers with partners.

^e Includes partners income from all sources.

^f The age dependency ratio is the number of children (below 15 years) and elderly persons (above 65 years) to every 100 persons in the population.

^g The industry dependency ratio is the number of persons in the family who are over 15 years of age and working in the fishing industry (excluding the direct industry employee) as a proportion of all family members over 15 years of age.

All Queensland employees includes all owner-operators and employees. Value is the weighted sample of owner-operators (2.43) and employees (8.68).

