
3 Research Methodology

Given the paucity of social information about the commercial fishing industry and employees in Queensland, primary data collection through survey research was required in order to develop basic social, demographic and descriptive profiles of fishing businesses and employees.

Questionnaire Design

The questionnaires used in this study were based on similar questionnaires used to assess changes in forest resource management in Victoria and Queensland (Fenton, 1998, 1999). Although questionnaires used in previous studies had been designed for self-completion, the questionnaires used in the current study were designed to be completed through telephone interviews. Two questionnaires were constructed. The first questionnaire was administered to licenced master fishermen in Queensland and sought information in relation to the fishing business and social and demographic characteristics of the business operator and their family. The second questionnaire was administered to business employees other than the owner-operator of the businesses and included information about the social and demographic characteristics of the employee and their family.

Fishing Business Questionnaire

There were approximately fifty questions, in three sections, were included in the questionnaire. In the first section, fishers with a Masters license were asked questions about their fishing business and fishing practices. This included questions on the location of their homeport, years of business operation, number of boats, size of boats, type of fishing activity, seasonal variations in fishing, number of employees, the value and location of sales and the town locations for business expenditure.

The second section of the questionnaire included questions about the location of resource use and the use of coastal ports when accessing different areas of resource use. When asking questions about the location of resource use, interviewers used detailed coastal maps to assist in the identification of areas of resource use, with resource use often being identified in relation to specific reefal areas or in relation to specific towns along the Queensland coast.

In the third section of the questionnaire, all fishers were asked for information in relation to their town of residence, years of residence, hours worked in the industry, usual months in which they worked in the fishing industry and the location of towns from which they purchased household goods and services. This section also included questions which provided information about the social and demographic profiles of employees and their families, including for instance the age, gender, marital status, housing tenure and educational levels of family members.

Fishing Business Employees Questionnaire

In comparison to the Fishing Business Questionnaire, the Employee Questionnaire was considerably shorter as it only focussed on obtaining social and demographic information about the employee and their family. As such this Questionnaire essentially replicated the third section of the Fishing Business Questionnaire

Specific and detailed questions relating to the financial characteristics of the fishing business and employees were not included in the current survey, as the Queensland Department of Primary Industries had also conducted an economic survey of fishing businesses within Queensland over a comparable time period.

Questionnaire Pre-testing

Before conducting interviews, the questionnaires were pre-tested with members of the fishing industry. A small number of commercial fishermen were asked if they could assess the questionnaire in terms of the appropriateness of the questions and the terminology used in the questionnaire. The questionnaire was also reviewed by staff at the Great Barrier Reef Marine Park Authority.

Perhaps the most difficult question required fishermen to recall the location of their fishing activities over the previous 12 months. This information had to be recorded at sufficient detail through a telephone interview so that it could be transferred with reasonable accuracy to a 15-minute grid overlay. The pre-test indicated this was possible and that accuracy could be improved by ensuring that all interviewers had detailed coastal maps available to them when asking questions about the location of resource use.

Survey Sampling and Administration

The objective of the sampling procedures was to obtain a full census of all commercial fishing businesses in Queensland as identified in the database of licenced master fishermen. The Queensland Fisheries Service provided a database of 2,679 names, addresses and telephone numbers of commercial fishers. Due to the 'dynamic' nature of contact databases, it was not possible to contact all fishers as many contact details, including addresses and telephone numbers, were either out of date or incorrect.

During the evenings, weekends and occasionally weekdays of August 1999 to April 2000, trained interviewers contacted fishers and made appointments for interviews at convenient times. The response for each fisher was recorded as either: surveyed, refused, unable to be contacted, or insufficient contact information. Considerable effort was made to locate each fishermen identified on the database. The questionnaire took approximately 30-45 minutes to complete, depending on the extent to which individual fishermen wished to discuss specific issues.

Fishers were informed of the research prior to being interviewed. All fishers received a letter by mail informing them of the study and inviting them to participate. The research was also advertised in the QCFO and AMPPTO newsletters before commencing interviews.

Questionnaire Response Rates

The characteristics of the fishing industry make it especially difficult to contact owner-operators and employees, because many fishermen may live on boats, be away for extended periods, or when in port have no fixed address.

Furthermore employment amongst fishing boat crews and deckies is often extremely transient and, as such, locating crew is extremely difficult. There is a very large turnover of employment within the industry, and many crew may obtain a license even if they are only going to crew for a very limited period. For example, many crew are teenage children that help their parents during holiday periods. There is no compulsion, therefore to ensure that the licensing body (QFS in this case), is kept informed of their whereabouts. As such, only 33% of crew could be contacted. However, of these, 93% were willing to be interviewed, which provided 536 completed questionnaires. This sample was of a sufficiently large size and had sufficient geographic spread in terms of location of residence that it could be used to identify the social and demographic profiles of fishing industry employees within each of the identified TRCs.

Table 3.1 shows the response rate and characteristics for the survey of commercial fishing businesses in Queensland. A total of 1,008 were completed. This represented a response rate of 89% of those commercial fishermen who were able to be contacted. Table 3.1 also shows that 52.4% of fishermen identified on the database were unable to be contacted because we had incorrect phone numbers, they were away at sea, or there was no answer when they were called (Table 3.1).

Of the 2,679 licence holders, 235 (8.8%) were considered latent licence holders. There were 5 (0.2%) licence holders who were deceased and 230 (8.6%) licence holders who reported they were no longer in business or had retired. For the purpose of further analysis, it is assumed that there are therefore 2,444 active commercial fishing licences in Queensland.

Table 3.1. Response Rates: Commercial Fishing Businesses

Response	Frequency	Percent
Completed Questionnaires	1,008	37.6
Incorrect phone number	846	31.6
No answer to telephone	187	7.0
Away at sea	229	8.5
No English	9	0.3
Deceased	5	0.2
Total Unable to Contact	1,276	52.4
No longer in business or retired	230	8.6
New to industry	5	0.2
Leased out / partner in business	36	1.4
Total Not in or New to Industry	271	10.2
Refusal	124	4.6
Total	2,679	100.0
Response Rate ¹		89.0
Industry Representation ²		41.2

Note: ¹The response rate is the number of completed questionnaires to the total number of businesses excluding those unable to be contacted or those not in or new to the industry.

²Industry representation is the number of completed questionnaires to the total number of businesses excluding those deceased and those no longer in business or retired.

¹Fenton, D.M. (1999). *Forest industry activity and linkages for the West CRA region. Report prepared for the Social Assessment Unit, AFFA, Canberra.*

Fenton, D.M. (1998). *Resource, Forest Industry and Employee Catchment Analysis for the South East Queensland RFA Region. Report prepared for the Department of Primary Industries and Energy (Canberra).*