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# CHINESE SEAFARERS IN TRANSITION: TRENDS AND EVIDENCE

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#### I. INTRODUCTION

Globalisation and economic transition in China have had a profound impact on Chinese seafarers. Two decades ago, for instance, all Chinese ocean-going seafarers were permanently employed by state owned enterprises (SOE). Since then, fundamental changes have occurred as a result of changes in both demand and supply. On the one hand, there have been increasing numbers of Chinese seafarers working for either foreign ships crewed by SOE's or for non state-owned shipping companies (Wu 2004a). On the other hand, thousands of crew agencies have sprung up in China, and these have provided an alternative channel for seafaring employment. In contrast to SOE shipping companies crew agencies vary greatly in terms of their nature (state owned company or private agent), scale (from single-person to national network) and regulation (e.g. licensed or un-licensed). This has resulted in the increased heterogeneity of Chinese seafarers in terms of their employment and working conditions.

In order to consider the impact of globalisation and economic transition on Chinese seafarers, the author conducted a survey in the port of Hong Kong at the beginning of

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2002. Three main findings emerged from this survey. Firstly, there were a considerable number of seafarers who called themselves "free seafarers", and whose employment was different from either SOE employees or agency-controlled seafarers (Wu 2004a). Secondly, over half (55%) of the respondents preferred to work aboard foreign ships compared to only 30 per cent who preferred to work in the national fleet (Wu 2003). Thirdly, respondents were concerned about job security and low pay, which constrained their career development (Wu 2004b).

Subsequently however, and despite the recentness of the 2002 survey, many changes have occurred, which are likely to have influenced Chinese seafarers' employment and working conditions. Firstly, after a short recession following the 9.11 tragedy, international seaborne transportation has recovered and demand has soared. This in turn has increased the demand for seafarers by both Chinese and international ship owners. Secondly, there are an increasing number of international ship owners and managers who are interested in recruiting Chinese seafarers. This interest has been reflected in events such as the growing number of industry conferences being held in Shanghai. Finally, in contrast to the reported seafarer surplus of two years ago, some recent reports have raised concern about a "shortage" of Chinese officers and about their "spiralling costs" (Lloyd's List, 19 November 2004). These changes raise particular questions. For example: how does increasing demand for seafarers impact upon seafarers' choice of employment as SOE employees or "free seafarers", and within the national or foreign fleets? What factors are driving their choices and decision making? What are the policy implications of these latest developments?

These questions were addressed in fieldwork conducted by the author in China in late 2004. The project was jointly funded by Cardiff University's China Studies Centre, School of Social Sciences, and the Seafarers' International Research Centre. The China Maritime Service Centre (CMSC) in Beijing, a semi-government organisation in charge of national seafarer certificate examination, offered access to a data archive containing information on 'free seafarers' registration. Alongside the establishment and analysis of a 'free seafarers' database, we conducted questionnaire surveys and interviews with seafarers and crew managers of both Chinese and foreign companies. The seafarers' survey was targeted at active seafarers who were attending company training programmes just before they departed to start a new contract. Eight crew

companies in Beijing, Shanghai, Dalian, Qindao and Qiuanzhou participated in this survey. Of 278 seafarers participating in the questionnaire survey, near half (47%) were employed by state-owned shipping companies, and 37 per cent by crew agencies (or agency-owned seafarers), leaving the remaining 16 per cent classed as 'free seafarers'. About 20 per cent of the respondents were senior officers, and the remaining 80 per cent were equally divided between junior officers and ratings. Three quarters of the respondents had experience of working on foreign ships. In addition, we also distributed questionnaires to crew managers for both Chinese and foreign companies who attended the Second LSM Manning and Training Conference held in Shanghai in October 2004. Responses were received from 27 foreign companies and 50 Chinese companies with an overall 60 per cent response rate.

The purpose of this paper is to construct an overall picture of the recent changes in seafaring employment in China. It consists of four parts. Section One concerns the growth in numbers of free seafarers. Section Two describes the reasons why Chinese seafarers prefer to work on foreign flagged ships. Section Three focuses on the debate regarding seafarers' pay and the final section summarises the overall survey findings.

#### II. SEAFARING EMPLOYMENT AND FREE SEAFARERS

China's economic transition from a planned economy to market economy system has resulted in the increased differentiation of Chinese seafarers in terms of employment and working conditions. Although SOE shipping companies are still the predominant employers of Chinese seafarers, crew agencies have rapidly developed and become a major channel for seafaring employment. Compared with the former, crew agencies are complex in nature (state owned or private agent), scale (from one-person firm to national crew network), regulation status (licensed vs un-licensed) and marketing strategy (from information providers to real employer). Despite the great variety of seafarers and crew agencies, seafaring employment in this sector can be described as essentially: agency-owned or "free" (or "Shihui Chuanyuan" in Chinese).

Agency-owned seafarers are mainly new graduates from universities or colleges whose tuition fees were 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. Like employees of SOE shipping companies, agency-owned seafarers have long term contracts (usually 3-5 years, up to 10 years) with crew agencies which promise welfare, training opportunities, job security and even holiday pay.

'Free seafarers' on the other hand are more likely to be 'self-employed'. They 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 agencyowned seafarers, "free 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 "free seafarers" are complex and diverse. At a basic level, they include but are not limited to the following groups: experienced seafarers who departed from the 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. fishers, cooker, carpenter).

Table 1 illustrates three working patterns prevalent in the contemporary Chinese seafaring labour market. Type 'A' includes a few large state-owned crew agencies which have a large number of 'agency-owned' seafarers whom they supply to foreign clients. While 'agency-owned' seafarers can supply 40 to 50 per cent of these companies' business, the rest are supplied either by "borrowing" from SOE shipping companies or by recruiting free seafarers directly. Compared with Type 'A', Type 'B' represent those middle-sized and/or newly established crew agencies who do not have an adequate supply of 'agency-owned' seafarers but either 'poach' (Waren is the Chinese word, or 'attract' the talents) from SOE shipping companies or recruit 'freemen' in the public domain. In contrast, Agency 'C' includes small crew agencies which may have a chance of gaining crewing contracts through various channels but do not have a 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.

AGENCY	SOE	Agency-own	Freemen	Turn-over (person/year)

Table 1 Variety of Seafarer Sources and Composition by Crew Agency (%)

A 30 40 30 > 2000 В 500-1000 20 25 55 C 10 80 100 10

Notes: This table is based upon author's own fieldwork in China in November 2004. This table, however, does not represent all variations of Chinese crew agencies.

The distinctions between seafaring SOE 'agency-owned' and 'free' seafarers are relative and blurred because many SOE shipping companies have departments (like a crewing agency) to supply labour services either directly to foreign ship owners or indirectly through crew agencies ('borrowing'). Furthermore, 'free' 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. For 'single person' agents, the foundations of companies are underpinned by personal networks which link demand from big crew agencies and the supply of individual seafarers at a local level. Finally, "free seafarers" play a key role in the global Chinese seafarer labour market supply because there are few long-term contracts available in relation to Chinese seafaring employment. The majority of seafarers who leave SOE shipping companies are more likely to choose to become 'free' seafarers rather than 'agency-owned' seafarers because the former can earn more than the latter. Under current laws, for instance, crew agencies are allowed to take up to 25 percent of a seafarer's wage compared with only 12 percent in other sectors.

In response to demand from the global labour market, the Chinese government has loosened the control of the 'free' seafarer register. In the past, for instance, individual seafarers were not allowed to apply for seamen's books or certificates of competency, all of which were required to be submitted through a SOE company on their behalf. Since the late 1990s, however, the China Maritime Service Centre (CMSC), a semigovernment organisation, has been authorised to take responsibility for the registration of 'freemen' nation-wide. This has provided a channel for seafarers to depart from SOE companies and to work for any crew agency. According to the CMSC, the number of registered seafarers has rapidly grown from 4,000 each year in

2000 to approximately 20,000 in 2004, and the total number of 'free' seafarers exceeded 50,000 by 2004 (Figure 1). Breaking down 'free' seafarers by rank it is possible to see that the growth of officer registration is faster than ratings' although in absolute terms, ratings are still predominant, comprising about 90 per cent of the total.

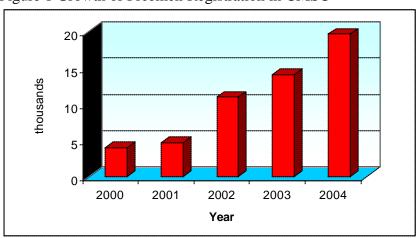


Figure 1 Growth of Freemen Registration in CMSC

Our survey suggests that 'free' 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; 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 a recent survey of seafarers in Hong Kong undertaken two years ago (Wu 2003).

"Free" seafarers have variable levels of experience and competence. Prior to becoming 'free' seafarers two thirds had experience as employees of SOE shipping companies, and 30 per cent of them were fishermen. Table 2 displays 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 state owned enterprises). The mean age and seafaring experience (defined as the length of time since joining the sea) of free seafarers were 33.7 and 13.9 years respectively. Before they became freemen they had spent on average 11 years in their first job which was likely to have been in a SOE company. Typically however they have less than three years' experience as

freemen. This provides us with conformation of the fact that free seafarers are a new phenomenon in China.

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Table 2 Profile of Freemen	Age,	Scarainig	Experience	and Tust Job	(years)

			Mean	Seaf.		'Freedom
Division	Item	No.	age	Exp	1st job	,
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
	Ratings	554	31.7	12.9	11.5	0.6
Total sample of						
Freemen		960	33.7	13.9	11.1	2.8
Sample of questionnaire		276	32.7	7.0		

Seafaring mobility (departing from SOE companies to become 'free' seafarers) varies however with 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 our Hong Kong survey (Wu and Morris 2005): confirming that the higher their rank, the more difficult it is for aspiring free seafarers to depart from SOE companies which experience a relative shortage of senior officers. As a result we see that ratings predominate amongst these 'newcomers'.

### III. BECOMING 'GLOBAL' SEAFARERS

The transformation of the Chinese labour market to include 'free' seafarers is inextricably linked to the establishment and development of a global labour market (GLM) for seafarers (Lane 2000). The impact of this transformation can be explored by examining employment needs and professional perspectives. In contrast to 'national seafarers' who have predominated in the past, what we are witnessing in China today is the emergence of 'global seafarers' who prefer, amongst other things, to work in a multinational environment (Wu and Sampson 2005).

When asked to indicate their preferred working environment, just over two thirds of respondents in this survey chose foreign shipping companies. Western companies were considered more attractive by Chinese seafarers than Asian ones (including Hong Kong and Taiwan companies), although only 20 per cent of respondents had actually worked onboard western ships. In addition, 30 percent of the participants declared themselves flexible in working for either national or foreign fleets, indicating that they paid more attention to onboard opportunities than to working location. The results can be compared with a previous survey conducted by the author two years ago when only just over half of respondents preferred to work for foreign fleets (Wu 2004b).

Table 3 shows that education level, age, and rank, have a significant impact on the preferred working location of seafarers. It seems that younger seafarers are more interested in boarding western ships than older groups while senior officers are more flexible in terms of working location than junior officers and ratings.

Table 3 Preference of Operator Nationality by Age and Rank (%)

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
To	Total		33.1	29.5	30.7	6.7

Notes: Chi-square tests: age .002; rank: .015.

While the majority of Chinese seafarers are interested in working on foreign ships, a further question arises: 'by what channel do they like to access the global labour market?' Under current seafarer employment and ecruitment systems in China, all seafarers, whether they are SOE employees or 'freemen', must sign an onboard contract with a Chinese shipping company (e.g. COSCO) or crewing 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 that of more than a broker. The company takes legal responsibility in 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 of their wage package, but they felt this system also constrained their career development and relationship building with foreign companies. 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 whom I am working for. In 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 crew agency whose assessment is based upon the report from ship managers. The shorter the chain, the better seafarers work for [...] In addition, direct recruitment by foreign ship owner 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 from the ship. In reality, unfortunately, I have to spend awful time for job searching from the first day of my holiday. So freeman is not really 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 recruiting via shipping companies or crew agencies. Table 4 indicates that recruitment preference is, however, significantly related to rank. Senior officers were more likely to be interested in direct recruitment than ratings.

Table 4 Recruitment Style by Rank

Division	No.	Indirect	Direct
Senior	44	18.2	81.8
Junior	87	23.0	77.0
Ratings	81	40.7	59.3
Total	212	28.8	71.2

Notes: Chi-square tests: .009.

Given that the vast majority of Chinese seafarers onboard foreign ships are placed there as a whole Chinese group, the respondents were asked to express their preference from the choices: whole Chinese group, half Chinese group, a few Chinese (or individual Chinese), or doesn't matter. Our survey shows that only one quarter of respondents expressed a preference for working within a whole Chinese group while nearly half preferred a mix of nationalities. One quarter displayed no specific In further considering nationality preference we found that better preference. educated graduates, younger professionals and senior officers were less likely to favour whole Chinese groups than those who were older, more poorly educated and employed as ratings (see Table 5).

Table 5 Grouping Styles by Rank, Age and Education Division (%)

Category	Item	No	Whole	Half	Individu	No
Education	Higher	130	20.0	27.7	25.4	26.9
	Medium	120	29.2	31.7	15.8	23.3
	Element	14	50.0	21.4		28.6
Age	<30	108	24.1	27.8	26.9	21.3
	30-39	106	25.5	34.0	15.1	25.5
	>=40	55	30.9	21.8	12.7	34.5
Rank	Senior	51	15.7	27.5	23.5	33.3
	Junior	107	17.8	24.3	22.4	35.5
	Ratings	110	39.1	34.5	14.5	11.8
Total		270	25.9	28.9	29.6	25.6

*Notes:* Chi-square tests education: .057; age .105; for rank: .000.

The reasons for a preference by foreign ship operators for "whole Chinese crews" were not explored in detail. However a possible explanation was provided by one manager who suggested that:

"From the view of improving quality of Chinese seafarers, I think that individual or small grouping style would be highly recommended because it would be greatly help for Chinese seafarers to improve their English and adaptive capacity to the global labour market. From the view of recruitment business, however, I would like to use whole grouping style because it is easy to manage seafarers and also reduce the costs. There are many foreign companies which do not want to spend more time to train Chinese crews."

#### IV. **DEBATES ABOUT SEAFARING PAY**

The major factor driving the transition of the labour market in relation to Chinese seafarers is, perhaps, pay. In order to consider the importance of salary seafarers and crew managers of both Chinese and foreign companies were included in the questionnaire survey or in interviews. Their different views relating to salary can be summarised as follows:

For Chinese seafarers, high salaries were the most significant factor in encouraging them to continue a seafaring occupation and pursue work onboard foreign ships. For instance, high salaries were listed as the top factor in encouraging them to stay at sea. In addition, when respondents were asked about the negative factors impeding the entry of Chinese seafarers to the GLM, low pay compared with other nationalities was listed as the second most important factor just behind English competence. This suggests that there is concern about parity in pay onboard multinationally crewed ships.

From the demand side according to our survey, over 80% of the 21 foreign crew managers who responded to our questionnaire survey chose to recruit Chinese seafarers because their wage was "very competitive" or "competitive". Furthermore, low wages were listed as the primary reason for any interest in Chinese seafarers, although skills were also attractive, ranking as the second greatest factor. Foreign crew managers reported giving less attention to English competence and working attitudes.

Chinese crew managers, on the other hand, seemed to have different views. For instance, only 62 per cent of the 50 Chinese crew managers saw the Chinese seafaring wage as "very competitive" or "competitive". While as many as one third suggested it was "not competitive" or even "poorly competitive". During the survey, many Chinese managers expressed their worries about the rapid growth of Chinese seafarers' wages, which has increased around 10 to 20 per cent for some senior ranks within a year. Such growth was, in their view, unsustainable and they suggested it would undermine the competitive advantage of Chinese seafarers in the longer term.

Over half (55%) of the Chinese crew manager respondents claimed that they were facing a decline in company profit compared to only 14 per cent who reported an increase. Furthermore, one third of respondents predicted a decline in the supply of Chinese seafarers to the GLM in the near future. A similar proportion predicted growth or stability.

It would be misleading to assume that all Chinese seafarers have benefited equally from a growth in salaries. The increase in seafaring wages varies greatly with rank. For example, senior officers' salaries jumped 20 per cent in 2004 in some companies, whilst there were small or no changes at junior officer or rating level. Furthermore the survey suggests that such adjustments may not necessarily result in an increase in the overall wage bill for companies, but may incorporate a reduction in junior officers' and ratings' wages, compensating for the increased cost of senior officers and resulting in a significant increase in the income gap between senior officers and ratings.

There are also significant income inequalities across companies. Seafarers working for different companies or agencies may be paid vastly different rates as the following quote from a crew manager indicates:

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

Soaring salaries in the GLM sector have attracted seafarers from the SOE sector. In moving from the SOE sector many prioritise wages over company loyalty as the following seafarer explains:

"I am leaving from a provincial SOE shipping company with many colleagues just after we have completed 10 years contract with the company. Taking into account our experience and skills this is a big lost of our company. For us, we do not owe the company because we have received very low pay for long time. The wage of an oiler for instance was only \$170/month ten years ago (\$270 today). I earned only \$700/month as first engineer two year ago, and \$950 as chief engineer."

To interface with the labour market, our company take a big step to increase senior officers wage and chief engineer can earn \$1700/month from this Autumn, This was not enough and also too late because I have made decision to leave and it is easy to get a post of chief engineer with a pay about \$ 2500 to \$2700/month."

Thus, income inequality amongst Chinese seafarers has resulted in an increasing seafaring mobility within China. This poses issues for the regulation of the Chinese seafaring labour market, which some crew managers describe as a "mess". With the lack of national regulation relating to seafarer pay, different crew agencies operate differing pay schemes. It is common for seafarers and crew agencies alike to report that they would like to see a more regulated and transparent wage system for Chinese seafarers.

#### V. CONCLUSIONS AND POLICY IMPLICATIONS

This paper illustrates recent changes in the employment, work preferences, and pay of Chinese seafarers. The data presented allow us to reach a number of conclusions.

Firstly, as a result of both demand and supply, Chinese seafarers are an increasingly diverse group in terms of employment and preferences. In terms of the development of such heterogeneity three structural factors need to taken into account: strong demand from the global labour market, the development of crew agencies and a 'brokerage' industry in China, and the growth of seafaring salaries in recent years. These changes have offered opportunities to Chinese seafarers who are now in a position to choose not only between working locations (national or foreign fleets), but also between employment in conventionally state-owned shipping companies and crew agencies.

Secondly, in response to increased opportunities, 'free seafarers', who constitute a new group of Chinese seafarers, have increased dramatically in number since 2000. Such seafarers are more likely to be self-employed individuals and as a result we have witnessed the emergence of a genuinely plural structure across seafaring employment in China.

It is finally interesting to note that the dynamic behind the transformation of the labour market for Chinese seafarers is closely related to pay, which influences seafaring employment and retention in many ways. There seems little doubt that the wages of Chinese seafarers are soaring and this has prompted concern about the long term competitive capacity of Chinese seafarers in the global labour market, and also about equal pay between Chinese and foreign nationals, and SOE and 'other' sector seafarers.

#### REFERENCES

Lane, T. 2000. "The global seafarers' labour market: problems and solutions", http://www.icons.org.au/images/93SIRC.pdf

Lloyd's List 2004. "China suffers from a shortage of officers and spiralling costs", Friday November 19 2004.

Wu, B. 2003. "Chinese seafarers and the global labour market", Seaways, October 2003, 23-24

Wu, B. 2004a. "Participation in the global labour market: experience 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:

http://www.cf.ac.uk/socsi/publications/workingpapers/pdf-files/wrkgpaper-64.pdf

Wu, B. and Liang, T. 2005. "China walls: barriers against Chinese seafarers' entrance to the global labour market", Lloyd's Shipping Economist, March Issue: 10-12.

Wu, B. and Sampson, H. 2005. "Reconsidering the cargo sector and seafarer labour market: a 21st century profile of global seafarers", Ocean Yearbook, No. 19, University of Chicago Press.

Wu, B. and Morris, J. 2005 "A life on the ocean wave: the 'post socialist' careers of Chinese, Russian and Eastern European seafarers", International Journal of Human Resource Management, in press.