

6 KARUMBA TRC

The Karumba TRC consists of the towns of Karumba, Normanton and Burketown located in the southern Gulf of Carpentaria. Burketown has been included in this TRC because of its proximity to the port town of Karumba.

BUSINESS PROFILES

Location and Use of Ports

Table 6.1 shows the number of licence holders giving their address as Karumba, Normanton and Burketown and the number of survey respondents who reported these towns as their homeports. On the basis of the sample count, it is estimated that there are 31 commercial fishers using towns within this TRC as their homeport and that we can be 95% confident that the population count of commercial fishers within the TRC is between 20 and 42. Figure 6.1 shows the geographic location of this TRC.

Table 6.1
Location of Homeports

Town	Adj. Database Count	Sample Count	Estimated Count	Percent within TRC
Karumba	47	12	29	93.5
Normanton	4	1	2	6.5
Burketown	2	0	0	0.0
Total TRC	53	13	31	100.0
95% Confidence Interval for Estimated TRC Count				20-42
Percent of Total Active Licence Holders in QLD				1.3%

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 Karumba as a homeport, several fishing businesses used Karumba as a port when travelling to or from fishing areas. Table 6.2 shows that the majority of these businesses (58%) had their homeport in Cairns.

Table 6.2
Homeports of Businesses Using Karumba as a Port

Homeports	Sample Count	Percent
Cairns	7	58.3
Yeppoon	1	8.3
Port Douglas	1	8.3
Townsville	1	8.3
Innisfail	1	8.3
NSW	1	8.3
Total Businesses	12	100.0

Fishing Activity and Type

Table 6.3 shows the type of fishing activity undertaken within the last year by fishing businesses within this TRC. Netting and crabbing are the primary activities undertaken by businesses within this TRC, with less than 10% of businesses undertaking trawling activities within the last year.

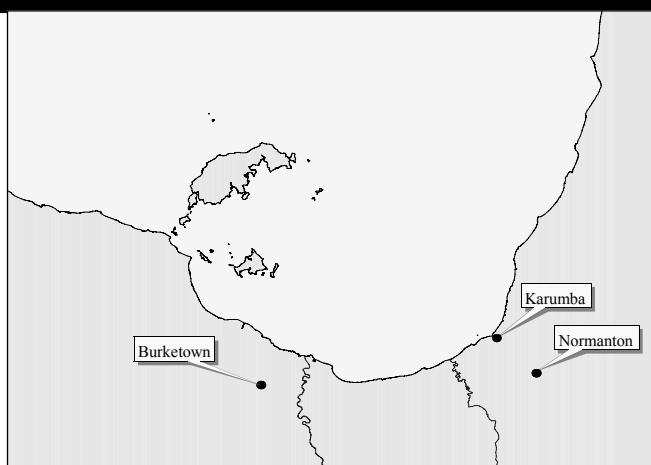


Figure 6.1 Location of the Karumba TRC

Table 6.3
Type of Fishing Activity (During the last 12 months)

Fishing Type	Sample Count	Percent within TRC
Netting	10	76.9
Crabbing	7	53.8
Line fishing	5	38.5
Trawl	1	7.7
Total Sample	12	100.0

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

As shown in Table 6.4, activities such as line fishing, crabbing and netting tend to co-occur within this TRC, while trawling is undertaken independently of all other fishing activities. For instance, of the five fishers within the sample who undertook line fishing within the last year, all of these fishers also engaged in netting and four (80%) also engaged in crabbing.

Table 6.4
Co-occurrence of Fishing Activities

	Line Fishing	Trawl	Crabbing	Netting
Line fishing	5 <i>100.0</i>	0 <i>0.0</i>	4 <i>57.1</i>	4 <i>40.0</i>
Trawl	0 <i>0.0</i>	1 <i>100.0</i>	0 <i>0.0</i>	0 <i>0.0</i>
Crabbing	4 <i>80.0</i>	0 <i>0.0</i>	7 <i>100.0</i>	5 <i>50.0</i>
Netting	4 <i>80.0</i>	0 <i>0.0</i>	5 <i>71.4</i>	10 <i>100.0</i>

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

Table 6.5 shows March nad April are the peak months for fishing activity within the TRC. These are also the peak months for fishing activity across all fishing businesses in Queensland (Table 6.5).

Table 6.5
Peak Fishing Months During Past 12 Months

Months	Sample Count	Percent within TRC	Percent of QLD Fishery
January	1	8.3	24.5
February	3	25.0	29.7
March	9	75.0	43.9
April	8	66.7	42.8
May	4	33.3	38.1
June	4	33.3	33.5
July	2	16.7	23.9
August	1	8.3	19.9
September	1	8.3	23.5
October	1	8.3	24.8
November	1	8.3	26.2
December	1	8.3	21.4

Table 6.6 provides a description of the seasonal variation in fishing activities by businesses. Line fishing is most common between June and November, crabbing between February and September and netting between February and May.

Table 6.6
Seasonal Variations in Fishing Activity

Months	Sample Count	Percent within TRC	Percent of Fishery
Line Fishing			
January	1	20.0	64.6
February	1	20.0	64.3
March	1	20.0	68.1
April	2	40.0	70.4
May	2	40.0	74.7
June	4	80.0	78.7
July	4	80.0	82.0
August	5	100.0	80.8
September	3	60.0	79.7
October	3	60.0	79.7
November	3	60.0	78.2
December	2	40.0	70.6
Crabbing			
January	2	28.6	74.7
February	3	42.9	79.0
March	4	57.1	75.1
April	3	42.9	69.4
May	4	57.1	67.2
June	4	57.1	58.5
July	3	42.9	52.0
August	4	57.1	50.2
September	5	71.4	53.3
October	2	28.6	59.9
November	2	28.6	66.4
December	2	28.6	72.1
Netting			
January	3	30.0	57.5
February	10	100.0	72.9
March	10	100.0	73.9
April	10	100.0	74.2
May	10	100.0	77.6
June	7	70.0	79.9
July	7	70.0	75.9
August	8	80.0	73.9
September	8	80.0	69.6
October	5	50.0	64.2
November	4	40.0	55.9
December	3	30.0	54.5

Note: Seasonal variation in trawling activity has been excluded given the low sample count.

Location of Resource Use

Figure 6.2 shows the location of resource use by commercial fishing operations with their homeports in the Karumba TRC. The location of resource use is restricted to the Gulf of Carpentaria and, in particular, coastal areas of the Gulf where netting and crabbing occur. As might be expected, given the high percentage of netting and crabbing activity within this TRC, the primary resource catchment is located in coastal areas to the north and south of Karumba.

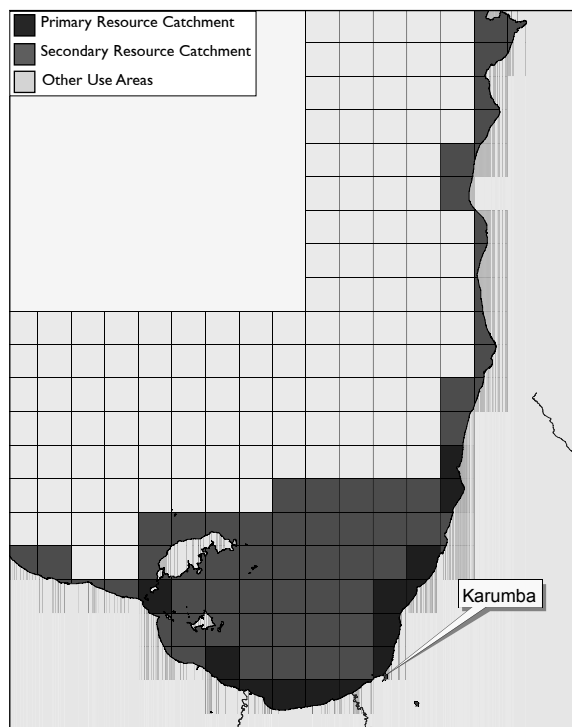


Figure 6.2. Karumba TRC: Location of Resource Use

Fishing Industry Employees

Table 6.7 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 two and three full-time employees (inc. the owner or operator). There appears to be little part-time or casual employment by these businesses. The average number of employees per business during the peak season for that business is 3.2, while in the off-peak season it is 2.7. In total, it is estimated that during the peak season there are 99 full-time equivalent employees while in the off-peak season there are 84 full-time equivalent employees.

Business Ownership and Size

Table 6.8 shows the number of years the current owner or operator has owned the fishing business. Businesses within this TRC had been owned for an average of 13.8 years, which was not significantly different to the average for all Queensland commercial fishing businesses. There is some evidence, as shown in Table 6.8, for a bimodal distribution in relation to years of ownership, with approximately a third of all businesses having current ownership of five years or less, while an additional third of all businesses have been owned for between 21 and 25 years.

Table 6.8
Number of Years of Current Ownership of the Fishing Business

Number of Years	Sample Count	Percent within TRC	Cumulative Percent
1-5	4	30.8	30.8
6-10	3	23.1	53.9
11-15	0	0.0	53.9
16-20	1	7.7	61.6
21-25	4	30.8	92.4
26-30	1	7.7	100.0
Total	13	100.0	
Mean Number of years owned or operated			13.8
Difference of TRC mean to QLD mean (14.6)			-0.8

Note: Standard errors for number of years ownership (sample = 2.8; QLD population = 0.37).

The average number of years the business had been operating was 19.4 years, which was not significantly different to that of all Queensland fishing businesses (18.2 years). Table 6.9 shows that 23% of businesses had been operating for five years or less and approximately 50% had operated for 20 years or less.

Table 6.7
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	0	0.0	13	100.0	13	0.0
1	1	7.7	0	0.0	0	0.0
2-3	10	77.0	0	0.0	0	0.0
4-5	0	0.0	0	0.0	0	0.0
6-7	1	7.7	0	0.0	0	0.0
8-9	1	7.7	0	0.0	0	0.0
Total Businesses	13	100.0	13	100.0	13	100.0
Total Employees	41		0		0	
Mean Number of Employees per Business (Peak)		3.2				
Estimated Number Employed within the TRC		99				
Off-Peak Season						
Nil	0	0.0	13	100.0	13	0.0
1	2	15.4	0	0.0	0	0.0
2-3	9	69.2	0	0.0	0	0.0
4-5	1	0.0	0	0.0	0	0.0
6-7	0	7.7	0	0.0	0	0.0
8-9	1	7.7	0	0.0	0	0.0
Total Businesses	13	100.0	13	100.0	13	100.0
Total Employees	35					
Mean Nos Employees per Business (Off-Peak)		2.7				
Estimated Number Employed within the TRC		84				

Note: Total number of employees includes the owner-operator and is the number of full-time equivalent employees. Part-time and casual employment is recorded as 0.5 when contributing to total employment. Estimates of total employment based on an estimated 31 fishing businesses (Table 6.1)

Table 6.9
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	2	15.4	38.5
11-15	1	7.7	46.2
16-20	1	7.7	53.9
21-25	4	30.8	84.7
26-30	1	7.7	92.4
31-35	0	0.0	92.4
36+	1	7.7	100.0
Total	13	100.0	
Mean Number of years owned or operated			19.4
Difference of TRC mean to QLD mean (18.2)			+1.2

Note: Standard errors for number of years operated (sample = 4.9; QLD population = 0.46)

Table 6.10 shows that the majority of fishing businesses within this TRC (77%) operated only one boat.

Table 6.10
Number of Boats Operated by Fishing Businesses

Number of Boats	Sample Count	Percent within TRC
1	10	76.9
2	1	7.7
3	1	7.7
4	0	0.0
5	1	7.7
Total Number of Businesses	13	100.0
Mean Number of Boats Operated		1.5
Difference of TRC mean to QLD mean (1.7)		-0.2

Note: Standard errors for number of boats operated (sample = 0.3; QLD population = 0.05)

The majority of boats (47.6%) operated by businesses were between 7 and 10 metres, with over 50% of all boats being 10 metres or less (Table 6.11).

Table 6.11
Length of Boats Operated by Fishing Businesses

Length of Boat (metres)	Sample Count	Percent within TRC
3-6	2	9.5
7-10	10	47.6
11-14	5	23.8
15-18	3	14.2
19-22	0	0.0
23-26	1	4.7
Total Number of Boats	21	100.0
Mean Length of Boats Operated (metres)		11.4
Difference of TRC mean to QLD mean (9.9)		+1.5
Mean Length of Largest Boat Operated (metres)		11.6
Difference of TRC mean to QLD mean (11.4)		+0.2

Note: As mean length of boats in a multiple response, standard errors cannot be computed. Standard errors for mean length of largest boat (sample = 1.47; QLD population=0.14)

Value of Production and Location of Sales

Table 6.12 shows for the 12 months prior to the survey, the wholesale value of all products sold by fishing businesses within the Karumba TRC. Fifty-four percent of businesses within this TRC had production values less than \$100,000 for the previous 12 months, while 84% of businesses had production values of less than \$200,000 during the previous 12 months.

Within the Karumba TRC, it is estimated that the 31 fishing businesses have a gross value of production of approximately \$2.8 million, which is approximately 0.9% of the total value of production of the Queensland commercial fishing industry.

Table 6.12
Wholesale Value of Product (Annual value)

Wholesale Value (\$,000)	Sample Count	Sample Percent	QLD Percent
Less than \$100	7	53.8	42.8
\$101 - \$200	4	30.7	21.4
\$201 - \$300	1	7.6	16.2
\$301 - \$400	0	0.0	8.5
\$401 - \$500	0	0.0	3.8
\$501 - \$600	1	7.6	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			\$90,000
Estimated Total GVP for TRC			\$2,790,000
Median GVP for QLD Population			\$128,629
Estimated Total GVP for QLD Population			\$314,241,000
Percent of Total Queensland Production			0.9%

Note: Estimated TRC population total is based on an estimate of 31 businesses within the TRC, with a median GVP of \$90,000. Queensland total GVP based on 2,444 businesses (2,679 licenced businesses with 8.8% latency) with a median GVP of \$128,629.

None of the fishers located within this TRC indicated they had direct sales of products to overseas markets. Table 6.13 shows the value of sales to specific locations 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 6.13, and as shown in Figure 6.3, 43% of sales (\$1.2 million) occur directly to Brisbane with a further \$0.8 million sold within Karumba.

Table 6.13
Town Location of Sales (\$'000)

Location of Sales	Sample Value of Sales	Percent of Sample	Estimated Sales
Brisbane	842	42.7	1,191
Karumba	544	27.6	770
Townsville	311	15.8	441
Cairns	193	9.8	273
Gladstone	84	4.1	115
Total Sales	1,974	100.0	2,790

Note: The sample value of sales is based on value of production as reported by businesses in the survey. The estimated value of business sales (Table 6.12) is proportionally distributed to all locations on the basis of sample percentages.

Business Expenditure and Debt Levels

Table 6.14 shows that approximately \$1.4 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 (62%) or \$906,000 occurred in Karumba and a further 31% or \$458,000 occurred in Cairns (Figure 6.4)

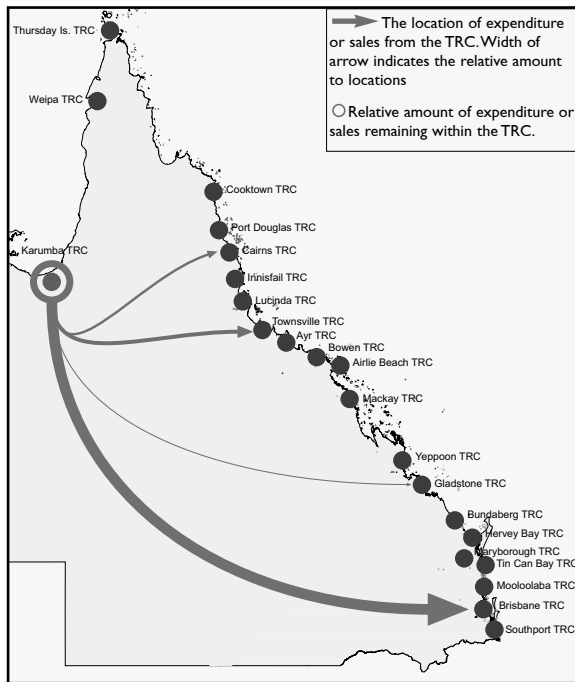


Figure 6.3 Karumba TRC: Location of Business Sales

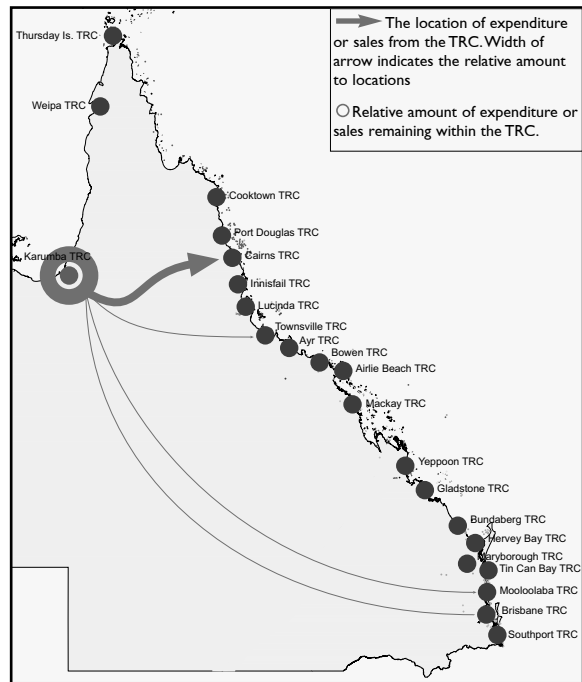


Figure 6.4 Karumba TRC: Location of Business Expenditure

Table 6.14
Town Location of Business Expenditure
(All costs, excluding salaries and wages)

Location of Expenditure	Sample Value Expenditure (\$'000)	Percent of Sample	Estimated Expenditure (\$'000)
Karumba	641	62.3	906
Cairns	324	31.5	458
Mooloolaba	27	2.6	38
Townsville	27	2.6	38
Brisbane	9	0.9	14
Total Expenditure	1,028	100.0	1,454

Note: Business expenditure includes all non labour expenditure (i.e., 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 6.15 shows that 70% of businesses within the Kurumba TRC had no debt. The overall debt level within the TRC was 3.4% of business assets, which is significantly lower than the 16.6% as reported across all commercial fishing businesses in Queensland.

Table 6.15
Business Debt Levels

Percent of Assets Not Owned	Sample Count	Sample Percent	Queensland Percent
Nil	7	70.0	60.1
1 - 10%	2	20.0	6.4
11 - 20%	0	0.0	5.2
21 - 30%	1	10.0	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%	0	0.0	1.6
91 - 100%	0	0.0	3.3
Total	10	100.0	100.0

Median Debt Level for TRC	3.4%
Median Debt Level for QLD Population	16.6%
Difference of TRC mean to QLD mean (16.6)	-13.2%

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

EMPLOYEE PROFILES

Town of Residence

The primary town of residence for employees within the fishing industry in this TRC is Karumba (87%) (Table 6.16).

Table 6.16
Town of Residence

Town of Residence	Sample Count	Percent of Sample
Karumba	13	86.7
Normanton	2	13.3
Total	15	100.0

Months Employed in the Fishing Industry

Table 6.17 shows that during the past 12 months the majority of employees within this TRC were employed in the fishing industry between May and September, which is similar to the profile for all Queensland employees.

Table 6.17
Months Employed in the Fishing Industry During the Past 12 Months

Months	Owner/ Operators	Employee	Total Within TRC	All QLD Employees
January	66.7	60.0	64.3	80.7
February	100.0	60.0	85.7	82.3
March	100.0	60.0	85.7	86.1
April	88.9	60.0	78.6	86.8
May	88.9	100.0	92.9	87.3
June	88.9	100.0	92.9	87.8
July	77.8	100.0	85.7	86.7
August	88.9	100.0	92.9	86.3
September	88.9	100.0	92.9	86.8
October	77.8	80.0	78.6	85.4
November	66.7	40.0	57.1	84.4
December	66.7	60.0	64.3	82.3

Note: Owner/operator sample of 10, employee sample of 5

Location of Household Expenditure

Table 6.18 and Figure 6.5 show the location of household expenditure related to individual income derived from

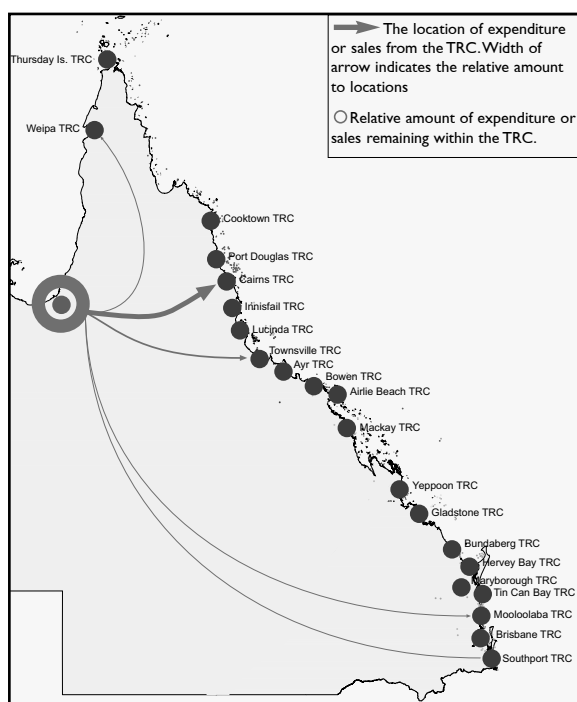


Figure 6.5 Karumba TRC: Location of Household Expenditure

employment in the fishing industry. As might be expected, the majority (53%) of industry-related household expenditure occurs within the town of Karumba (\$1 million) with a further 20% or \$0.4 million occurring within Cairns.

Table 6.18
Town Location of Household Expenditure
(all commodities and services)

Location	Sample Value of Expenditure (\$'000)	Percent of Sample	Estimated Expenditure (\$'000)
Karumba	136	52.7	1,037
Cairns	51	19.6	386
Normanton	18	6.9	136
Townsville	18	6.9	136
Mt Isa	17	6.2	121
Mooloolaba	10	3.8	76
Weipa	8	3.1	61
Gold Coast	2	0.8	15
Total	258	100.0	1,967

Note: The gross individual annual income of fishers within this TRC was estimated as \$32,666 (Table 6.20). 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 \$19,871, with total household expenditure across all 99 (Table 6.20) employees to be \$2 million (Table 6.18)

School and Employment Locations of Family Members

The towns in which family members attend school and are employed are shown in Table 6.19. As might be expected, Karumba is the primary location for school and employment (55%).

Table 6.19
School and Employment Locations of Family Members

Location of Employment or School	Sample Count	Percent of Sample
Karumba	11	55.0
Normanton	4	20.0
Townsville	3	15.0
Cairns	1	5.0
Gold Coast	1	5.0
Total Family Members	20	100.0

Note: Counts and percentages based on all family members.

Employee Social and Demographic Profiles

Table 6.20 provides profile information in relation to 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.

Table 6.20.
Owner-Operator and Employee Profiles

Profile	Owner/ Operators	Employees	Total Within TRC	All QLD Employees
Estimated Number of Employees ^b	31	68	99	7,088
Mean age of fisher	44.2	40.2	42.7	37.3
Age range	24-59	18-56	18-59	15-79
Percent males	90.0	40.0	78.6	94.8
Mean years resident in town	14.9	14.4	14.7	19.1
Mean number of years in fishing industry	14.4	10.8	13.2	12.6
Median hours per week in fishing industry	85.0	82.0	82.0	60.0
Percent moved town to retain employment	0.0	0.0	0.0	20.5
Percent currently employed in other industry	20.0	20.0	20.0	34.2
Percent previously employed in other industry	80.0	80.0	80.0	69.2
Housing tenure				
Rent	10.0	20.0	6.7	33.6
Mortgage	0.0	0.0	6.7	20.1
Own home	70.0	60.0	66.7	31.1
Other (eg, live with parents, on boat)	20.0	20.0	20.0	15.2
Education				
Year completed school				
Primary school	20.0	0.0	14.3	5.2
Year 8	10.0	25.0	14.3	8.0
Year 9	20.0	25.0	21.4	11.9
Year 10	30.0	25.0	28.6	44.4
Year 11	0.0	0.0	0.0	10.1
Year 12	20.0	25.0	21.4	20.2
Percent completed trade or TAFE certificate	20.0	40.0	26.7	37.7
Percent completed industry or business course	10.0	20.0	13.3	15.2
Percent with business plan ^c	10.0	–	10.0	22.9
Percent active fishing group member	60.0	0.0	40.0	25.7
Marital Status				
Percent married or relationship	70.0	80.0	73.3	62.0
Percent with partner employed in business ^d	71.4	0.0	71.4	56.1
Median hours per week employed in business	70.0	–	70.0	20.0
Partners Income^{de}				
Full-time employment	66.7	50.0	60.0	28.3
Part-time employment	16.7	25.0	20.0	18.5
Casual employment	0.0	0.0	0.0	11.6
Not employed	16.7	25.0	20.0	41.5
Family Composition				
Mean family size	2.4	2.8	2.6	2.6
Estimated number of total family members	74	190	257	18,429
Dependency Ratios				
Age Dependency Ratio ^f	10.5	55.5	25.0	33.4
Elderly Dependency Ratio	0.0	11.1	3.5	2.3
Child Dependency Ratio	10.5	44.4	21.4	31.2
Family Member Industry Dependency Ratio ^g	45.4	60.0	50.0	23.9
Gross Individual Income				
Less than \$16,000	50.0	0.0	33.3	34.6
\$16,000 - \$26,000	0.0	25.0	8.3	19.6
\$26,000 - \$36,000	0.0	50.0	16.7	22.1
\$36,000 - \$52,000	25.0	25.0	25.0	11.7
\$52,000 - \$78,000	12.5	0.0	8.3	6.6
Over \$78,000	12.5	0.0	8.3	5.4
Average Income (\$)	33,125	31,750	32,666	27,471

Note: *a* Owner/operator sample of 10, employee sample of 5

b Based on estimates derived in Table 6.7.

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).

