

The Transformation of the Chinese Labour Market for Seafarers

Bin Wu, Guanbao Shen, Ling Li



CARDIFF
UNIVERSITY

PRIFYSGOL
CAERDYDD

The Transformation of the Chinese Labour Market for Seafarers

Bin Wu¹, Guanbao Shen, Ling Li



Seafarers International Research Centre (SIRC)
Cardiff University
52 Park Place
Cardiff
CF10 3AT

Tel: +44 (0)29 2087 4620
Fax: +44 (0)29 2087 4619
sirc@cardiff.ac.uk
www.sirc.cf.ac.uk

Dec 2007

ISBN: 1-900174-33-2

¹ Bin Wu's contact: bin.wu@nottingham.ac.uk

CONTENTS

Acknowledgements	3
1. Executive Summary	5
2. Introduction	10
2.1. Brief history of Chinese shipping	
2.2. Evolution of Chinese seafarers	
2.3. Seafaring management - a system in transition	
2.4. Questions and sources of information	
3. The redistribution of Seafaring Resources	20
3.1. Estimation of Chinese seafaring population	
3.2. Seafarer profile	
3.3. Seafaring employment and ship owners	
3.4. Flows of Chinese seafarers	
3.5. Growth in numbers of freelance seafarers	
3.6. Demographic profile of freelance seafarers	
4. Maritime Education and Training in China	35
4.2. The maritime education and training system	
4.3. Enrolment and graduation	
4.4. Skills, training, and certification	
5. Job Security, Working Conditions, Pay and Welfare Access	46
5.2. Supply pressures and job security	
5.3. Working conditions and pay	
5.4. Welfare access and social security	
6. Sustainability of Supplies of Chinese Seafarers	57
6.1. Motivation, job satisfaction, and retention rates	
6.2. Preferences regarding type of ship owner and crewing environment	
6.3. Barriers to flows of seafarers	
7. Conclusions	65
References	67

ACKNOWLEDGEMENTS

This report is the result of a collective effort that has involved many people and institutions since 1999. It was initiated by Professor Tony LANE, former Director of SIRC, who decided to commission a Chinese seafarers survey under the framework of the SIRC global labour market. A research team was established in Shanghai University led by Professor Guanbao SHEN and Dr. Minghua ZHAO. The focus of the Shanghai team during the period 2001 to 2003 was on the working conditions and social lives of Chinese seafarers in state-owned shipping companies. In late 2002, Dr. Bin WU initiated and conducted a survey into the flow patterns of Chinese seafarers. Since late 2004, he has extended his survey to include crew agencies and freelance seafarers in China.

A number of institutions have contributed to this report in various ways. The Department of Seafarers within the Maritime Safety Administration of China offered access to official statistics in respect of Chinese seafarers' certificates, and also helped the Shanghai team to visit five seaports so they could carry out the fieldwork. The support given by the Hong Kong Marine Department and the Hong Kong Seamen's Union was crucial, since it allowed Dr. Wu to conduct a survey in the port of Hong Kong in the early months of 2003. The China Maritime Service Centre (CMSC) in Beijing allowed SIRC to access and use a national archive of freelance seafarer registration details. This report was made possible by joint funding from the Cardiff University China Studies Centre, Cardiff School of Social Sciences, and SIRC, which allowed the author to conduct an additional survey in China in late 2004 and to collate all of the survey findings for the purposes of this report.

There is also an endless list of people who offered their participation, support, comments and words of encouragement for this report. Special thanks should be given to Mr. Shung-yiu TSUI and Mr. Ping-zhi SO, Director and General Manager of the HK Marine Department respectively, Mr. Kam Yuan TING Chairman of the Hong Kong Seamen's Union, and his assistant Mr. Zhi-qun TSANG, Rev. Peter ELLIS and Luca FERRERIO of the Hong Kong Mariners' Club for their support for Bin Wu's Hong Kong survey. The following people collaborated in Bin

Wu's survey of crew agencies and freelance seafarers: Mr. Tiancai LIANG, a PhD candidate at Renmin University in Beijing. We are also grateful for the participation and support of Mr. Jianwen GU, Mr. Shibin LI, Mr. Senlin ZHANG and other Chinese crew managers in Beijing and Dalian. The authors would also like to thank Professor Qin XUE, Former Director of the Maritime Training School at the Shanghai Maritime University, and Mr. Jian XU, head of the Seafarer Management Section of the Shenzhen Maritime Administration for their permission to allow the author access to an unpublished report on the management of Chinese seafarer certification.

This report might not have been published without the encouragement, support and detailed comment from Professor Tony LANE and Professor Helen SAMPSON, the current Director of SIRC. We would like to express our thanks to colleagues, Professor Mick BLOOR, Dr. Michelle THOMAS and Dr. Nik WINCHESTER, who kindly offered their time to read and made comments on the early draft of the Hong Kong survey report. We would also like to thank Ms. Kelly KE who drew attention to seafarers' career developments when the Hong Kong survey was prepared. We owe a debt of gratitude to Ms. Maria GOLDONI, Ms. Louise DEELEY and Mr. Tim SHELLY for their administrative support throughout the project.

The current report is resulted from a combination and edition of two research reports: one is the Hong Kong Survey drafted by Dr. Bin Wu (unpublished), and another is the Shanghai survey written by the Shanghai team (published in Chinese, see Shen *et al*, 2005). Dr. Bin Wu took full charge for completing the manuscripts for this report.

Chapter 1 Executive Summary

Despite its great achievements in maritime history, China was almost a silent voice in international shipping until the early 1960s when the China Ocean Shipping Corporation (COSCO) was established. Since then, China's ocean-going shipping has experienced rapid growth on the one hand, and a transition from a monopoly by state-owned enterprises (SOEs) to a plural economic structure on the other. This has resulted in the emergence of a seafaring labour market to meet the demand from non-state-owned shipping companies and international clients. At this point in the development of the Chinese seafarer labour market many questions arise in relation to the extent to which Chinese seafarers depend on the labour market for their employment opportunities and job security; how they move between national and foreign ships, and from being SOE seafarers to other forms of employment; and what potential impact this has on the global labour market. This report is the result of a synthesis of the findings of many surveys conducted by the Seafarers International Research Centre (SIRC) at Cardiff University in recent years. They include: the working conditions and social lives of Chinese seafarers in state owned sector (2001-2003), the mobility pattern of Chinese seafarers in the global labour market (2003), and the emergence and impacts of freelance seafarers in China (2004-2005).

This report identifies and distinguishes between three groups of Chinese seafarers, depending on the nature of their employment. SOE seafarers are those who are more likely to be permanently employed by or working under long-term contracts for, SOE shipping companies. Agency-owned seafarers are defined as those who have a long-term (3-5 years or more) contract with a crew agency but who work for national or international ship owners. "Freelance seafarers" are defined as those who do not have any long-term relationship, only a short-term contract, with a crew agency to work onboard ships.

The report also identifies four major 'players' in seafaring management in China. The Maritime Safety Administration of China is responsible for creating and maintaining national standards for maritime education and training, for issuing and managing seamen's books and certificates. The National Seafaring Workers' Union used in the past to take care of the social welfare of

SOE seafarers, and these days is also involved in the process of collective bargaining with foreign trade unions. The China Coordination for Overseas Seamen Employment is a government watch-dog in charge of granting special licenses and of overseeing the regulation and coordination of Chinese seafarer recruitment for the global labour market. All three institutions, however, are dependent on Chinese shipping companies or crew agencies, the basic units of both business operation and administrative management, in order to deliver their services or interact with Chinese seafarers. As the mobility of Chinese seafarers increases, the current system is facing certain challenges in terms of managing and servicing Chinese seafarers for foreign ship owners and managers.

It is not easy to supply accurate figures about the current number of Chinese seafarers and even government figures offer conflicting evidence. Of the various estimates the figure published in UNESCAP (2003) seems likely to be the most reliable. This suggests that by 2003 there were 162,000 Chinese seafarers in the deep-sea fleets (62,000 officers) of which some 42,000 were employed upon foreign-owned vessels. According to SIRC's seafarers database, over 60% of Chinese seafarers work in the bulk carrier and general cargo sectors, approximately 30% on container or ro-ro ships, leaving fewer than 10% in the tanker sector. Despite high speed economic growth in coastal areas, according to several surveys conducted by Bin Wu recently, the vast majority (over 80%) of Chinese seafarers still come from coastal provinces. The SIRC seafarer database shows that the mean age of Chinese seafarers was 36.4 years old in 2003, compared with 37.3 for Filipino, 36.2 for Indian, and 39.6 for Russian, seafarers. It is worth noting that the mean ages of Chinese senior and junior officers were 42.1 and 31.4 years old respectively, older than their Indian counterparts but younger than Filipinos and Russians. Furthermore, 27% of Chinese seafarers in our survey had graduated from a maritime university or college (institute of higher education). Of these graduates from higher education, 27% were working as ratings or cadets when the Hong Kong survey was taken.

Despite the development of the seafaring labour market in China, Chinese seafarers are still predominantly SOE employees (accounting for more than 70% of the total in our Hong Kong survey). Nevertheless, all categories of seafarer are involved in flows from one company to

another to some extent. While the majority of SOE employees are kept within national fleets, about one third of them are either continuously working for foreign fleets or else move between company vessels and foreign ships. This seems to suggest that SOE employees are no longer homogenous group but are increasingly dependent on the global labour market. A small number of agency-owned and freelance seafarers work for national fleets while the vast majority (over 80%) target the global labour market. There is an increasing movement of seafarers away from SOE shipping companies, resulting in a rapid growth of the freelance seafarer population from only 4,000 in 2000 to more than 30, 000 by 2004.

In response to fluctuations in demand for seafarers in the global labour market, China's maritime education and training (MET) system is subject to adjustment and change. In 2002, there were a total of 25 recognised institutions employing 4,000 teaching staff, and about 4,000 students graduated (Shen *et al*, 2005). In China, MET is structured in 3 main ways: a four year full-time university degree course; a three year full-time HE-training course; and a two to four year maritime vocational training programme. The first two programmes are designed for officers, whilst the third is designed for ratings. In addition to these pathways, two new MET models have also been developed, one offered by the enterprise-led MET course (for example, Qingdao Mariners College) and the other offered through co-operation with foreign shipping companies (e.g. the Sino-Norwegian Joining School). Other changes in MET relate to the profile of recruited students. Even though most MET students come from coastal regions, there are an increasing numbers of new students whose homes are in inland Chinese provinces. Furthermore, some MET institutions like Shanghai Maritime University have tried to recruit a small number of female students in recent years.

Before 1999, all students majoring in navigation and maritime engineering received free tuition. Today, however, they have to pay part, or all, of their tuition fees. In general, the tuition fees for maritime students are still less than their counterparts in other disciplines partly because METs still receive some subsidies from the Chinese government, and partly because SOE shipping companies or crew agencies are asked to share part of the costs when they recruit new graduates from MET institutions. Consequently, the graduates have to sign an employment contract with

a shipping company or crew agency in which they undertake to work for the company/agency for a number of years before they can move into the free labour market.

Following the STCW 78/95 convention, a system for the training, examination and management of seafaring certificates has been established under the Maritime Safety Administration of China. For SOE employees and agency-owned seafarers, the costs of this training, of sitting the examinations and the relevant documentation are in principle covered by their employers (i.e. SOE shipping companies or crew agencies). However, different companies have different approaches with regard to covering the costs of the training and examination. Unlike their counterparts in SOEs, freelance seafarers have to take care of all of the costs by themselves.

Despite many concerns that there may be a developing “shortage of Chinese seafarers”, SIRC surveys have shown that while this may be true for senior officers, it may not necessarily be true for junior officers and ratings. Rather, the latter groups may be more likely to suffer a lack of onboard opportunities. This is particularly true for SOE shipping companies where young junior officers are more concerned about job security issues than are older groups.

The seafaring labour market in China is complex and remains immature. Seafarers are employed under different types of contract depending on their social status (e.g. urban or rural residents in Chinese *Hukou* system) and age range. Seafarers who entered SOE companies in the 1980s, are more likely to be offered an indefinite contract, unless their companies are bankrupted. This is in contrast to the five-year contracts issued to new graduates, and contracts for three or less years for those seafarers who are defined as rural residents by their *Hukou* registration.

There is no national standard for seafarers’ wages, which varies greatly according to the nature of employment, the company, the type and size of ship, and the rank held. While Chinese seafarers have experienced a continuous increase in their salaries in general, two recent changes can be identified in wage patterns. Firstly, there is an increasing income gap between senior

officers, junior officers, and ratings. Secondly, there is an ever growing difference in levels of pay between periods of onboard duty and shore-leave. During the period covered by our survey, over half of the seafarers questioned expressed their dissatisfaction or concern about the increasing income gap and inequality. Given the rapid growth in the freelance seafarer population, their welfare and social security have become a serious issue.

The high-rate of growth in the shore-based economy has raised questions about sustainability in the supply of Chinese seafarers to the global labour market. The evidence available has indicated, however, firstly, that seafaring is still an attractive occupation in China; secondly, that more than 60 percent of seafarers are satisfied with their seafaring career, and thirdly, the majority of them do not plan to leave the sea in the near future (within five years). With regard to the recruitment and management of Chinese seafarers, the majority prefer working for foreign shipping companies, and over 70% of all respondents would like to be directly recruited by foreign employers. The greatest barrier against Chinese seafarers participating in the global labour market is that there are still many constraints placed upon them in relation to leaving SOE shipping companies to become freelance seafarers.

Chapter 2 Introduction

2.1 Brief History of Chinese Shipping

In the history of mankind, the heroic feats of the fleet of China's ZHENG He (1371-1435) in the western seas are famed worldwide. More recently, the policy of the scientifically and technologically backward Ming and Qing dynasties of "forbidding the seas" (sealing the country) caused sea transport to remain in a state of backwardness. On the eve of the founding of the new China, most of the fleet went to Taiwan and only a small number of river vessels were left in mainland China.

On 15 June 1951 the Chinese and Polish governments invested jointly in setting up the Sino-Polish Shipping Company Limited, first establishing a route from China to Europe and taking the first step in the re-establishment of Chinese ocean-shipping. Between 1952 and 1957 there was rapid growth in China's import and export trade, but it relied mainly on chartering foreign merchant vessels to carry cargoes. In April 1964, the founding of China's first international shipping enterprise – the China Ocean Shipping Corporation (COSCO), and the simultaneous establishment of its first subsidiary company in Guangzhou, now known as the Guangzhou Ocean Shipping Company, were announced.

In the 1960s chartering costs rose in the international chartering market and COSCO used bank loans to increase the scale of its operations. In April 1964 COSCO's second subsidiary company was formally established in Shanghai. By 1989 COSCO's Shanghai branch fleet had grown to 155 vessels, and the corporation employed 9,386 seafarers (SOSH, 1989: 305). In 1992, whilst adjusting the structure of its fleet, COSCO accelerated the development of container shipping and set up 47 regular liner routes globally.

In February 1993 the State reconstructed the ocean-going fleets, separating the Ministry of Communications from administrative and policy control of shipping companies. As a result, COSCO became an enterprise independent of the Ministry. In May 1995 the COSCO Group reorganised its assets by sector and region; for example, container shipping was concentrated in

Shanghai with the founding of COSCO Container Lines Co. Ltd, while bulk carrier business was concentrated in Tianjin and general cargo business was concentrated wholly in Guangzhou.

Since 1978 there has been rapid economic growth in China, with corresponding increases in imports and exports driving forward the rapid development of the ocean shipping industry. By the end of 2003 the number of China's merchant vessels over 1000 gross tonnage had grown to 2415 totalling 47.4 million tonnes deadweight (dwt) and China was ranked 5th among the world's fleets (UNCTAD 2004).

Accompanying the reforms, and economic growth, the State encouraged coastal cities to set up local shipping enterprises, to break up the COSCO monopoly. By the end of 2000 China had 290 enterprises registered as engaged in overseas shipping (MoC 2001). Of its total 2,415 vessels (over 47 million dwt) by 2003, 1627 vessels (over 24 million dwt) flew the PRC (national) flag, accounting for 51 percent of the total dwt, whilst the remaining 788 vessels (over 23 million dwt) used open-registered flags (UNCTAD 2004: 33).

In order to consider the Chinese fleet in detail, all 166 Chinese shipping companies (over 35 million dwt) registered in the Lloyd's Register Fairplay world fleet database (2002) are broken down and summarized in Table 1. Company type is distinguished as SOE-centre, SOE-local and NSO categories. SOE-central refers to those state-owned enterprise (SOE), which are usually managed or controlled by the central government. In contrast, SOE-local are those state-owned enterprises which are managed or controlled by local (provincial or below) government. Non-state owned (NSO) enterprises are those falling outside the two categories referred to above which are more likely to be private or joint venture shipping companies.

Table 1 Profile of China's Fleet by Company Type and Scale (2002)

Company	Division	No. company	Total No. vessels	dwt average	% of company	% of dwt
Nature	SOE-centre	25	1434	18695	15.1	76.1
	SOE- local	38	251	15683	22.9	11.2
	NSO	103	225	20013	62.0	12.8
Size of fleet (per company)	Single vessel	75	75	9531	45.2	2.0
	2-3	38	96	9167	22.9	2.5
	4-10	29	176	17790	17.5	8.9
	more than 10	24	1563	19528	14.5	86.6
Total		166	1910	18455	100.0	100.0

Source: The table is the result of the author's calculations based on raw data downloaded from the Lloyd's Register Fairplay Ship Register's CD. The Chinese fleet is defined here as those ships whose 'country of economic benefit' is China and the ship size is greater than 1000GT.

Table 1 indicates that SOE enterprises account for less than 40 percent of the number of shipping companies, but nearly 90 percent of national ocean shipping capacity, whilst NSO companies account for 62 percent of the total registered companies, but just over 10 percent of the shipping capacity. More particularly, China's shipping is still concentrated in a few SOE-central enterprises, groups such as COSCO, China Shipping, and China National Foreign Trade Transportation, leaving SOE local companies (e. g. Tianjing Marine, Fujian Shipping, Hebei Ocean) with only a marginal share of the total carrier capacity. It also shows that over two thirds (68%) of Chinese shipping companies are small, with three or fewer vessels. By contrast, large shipping companies with more than 10 vessels are more likely to be SOE-central enterprises, which account for over 86 percent of the total carrier capacity.

The division between SOE and NSO shipping companies was significant for the Chinese seafaring manpower survey because the former have both their own ships and seafarers, while the latter did not have a pool of seafarers before they became owners of ships. Instead, they had to turn to SOE companies to 'borrow' or recruit seafarers there on either long-term or A short-term basis, depending upon complex negotiations between NSO bosses, SOE human resource managers, and seafarers. This has resulted in a flow of Chinese seafarers between SOE and NSO shipping companies. The introduction of the NSO sector is thus an important factor contributing to the establishment of a global seafaring labour market in China.

2. 2 Evolution of Chinese Seafarers

The developments and reforms observed in China's maritime sector have had a profound impact on the recruitment, employment and management of Chinese seafarers. The period since the middle of the 20th century can be characterised as exhibiting the following four stages:

Before 1949 when the Chinese Communist Party came to power, Chinese seafarers were mainly bankrupt fishermen, artisans or peasants from coastal districts in the South-East, especially from Ningbo and Guangdong.

The second period, covering the 1950s and 60s, saw the initial setting up of the nationalised ocean-shipping industry. Apart from a small number of graduates from maritime colleges, the main channel for sourcing seafarers was naval personnel who had left the armed forces.

The third period spanned the 1970s and 80s, a period of great development in China's ocean shipping industry. In this period, as well as absorbing graduates from maritime colleges, former servicemen and the children of former seafarers, enterprises also began to recruit middle school graduates and 'educated youths' who had been sent into the countryside during the Cultural Revolution (1966-1976). In addition, because of the closure of higher education institutions during the Cultural Revolution, maritime colleges and vocational training schools became major channels of recruitment for seafaring officers.

The fourth period began in the 1990s, and saw graduates from universities and institutes of higher education (HE) gradually becoming the main targets for recruitment by ocean shipping companies. For example the Dalian Maritime University, Shanghai Maritime University, Jimei University Maritime Institute, Wuhan University of Technology and other higher educational institutions mainly supplied senior seafarers (officers), with graduates from their honours courses beginning duties as third officers or fourth engineers. Middle-ranking maritime professional and technical schools, such as the Nanjing Maritime College and Weihai Water

Transport College, on the other hand, mainly supplied ordinary seafarers (ratings) such as able-seamen (ABs), technicians, etc. However, the main source of ratings was middle school graduates from rural areas of inland China, mainly through the following two routes. The first was via contract rural workers (CRW) who came from the countryside¹. Ocean shipping companies began to recruit upper and lower middle school graduates from rural families and after undertaking to give them short periods of training in their duties, signed contracts with them and sent them to sea. But the ocean shipping companies only paid them the corresponding wages and were not responsible for any social welfare or security (such as the costs of medical care, unemployment, old age pension or housing benefits). According to the companies, these rural workers were easy to administer but were lacking in specialist skills compared with those recruited from a maritime university or college. Because contracts for CRW contain some discriminatory conditions (such as no social welfare and security), some companies have abandoned this form of employment. The second route is via 'base workers'. For example the Xinxiang Seafarers Training Base in Henan, where the Xinxiang City Government is responsible for recruiting, training and sending out seafarers from local labour reserves. The large shipping companies and crew agencies 'rent' (recruit) seafarers from the Base (local seafarer training schools inland) and pay an administration fee to the local government which has invested and run the courses (Zhao and Li, 2003)

With the deepening reforms of the ocean shipping system, and in particular the participation of foreign ship-owners in the Chinese seafaring labour market, the employment of Chinese seafarers and their relationships with employers are becoming ever more complex. In general Chinese seafarers today can be divided into the three main types as described below.

State owned enterprise (SOE) employees. Before the mid 1990s by far the greatest number of Chinese seafarers were employed 'for life' by State-owned ocean shipping companies which implemented a policy of 'crew and ship as one', that is the shipping company "owned" both the ships and the seafarers. Today seafarers 'belonging' to such shipping companies still form the main body of Chinese seafarers.

‘Agency-owned’ seafarers who are employed by crew agencies or seafarer management companies. To adapt to market competition some SOE shipping companies began to implement a management model whereby ships and crews were separated. They set up internal crew management companies to recruit and supply seafarers for foreign ship-owners. In addition, some State-owned foreign trade companies and related enterprises also came into the seafarer labour market and developed labour supplies for foreign companies. For market competition purposes, large crew agencies have usually established their own pools of seafarers through long-term job contracts and additional welfare packages to some outstanding seafarers or new graduates from maritime universities or colleges.

Freelance seafarers. Since the 1980s with the birth and bankruptcy of medium and small State-owned enterprises in some locations, some SOE seafarers have lost their employer units and have become self-employed. The formation and development of crew agencies/management companies has opened new channels for freelance seafarers to work on board foreign ships. The continuing growth in demand for Chinese seafarers from foreign ship-owners has caused a large number of SOE seafarers not to rely on shipping companies but to live independently, resulting in their transformation from “company men” to “social (freelance) men”.

As a result, we have witnessed the establishment and development of a complex seafaring labour market in China. On the one hand the majority of Chinese seafarers are still employed by, and tied to, SOE shipping companies, but some of them are sent to either NSO or foreign ships in the course of their labour contracts. On the other hand, there is an increasing number of “free seamen” who do not have any long-term relationships with companies, only a series of short term contracts with crew agencies to work onboard ships. Between SOE employees and freelance seafarers, ‘agency-owned’ seafarers are employees of crew agencies who are used to provide labour services for any client. As the next chapter indicates, the seafaring labour market in China is still in a state of flux, which is having a profound impact on the supply of Chinese seafarers to the global labour market.

2. 3 Seafarer Management system in Transition

In China the system regulating and managing the seafarer labour market involves four key players: shipping companies or crew agencies, authorities related to the maritime administration, the seafarers' union, and foreign employers . It is worth pointing out that with the formation and development of the global seafarer labour market, China's seafarer management model underwent major changes in the last decade of the 20th century, switching from the original administrative management model to a market services model. This transition is on-going and is still far from complete.

Shipping companies and crew management agencies. Before the mid 1990s most ocean shipping companies in China implemented a management system under which crew and ship were treated as one. In other words, the companies controlled both the ships and the seafarers. Today, some ocean shipping companies have implemented a management model under which ships and crews are administered separately. They implement unified administration of their crews' assignments, training, appraisals, promotions, appointments and dismissals and loans to crew agencies. Even whilst their seafarers are on loan seafarer crew agencies retain responsibility for the seafarers' education, development, management and services.

The Maritime Safety Administration (MSA) is part of the Ministry of Communications. The MSA looks after seafarer management in accordance with the industry's safety/security requirements. Within the MSA a seafarer department is responsible for organising and setting national standards for maritime education and training, setting examinations and devising development courses; examining and approving technical training authorities' qualifications and administering the auditing of their quality systems; and are also responsible for the administration of seafarers' certificates and documents. The MSA has 20 Branch Administrations under its wing, and those in Shanghai, Tianjin, Guangzhou, Liaoning and Shandong report directly to it and have the authority to issue Class A (global) officer licences.

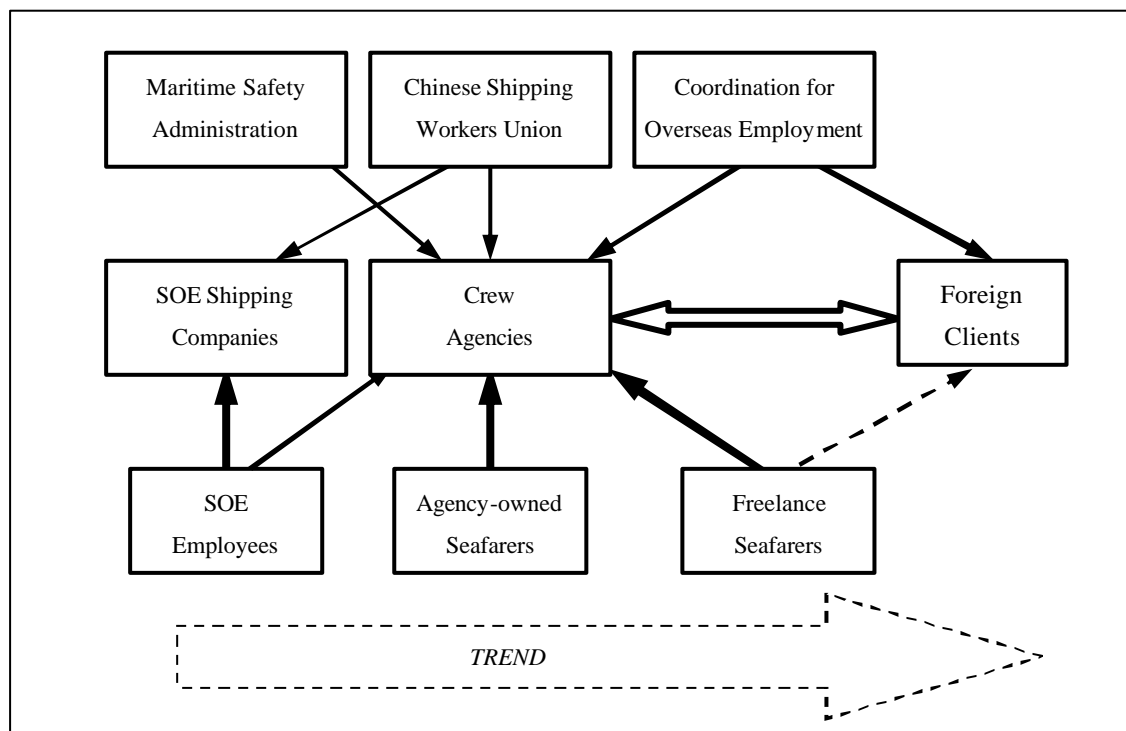
Trade union organisations. The Chinese seafarers' union has a history stretching back more than 80 years and was one of the first trade unions in China's history; it is a national water transport trade union under the leadership of the China National General Trade Union. Today the China Seafarers' Union has 1.45 million members or about 95% of the total number of people in the whole of China who work in water transport. It is spread throughout the country and its members work in shipping, ports, channel and shipping engineering, sea rescue, monitoring maritime safety/security and water transport research institutes, etc (Chinese Seafarers' Trade Union 2002). At the same time the Chinese Seafarers' Trade Union is continuously expanding its international links, setting up co-operative relationships with seafarers' unions in Japan, Singapore and Norway, etc., and negotiating and signing collective pay agreements in respect of Chinese seafarers who are recruited to work onboard vessels flagged to those countries (ibid.).

China Co-ordination for Overseas Seamen Employment (COSE) is an industrial association set up in 1989. As a specialist branch organisation under the leadership and administration of the China International Contractors Association, it is responsible for issuing licences to, and supervising and co-ordinating the operations of, crew agencies involved in sending seafarers to work abroad, i.e. on foreign-owned ships. The COSE works in accordance with the relevant State policies, legislation, and international practice to maintain the lawful interests of the nation, labour service companies and of the seafarers who are sent abroad. It promotes the setting up of business contacts with foreign ship-owners and the development of mutually beneficial co-operation; it aims to maintain business order in the labour market for seafarers and promote the steady, healthy development of labour services for such seafarers. There are 60 members of the COSE.

In order to reflect the development of the seafaring labour market in China, Figure 1 illustrates the major players and relationships within the seafaring management system. It shows that in the past, all seafarers belonged to, and worked for, SOE shipping companies which were tightly controlled by the Chinese government through the Ministry of Communications. The Chinese Seafaring Workers' Union was neither an independent organisation nor did it have direct links

with grassroots seafarers. Since the 1980s, the emergence of the NSO sector and the entry of foreign employers to the Chinese seafaring labour market, in particular, have led to an increase in the flow of Chinese seafarers working outside the SOE sector, on the one hand, and the establishment and development of crew agencies and the China Coordination for Overseas Seamen Employment on the other. As a result, like SOE employees, a number of new professionals have been employed as ‘agency-owned’ seafarers. Apart from these two categories, there is also a new emergent group of workers known as freelance seafarers, who do not “belong” to any shipping companies or crew agencies but who are available for work with NSO and foreign shipping companies in particular. As with agency-owned seafarers, however, freelance seafarers cannot be recruited by foreign shipping companies directly. Instead, they must go through a crew agency to gain their personal documents (e.g. seaman's book and all of their certificates) and sign a sailing contract to work onboard foreign ships. While the growth freelance seafarers represents a trend in the seafaring labour market in China, one challenging issue facing Chinese authorities is who takes charge for welfare, social security and legal support to this new group.

Figure 1 Structure and Key Players in the Seafaring Labour Market in China



2. 4 Questions and Sources of Information

Taking into account the ongoing transition from a planned economy to a market system for the recruitment and employment of Chinese seafarers, the focus of this report will be on the presence in, and impact of, Chinese seafarers on the global labour market. In particular, the report attempts to address the following questions: to what extent do contemporary Chinese seafarers depend on the labour market for their job security and livelihoods? By what mechanisms do they flow between national and foreign ships, and between being SOE employees and freelance seafarers? And what is the potential impact of this arrangement on the supply of Chinese seafarers for international ship owners and managers?

The above questions were included in several survey projects that have been conducted or commissioned by the Seafarers International Research Centre (SIRC) in recent years. This report is a synopsis of the research findings from the following surveys. The first is a SIRC commissioned study undertaken by Shanghai University involving a survey of changing working conditions and the lives of Chinese seafarers in the SOE sector. This project was led by Professor Shen Guanbao and Dr. Minghua Zhao. A total of 480 questionnaires were distributed and collected in Shanghai and another five Chinese seaports, and these were supplemented by over 100 interviews in the period 2001 to 2003. The survey results (Shanghai survey hereafter) have been published in full in Chinese (See Shen *et al*, 2005). This report is also founded upon the results of a survey questionnaire conducted by Dr. Bin Wu in the port of Hong Kong in early 2003. This survey was specifically focused on the flow of Chinese seafarers in the global labour market. Together with a number of in-depth interviews with senior officers, nearly 500 active Chinese seafarers onboard 46 Chinese and foreign owned ships participated in this research. The survey findings (HK survey hereafter) have formerly been published in English (Wu, 2003; 2004a, 2004b, 2005, 2006). In addition, a pilot survey jointly sponsored by Cardiff University's Chinese Studies Centre, the Cardiff School of Social Sciences, and SIRC, in late 2004 /2005 (to look at the latest developments of the freelance seafarer population in China and the implications for the global labour market), which was undertaken by Wu, has informed the report. The pilot study entailed the analysis of a national archive of freelance seafarer

registrations (over 50,000 cases), made use of a questionnaire for seafarers (300) distributed via crew agencies nation-wide and utilised interviews held with a number of crew managers (Crew Survey hereafter). The details of the survey methodology and major findings can be found in Wu (2005), Wu and Liang (2005a, 2005b, 2005c), Wu, Lai and Cheng (2006). Finally, the latest version of SIRC's global seafarers database (2002 and 2003 datasets) also provided useful information and references for this report, which also refers to relevant research into seafaring certificate management conducted by the Shenzhen Maritime Administration and Shanghai Maritime University (SMA & SMU 2004).

Chapter 3 The Redistribution of Seafaring Resources

This chapter aims to provide an overall picture of the supply of Chinese seafarers and pays special attention to the impact that the seafaring labour market is having on the redistribution of seafaring resources. It consists of six sections. Section one provides a rough estimate of the Chinese ocean-going seafaring population. It is followed by a description of seafarer profile by rank, type of ship, geographic location, age and level of education. Section three maps out seafaring employment and recruitment patterns while section four focuses on mechanisms of seafarer mobility. The chapter ends with some insights into the trend in the numbers of freelance seafarers.

3. 1 Estimating the Chinese Seafaring Population

In mainland China there has never been a strict registration system for seafarers and the relevant authorities have never carried out general or sample surveys with the aim of discovering the total number of seafarers. The published and reported total numbers for Chinese seafarers are mostly based on the data collated by administrative departments which are derived from the annual reports of shipping companies.

With the deepening reform of the ocean shipping system, the context in which seafarers work has become extraordinarily complicated. Diversification of investment has produced an ever growing number of ocean shipping enterprises, especially small and medium sized ones, secondly there is greater movement of staff within enterprises and some pools of economically inactive seafarers, notably those who have been out of work for a long period due to their failure to keep up with technological progress. This has resulted in the problem of there being different bases for personnel statistics and a poor correlation between them over time. This in turn reduces the credibility of the available collated data. For example, seafarer authorities do not require staff who have left work for long periods to be removed from seafarer statistics, and shipping companies do not differentiate between workers on board ship and those on shore leave in their statistics. Even basic data from authoritative departments is often contradictory or

shows evidence of repetition. Many people hold seafarer qualifications but do not work on board ships. Some seafarers choose to work ashore, yet because they hold certificates they are included among the statistics.

Under the current seafarer registration system, all Chinese citizens who become seafarers must apply to the maritime bureau for a seaman's book. Crew without a seaman's book cannot work on vessels registered in China nor be sent abroad to serve on foreign-registered vessels, nor may they apply to the maritime bureau for seafarers' certificates, etc. Therefore the total number of seamen's books can basically be considered to represent the maximum number of seafarers in China. According to the "2001 Statistics for Numbers of Seamen's Certificates" supplied by the State Maritime Safety Administration (MSA), at the end of 2001 the total number of registered seafarers in the whole of China was 394,345 (Shen *et al*, 2005: 18).

These figures, however, include a large number of seafarers who work in the coastal sector. For the purposes of this report, we define seafarers as those who are qualified to work abroad, and who actively service, ocean-going ships. Based on the official statistics relating to seamen's books, 170, 211 or 43.2% of registered seafarers hold various certificates and the remaining 56.8% are non-certificated seafarers. Furthermore, certificated seafarers can be divided into three groups as described below according to the geographic coverage of their certificates:

- A). Global (Indefinite): 70, 879, 41.6% of total certificated holders;
- B). Regional (limited to Eastern Asian Ocean): 36, 009, 21.2% of the total;
- C). Coastal: 63, 323, 37, 2% of the total.

For the purposes of this report, the first two types, A) and B), together account for 62.8% of certificated holders who fall into the definition of ocean-going seafarers.

The above figures may underestimate the real numbers of Chinese seafarers working in the ocean-going fleet for two reasons. The first is that many crew (e.g. cooks and stewards) onboard ocean-going ships don't need to pass a suitable certificate examination. The second is that each year many new seafarers graduate from MET institutions and board ships as trainees

without certificates. Taking into account the above factors, a more realistic estimation on the size of Chinese seafarers can be seen a 'Country Report from China' published by the UNESCAP (2004: 55) which indicates that by 2003 there are 162,000 Chinese seafarers serviced in deep-sea fleets (62,000 officers) of which some 42,000 are serviced on foreign-owned vessels.

3. 2 Seafarer Profile

This section attempts to outline the profile of Chinese seafarers utilising official statistics, by rank, type of ship, region of origin, age, and level of education.

In 2001, of the 106,888 certificated seafarers holding seafarers' books, about 40 percent were officers, 23 percent were utility personnel serving in both deck and engine room departments, while one third were ratings.

Table 2 Distribution of Certificated Seafarers by Rank (2001)

Rank	No.	%
Captain	4, 851	4. 5
Ch. officer	4, 606	4. 3
2nd officer	7, 594	7. 1
3rd officer	4, 121	3. 9
Ch. engineer	4, 763	4. 5
1st engineer	4, 524	4. 2
2nd engineer	8, 061	7. 5
3rd engineer	4, 037	3. 8
AB/Mechanics	36, 667	34. 3
General purpose ratings	24, 340	22. 8
Others	3, 324	3. 1
Total	106, 888	100. 0

Source: MSA: Statistical Table of Chinese Seafarers' Certificates in 2000.

Moving on to ship type, the SIRC global seafarers database (Table 3) shows that in 2002 nearly half (47%) of Chinese seafarers worked on bulk carriers, 28 percent on container or ro-ro ships, while fewer than 10 percent worked on specialised oil or chemical tankers.

Table 3 Distribution of Chinese Seafarers by Ship Type (2002)

Type of ship	Frequency	Percent
BULK CARRIERS	2811	46.7
CONTAINER/RO	1706	28.4
GEN CARGO	954	15.9
TANKERS	542	9.0
Total	6013	100

Source: SIRC Global Seafarer Database (2002).

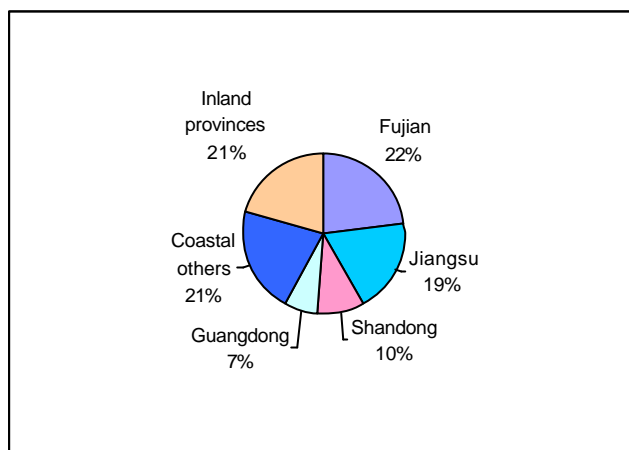
While many people suggest that there is a shortage in the supply of Chinese seafarers resident in coastal areas due to shore-based economic growth (Wu and Liang 2005c), the empirical evidence that we have collected recently seems not to support this claim. In examining seafarers' place of birth (via the SIRC global seafarer database) we find that 23 provinces appear as suppliers of Chinese seafarers. The top 10 such provinces account for 86% of the sample (Table 4). Nine out of the top ten provinces are coastal provinces and only one, Henan, is located inland. This finding is supported by the HK survey. Figure 2 shows that about 80% of respondents were from coastal regions and the top 4 provinces accounted for 60% of the sample. This clearly indicates that the coastal region is still predominant in the supply of ocean-going seafarers.

Table 4 Distribution of Chinese Seafarers by Place of Birth (2002)

Rank	Province	No.	%	Cum. %
1	JIANGSU	324	14.5	14.5
2	SHANDONG	303	13.6	28.1
3	SHANGHAI	295	13.2	41.4
4	GUANGDONG	187	8.4	49.8
5	FUJIAN	181	8.1	57.9
6	LIAONING	171	7.7	65.6
7	ZHEJIANG	165	7.4	73.0
8	HENAN	107	4.8	77.8
9	TIANJIN	107	4.8	82.6
10	HEBEI	79	3.5	86.1
	Others	309	13.9	100.0
	Total	2228	100	

Source: SIRC Global Seafarer Database (2002).

Figure 2 Seafarers by Region of Origin (2003) (%)



Source: HK survey (N=462)

The mean age of Chinese seafarers is 36.4 years old, two years younger than the world average (SIRC global labour market database 2003). If we take a close look at the age differences by rank, we find that Chinese senior officers and junior officers on average are 42.1 and 31.4 years respectively (see Table 5).

Table 5 Mean Age of Chinese Seafarers and the World Average (by Rank) (2003)

Rank	Chinese	Indian	Filipinos	Russian	World
Senior Officer	42.1	40.4	46.5	44.0	45.0
Junior Officer	31.4	30.6	37.8	35.2	34.6
Rating	37.4	38.6	36.1	39.8	37.7
Total	36.4	36.2	37.3	39.6	38.5
No. cases	4869	4884	22058	5497	77121

Source: SIRC Global Seafarer Database (2003).

The age structure of Chinese seafarers can be further illustrated by Table 6. It is notable that 45 percent of junior officers are under 30 years of age while less than 30 percent of senior officers are over 50 years of age.

Table 6 Distribution of Chinese Seafarers by Rank and Age (Banded, %)

Rank	< 30	30 - 39	40 - 49	>=50	Total
Senior Officer	3.0	37.0	31.4	28.6	100
Junior Officer	45.0	38.8	9.3	6.9	100
Rating	24.7	31.1	23.5	20.8	100
Total	26.6	34.2	20.9	18.3	100

Source: SIRC Global Seafarer Database (2002).

With respect to educational background, the HK survey shows that 56 percent of the sample have either completed high school (12 years education following a range of general courses) or maritime vocational training (usually lasting for 2 to 3 years after completion of middle school). By contrast, 27 percent of the sample had undergone higher education in a maritime university, leaving 16 percent at an elementary educational level (around 9 years of schooling). Focusing on the group who had received a higher education, 46 percent were junior officers, the remainder being either senior officers or ratings. Over one quarter (27%) of seafarers completing higher education courses hold a rating or a cadet post, which seems to suggest that while there is the potential for the Chinese seafaring supply to service the global labour market, there are also constraints on their career development (Wu and Morris 2005).

Table 7 Distribution of Seafarers by Level of Education and Rank (% , 2003)

Education	Senior Officers	Junior Officers	Ratings	No.
Elementary	4. 9	2. 5	92. 6	81
Medium	24. 1	23. 3	52. 6	270
Higher	27. 3	45. 5	27. 3	132
Total	21. 7	25. 9	52. 4	483

Source: Hong Kong survey.

3. 3 Seafaring Employment and Ship Owners

China's economic transition has resulted in an increased differentiation between Chinese seafarers in terms of their employment and working conditions. Although SOE shipping companies are still the predominant employers of Chinese seafarers, crew agencies have rapidly developed and have become a major channel for seafaring employment. It should be born in mind that there are two types of crew agencies: one type constitute a unit within SOE shipping companies; the other type are independent crew agencies. The following discussions are focused on the latter.

Crew agencies are complex in their nature (state owned or a private agent), scale (ranging from a one-person firm to a national crew network), regulatory status (licensed vs unlicensed) and marketing strategy (from information providers to real employers). Despite the great variety of

crew agencies that exist, seafaring employment in this sector can be described as essentially: agency-owned seafarers or “free seamen” (or “*Shihui Chuanyuan*” in Chinese).

Agency-owned seafarers are mainly new graduates from universities or colleges whose tuition fees are fully, or partly, paid by crew agencies. This category also includes a small number of experienced seafarers (mainly senior officers) who have switched from SOE shipping companies to crew agencies for various reasons such as for a higher income, a friendly working environment, or a promotion opportunity. Like employees of SOE shipping companies, agency-owned seafarers have long term contracts with crew agencies (usually 3-5 years and up to 10 years), which promise welfare access, training opportunities, job security and even holiday pay.

Freelance seafarers have no long-term relationship with crew agencies, but instead they are given short-term sailing contracts which enable them to work for foreign companies. Like agency-owned seafarers, freelance seafarers mainly work for foreign ship owners or managers who are not allowed to recruit Chinese seafarers directly under the current legal system. Sources of freelance seafarers are complex and diverse. At a basic level, they include but are not limited to the following groups: experienced seafarers who have left the employ of SOE shipping companies for various reasons (e. g. personal issues, company goes bankrupt or they are made redundant), inexperienced seafarers who have attended maritime training courses in order to seek job opportunities at sea and other relevant skilled workers (e.g. fishermen, cooks, carpenters).

Table 8 illustrates the three most commonly found working patterns in the contemporary Chinese seafaring labour market. Type ‘A’ Agencies include a few large state-owned crew agencies which have a large number of ‘agency-owned’ seafarers whom they supply to foreign clients.

‘

Agency-owned' seafarers can provide for 40 to 50 per cent of the needs of these companies' business requirements. The rest are serviced either by "borrowing" from SOE shipping companies or by recruiting freelance seafarers directly. Type 'B' agencies represent those medium-sized and/or newly established crew agencies that do not have an adequate supply of 'agency-owned' seafarers but either 'poach' (known in Chinese as *Waren*, literally means to 'attract the talents') from SOE shipping companies or else recruit 'freelance seafarers' in the public domain. In contrast, Type 'C' are those small crew agencies which may have a chance of winning crewing contracts through various channels but which do not have a significant supply of their 'own' seafarers. In practice, they will 'borrow' some seafarers from SOE shipping companies or large crew agencies, and recruit 'free' seafarers directly.

Table 8 Operation Patterns of Crew Agency by Source of Crew

AGENCY	Source of Crew (%)			Turn-over (person/year)
	SOE	Agency-own	Freelance	
A	30	40	30	> 2000
B	20	25	55	500-1000
C	10	10	80	100

Notes: This table is based on the author's own fieldwork conducted in China in November 2004. It does not, however, represent all of the variations found in respect of Chinese crew agencies.

The distinctions between SOE employees, 'agency-owned' and 'freelance' seafarers are relative and in any case blurred because many SOE shipping companies have departments that operate in similar ways to crewing agencies and whose role it is to supply labour services either directly to foreign ship owners or indirectly through crew agencies ('borrowing'). Furthermore, freelance seafarers may choose to work for SOE company ships. Secondly, different crew agencies have different strategies for employing and recruiting seafarers. Generally, the bigger the crew agency, the larger the size of the agency-owned seafarer labour force. 'Single person' agents, meanwhile, rely on personal networks that link demand from big crew agencies with the supply of individual seafarers at a local level. Finally, freelance seafarers play a key role in the global labour market because there are few long-term contracts available in respect of Chinese seafaring employment. The majority of seafarers who leave SOE shipping companies are more likely to choose to become 'freelance' seafarers rather than 'agency-owned' seafarers because

the former can earn more money than the latter. Under the current laws, for instance, crew agencies are allowed to take up to 25 percent of their own seafarer's wages compared to only 12 percent from freelance seafarers.

At the moment, there is no official data available on the distribution of Chinese seafarers by type of employment. According to the HK survey (Table 9), SOE employees, accounting for 70% of the sample, are still dominant in China's seafaring population. This figure is followed by freelance seafarers at 20% and agency-owned seafarers at 10%. Due to the limitations of the sampling process used for the HK survey we do not claim that these figures represent the distribution of Chinese seafarers nationwide. Nonetheless, the data do provide some insight into the significant developments that have been taking place in the Chinese seafaring labour market, and they confirm that SOE shipping companies still dominate seafarer supply.

Table 9 Division of Sampling Seafarers by Type of Employment (2003)

Item	SOE employees	Agency-owned	Free seamen	Total
No. samples	348	49	95	492
%	70.7	10.0	19.3	100

Source: HK survey.

Table 10 Distribution of Sampling Seafarers by Owner of Ships (2003, %)

Employment	SOE	NSO	Foreign
SOE	64.4	8.3	27.3
Agency-onwed	4.1	12.2	83.7
Free seamen	9.5	14.7	75.8
Total	47.8	10.0	42.3

Source: HK survey. Row as 100.

Notes: SOE – state owned shipping companies; NSO – non state-owned companies.

The importance of China's seafaring labour market can be seen from Table 9 which shows how the seafarers in the sample are distributed by employment and type of ship owner (SOE, NSO, foreign). By linking seafarers' employment with their recruitment status, this table indicates: firstly that less than two thirds (64%) of SOE seafarers worked for SOE companies, suggesting the supply of labour to the external market has become an important objective of SOE

enterprises; secondly, and in contrast to their SOE counterparts, agency-owned and freelance seafarers share a similar pattern in their recruitment since more than three-quarters of them were recruited for service on foreign vessels; thirdly, that while competition can be seen between SOE, agency-owned and freelance seafarers in the non-state-owned (NSO) sector and for jobs on foreign vessels, the SOE sector itself is also “opening the door” to recruit a few agency-tied seafarers or freelance seafarers.

3. 4 Flows of Chinese Seafarers

The establishment and development of the seafaring labour market provides a platform by means of which Chinese seafarers can not only move between national and foreign ships, but can also change their employment status from SOE employees to agency-owned and freelance seafarers.

In terms of the scale of the flow of Chinese seafarers, the HK survey shows that just over half (51%) of SOE seafarers had experience of working for outside companies, whilst the rest had never left their own companies. Of those SOE personnel who did have experience of working outside, nearly three quarters (73%) were only sent to foreign fleets, 12 percent were sent to domestic companies only, and 15 percent worked for both. In most cases, they were sent by their companies. It is not unusual, however, for an SOE seafarer to identify a suitable post with a good salary and then ask his employer to give him permission to leave. In that case, his employer usually charges an administration fee to allow him to retrieve his personal certificates and to leave his post with the company. The charge, however, varies from company to company e.g. from around 500 to 5000 Yuan depending upon many factors such as rank and company policy.

When we considered seafarers' last three contracts we found that nearly two thirds (64%) of SOE employees worked consecutive contracts within the national fleet, 15 percent worked consecutive contracts on vessels with foreign flags, leaving one in five switching between the national and foreign fleet (Table 11). By contrast, around 40 percent of agency-owned and freelance seafarers worked consecutive contracts with foreign flagged ships, 20 percent had

worked for their last three contracts on PRC fleet vessels, and the remaining 40 percent had “oscillated” between the national and foreign fleet.

Table 11 Flows of Seafarers between Different Fleets by Employment Status (%)

Employment	For national	Between	For foreign	No.
SOE employees	64.3	20.4	15.3	255
Agency-owned	13.3	43.3	43.3	30
Freelance seafarers	16.7	47.2	36.1	72
Total	50.4	27.7	21.8	357

Source: Hong Kong survey.

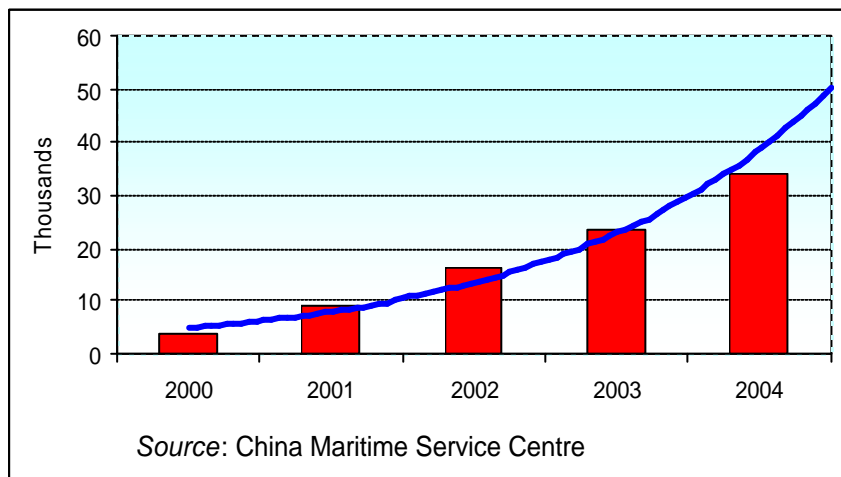
Three conclusions can be drawn from these findings. Firstly, they confirm that agency-owned and freelance seafarers have similar experiences in terms of their “movement” between the national and foreign fleet. Secondly, they are highly mobile, confirmed by the fact that 40 percent of them moved between the national and foreign fleet, double the figure found for their SOE counterparts. Thirdly, SOE employees themselves are not homogenous. Forty percent had either worked for foreign companies continuously or had moved between the national and foreign fleet. For those SOE seafarers who continued to work onboard foreign ships, there may be little difference between them and those who were tied to crewing agencies in terms of working conditions and pay.

As for the accumulation of experience, some SOE employees may change their employment status in order to increase both their income and onboard opportunities, resulting in a flow away from being SOE employees to being ‘freelance seafarers’ instead. For these freelance seafarers, the survey questionnaire indicates that over three-quarters (77%) of them claimed that they had received a couple of years working experience in the SOE sector. In most cases, they were allowed to leave SOE companies because of the decline in company fleets. Equally important is that before leaving the SOE sector, they had the experience and confidence to seek work outside their original company.

3.5 Growth in the numbers of freelance seafarers

In response to demand from the global labour market, the Chinese government has relaxed the control of the freelance seafarer register. In the past, for instance, individual seafarers were not allowed to apply directly for seamen’s books or certificates of competency, all of which had to be submitted through an SOE company on their behalf. Since the late 1990s, however, the China Maritime Services Centre (CMSC), a subsidiary institution under the Maritime Safety Administration of China has been authorised to take responsibility for the registration of ‘free seamen’ nation-wide. This has provided a channel for seafarers to leave SOE companies and to work for any crew agency they wish. According to the CMSC, the number of registered seafarers has rapidly grown from 4,000 per year in 2000 to over 30,000 in 2004 (Figure 3). When freelance seafarers are broken down by rank it is possible to see that the growth in officer registrations is faster than ratings’ registrations, although in absolute terms, ratings still predominate, comprising about 90 per cent of the total.

Figure 3 Growth in the numbers of Freelance seafarers in China



3.6 Demographic profile of freelance seafarers

The analysis on the CMSC freelance seafarer register archive indicates that freelance seafarers predominately originate from rural areas. Nearly three-quarters (73%) have their home in rural

areas and just over a quarter (27%) are urban residents. Furthermore, 87 per cent of them are from coastal provinces compared with only 13 per cent from inland areas. These results are similar to the figures produced in the HK survey (see Figure 2).

Freelance seafarers in the survey had variable levels of experience and competence. Prior to becoming ‘free’ seafarers two-thirds of them had gained experience as employees of SOE shipping companies, and 30 per cent of them were fishermen. Table 12 shows characteristics such as: age, seafaring experience and the length of time spent with their first company (First Job). The “freedom” column represents the period since they left their first job (which was most likely to have been in a state owned enterprise). The mean age and seafaring experience (defined as the length of time since joining the sea) of freelance seafarers were 33.7 and 13.9 years respectively. Before they became freelance they had spent on average 11 years in their first job, which was likely to have been in an SOE company. Typically, however, they have less than three years’ experience as freelance seamen. This provides us with confirmation of the fact that freelance seafarers are a new phenomenon in China.

Table 12 Profile of Freelance Seafarers by Age, Seafaring Experience and Time in First Job (years)

Division	Item	No.	Mean age	Seaf. Exp	1st job	‘Freedom’
Education	High	191	33. 1	10. 7	8. 7	2. 0
	Mid	384	32. 5	12. 1	9. 4	2. 7
	Low	385	35. 2	17. 4	13. 8	3. 6
Rank	Senior	198	41. 5	20. 7	13. 8	6. 9
	Junior	208	31. 7	10. 3	7. 5	3. 2
	Rating	554	31. 7	12. 9	11. 5	0. 6
Total sample		960	33. 7	13. 9	11. 1	2. 8

Source: Crew survey.

The degree of seafaring freedom (leaving SOE companies to become ‘free’ seafarers) varies however according to educational background and rank. Less educated ratings find it easier to leave SOE companies than more highly educated officers. This rank data correlates with that of the HK survey (Wu and Morris 2005): confirming that the higher their rank, the more difficult it

is for aspiring freelance seafarers to leave SOE companies that are experiencing a relative shortage of senior officers.

It is worth noting that freelance seafarers are not necessarily better qualified than other types of seafarers. In fact, there is a large number of freelance seafarers who are not qualified to work in the deep-sea fleet. Secondly, not all SOE seafarers are willing to become freelance seafarers because of constraints on freelance seafarers' welfare and social security (see Chapter 5 of this report).

Chapter 4 Maritime Education and Training in China

Seafarer education and training in China today takes three major forms. Higher education (HE) courses specialise in teaching maritime skills and are delivered by maritime universities or colleges; medium and short periods of training concentrate on maritime functions and are organised by various kinds of HE college or vocational training institution; certification training is commissioned by the State Maritime Safety Administration (MSA) and delivered by ordinary colleges or training institutions in order that China meets its obligations under the revised International Maritime Organisation's (IMO) International Convention on Standards of Training, Certification and Watch-keeping for Seafarers STCW78/95. China's maritime education and training system is subject to continuous adjustment in response to regulatory and labour market changes.

4.1 Academic education

Currently maritime academic education in China is delivered at three levels: education leading to the award of an honours degree (bachelor level) or higher certificate; education leading to the award of tertiary specialist graduation certificates (also known as tertiary specialist certificates); and education leading to the award of specialist middle and middle technical college graduation certificates (known as specialist middle and technical college certificates). Today there are 25 institutes across the whole country delivering specialist maritime education at all levels, and these are supported by about 4,000 teaching staff. These 25 institutes produce about 4,000 graduates in maritime specialisms each year. To meet the need to implement STCW78/95, in recent years many institutes have made a large investments in facilities resulting in a significant growth in the volume of equipment available, including ship simulators and on-shore real ship models (SONG, 2002).

Honours academic education. Under Ministry of Education rules, the programme delivered at higher maritime institutes leading to honours level academic qualifications lasts for 4 years. The courses taught during that period are divided into compulsory, limited optional, optional

and practical parts which are all linked. Here we show the number of courses in each part based on information supplied by the Education Office of the Dalian Maritime University, together with the course content, allocation of study time and the academic progress plan.

There are 25 compulsory courses involving a total of 1,758 hours of actual teaching. They comprise: university English, spoken English, advanced mathematics, advanced physics, experimental physics, computing skills maritime English conversation and evaluation* (*denotes that this course has been denoted by the MSA as a compulsory course and will be a part of the seafaring certificate examination), navigation*, ship structure and equipment*, watch-keeping onboard ship, steering and collision avoidance*, carriage of goods by ship*, marine meteorology and oceanology*, ship safety/security and management*, maritime instrumentation* marine radar and ARPA*, GMDSS communication services and equipment*, ocean shipping business and maritime trade law. Of these, the university English, spoken English and maritime English conversation and evaluation courses total 23.2% or 408 hours of the total teaching time for compulsory courses.

There are 19 limited optional courses totalling 718 hours of actual teaching time. They comprise: health education, spoken English, program design, marine chemistry, typing/word-processing in English*, marine mechanics, electrical technology, basic wireless technology, reading maritime English*, ship signals and VHFcommunications*, seamanship training*, ship theory, basics of engines, simulator training and theory*, outline of maritime history, probability theory and mathematical statistics, international relations, linear algebra, and analysis of faxed ship meteorological navigation charts. Of these, spoken English, typing/word-processing English and reading maritime English account for a total of 21.2% or 152 hours of the limited optional course study time².

There are 12 optional courses, e.g. machine drawings, basics of software, multi-modal container transport, maritime investigations and case analysis, cultural knowledge, appreciation of music, crew psychology, economics of international shipping, appreciation of

art, leadership skills, searching and using scientific documentation, customs and commodity inspection business and law.

There are 11 practice-linked courses: extra-curricular social practice, military training, public service, practical ship knowledge*, loading operations*, route planning*, operating GMDSS*simulator training*, training for specialist certificates, graduation practice*, crew qualification certificate pre-examination training.

Before graduating students must pass 7 specialist certificates prescribed by the IMO including radar observation, on-board fire-fighting, life-boat and raft operation, and sea rescue. On the basis of completing their 4-year honours stage studies and obtaining a certificate of graduation with the degree of bachelor of engineering. Following the STCW convention, however, they are requested to attend and pass the examinations for licence certificates held by the MSA before graduating from the university. Following this they are entitled to certificates as third officers or fourth engineers automatically after 18 months working experience onboard ship (sea time)³.

Whilst at their colleges, all maritime specialist students are subject to a semi-military regime and attention is given to improving their level of physical fitness. According to the colleges the aim of this is to instil strict discipline, resourcefulness and decisiveness into the students, together with a good co-operative spirit, to give the students a strong physique, and adapt them to the ship's strict discipline and the hardships of life at sea.

Higher specialist academic education. The period of higher specialist maritime academic education (for senior posts) is shorter than that for the honours programme, whilst the curriculum is wider, a fact welcomed by most employers. Today all of the programmes delivered at China's maritime higher professional technical institutes last for three years, and for each subject the courses and timetables are broadly similar at all of the colleges. Therefore the example we use here utilising information supplied by a Higher Maritime College (HMC) is fairly typical.

A) At the HMC specialist programmes in ocean shipping navigation are divided into: common basic courses; specialist basic courses, specialist courses and practical courses.

- There are 9 common courses with a total teaching time of 598 hours, of which basic English takes up 250 hours or 41.8% of the total teaching time for the basic courses.
- There are 6 specialist basic courses divided into: basics of computer applications, maritime education, electrics and wireless, marine mechanics, ship theory and basics of engines.
- There are 16 specialist courses with a total teaching time of 1,074 hours. Spoken maritime English and listening practice and reading maritime English occupy 158 hours or 14.7% of the total teaching time.
- Practical courses include: basic safety/security training, GDMSS training, freight estimating, ship's position estimates, route planning estimates, estimating compass error, chart work estimates and maritime English estimates. Graduation practicals are arranged in the 2nd semester of the 3rd year of studies and they last for 10 weeks.

B) Engine management specialist courses are divided into: common basic courses, specialist basic and specialist courses, and practical courses.

- There are 10 common basic courses, of which English takes up 35% (or 224 study hours) of the total teaching time.
- There are 15 specialist basic courses and specialist courses. The total teaching time for specialist basic courses and specialist courses is 1243 hours, and the subjects covered are: drawing, mechanics, electricity and electronics, basic computer applications, specialist English, specialist spoken language, metal materials, mechanical components, heat engineering and flows, ship theory, diesel engines, ancillary machines, ship-board electric equipment and techniques, engine automation, machine maintenance techniques, ship safety/security management, power unit management. Of these specialist English and specialist spoken language account for a total of 120 study hours or 9.65% of total teaching time.
- Practical courses include: metal working practice, electrical techniques and basic safety/security training. Engine practicals and graduation practicals are arranged in the 2nd semester of the 3rd year of the study programme and they last for 20 weeks.

At the end of their period of study, higher specialist academic students can, on the basis of their graduation certificates, apply to take the examination leading to the ocean-going third officer qualification certificate.

New models of maritime high education. Within China two new types of institute have emerged, which differ from conventional institutes. One is enterprise led, and the other is based upon a co-operative teaching model, which incorporates international maritime education resources. Typical of the former is the Qingdao Mariners College Institute, which was originally established by a shipping company to train their own staff, while the latter is represented by the Sino-Norwegian Joint Seafarers Training Centre.

The Qingdao Mariners College was originally a staff training institute set up in 1970 by the COSCO Group. It has now become a higher maritime adult education institute with powers to issue higher specialist qualification documents. The differences between the teaching delivered at this institute and ordinary institutes are reinforced by training the students in practical skills, in which the proportion of classroom time devoted to skills training accounts for 40% or more of the total teaching time. English teaching time is also being increased and takes up about 1/3 of the total classroom time. It emphasises the students' abilities to listen and speak. The students' graduation practicals mostly take place within the COSCO Group and last about 3 months. The college now has over 2,000 students and the graduates mainly service the employment needs of COSCO itself. 60% are appointed to COSCO and a comparatively high number of contracts are signed.

The Sino-Norwegian Joint Seafarers Training Centre is run jointly by another state-owned large-scale ocean shipping enterprise group - the China Shipping Group (China Shipping) and Norwegian ship owners. It opened in September 1999. This training centre specialises in ocean shipping navigation and ship engine management. The Norwegian funders are mainly responsible for teacher training and some investment in additional teaching equipment; China Shipping also injects funds into the institute and is responsible for student administration. The students themselves do not pay study fees but must work as seafarers for China Shipping after

they have graduated, whereupon they are sent by China Shipping to work directly on Norwegian ships. The training centre's programme lasts for three years: in the first year the students study English, basic techniques and seamanship; the second year is devoted to onboard experience; then the students return to college in the third year. All teaching when they are in the college is delivered entirely through the medium of English, using Norwegian teaching materials. The training centre accepts about 50 students each year.

Maritime vocational education and training schools aim to develop primary level ABs, engine technicians, kitchen staff and all types of ratings for ships. In the 1960s and 70s there was great demand for such staff in China's maritime industry. With advances in maritime technology, ship crew numbers became smaller while the level of knowledge and technological know-how needed for each job became greater. In these circumstances, many specialist middle and technical schools fell into a state of continuous decline. Under the original rules, specialist middle schools offered two types of courses: 2 year and 4-year. Specialist middle schools which enrolled upper middle school graduates as students ran 2-year programmes while those which enrolled lower middle school graduates ran 4-year programmes. However STCW78/95 clearly stipulates that every applicant for an engine room duty technician's certificate must complete at least 30 months of recognised education and training, and this does not include the necessary single subject training. If such subjects as political science, military, discipline and physical education are added in order to comply with the current requirements of the Chinese education system, and if account is taken of the intensive English training that non-English speaking countries must give emphasis to, then at least three and a half years would be needed for these courses. For these reasons, some of China's post-upper middle school two-year specialist maritime middle schools were upgraded to colleges of higher maritime education, although most schools and those with good conditions which had enrolled lower middle school graduates switched from four-year to five-year programmes. The new-length programmes remain under trial

4.2 Enrolment and graduation

Enrolment and regional distribution Due to the particular nature of maritime specialisms, the Ministry of Education has given approval for maritime universities to enrol new students drawn from qualified applicants nationwide before the enrolment process begins at the majority of universities in China. At the same time there are special requirements for the candidates' health.

Higher institutes of maritime education enrol about 2,000 honours students each year; and higher vocational technical together with middle maritime colleges also enrol about 2,000 students each year. Enrolment information from Dalian Maritime University shows that a little more than half of the new students in 2001 and 2002 came from coastal areas . We found a similar picture in Guangzhou Higher Maritime Specialist College. In 2002 and 2003 respectively Guangzhou enrolled 64.3% (146) and 61.2% (142) of students from coastal provinces, and 35.7% (81) and 38.8% (90) students from inland provinces. There was a slight decrease in the number of students from cities in coastal provinces and an increase in the proportion from cities in inland provinces. Since the mid 1990s the sources of new students at maritime educational institutes have moved away from the coast to inland areas and from cities to farming villages. The data from the two colleges above show that this change still continues (Shen *et al*, 2005: 60). This trend, however, has yet to challenge the position of the coastal areas as the major seafarer supply regions.

Gender. Investigations show that prior to 2000, no maritime specialisms at maritime institutes at any level had enrolled any female students, although a minority of female students had enrolled for 'on-shore' specialism courses at maritime education institutes. From 2000 the Shanghai Maritime University began to enrol female students on to specialist maritime technology courses. In that year 18 female students were enrolled, ending the history of no female students studying such specialisms, and since that time 20 female students have enrolled each year. Female students currently make up 7.2% of the enrolment plan for these specialist courses. In 2002 all of the female students came from the Shanghai area, while in 2003 they enrolled from Shanghai, Jiangsu and Zhejiang. University officials emphasised that this was

still an experimental period and that success or failure would depend on the employment opportunities for these female students after they graduate.

In the autumn of 2003, researchers from the Shanghai team went to the University specifically to meet the first class of female students. Of the 16 students who attended the meeting, and excluding two who had already passed the examinations and who were now research students, only one clearly said she would go onboard ship as a seafarer. Regarding the question of parental attitudes to their intended profession, the parents of four of the students clearly opposed their daughters going to sea, while the others said they would respect their daughters' wishes.

Tuition fees. Before 1999 there were no tuition fees for maritime specialisms in China. Since 1999, however, tuition fees have been charged but at lower rates than at ordinary educational institutes. Taking a Higher Maritime Specialist College as example, the standard fee was 2,150 Yuan per year, rising to 2,700 Yuan per year in 2002. Administration staff at the College state that the fees for students of maritime specialisms are only half the fees of other, on-shore specialisms such as logistics, finance and management. By way of further example, the standard fees for maritime specialisms at another Ocean Shipping Institute in Shanghai were 2,500 Yuan per year in 2002.

Because the costs of maritime specialisms are quite high, state subsidies to those institutions for the education of these particular students are quite generous, about 7,000-8,000 per person per year, but there is a shortfall and the shortfall is mainly due to the comparatively high investment required in the cost of providing maritime students with practical ship-board studies and access to vessel simulators. To compensate for this shortfall and on the instructions of the Ministry of Communications, each time a company recruits a graduate from a teaching institute it has to pay the institute a certain so-called 'development' fee. For honours graduates, for example, this fee varies from 13,000 Yuan to 20,000 Yuan per person.

Graduation. Today, the recruitment of China's seafarers has begun to comply with market control mechanisms, and there is a bi-directional choice between seafarer and company. Thus companies can decide for themselves how many crew they need to recruit, which is in contrast to state planned system in the past. Market demand for seafarers is now far greater than the supply of graduates. For example the Shandong Maritime Bureau's Crew Management Office said, "The ratio between the number of students that educational institutes can supply and actual demand from shipping companies is 1:3." As a result, graduates of MET institutes are generally subject to a "pre-allocation" system. "Pre-allocation" means that each company/crew agency recruits in advance and the students it employs undertake their graduation practicals on ships belonging to that company. During their 'sea-time' students must complete their dissertations, and after passing oral examinations and obtaining their graduation and degree certificates they sign formal contracts with the company and are formally employed by it. Under this arrangement all costs during sea-time periods are met in full by the shipping company/crew agency.

After 2-4 years of study the failure rate of students is between five and ten percent. After graduation students mostly go into jobs with shipping companies in China or are sent to work on foreign ships under contracts signed by crew agencies and foreign ship owners. In addition, graduates in maritime specialisms also work in other fields such as public services. Using the Dalian Maritime University as an example, we can see from the employment statistics for their graduates in maritime specialisms between 1998-2002 (2152 in all) that the graduates' types of employment had the following characteristics: (1) COSCO and China Shipping continued to employ the majority of them (52%), other employers being, in order, local and central government departments (25%), maritime sea rescue organisations, port and navigation channel organisations (8%) and others (9%). In addition there were increases each year in the numbers becoming research students (5%). (2) Overall, there was a downward trend in the graduate employment rate (95% to 88%), but the rate for ship-board employment was stable (84%).⁴

In the course of our research we learned that market demand for graduates from maritime educational institutes continued to be relatively high. A Students Office at a Higher Maritime Specialist College said, “Generally, the College can only meet about 80% of market demand.” On the other hand the proportion of maritime educational institute graduates among the seafarers recruited by shipping companies or crew agencies is continuing to grow. For example, of the seafarers employed by a crew agency in Dalian, 80%-90% come from maritime educational institutes (Shen *et al*,2005: 65).

4. 3 Seafarers’ skills training and certification

In the 1960s and 70s large and medium ocean shipping enterprises and shipping bureaux in coastal provinces and cities set up various kinds of training institutes. In recent years however maritime education institutes have improved their practical training and the responsibility of ocean shipping companies for this part of seafarer training has been reduced. In order to meet demands to implement STCW78/95, however, and at a time when most sources of newly recruited ordinary seafarers are middle school graduates from poor rural areas, training is also required in basic skills and additionally in some specialist areas. The training institutes offering these types of non-academic courses are an important element of seafarer education overall and demonstrate strong vitality. Authoritative sources say that there are 43 training institutes in the country today, supplying professional training for seafarers.

The qualification system. Under the STCW78/95 rules, and in conjunction with China’s current circumstances, the country has set up three main series of seafarer certificates. They are respectively: qualification certificates, certificates confirming the passing of special training schemes (e.g. safety boat, first aid, onboard medical treatment), and certificates confirming the passing of specialist courses designed for special ships such as oil tanker, chemical tanker, ro-ro, etc. The department responsible for crew training, qualifications and for issuing certificates across the whole of the country is the State Maritime Safety Administration (MSA). Under the MSA rules: all persons applying for crew qualification certificates must pass the prescribed examinations and have achieved a satisfactory grade in the subjects which are assessed. To

ensure the quality of the examinations, the MSA has implemented a unified system of examinations for seafarers' across the country. Examinations all take place in centres across China at the same time, the question papers are the same, and marking standards are uniform. China has set up a nation-wide computer assisted system for seafarers' qualification-to-work examinations, in which the questions are set and the answers are marked automatically by a computer assisted system. Before 2002, there were two unified examination periods nationwide - one in January and one in July. Since 2002, this has been increased to three, with the additional period aimed mainly at graduates from maritime educational institutes.

Training fees. Among the companies we visited, the companies paid all of the training fees for people formally employed by them (i.e. their own crews), including the fees for sitting examinations. A manager in one shipping company said,, “If the company recommends you go in for an examination during your contract period, and you pass, you can claim the fees from me. The cost of training one person is about 10,000 Yuan ... At the same time the company allows seafarers an opportunity to re-sit examinations and if they pass they can also claim reimbursement of all of the fees. But if seafarers fail the examinations after re-sitting them they themselves must pay all the fees”. The training department manager of the another significant shipping company said that even though training fees were not insignificant, the company was willing to pay them in order to guarantee a certain degree of crew stability.

Needless to say, freelance seafarers have to bear the cost of all training and certificated examinations themselves. Furthermore, SOE shipping companies or crew agencies ask their seafarers to refund the costs of their maritime education, training and examinations if they are planning to leave the company or agency before their contract expires (usually within 5 to 10 years, depending upon the company).

Chapter 5 Job Security, Working Conditions, Pay and Welfare Distribution

This chapter deals with working conditions, pay and welfare access for Chinese seafarers. It begins by examining questions of supply and job security, before turning to working conditions and pay. The chapter ends with a description of available social welfare.

5.1 Seafarer Supply and Job Security

Whether China is suffering from a shortage or a surplus of seafarers is open to debate. During the period of the HK survey, senior officers from SOE shipping companies were asked to describe the situation in their companies and offer some comments on the career development of young seafarers. Based on these interviews, Table 13 shows information from several SOE companies which indicates the size of company fleets, estimated demand for seafarers and countermeasure used by companies to fully utilise seafaring resources.

Table 13 Surplus of Seafarers in Selected SOE Shipping Companies (2003)

Company	Fleet	Demand*	Supply**	Balance	Countermeasures
A	100	4000	11 000	+7000	Stop recruiting ratings and fill the vacancies with new graduates from universities and colleges
B	15	600	1500	+900	600 concentrated on company's vessels and all others are "exported" to outside companies.
C	14	560	600	+40	Encourage staff to work onboard outside ships so as to learn from the experiences of other companies
D	3	120	220	+100	Reducing the length of contracts to six months in order to increase the share of jobs
E	2	80	120	+40	20 staff permitted to work outside and contribute 10% of their wage to the company.

Source: this table is based on interview information collected during the HK survey.

Notes: Demand* is estimated using an oversimplified technique based upon the size of fleet multiplied by a guesstimate of typical crew size (x 20 here) and back-up ratio (x 2 in this case). The Supply** is number of active seafarers employed by this company. The Balance is the Supply** minus the Demand*.

Many seafarers and in particular young seafarers who participated in our the Hong Kong survey expressed concern about opportunities to work onboard ship. Ideally, they wanted to sign one sailing contract each year (say 8-9 months at sea and 3-4 months on shore-break). In reality it seemed they had to stay ashore for longer. To provide an indicator of the probabilities of signing a contract each year we have introduced an indicator of boarding ships (PBS), which is expressed as the number of seafarers signing contracts divided by the length of contract period (say three years). Suppose that seafarers can sign a sailing contract each year on average, then the PBS ?

1. The Hong Kong survey data shows that the average $PBS = 0.7$ in total and it varies by recruitment pattern. For those seafarers working on foreign vessels jobs are more regular as the PBS is over 0.8, compared to less than 0.5 in the PRC fleet. Freelance and agency-owned seafarers have more chance of signing a contract than SOE seafarers ($PBS=0.84$ and 0.82 respectively compared with a $PBS=0.67$ for SOE seafarers). Perhaps reflecting the increasing demand for senior officers on the global labour market, for senior officers there is a $PBS = 0.81$, compared with a $PBS = 0.69$ for junior officers.

In the Hong Kong survey job security was listed as one of the most important issues for SOE employees. For instance, 60 percent of SOE seafarers were concerned about their job security, 10 and 20 percentage points more than agency-owned and freelance seafarers respectively. Focusing on those SOE employees, two thirds (67.3%) of seafarers under the age of 35 raised this matter, compared with 60% and 40% in the group aged between 36 and 45 years old, and the group of seafarers older than 45. It seems that younger seafarers in SOE shipping companies are finding it more difficult to find job security onboard ships than old ones.

Generally speaking we did not find evidence that China is suffering from a shortage of seafarers but rather from a surplus. While there may be a shortage of high quality seafarers in particular at senior officer level, it may not true, according to our survey data, at junior officer and rating levels. For the latter, job security is a problem because there is a general lack of job opportunities.

5.2 Working Conditions and Pay

The pressures on young seafarers need to be understood in the context of work terms and conditions. Within China terms and conditions for seafarers vary greatly. Unlike the permanent jobs that were to be had in the past, these days all Chinese seafarers in principle need to sign an employment contract with either an SOE shipping company or a crew agency as their employees for a defined period (e.g. 3 or 5 years) before they can gain all necessary documents to work onboard a ship. Owing to differences in employment contracts, the sailing contract between Chinese seafarers and their companies or crew agencies significantly differ in terms of content and format so that it is difficult to comment on general standard for all Chinese seafarers.

Currently employment contracts for seafarers fall into two main categories: contracts that have no fixed period of employment and contracts that do. Taking the COSCO Group as an example, for seafarers who joined the company before 1986 the company generally implemented a system of contracts with no fixed period of employment. These were known as ‘open-ended’ contracts. For seafarers who joined the company after 1986 a system of fixed-term contracts was adopted. Most commonly the fixed periods are set at 5 years, but there are also three, eight, 10 and 15 year contracts issued to seafarers.

If the contracts of graduates whose tuition fees have been partly paid by the SOE company or crew agency are terminated by contract holders during the term of their first contract with the company the seafarers must repay tuition fees paid by the company before they can be free to move to other company/agency or become freelance seafarers. In the past, Chinese authorities (like MSA) controlled the mobility of seafarers by asking their previous employer to provide a statement about their contract status. Without a “clearance statement”, seafarers were not able to gain or renew their documents (like seamen book and certificates) to work onboard ships. With the establishment and development of the seafaring labour market in China, it is getting easier for Chinese seafarers to gain their documents through various channels, leading to an increasing flow of Chinese seafarers from SOE to freelance status.

It is difficult to produce data on average seafarer pay because of the number of different companies, different job positions and different shipping lines in China. However a guide to salaries in 2002 is given in Table 14 below. This table illustrates salaries of seafarers with a SOE container shipping company. With effect from 1 December 2002 some jobs in the company were remunerated by the following salaries:

Table 14 The Structure of Masters' and Seamen's Salaries by Size of Ship (Yuan/Month)

Component/ Salary	Size I		Size II		Size III		Size IV	
	Master	Seaman	Master	Seaman	Master	Seaman	Master	Seaman
Basic salary	4,000	1,280	4,000	1,280	4,000	1,280	4,000	1,280
Performance pay	10,800	1,500	7,800	1,300	6,500	1,150	5,600	1,000
Overtime	400	800	400	800	400	800	400	800
Total	15,200	3,580	12,200	3,380	10,900	3,230	10,000	3,080

Source: Shanghai Survey.

Notes: Size I: $\geq 5,000$ TEU; Size II: 3,000-4,900 TEU; Size III: 1,000-2,999 TEU;
Size IV: < 1000 TEU.

The above figures do not include foreign exchange supplements, generally US\$3 per day or about US\$90 per month, which converts into about 747 RMB Yuan, so that a master might receive a maximum of about 16,000 Yuan or a minimum of about 10,700 Yuan.

Table 14 shows that a major component of seafaring wages, especially for senior officers, was so-called "performance pay". Table 15 shows in more detail how this salary was distributed according to the size of the ship and the seafarer's rank in the company (prior to March 2001). It indicates that given adequate performance during the period of sailing contract, each crew member could earn a set amount of 'performance pay' according to his position (see Table 15).

Table 15 Crew Performance Pay by Size of Ship (Unit: Yuan/Month)

Duties/Salary	Size I	Size II	Size III	Size IV
Master	9, 600	7, 800	6, 500	5, 600
Chief Engineer	8, 700	7, 000	5, 800	5, 000
Political Commissar	5, 500	4, 800	4, 300	4, 000
First Officer, 2 nd Engineer	5, 300	4, 400	3, 700	3, 200
Electrician	4, 100	3, 300	2, 700	2, 300
2 nd Officer, 3 rd Engineer	3, 300	2, 700	2, 300	2, 100
3 rd Officer, 4 th Engineer	2, 900	2, 400	2, 050	1, 850
Purser, Doctor	2, 600	2, 200	1, 900	1, 700
Bosun	2, 500	2, 000	1, 900	1, 700
Carpenter, Chief Cook	2, 200	2, 000	1, 650	1, 450
Class I Seaman, Mechanic	1, 750	1, 550	1, 350	1, 150
Electrician, Cook, Waiter, Class II Seaman	1, 450	1, 300	1, 150	1, 000

Source: Shanghai Survey

The use of performance pay offers some insight into the management system employed in some SOE shipping companies in China. Firstly, the term ‘performance’ seems to be less related to the real performance of crew onboard ship than to the ship size. An AB in a new and large vessel could earn more than 1.5 times his counterpart in an old and small vessel although the former seafarer may not necessarily work more efficiently than the latter. Secondly, taking into account equal pay between officers and ratings in the past, the present income gap between ranks is emphasised in performance pay: the higher the rank, the higher the performance pay. A captain for instance can earn 5 to 6 times more performance pay than an ordinary seaman (OS). Thirdly, the role of the political commissar in ship management has become degraded which can be seen from their pay, little higher (in 2002) than a first officer/2nd engineer but much lower than a captain and chief engineer.

In this not untypical SOE company, performance pay is major factor contributing to income differences between senior and junior officers, and ratings. A retired second engineer aged 57 told us the pay differential produced through the performance pay structure is a recent development. “In the past there wasn’t much difference from an ordinary seaman’s pay (to an officer’s) but now the difference has grown. Seafarers’ lives are still not good today, the good lives are for Masters, for Political Commissar, Chief Engineers and other senior seafarers”.

When talking of salaries a 54 year-old mechanic said, “The salary for my job is 2,000 Yuan a month and when other expenses are added I get 3,000 or so Yuan. The salaries paid to us lower ranks have fallen, but those of the higher ranks have risen. In the past we got the same, irrespective of our duties, but now every salary adjustment cuts ours and adds to theirs. The difference has come about over the past 5 years.” Despite evident dissatisfaction with the new system it has been introduced across most companies and now seems widely accepted.

Salaries for seafarers working onboard foreign ships are very complicated due to many factors such as: employment contract, seafaring experience, agreement with foreign clients, and sending company/agency policy. A manager of an SOE shipping company said that 10 years ago the salaries of seafarers working on foreign owned ships were generally several times higher than the general seafarer salaries in China. But after the salary adjustments of 2002 the basic salaries of seafarers onboard foreign ships were equivalent to the salary levels for crews onboard company vessels. During onboard interviews, some seafarers also told us that because there wasn’t much difference in pay between working onboard foreign ships and onboard company vessels, and the work in the former was even harder and the pressures greater, they were no longer happy to be sent to foreign ships.

A manager at a Dalian crew agency said that the salaries of the agency-owned seafarers who were sent to work on foreign ships depended on the different shipping lines and the jobs they were doing. Generally speaking a Master would get US\$1,900-2,000 a month, a Chief Engineer US\$100-200 less than a Master, a First Officer US\$1,500 a month, a Second Officer US\$1,000 a month (so a Master receives twice the salary of a Second Officer), a bosun US\$800-900 a month, an AB US\$500 a month (so a Second Officer receives twice the salary of an AB), and an ordinary seaman (OS) US\$300 a month.

Compiled on the basis of the HK survey data, Table 16 provides an insight into the differences among SOE employees, agency owned and freelance seafarers. It indicates that there is no significant difference at ratings and junior officer level among the three types of employment. At senior officer level, on the other hand, the earnings of freemen i.e. those who work for

foreign ship owners on an ‘independent basis’ are almost double those of their SOE counterparts.

Table 16 Income Differences by Rank and Employment Status (2003)

Employment Status	Senior	Junior	Ratings
SOE staff	976	695	448
Agency-owned	1100	567	427
Freemen	1700	633	513
Total	1124	682	457

Source: the HK survey (N=173)

It is worth noting that seafarers working for the same foreign company and doing the same job may be paid vastly different rates as the following quote from a crew manager indicates (Wu 2005):

“Four years ago, we [Crew Agency A] sent a captain to a European company’s ship at a salary of \$2400/month while another Chinese company [Crew Agency B]’s captain working on the same client’s ship was only paid \$1400/month. The difference was because Agency B was part of a state owned shipping company which had set up a profit target plan for all branches, including Agency B. By contrast, we are closer to the labour market which means that seafarers in our company can earn more. Today, captains in our company can earn \$3000/month compared to only \$2000/month in Agency B.”

The closing of the pay gap between foreign companies and Chinese companies partially accounts for the fact that work aboard foreign owned vessels is less popular in China than it once was. However there are also other factors to consider. For example, during our investigations we discovered cases in which the salaries of seafarers sent abroad were paid late. A 50 year old Chief Engineer said, “Once I was on the Singapore- Australia route but the owner was a cheat. In the 1st month he paid me US\$900 but for some months after that no-one paid me, even though the ship was still at sea. At that time the [Chinese] company only gave us Chinese salaries and even they were only paid when they were 2 or 3 months overdue” (Shanghai survey). Also seafarers sent ‘abroad’ are dissatisfied that their salaries are lower than those of foreign seafarers doing the same jobs. The fees paid by foreign ship owners were comparatively

high but the salaries actually received by the seafarers after their ‘agency’ had taken its cut were comparatively low.

Holiday pay. Under China’s Labour Laws, seafarers are entitled to legally prescribed leave and rest periods, generally 3-4 months. Although they are not on board ship during that period, the companies still pay public holiday pay, albeit at lower rates. Investigations discovered that because nationalised companies are relatively well staffed, seafarers are generally unable to return to their ships and take up their duties immediately the public holidays are over. As a result actual leave time is longer than the prescribed leave time. The Hong Kong survey suggests that on average seafarers spend 10 months onboard ship and 7 months ashore. The length of the shore-based break varies with rank from 5.4 months for senior officers, 6.2 months for junior officers to 7.8 months for ratings.

Nationalised companies pay seafarers holiday pay during extended periods of leave. The amount of holiday pay they receive is not related to the seafarers’ duties, only to their ages. According to information supplied by a nationalised ship management company, seafarers aged less than 35 receive 386 Yuan/month, those aged 35-44 receive 435 Yuan; and those over 45 receive 483 Yuan. Many seafarers jokingly call this “off-duty” pay.

Holiday pay standards differ from shipping company to company. A 41 year old steward said, “My income while on board ship is now something over RMB 1,100 Yuan a month, including the fixed salary and labour fees. Also during the 3 months of normal leave I get something over 600 Yuan a month. After the three months if I haven’t got a ship I get something over 300 Yuan a month as “awaiting orders” pay”.

A 28 year old Third Engineer said, “Now on board ship I probably get about 2,700 Yuan a month. On leave it’s 420Yuan a month. If I don’t have a ship at the end of my leave, I get 318 Yuan a month”.

A cook said, “When I’m working on board my wages are higher, but when I’m not on board they’ve got less by the year, and my overall standard of living has fallen. For example, my present wages on board are 3,800 Yuan; I’m on board for half the year and on leave for half. That averages out at less than 2,000 Yuan a month. At today’s levels in Shanghai that’s too low”.

This situation pertained across all ranks. A Master told us, “A Master’s salary for 5 months is 50,000 Yuan or so, but it has to last a year. When you’re not on a ship you only get 480 Yuan a month. You can’t stay ashore too long”.

During our research we found many seafarers who were dissatisfied with the distribution of income today, the main reasons cited being (1) the gradual increase in the differences between the incomes of ordinary seafarers and senior seafarers; and (2) large differences between salaries paid for periods on board and those paid for periods not on board. This difference is especially apparent when arrangements for going on board are delayed for long periods. We investigated the degree of seafarer satisfaction with salaries. Table 17 indicates that a large number of respondents were not happy with their salaries, which vary with the individual shipping company. A sharp contrast can be observed between the views of the half of the respondents who were employees from a SOE company based in Shanghai and the rest. The Shanghai SOE seafarers were pleased with the recent increase in their salaries. This was in contrast to those who participated in the questionnaire survey in 5 seaports in China. Two thirds of these respondents were dissatisfied or very dissatisfied with their wages when we conducted the survey (see Table 17).

Table 17 Satisfaction of SOE Seafarers with Their Wages (2002)

Survey Location	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	No.
A SOE company	4.7	49.8	31.8	13.7	300
In 5 Seaports	3.2	29.8	48.4	18.6	189

Source: the Shanghai Survey

5.3 Social welfare and security

The reform of China's social welfare system has been slow, and state-owned enterprises in particular have borne a considerable portion of the burden that should be arguably borne by society. Originally, seafarers working for SOE companies enjoyed specific benefits which their companies supplied in addition to their income for example housing, reimbursement of all medical treatment costs and retirement pensions on full pay. In the North of China, in winter, some companies even covered the costs of heating the homes of their personnel

With the deepening reforms of enterprises, the shipping industry gradually placed staff benefits and insurance under the umbrella of the general social welfare system. Companies began not to cover the whole cost of staff social insurance and asked seafarers to share such costs. Payments of social insurance costs fall mainly into two categories: one is the payment by seafarers out of their wages to cover the "four premiums", i.e. pension insurance premiums, unemployment insurance premiums, medical insurance premiums and public housing fund contributions; the other category is the contribution towards the "four premiums" that companies pay each month for each formally registered seafarer (some enterprises pay only the "three premiums", i.e. not the housing fund).

In the case of on-site investigations, it was found that the progress made by shipping companies in various locations towards the implementation of medical insurance systems differed. According to our survey in a seaport city in north China, the medical insurance in many SOE shipping companies has begun to be brought into, but is not yet fully incorporated into, the unified social security system. As regards medical treatment costs, some companies reimburse

50% of the medical treatment costs of unemployed members of seafarers' families and seafarers' parents, and consequently the burden on enterprises in this respect continues to be heavy, with some traces of the original system still in place.

Prior to 2000, shipping companies supplied various forms of housing benefit to seafarers based on the companies' own capacity and actual circumstances. For example, in the Shanghai area the housing benefits system covered all of the companies' seafarers. However in recent years, with the gradual setting up of housing fund contributions systems, companies have gradually moved away from the system of supplying housing in kind, and switched instead to a policy of personal purchase using loans from public benefit funds and commercial loans.

The above forms of welfare benefits and social security, however, are limited to SOE employees or agency-owned seafarers. For those seafarers on a short-term contract or freelance seafarers, there is no such provision at all.

Chapter 6 Sustainability of the Chinese Seafaring Supply

The high rate of growth in the shore-based economy has raised questions about the sustainability of the supply of Chinese seafarers to the global labour market. This chapter seeks to shed light on seafarers' views of their career development and the constraints on it. It is split into three parts: motivation to take up and continue a seafaring career, preference for type of ship owner and a multi-national environment; and the barriers against the flow of seafarers from SOE employment into freelance employment.

6. 1. Motivation for, and Satisfaction with, a Seafaring Career

China's shore-based economic growth is an important factor that will influence the supply of Chinese seafarers in the near future. Our evidence suggests that generally speaking, however, seafaring is still seen as an attractive occupation in China and there is no serious issue regarding the retention of Chinese seafarers working at sea.

Our HK survey revealed that when asked "why did you choose to be a seafarer?.", amongst a total of 264 respondents, 32 percent responded "personal interest". Twenty-seven percent answered "the influence of family and friends" and 22 percent of respondents chose the answer "by chance". This option was particularly chosen by university or college students⁵. Salary was cited last on a list of other factors.

The influence of families and friends in choosing seafaring as an occupation can be seen from the following account.

A 52 year old bosun working on a Taiwanese vessel was proud of his influence on the seafaring supply in his local community. Despite having 30 years' seafaring experience, his family still lives in the countryside in northern China. His career has become a model for attracting large numbers of his relatives and friends to join the seafaring workforce. As a result, his village is now known as the 'seafaring village', because the village's economy is more likely to depend on seafaring employment in terms of both the numbers of those providing their labour and the proportion of households deriving their livelihoods from a seafaring income. At the moment, according to him, about 50 to 60 people are waiting for

opportunities to work onboard ships, some of whom have senior officer certificates. When asked how it was that his fellow villagers had got a chance to embark on a seafaring occupation, he singled out two key factors:

- His nephew is a senior officer in a local Maritime Affairs Administration, who can offer the necessary advice to the villagers to overcome bureaucratic barriers;
- All of the villagers are willing to invest in developing their seafaring careers. The total cost of entering the profession, according to him, is about 10,000 Chinese Yuan per person or \$1,200/per person when training courses and certificates are taken into account.

When we remember the surplus of rural labour, urban unemployment rates and the risks of investing in agricultural production, a seafaring career may look like an attractive occupation for coastal, rural and even urban residents. According to the China Maritime Service Centre, of those who have registered with them as ‘freelance’ seafarers, about 30 percent were previously fishermen who have moved into ocean shipping for the greater job security it offers. In addition, a lot of ‘newcomers’, mainly at the ratings level, have previously worked in jobs such as cook, mechanic or carpenter, and have attended maritime training courses to gain their seaman's book and the certificates they need to enable them to take advantage of opportunities in internal or external labour markets.

Despite many issues with, and complaints about, their rights, wages, and the regulations that apply, our survey shows that the majority of responders were satisfied with seafaring as an occupation, and the extent of that satisfaction increased from 61 percent in 2003 to 71 percent in 2004 (Table 18). The significant increase may be related to the big rise in Chinese seafaring salaries that occurred in 2004 (LSE 2004: 8).

Table 18 Satisfaction with Seafaring as an Occupation (%)

Survey Location	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Year of survey	No. responses
Hong Kong	4.3	56.7	33.3	5.6	2003	231
In China	8.9	62.4	17.7	11.1	2004	271

Sources: HK survey in Hong Kong and Crew survey in China

SOE employees were, however, less satisfied than agency-owned and freelance seafarers (see Table 19). This finding supports field observations that indicated that SOE employees were significantly different to other types of Chinese seafarers in terms of their attitudes and commitment to seafaring as an occupation. This phenomenon can be explained by the complexity of the SOE management system in which the career development of a seafarer is dependent upon not merely their personal capacity, but also other factors such as their background and inter-personal relationships.

Table 19 Degree of Satisfaction by Employment Status (2003, %)

Division	V. Satisfied	Satisfied	Dissatisfied	V. Dissatisfied
SOE employees	2.9	52.3	38.4	6.4
Agency-owned	4.8	76.2	9.5	9.0
Freelance seafarer	10.8	67.6	21.6	0

Sources: the HK survey, N=230

Given the satisfaction that seafarers in our survey expressed with their chosen career, it is reasonable to assume that the industry-wide retention of Chinese seafarers is not a serious issue in spite of high-speed growth in the shore-based economy. Our crew survey, in 2004, examined the intentions of a sample of seafarers with regard to leaving the sea. Over 60 percent of respondents indicated that they had not considered leaving the sea, 36 percent were “looking around” and only a few (3%) were taking the prospect of leaving the sea seriously. Table 20 presents data which indicate that of a total of 266 respondents, less than 20 percent were considering leaving the sea within 3 years, and over half did not plan to leave within 5 years. While senior officers seemed to be more concerned with the opportunities they had to leave the sea than other ranks, less than 30 percent of them were preparing to leave within 3 years. Two-thirds of junior officers were not considering leaving the sea within 5 years. This suggests that for the time being they are intending to pursue careers at sea rather than ashore.

Table 20 Personnel Planning to Leave their Seafarer Career if Possible (%)

Rank	No.	ASAP	Within 1-3 yrs	Within 4-5 yrs	>5 yrs
Senior	50	2.0	26.0	44.0	28.0
Junior	107	0.9	11.2	23.4	64.5
Ratings	109	2.8	17.4	23.9	56.0
Total	266	1.9	16.5	27.4	54.1

Sources: Crew Survey in China (2004).

6. 2 Preferences regarding Ship Owner and Crewing Environment

Seafarers were asked to say, if they could choose which company they would like to work for, whether it would be a national or a foreign company. The HK survey shows that 55 percent of respondents expressed a preference for foreign companies, and this figure increased to 63 percent in the crew survey in China. This indicates that the majority of respondents were in favour of employment on the global labour market. When asked to indicate their preferred working environment (see Table 21) respondents indicated that they found western companies more attractive than Asian ones (including Hong Kong and Taiwanese companies), although only 20 per cent of respondents had actually worked on western ships. Less than 10 percent indicated a preference for working on national ships and 30 percent declared themselves to be flexible and willing to work for either a national or a foreign company, depending upon available opportunities. Table 21 shows that age and rank had a significant impact on the responses of seafarers to this question. Younger seafarers were more interested in boarding western ships than older seafarers, whilst senior officers were more flexible on this issue than junior officers or ratings.

Table 21 Preference of Work Location by Age and Rank (2004, %)

Category	Division	No.	West	Asia	Anywhere	PRC
Age	<30 ys	111	39.6	33.3	18.9	8.1
	30-39	103	35.9	27.2	33.0	3.9
	>= 40	54	16.7	24.1	48.1	11.1
Rank	Senior	50	26.0	24.0	46.0	4.0
	Junior	107	37.4	25.2	32.7	4.7
	Ratings	110	33.6	35.5	20.0	10.9
Total		268	33.1	29.5	30.7	6.7

Notes: Crew Survey in China.

While the majority of respondents were interested in working on foreign ships, the further question arose as to what channel they would prefer to use to access the global labour market? Under current seafarer employment and recruitment systems in China, all seafarers, whether they are SOE employees or ‘freemen’, must sign a contract with a Chinese shipping company (e.g. COSCO) or crew agency to work aboard foreign ships. In other words, no foreign company is allowed to contact seafarers and sign them up directly. In this process, the role of the hiring company or agency is more than that of a mere broker. The company takes legal responsibility for controlling and managing Chinese seafarers.

During the survey however, many seafarers expressed concerns about the current system. Not only did they report having to pay more to intermediaries in this process, resulting in a reduction in their wage package, but they felt this system also imposed constraints on their career development and ability to build relationships with foreign employers. The quote below from a chief engineer is illustrative:

“Many freemen like me hope that we can be recruited by foreign shipowners directly because the latter would take care of my performance and appreciate any contribution I may make. This also encourages me to do my best aboard because I know who I am working for. In the current situation, however, there is a long chain between shipowner, ship managers, crew agencies, and seafarers. As a result, the quality of my services for foreign ships is hardly assessed by the crew agency, whose assessment is based on reports from ship managers. The shorter the chain, the better seafarers work for [...] In addition, direct recruitment by foreign ship owners can save a lot of my time in job searching and

interviewing because I can inform the company how long I prefer to stay at home when I leave the ship. In reality, unfortunately, I have to spend an awful lot of time job searching from the first day of my holiday. So this "freeman" is not really as free as you thought. "

The above quotation represents the opinion expressed by a large number of Chinese seafarers within the sample. When respondents were asked to express their preference in recruiting style, our survey showed that over 70 per cent favoured direct recruitment by foreign companies or their representatives in China, while less than 30 per cent wanted to retain the current system of recruitment via SOE shipping companies or crew agencies.

Given that the vast majority of Chinese seafarers working on foreign ships are still placed there as an all-Chinese group, the respondents were asked to express their preference from the following choices: working as an all-Chinese group, working with multinational crews, or “doesn’t matter”. Only one-quarter of respondents expressed a preference for working within an all-Chinese group, while nearly 60 percent preferred a mix of nationalities on board. One-quarter stated no specific preference. In further considering nationality preference we found that better educated graduates, younger professionals, and senior officers, were less likely to favour all-Chinese groups than those who were older, more poorly educated and employed as ratings (see Table 22).

Table 22 Preference for Grouping Styles by Rank, Age and Education (2004, %)

Category	Item	Chinese	Multination	Doesn't matter
Educatio	Higher	20	53.1	26.9
	Medium	29.2	47.5	23.3
	Element	50	21.4	28.6
Age	<30	24.1	54.7	21.3
	30-39	25.5	49.1	25.5
	>=40	30.9	34.5	34.5
Rank	Senior	15.7	51	33.3
	Junior	17.8	46.7	35.5
	Ratings	39.1	49	11.8
Total		25.9	48.5	25.6

Source: The Crew Survey in China, N= 270.

The reasons why foreign ship operators hold a preference for “all-Chinese crews” were not explored in detail. However a possible explanation was provided by one crew manager who suggested that:

“From the view of recruitment business, however, I would like to use the all-Chinese group style because it is easy to manage the seafarers and also reduces the costs. More importantly, many foreign companies also prefer the all-Chinese crewing pattern because they do not want to spend more time on training Chinese crews.”

6. 3 Barriers against the flow from SOE to freelance employment

Increasing numbers of Chinese seafarers willing to work for foreign shipping companies, may need, in the future, to change their employment status from SOE employees to freelance seafarers. This is not easy however, particularly for officers many of whom seamen's books and certificates are retained by their SOE shipping companies.

One Master explained: “At the moment all my certificates are with the company; when you go on board they give them to you, and when you come back they take them away. If I want to leave, the company won't give me the certificates, and if I don't have the certificates I can't find work on ships elsewhere. If you find a company who is interested in your experience and skill, the company may come forward and apply for a set of documents (seamen book and certificates) from the MSA on your behalf, but you can't do it in person as an individual. A company with a business licence must come forward before it can be done”.

A Chief Engineer further supported this saying: “I have a Chief Engineer's certificate, a senior fire-fighting certificate and a senior rescue certificate; in all I have 6 certificates. These 6 certificates are compulsory for Chief Engineers, we're not allowed to be short of even one of them. All 6 certificates are held by the company. In the past it cost RMB 500 Yuan a month to borrow one certificate; now borrowing one certificate costs 5,000 Yuan a month. This 5,000 Yuan isn't a security payment, it must be paid in full to the company as a hiring fee. If it was 500 Yuan in management charges I could accept it, but the present price is too high”.

The wife of a seafarer described how: “The problem now is that SOE shipping companies are really grasping. They take all your certificates away. If you know someone he may give you them back but you have to pay some money. That isn’t reasonable: the certificates belong to you but when you go on board your seamen book and certificates are all held by the ship. When you leave the ship they’re handed to the company, every single one of them. If you don’t hand them over the company stops your pay. Whatever happens, they have ways to punish you”.

A 58 year old Chief Engineer said, “I got all my certificates myself in the national examinations, but the company has collected all our qualification certificates. Isn’t that done to obstruct staff mobility? Only companies can send staff to work elsewhere, the staff themselves can’t move around freely. Isn’t that an infringement of our rights? Even though I don’t want to move on I still feel my rights are being infringed”.

These quotes seem to suggest that although China has made progress in establishing the seafaring labour market for foreign clients, it has a long way to go to complete the process because SOE shipping companies still have the power to constrain the mobility of Chinese seafarers. This lack of mobility on the part of seafarers is thus a barrier preventing the release of the potential of Chinese seafaring resources to the global labour market.

Chapter 7 Conclusions

This report has provided an overall picture of the recruitment, education and profile of contemporary Chinese seafarers, and has endeavoured to demonstrate the impact of developments in the Chinese seafaring labour market on their employment, working conditions and participation in the global labour market. By synthesising and analysing relevant evidence from recent surveys conducted or commissioned by SIRC, it has demonstrated that Chinese seafarers are involved in a process of transformation in relation to their employment status and career development. A number of conclusions can be drawn from this report.

Firstly, in contrast with the homogenous, immobile and permanent employment status of seafarers employed by SOE shipping companies in the past, Chinese seafarers' employment status these days is increasingly complicated. Seafarers can be categorised in relation to their terms and conditions into: SOE employees, agency-owned employees and freelance seafarers. While SOE employees predominate, there is a steady growth in the agency-owned or freelance categories of seafarer. In particular, we have witnessed an acceleration in the number of freelance seafarer registrations in recent years.

Secondly, the on-going transformation of Chinese seafarers' lives is related to the establishment and development of an international seafaring labour market in China. Newly emerging non-state-owned shipping companies alongside foreign international shipping companies are increasingly interested in recruiting Chinese crews. Responding to this growing market demand, SOE shipping companies have sent their employees to fulfil labour contracts for outside clients, and there has been a growth in the number of established independent crew agencies. This has provided a new basis for seafaring employment, i.e. as an agency-owned seafarer and more often as a freelance seaman.

Thirdly, the international seafaring labour market has become increasingly important, not only for agency-owned and freelance seafarers who are entirely dependent on market demand, but also for the large number of SOE employees whose livelihoods are largely dependent on the

opportunities created by foreign ship operators. We estimate that there is currently a high rate of flow of all types of Chinese seafarer between the national and foreign fleets.

Fourthly, the empirical evidence presented in this report does not support the claim that China is suffering from a ‘shortage of seafarers’ as a consequence of shore-side economic growth. A seafaring career still appears to be attractive to many in China, including coastal residents, and employment with foreign shipping companies appears to be strongly attractive. Participants in our survey were keen to work in multinational environments and expressed a preference for work with foreign ship operators. Given the preferences of these Chinese seafarers and the maritime education and training infrastructure within China, it seems that there is great potential for China to increase its seafaring supply to the global labour market in the near future.

The development of an international seafaring labour market in China poses critical questions as to its regulation and management. The current seafarer management system in China originates from an out-dated planned economy which neither opens the market enough to allow foreign employers to contact and recruit Chinese seafarers directly, nor allows independent trade unions to be established to represent Chinese seafarers’ interests. As a result, the international seafaring labour market lacks appropriate regulation at a time when Chinese seafarers’ lives are becoming increasingly complex and unequal in terms of working conditions, pay, welfare access and social security. In order to move towards the sustainable utilisation of Chinese seafaring resources, further research into the regulation and management of Chinese seafarers is called for.

REFERENCES

- Chinese Seafarer Trade Union (CSTU). 2002. *Eighty Years of Chinese Seafarer Trade Union from 1921 to 2001*, quoted in Shen *et al.* 2005: 12-13.
- Compiling Committee for Shanghai Ocean-Shipping History (SOSH). 1989. *Shanghai Ocean-Shipping History*, Shanghai: Shanghai Academy of Social Sciences Press (in Chinese).
- Shen, G, et al. 2005. *Changes in Chinese Seafarers' Working and Personal Lives*, Shanghai: Shanghai University Press (in Chinese)
- Shenzhen Maritime Administration and Shanghai Maritime University (SMA & SMU). 2003. *Towards a new seafaring management pattern for China's market economy*, an internal research report (in Chinese).
- United Nations Conference on Trade and Development (UNCTAD). 2004. *Review of Maritime Transport, 2004*, Geneva: UNCTAD
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). 2004. *Report of the Second Regional Forum on Maritime Manpower Planning, Training, Utilization and Networking of Centres of Excellence, Bangkok, 15-17 October 2003*. New York: United Nations
- Wu, B. 2003. "Chinese seafarers and the global labour market", *Seaways: The International Journal of the Nautical Institute*, October Issue, 23-24.
- Wu, B. 2004a. "Participation in the global labour market: experiences and responses of Chinese seafarers" *Maritime Policy and Management*, 31 (1): 69-72.
- Wu, B. 2004b. "'Transgration' of Chinese seafarers in economic transition: an institutional perspective on labour mobility", School of Social Sciences Working Papers Series, No. 64, Cardiff University. Online:
www.cf.ac.uk/socsi/publications/workingpapers/pdf-files/wrkpaper-64.pdf
- Wu, B. 2005. "Chinese Seafarers in Transition: trends and evidence", paper presented to SIRC Symposium, 6th to 7th July 2005, Cardiff. Online: www.sirc.cf.ac.uk.
- Wu, B. 2006. "Transformation from traditional to global seafarers: an assessment of Chinese seafarers in the Global Labour Market (GLM), invited speech to 2006 Shenzhen International Maritime Forum, 19th-20th April, 2006 Shenzhen, China.
- Wu, B. and Liang, T. C. 2005a. "China walls: barriers against Chinese seafarers' entrance to the global labour market", *Lloyd's Shipping Economist*, March Issue.

Wu, B. and Liang, T.C. 2005b. “? ? ? ? ? ? ? ? ? ? ? ? ? ? ” (“Constraints and countermeasures of Chinese seafarers export”) , ? ? ? ? ? ? ? ? (*International Economic Cooperation*), No.3: 55-59.

Wu, B. and Liang, T.C. 2005c. “? ? ? ? ? ? “? ? ”? ? ? ? ? ? ? ? ”(“Shortage of Chinese seafarers for the global labour market? An empirical study”) , ? ? ? ? ? ? ? ? (*International Project Contracting and Labour Service*), No.4: 14-17.

Wu, B. Lai, K.H and Cheng, T.C.E. 2006. “Emergence of ‘new professionalism’ amongst Chinese seafarers: empirical evidence and policy implications”, *Maritime Policy and Management*, 33 (1): 34-48.

Wu, B. and Morris, J. 2006 “A life on the ocean wave: the ‘post socialist’ careers of Chinese, Russian and Eastern European seafarers”, *International Journal of Human Resource Management*, 17(1): 25-48.

Zhao, M.H. and Li, J.Q. 2003. “New seafaring labour in China’s inland rural areas: summary report”, See Zhao and Amante, “Chinese and Filipino Seafarers: a race to the top or the bottom”, paper presented to SIRC Symposium, 19th September 2003, pp. 73-99. Cardiff. Online: www.sirc.cf.ac.uk.

¹ In order to constrain the flow of labour, China has adopted a hukou system which classifies all Chinese labour force into one of two types: urban or rural workers. Rural workers are part of the rural hukou-registered workers who are only allowed to work temporarily for companies based in urban areas because the local authorities are trying to protect the jobs and access to social welfare of urban residents. This system, however, is now in decline, which means that more rural workers are now working in urban areas of China.

² Not all students majored at Navigation discipline prepare to take seafarers as their future of career. For those who rule out seafarers as their career route, they don’t need to attend the courses denoted by the MSA as the compulsory courses for seafaring certificate examination. This is reason why many such courses are listed as optional.

³ Under the current regulation, a university graduate who has passed the MSA seafaring certificate examination can gain an informal document which states that he/she has passed the examination. The formal certificate, however, won’t be issued until he/she has completed his/her 18 month sailing experience.

⁴ Navigation and marine engineering are a small part of majors in Dalian Maritime University. Other maritime relevant majors like logistics and non-maritime disciplines like international trade attract large amounts of students.

⁵ In China, institutes of higher education recruit new students on the results of the applicants' performance in their national higher education examinations. If students with the right qualifications (i.e. whose scores are higher than the minimum enrolment requirement set by the provincial government) have failed to get an offer from the universities they have applied to, they will have one chance to consider a vacancy recommended by the authorities. Maritime universities may fall into the category of "unfavourable" universities among students with the right qualifications, resulting in the authority assigning them a place on a course which has a vacancy.