



# Manpower Update Report

## Maritime Services Industry

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# 2020

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Maritime Services Training Board

# ACKNOWLEDGEMENT

The Maritime Services Training Board (MSTB) would like to thank the members of the focus group for their valuable time and insights on the manpower situation in the Maritime Services industry. The MSTB would also like to express gratitude to teachers of secondary schools who shared their perceptions on the industry. Special thanks go to the CPJobs and CTgoodjobs which provided with us their database of job vacancies. Views of the above parties and information from major recruitment websites formed an integral part of this report.

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# Introduction

## Background

The Maritime Services Training Board (MSTB) of the Vocational Training Council (VTC) is appointed by the Government of the HKSAR. According to its Terms of Reference, the MSTB is responsible for determining manpower demand of the industry, assessing whether the manpower supply matches manpower demand, and recommending to the VTC the development of vocational and professional education and training (VPET) facilities to meet the assessed training needs.

A new approach for collecting manpower information is adopted to enhance the

effectiveness and better reflect the dynamics of the manpower situation in the various industries.

Under the new approach, one full manpower survey is conducted every four years, and this is supplemented by two manpower updates. The MSTB completed its latest manpower survey and the first manpower update in 2016 and 2019 respectively. The 2020 Manpower Update Report is the second manpower update of the industry.

The 2020 Manpower Update comprises:

- (a) a focus group meeting getting the views of industry experts on the latest developments in the industry, manpower and training needs, recruitment difficulties, and measures to tackle the challenges the industry faces;
- (b) opinions of secondary school teachers on the MS industry which may help explain the recruitment difficulties of the industry from another perspective; and
- (c) desk research analysing job advisements published by the Maritime Services (MS) industry

## Objectives

The objectives of the manpower update are to:

- (i) examine the latest trends and developments of the industry;
- (ii) explore the job market situation and training needs;
- (iii) identify the recruitment challenges; and
- (iv) recommend measures to meet the training needs and to ease the problem of manpower shortage.

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# Methodology

## Overview

With reference to the 2016 full manpower survey and the 2019 manpower update of the MS industry, this update report aims to provide qualitative descriptions of the recent development of the industry through the information obtained from focus group meeting, supplemented by desk research findings and opinions collected from secondary school teachers through a questionnaire.

## Focus Group Meeting

The focus group members are representatives from the following sectors of the MS industry: 1. Operators of vessels moving between Hong Kong and the ports in Pearl River Delta, 2. Ship repairing and engineering, 3. Maritime law, 4. Maritime insurance, 5. Ship finance, 6. Ship surveying/consultant, and 7. Cruise and yacht.

The focus group meeting was conducted on 9 January 2020. Members had in-depth discussions on topics selected by the Working Party on Manpower Survey of the MSTB. The discussions were recorded and transcribed to facilitate analysis.

## Questionnaire

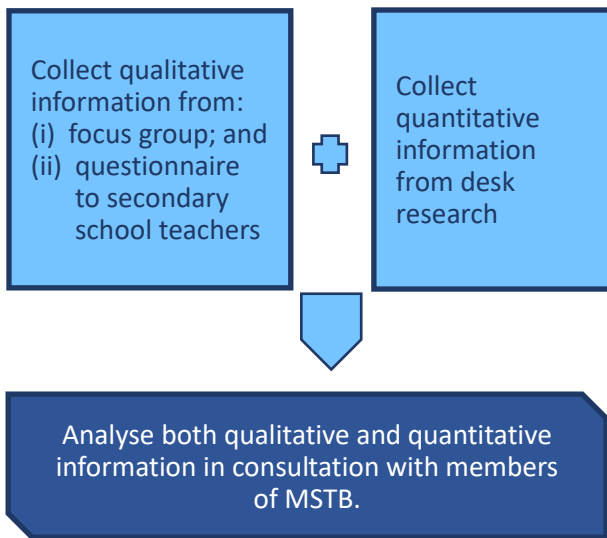
Perceptions of secondary school teachers on the career of the MS industry were collected through a questionnaire between December 2019 and January 2020. Completed questionnaires were received from 28 secondary schools. Although the findings from these questionnaires should not be over-generalised, they shed some light on the possible reasons why the MS industry is not appealing to the new generation, and suggest means for promotion of the industry to young people.

## Desk Research

Manpower information covering the period between Quarter 4 of 2018 and Quarter 3 of 2019 was collected through desk research by quarter. An employment information system was developed to capture the relevant recruitment data from major online recruitment portals. Some 400 recruitment records were collected during the research period and served as reference information of the job market trend. The list of related companies under the Hong Kong Standard Industrial Classification was mapped to remove duplicated records.

# Data Analysis

The analysis consists of the following three steps:



more qualitative in nature, and the report focuses mainly on the manpower trends. The information of job advertisements was collected from major recruitment websites and the Labour Department. Other channels, such as industry referrals, recruitment through manning agents and head hunting for managerial positions were not covered. The data can only serve as reference information supplementary to the findings of focus group meeting.

The focus group meeting was conducted before the massive outbreak of COVID-19. Although views of the MSTB on the initial impact of the pandemic were incorporated, impact of COVID-19 could not be fully reflected in this report. The MSTB will examine the full consequences of the pandemic in the manpower survey to be conducted in September 2020.

## Limitations

As this is not a full manpower survey, the findings and recommendations drawn from the focus group meeting and questionnaire to secondary schools are

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# Findings

## Factors Affecting the Development of the Industry

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### World Economic Outlook

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In the April World Economic Outlook, the International Monetary Fund projected the global growth in 2020 to fall to -3%. This makes the Great Lockdown, which arose from quarantines and social distancing practices to contain COVID-19, the worst recession since the Great

Depression, and far worse than the Global Financial Crisis in 2008.

Looking at the shipping industry which is closely tied with global economic situation, in March 2020, Moody's Investors Service changed the outlook for the industry from 'stable' to 'negative' as the coronavirus outbreak threatened the earnings of the industry. The change to a negative

outlook primarily reflects the expected decline in 2020 earnings amid sharply reduced demand for container and dry bulk shipping services as the outbreak hits Chinese manufacturing output and demand for coal and iron ore, as well as related economic disruption across the globe.

In addition to the slump in demand for goods, disruptions in the supply chain have also caused shipment delays. Coupled with insufficient manpower at container terminals, container throughput of all major ports worldwide have gone down significantly. Container throughput of Hong Kong also recorded a year-to-year decrease of 5.8% in the first quarter of 2020.

While it is difficult to assess the full impact of COVID-19 as there is uncertainty on how long it will last and how severe it will be, demand for seaborne services should be able to recover gradually since international trade highly relies on it.

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## Global Green Requirements

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Another challenge to the industry is the regulatory requirements on environment protection. The latest revision to International Maritime Organization (IMO) regulations calls for cutting emissions of sulfur oxide from ocean vessels to less than 0.5%. This initiative, which went into effect on 1 January 2020, will help reduce the environmental impact of the international shipping industry.

To comply with the requirement, shipowners need to use a low sulfur fuel or install scrubbers to remove sulfur oxides generated on board. These options require initial investments in either vessel upgrades or scrubber installation.

As the IMO is planning to further reduce greenhouse gas emissions from international shipping by 2050, more stringent environmental requirements are expected to come. It is believed that growing environment concerns will accelerate the application of new technology in the industry. Demand for new buildings may increase as some shipowners would consider replacing their fleet by LNG-powered vessels or other new models with zero/low sulfur oxide emissions. Banks and ship finance companies may benefit from the increase of new buildings as they will generate considerable financing requirements. Shipowners can also manipulate the ship replacement process to achieve a better supply-demand balance so as to stabilise the freight rates.

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## Support of the HKSAR Government

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The HKSAR Government is committed in supporting the development of high value-added maritime services in Hong Kong. Apart from providing profit tax concessions to ship marine insurance businesses and introducing the Maritime and Aviation Training Fund for talent development, efforts were made to promote arbitration services to Mainland China and overseas

markets. For example, the “Arrangement Concerning Mutual Assistance in Court-ordered Interim Measures in Aid of Arbitral Proceedings by the Courts of the Mainland and of the HKSAR” was signed, making Hong Kong the first and only jurisdiction outside Mainland China where, as a seat of arbitration, parties to arbitral proceedings administered by eligible arbitral institutions can apply to the Mainland courts for interim measures.

There are also views from the industry hoping the government can support other sectors of the industry at policy level. For example, there are voices urging the government to review the tendering and leasing arrangement of shipyards so that the operators can make long-term investment in facilities building and manpower training. Some industry players also hope the government could provide one-stop enquiry service to attract investors who would like to operate maritime-related business in Hong Kong.

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## Development of Leisure Shipping

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With its beautiful coastline and numerous outlying islands, Hong Kong is an ideal place for water-related leisure activities including water skiing, sailing, surfing and boating. The number of pleasure vessels registered in Hong Kong has amounted to around 10,000. The rising popularity of pleasure craft in Hong Kong leads to a steady demand for certified pleasure vessel operators, berthing facilities as well as related repairing services.

Before the outbreak of COVID-19, the cruise industry was a fast-growing industry. According to the Cruise Lines International Association, cruise ship passengers have grown from 17.8 million in 2009 to 30 million in 2019, representing an annual growth rate of 5.4%. There has been noticeable growth in Asia’s passenger volume in recent years. Number of cruise ships called at Hong Kong, mainly of 4 star or above, was also on a rising trend.

Although the Coronavirus outbreak has heavily hit the global cruise industry, the situation may improve over time when the pandemic subsides and the operators come up with protective measures to re-establish the confidence of customers. The government also announced in the 2020-21 Budget that rent and fees reduction will be offered to cruise lines and tenants of the Cruise Terminal to ease the burden of local industry players.

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## Local Social Activities

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Comparing with air and land transport, sea transport seems to be less affected by the recent social activities. However, short-term impact to the MS industry was still observed in the second half of 2019. For example, some arbitration cases originally arranged in Hong Kong were cancelled because overseas clients were hesitated to come to Hong Kong amid the social atmosphere. Ferry companies also suffered from a significant drop of passengers resulting from the decrease of Mainland visitors.



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# Manpower Demand

Ageing problem still tops the agenda of the industry. The industry continues to suffer from the lack of new blood particularly in the field of marine engineering. Anticipated trends of future manpower demand across sectors are highlighted below:

## 1. Ocean Going Sector

With the implementation of the Sea-going Training Incentive Scheme (SGTIS), the supply of new entrants from Hong Kong as deck cadet and engineering cadet has been quite stable in recent years, i.e. around 30 – 40 per year (please refer to Annex 1 for details). Apart from local employees, shipowners also recruit seafarers worldwide. China, Philippines, Indonesia, Russia and Ukraine remain the largest supply countries for seafarers.

Owing to increased number of cruise passengers from Southeast Asian countries, hospitality personnel who are proficient in both Putonghua and English are strongly demanded. Contrary to the widely held belief that cruise-related jobs are low paying, those jobs actually have among the highest average salaries in the tourism and recreation sector. Taking the advantage of bilingual ability, talents from Hong Kong may consider a career on board a cruise.

## 2. River Trade Sector

While shortage of deck officers has been relieved by attracting new blood returning from the ocean going sector, there is still a strong demand for engineering talents at all levels (i.e. from motorman to chief engineer).

## 3. Local Vessel Sector

Local vessel sector has been suffering from serious ageing problem in recent years, making new blood urgently in need. Similar to river trade sector, engineering staff are most required by local vessel sector. Some marine construction companies even consider applying for importation of labour to tackle the problem of labour shortage.

Owing to the increasing popularity of pleasure vessels, there is also a steady demand for pleasure vessel operators who mainly work on a part-time basis.

## 4. Shore Based Sector

Shipyards are short of manpower of all job functions too, e.g. engineering, mechanical, air-conditioning, carpentry and painting.

High value-added maritime businesses also encounter succession problems. However, as they only require a small pool of professionals who can work beyond the normal retirement age, their succession problem may not be as pressing as other business segments. Some companies

also alleviate the manpower problem by recruiting people from overseas who completed degree or master degree programmes in local universities.

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## Findings of Desk Research

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Within the period of Q4/2018 to Q3/2019, a total of 463 recruitment advertisements relevant to the MS industry were captured by desk research. In view that the employers of the ocean going, river trade and local vessel sectors are more accustomed to using off-line channels (e.g. industry referrals and manning agents) to fill their principal job vacancies, desk research was unable to capture a significant number of relevant job vacancies for analysis. Therefore, analysis of principal jobs in high demand here is confined to the shore based sector.

Below are the top three principal jobs with the highest number of recruitment advertisements in the shore based sector:

1. Business and Trade (28.3%)
2. Operations (26.3%)
3. Account and Finance (11.8%)

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## Comparison with previous manpower update

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Compared with the high-demand jobs captured in the 2019 Manpower Update exercise, “Business and Trade” and “Operations” remained the top two high-demand jobs. “Account and Finance” replaced “Administration, Management and Human Resources” as the third high-demand job.

Descriptions of the above principal jobs and other findings of desk research are given in Annex 2.

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## Training Needs

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### Real Work Experience

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Knowledge transfer works best in real working environment. Many insurance, finance, arbitration and legal cases related to the MS industry are unique and complicated. Without real cases to work on, it would be very difficult for students to build up their knowledge. To enhance students’ readiness to take up jobs in these specialised fields, it is considered very important that they should be provided workplace learning opportunities during their course of training.

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### Training related to LNG

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With LNG becoming a more popular option as a marine fuel, seafarers need to learn new skills and competencies to ensure its safe handling during daily operations, bunkering and under emergencies.

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### Ship Repairing

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Due to ageing of ships, the demand for ship repair services has increased in

recent years. In addition, more ships are using new materials like carbon-fiber. However, there is a lack of ship repairing training in Hong Kong. Some shipyards need to send their staff to overseas and Mainland China for relevant training.

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### **Intensive STCW training**

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Standards of Training, Certification and Watchkeeping for Seafarers (STCW) training is mandatory for all seafaring careers, however, some graduates from

shipping and tourism related degree programmes are unaware that they require it to work on a cruise ship even as hospitality personnel. When they come to realise that after graduation, they may not be willing to invest additional time and effort to obtain relevant training certificates and may simply turn to other career choices. Providers running STCW training may consider offering the training in an intensive mode, probably during summer holidays, to university students who are interested in a seafaring career.

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## **Recruitment Challenges**

Due to keen competitions of the job market, many employers experienced difficulties in attracting and retaining talent. Opinions collected from the questionnaire to secondary school teachers (Annex 3) and focus group meeting may shed light on some of the possible factors causing the recruitment difficulties:

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### **Insufficient Knowledge of the Industry**

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As indicated in the returned questionnaires, over 70% of secondary school teachers considered that they only had little knowledge on the MS industry. Most of them only knew those jobs working onboard and had no knowledge on other career choices like ship arbitration, shipping insurance/ finance and fleet management. The vast majority of respondents (over 80%) described the career in the industry as jobs that require

to “tolerate hardship (刻苦耐勞)”.

Secondary school teachers play a key role in guiding students’ career planning. If they do not have basic knowledge on the industry themselves, it is unlikely that they can help arouse their students’ interest in the industry.

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### **Preference of the young generation**

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Responses to the questionnaire reinforce the general perception that the younger generation may not be interested in a career in the MS industry. Only 10% of secondary teachers thought their students might be interested in joining the industry. They suggested that their students would be more interested in hotel, catering and tourism industry as well as medical and health services industry.

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## Upward Mobility

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Local vessel sector has many small and medium enterprises (SMEs). They find it particularly hard to attract talents as they are unable to provide upward mobility to staff due to the small scale of their business. Besides, experiences in local vessel sector are not transferrable to river trade sector. Due to different certification requirements, it is very difficult for general ratings and other crew members of local vessel sector to look for better paid jobs in river trade sector.

Banks and insurance companies also face similar difficulty. Usually, they only have a very small team for maritime related businesses and are unable to guarantee a promotion path to their staff. The lack of upward mobility makes these jobs unappealing to job seekers.

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## Working Environment

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SMEs also express that the difficulties in raising capital have impeded them from improving their equipment and working environment to attract the younger generation.

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## Certification Requirement

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There are stringent certification requirements for seafarers. They need to accumulate sea time and then sit for relevant seafaring examinations to get to a higher position. However, young people may not be far-sighted and patient enough to go through this relatively long process.

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# RECOMMENDATIONS

To attract talent and to meet the future development of the industry, the following measures involving the joint efforts of the employers, training institutions and the Government are recommended:

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## Employers

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### Enhance Secondary School Teachers and Students' Knowledge about the Industry

Acknowledging that secondary school teachers may not have much information of the industry, employers and industry associations may consider taking a more

proactive role in promoting the industry to them so that they can share relevant career opportunities with their students.

As proposed by some teachers in the questionnaire, promotion activities in the form of career talks, sharing sessions and distribution of promotional materials should be considered. It may also be a good idea to directly engage students by

offering more career exploratory activities (such as company visits and job tasting programmes) to them. Since the lack of new blood in marine engineering field is particularly alarming, school promotion may focus more on this area.

### Value the Well-being of Employees

Although some companies may not be able to provide progression opportunities to their employees due to their scale of business, efforts should be made to create a better work environment to help retain talents. For example, employers may re-engineer the work procedures with a view to reduce manual and monotonous work and establish a caring and harmonious work environment.

### Assist Employees in Obtaining the Required Certification

Employers may consider assigning supervisors as mentors to guide and assist those who are new to a seafaring career so that they would not give up before acquiring sufficient sea time to attempt the seafaring examinations.

### Regard Talent Development as Corporate Social Responsibility

Regardless of the business volume, employers are encouraged to invest in talent development and treat it as a core value of their corporate social responsibility. Apart from providing on-the-job training to nurture their own staff, they should contribute their efforts in cultivating talents for the industry as a whole. For example, they can support training institutes in programme development, course delivery, experience

sharing and provision of workplace training opportunities.

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## Training Institutes

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### Provide Training Required by the Industry in a Flexible Mode

Training institutes should stay abreast of the latest development of the industry and be responsive to its training needs. As addressed before, training related to LNG and ship repairing should be developed. STCW training which is mandatory for a seagoing career should also be offered in a more flexible mode.

### Provide More Career Information and Advice to Students at an Early Stage

A clear career path with relevant training/certification requirements should be explained to students at their early stage of study. Students can then be better prepared for their career, avoid missing compulsory programmes or wasting time on unnecessary subjects.

### Collaborate with the Industry to Improve the Quality of Training

Training institutes are encouraged to work closely with the industry during course design and review processes to ensure that the course content is useful to the industry. They should also seek industry support in providing placement or attachment opportunities to sharpen industry knowledge and soft skills of their students.

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## Government

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### Engage Industry in Life Planning Education

For Life Planning Education of secondary schools, the Government may strengthen the collaboration with the industry so that more up-to-date labour market information can be shared with teachers and students. Students will then be able to have a better understanding on the career choices available in different industries.

### Implement Qualifications Framework (QF) to increase the upward mobility of industry practitioners

Seagoing Certificates of Competency (CoCs) have been pitched at QF levels 4 and 5. The mapping for local CoCs to QF levels 2 and 3 has also completed. It is expected that recognition of local CoC together with work experience in the industry under QF and the availability of more articulation programmes will facilitate the industry practitioners, especially those from local vessel sector, to have more room for advancement in their careers.

### Review Local Vessel's Progression Route

Currently, new entrants and in-service practitioners need to have relevant sea time to sit for Local Certificates of Competency (CoC). The requirements make it unattractive for young people to work on local vessels. The Government may consider allowing people who are interested in the industry to take relevant examinations any time and grant them the corresponding certificates when they fulfill all other requirements (including sea

service). While not compromising safety, this arrangement can flexibly shorten the time required for new entrants/in-service practitioners to obtain professional qualification and allow them to visualise the job prospect earlier.

## Number of Graduates Joining the Sea-going Training Incentive Scheme (SGTIS)

Number of graduates joining the SGTIS<sup>1</sup> (up to March 2020)

| Year of Graduation | Training Providers <sup>3</sup> |                |                |                |            |                |            |                |
|--------------------|---------------------------------|----------------|----------------|----------------|------------|----------------|------------|----------------|
|                    | MSTI                            | IVE            | HKU            | HKUST          | PolyU      |                | Others     |                |
|                    | Deck Cadet                      | Engineer Cadet | Engineer Cadet | Engineer Cadet | Deck Cadet | Engineer Cadet | Deck Cadet | Engineer Cadet |
| 2019 <sup>2</sup>  | 7                               | 4              | 0              | 0              | 2          | 0              | 2          | 0              |
| 2018               | 28                              | 5              | 1              | 1              | 3          | 0              | 2          | 0              |
| 2017               | 35                              | 5              | 0              | 1              | 2          | 0              | 0          | 1              |
| 2016               | 36                              | 7              | 0              | 2              | 0          | 2              | 3          | 1              |
| 2015               | 24                              | 7              | 2              | 3              | 6          | 0              | 2          | 0              |
| 2014               | 39                              | 9              | 1              | 2              | 6          | 4              | 0          | 0              |
| 2013               | 24                              | 6              | 1              | 1              | 10         | 3              | 0          | 0              |

(Source: The Marine Department)

### Note

- The SGTIS aims at encouraging Hong Kong youngsters to take on and complete sea-going training with a view to developing their future careers in the port and maritime support industries. Eligible applicants can receive monthly subsidy in 3 phases.  
(<https://www.hkmpb.gov.hk/en/manpower/sgtis.html>)
- The number of 2019 graduates joining SGTIS is less than the actual number of graduates joining the sea-going sector. Based on the source from the Maritime Professional Promotion Federation and MSTI, commencement of some cadet contracts was delayed due to social activities in late 2019 and the recent outbreak of Covid-19. The number of 2019 graduates joining the ocean-going sector is estimated to be over 30 (including both deck and engineer cadets), which is similar to the previous two years. In addition, figures of 2020 are not shown as students have not graduated from the institutes.
- Full names of training providers:  
MSTI - The Maritime Services Training Institute  
IVE - The Hong Kong Institute of Vocational Education  
HKU - The University of Hong Kong  
HKUST - The Hong Kong University of Science and Technology  
PolyU - The Hong Kong Polytechnic University  
Others - e.g. Overseas University

## Findings of Desk Research

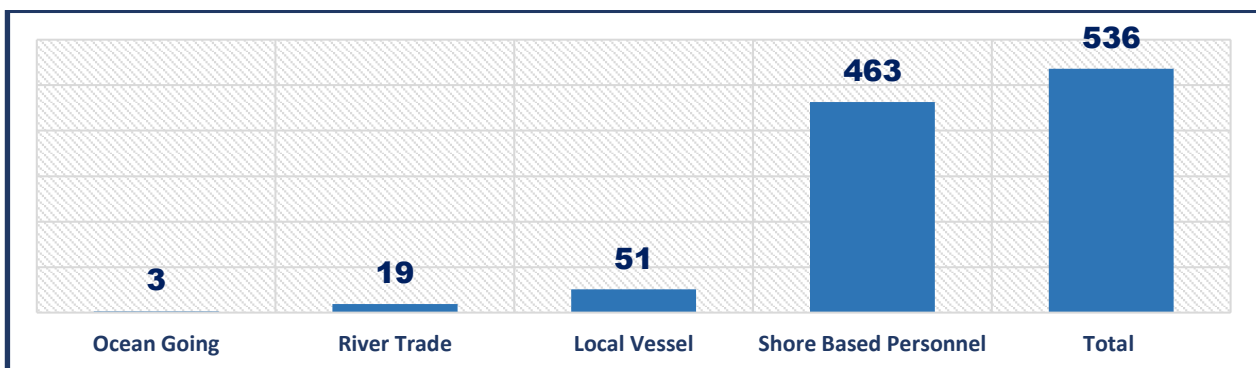
Since the use of online recruitment portals is only one of the recruitment channels, number of recruitment advertisements captured during the desk research period (i.e. Q4 of 2018 to Q3 of 2019) is presented for reference only and should not be interpreted as the actual manpower demand of the Maritime Services Industry.

In view that 81% of the advertisements did not specify the salary, analysis of salary in relation to the job advertisements would not be presented in this report.

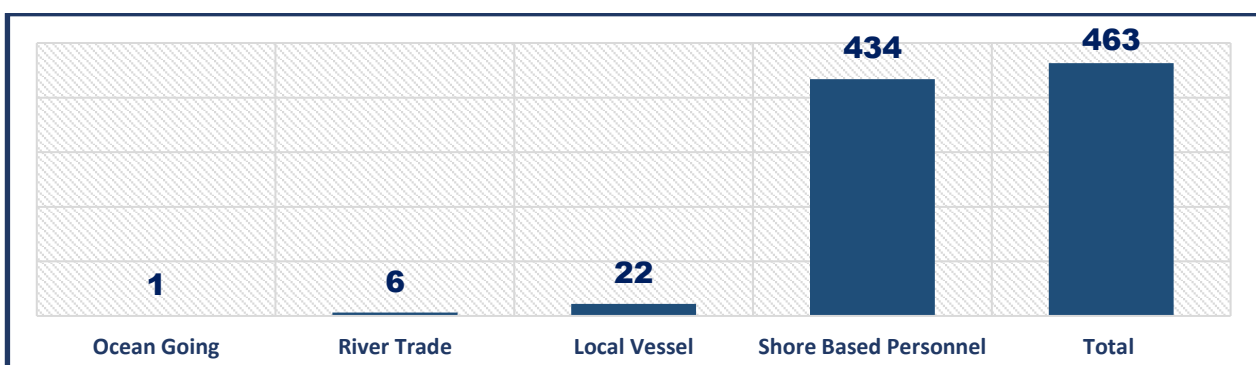
### Distribution of Recruitment Advertisements across Sectors

Comparing with the distribution of job advertisements captioned in the last manpower update exercise (during the period from Q4/2017 to Q3/2018), there is a slight decrease in the total number of job advertisements captured during Q4/2018 to Q3/2019. The distribution of job advertisements across the four sectors remains similar. However, it does not mean that there were very few job vacancies of the ocean-going, river trade and local vessel sectors. It may simply reflect these sectors tend to employ means other than major online portals for staff recruitment.

**Number of Recruitment Advertisements related to the Maritime Services Industry for the period between Q4/2017 and Q3/2018 (by Sector)**



**Number of Recruitment Advertisements related to the Maritime Services Industry for the period between Q4/2018 and Q3/2019 (by Sector)**





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## Principal Jobs of High Demand (Shore-based only)

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Of the 434 shore based recruitment advertisements retrieved from desk research, the 3 principal jobs with the largest shares are listed below in descending order:

1. Business and Trade (28.3%)
2. Operations (26.3%)
3. Account and Finance (11.8%)

Below are the descriptions of the above-mentioned principal jobs:

| <b>Job Category</b> | <b>Job Description</b>  |
|---------------------|---|
| Business and Trade  | Commercial, Sales & Purchases, Customer Service, Marketing, Pricing Activities<br><br>e.g. Commercial Manager/Officer, Freight Manager/Officer, Customer Service Manager/Officer, Shipbroker, Chartering/Sales & Purchase Manager/Officer   |
| Operations          | Distribution, Delivery, Logistics Operations, Warehouse, Depot, Terminal, Pier Operations, Stevedoring, Ship Onboard Services<br><br>e.g. Ship Agent, Shipping Manager/Officer, Boarding Officer, Port Captain, Port Agent, Distribution Manager, Traffic Manager, Warehouse Manager, Depot Manager, Terminal Officer, Stevedore, Tallyman, Forklift Truck Operator, Crane Operator, Ship Planner, Operational Superintendent, Cargo Flow Operator, Vessel Operator, Management Trainee |
| Account and Finance | Maritime Related Accountancy, Audit, Ship Finance<br><br>e.g. Ship Finance Manager/Officer, Ship Accounting Manager/Auditor/Officer   |

## Opinions collected from Secondary School Teachers via Questionnaire

Due to social unrest and class suspension, only 28 completed questionnaires were returned. Key findings abstracted below is for reference only and should not be over-generalised.

Note: Numbers in the brackets refer to numbers of respondents choosing the respective options/giving the respective replies.

1. What do you think about your knowledge on the Maritime Services (MS) industry?

- little (20)
- average (7)
- adequate (1)

2. Have you heard of the following MS fields or jobs? (multiple answers allowed)

- ocean going officers (21)
- cruise operators (28)
- operators of Hong Kong – Macau ferries (26)
- operators of local vessels (24)
- fleet management/ships management (9)
- shipyards (17)
- ship repairing services (19)
- ship machinery/equipment (5)
- ship automation/artificial intelligence (3)
- ship design/construction of new buildings/ship architect (7)
- ship surveyor/ship engineer (13)
- ship classification society/ship surveyor organisation (2)
- maritime scientific research (2)
- marine bunkering (7)
- marine lawyer/ship arbitration (6)
- ship transaction/mortgage (5)
- ship insurance (8)
- maritime related university or Vocational Training Council (11)
- professional association of the MS industry (2)
- training and assessment of crew members (11)
- recruitment and management of crew members (9)
- marine rescue service (15)
- harbour planning/waterway planning (3)
- sea patrolling/sea traffic management (14)
- prevention of sea pollution (7)
- ship registration (4)
- harbour pilot (13)
- international maritime convention/regulations (6)
- renowned international maritime association/chamber (1)
- renowned international maritime media (1)

3. To what do you attribute your insufficient knowledge of the industry (if applicable):
  - little chances to access relevant information at work (25)
  - insufficient promotion done by the MS industry (14)
  - no TV programmes/movies about shipping, seafaring or related occupations (11)
  
4. What descriptions can best reflect your perceptions on the jobs of the MS industry (multiple answers allowed):
  - professional (15)
  - frontline (15)
  - white collar (0)
  - blue collar (10)
  - tolerate hardship (23)
  - stable work (7)
  - unknown prospect (1)
  - rewarding (5)
  - challenging (9)
  - interesting (1)
  - monotonous (9)
  - high level of freedom (2)
  - eye-opening (11)
  - away from hometown (17)
  
5. What occupations do you think your students would be most interested in joining? (multiple answers allowed)
  - maritime services (3)
  - business and general administration (10)
  - design, advertising and related services (9)
  - engineering and environmental related services (7)
  - hotel, catering and tourism (22)
  - import/export/wholesale and retail trades (0)
  - information and communications technology (8)
  - medical and health services (15)
  - real estate services (1)
  - personal services (2)
  - transport, aviation and logistics (5)
  - education (6)
  - social work (10)
  - mass media (1)
  - sports and recreation (7)
  - performing arts (4)
  - others: disciplinary force (1)
  
6. What do you think your students would consider when making career choices? (multiple answers allowed)
  - remuneration (21)
  - job stability (8)
  - job satisfaction (5)
  - challenging job nature (0)

- personal interest (21)
  - personal strengths (12)
  - work location (7)
  - branding of the corporation (0)
  - room for promotion (3)
  - prospect of the industry (4)
  - image of the industry (5)
  - working hours (10)
  - freedom of work (7)
7. Do you consider that the job market information and career planning services available to secondary schools are sufficient?
- not sufficient (9)
  - not comprehensive (only focus on particular industries) (9)
  - average (10)
  - sufficient (0)
8. What are the main channels for teachers and students of your school to receive information of the job market and different jobs? (multiple answers allowed)
- Education Bureau (12)
  - School (16)
  - career talks (19)
  - career expos (27)
  - online platform (10)
  - sharing of graduates (14)
  - websites of industry organisations/professional bodies (10)
  - promotion activities initiated by the industry (12)
  - others: company visits (2) sharing of parents (1)
9. Please suggest ways to allow schools, students and parents to have a more in-depth understanding on different industries.
- career talks (2)
  - company visits (5)
  - job tasting (2)
  - sharing sessions to students and their parents (1)
  - promotion through mass media (e.g. TV drama series/advertisement) (3)
  - each school to have an annual career planning day (1)
  - promotion at school (e.g. exhibition, distribution of promotional materials) (5)
  - establish a transparent and widely recognised platform for introduction of different occupations (1)
  - arrange talks to teacher first; then teachers can transfer the information to students (1)
  - roadshow (1)
  - produce videos showing the glamorous part of the industry/videos with sharing of industry practitioners (2)