

# 2014 MANPOWER SURVEY REPORT

## METALS INDUSTRY

METALS TRAINING BOARD

VOCATIONAL TRAINING COUNCIL

金 屬 業

2014 年人力調查報告

職業訓練局

金屬業訓練委員會

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# **Executive Summary of the Report on the 2014 Manpower Survey of the Metals Industry**

## **Objective**

The Metals Training Board of the Vocational Training Council conducted a survey during the period from 25 June to 24 July 2014 to collect the latest manpower information of the metals industry which also includes the jewellery sector.

## **Scope of the Survey**

2. The survey covered the following 14 branches of the two major sectors of the metals industry:

### **Sector A : Metal Products and Related Industries**

Branch 1 : Plant maintenance section of food, beverage and tobacco manufacturing industries (HSIC 101-108, 110, 120)

Branch 2 : Manufacture of basic metals (HSIC 241-243)

Branch 3 : Manufacture of fabricated metal products (except machinery and equipment) and metal toys (HSIC 251, 259, 3244)

Branch 4 : Manufacture of machinery and equipment (HSIC 281-282)

Branch 5 : Manufacture of medical equipment (HSIC 266, 2672, 3251, 3259)

Branch 6 : Manufacture of electrical equipment (HSIC 271-275, 279)

Branch 7 : Repair and installation of machinery and equipment (HSIC 331-332)

Branch 8 : Manufacture of watches and clocks (HSIC 2652)

Branch 9 : Wholesale, import/export trading of machinery, equipment, watches and clocks (HSIC 451434, 451446, 451621, 451633, 451635, 451699, 451711, 452434, 452446, 452621, 452633, 452635, 452699, 452711, 460434, 460446, 460621, 460633, 460635, 460699 and 460711)

Branch 10 : Engineering services related to Metals industry including material testing, metallurgist, process development/testing, production line consulting/design and quality control (HSIC 712 and 719)

Branch 11 : Supplementary samples - relevant division/department in training/ education institutions

## Sector B : Jewellery Industry

Branch 12 : Manufacture of jewellery, bijouterie and related articles (HSIC 321)

Branch 13 : Wholesale, import/export trading of jewellery, bijouterie and related products (HSIC 451432, 451433, 452432, 452433, 460432 and 460433)

Branch 14 : Supplementary Samples – Gemmological laboratory

*(HSIC denotes Hong Kong Standard Industrial Classification)*

3. Prior to the survey, the Census and Statistics Department recorded some 22 354 establishments in the above 14 branches of the metals industry in Hong Kong. In view of the limited resources available, a stratified random sampling method was adopted and a total of 1 005 samples were selected to be surveyed. The data collected were scaled up statistically to give an overall picture of the manpower situation of the industry.

### Survey Findings

4. The survey revealed that in June/July 2014, a total of **46 050** persons were employed in the principal jobs of the metals industry. Of them, **32 772** (71.2%) were employed in the metal products and related industries, and **13 278** (28.8%) were in the jewellery industry. The distribution of the workforce by job level of the two major sectors of the metals industry is as follows:

Job Level	No. of Employees	Percentage of Total Number of Employees
<b>(a) Metal Products and Related Industries</b>		
Technologist/Managerial	6 634	20.24%
Technician/Supervisory	16 949	51.72%
Craftsman	6 048	18.46%
Operative/Unskilled	3 141	9.58%
<b>Total</b>	<b>32 772</b>	<b>100.00%</b>
<b>(b) Jewellery Industry</b>		
Technologist/Managerial	2 471	18.61%
Technician/Supervisory	9 183	69.16%
Craftsman	1 288	9.70%
Operative/Unskilled	336	2.53%
<b>Total</b>	<b>13 278</b>	<b>100.00%</b>



## Number of Trainees and Vacancies

5. At the time of the survey, there were 193 trainees and 606 vacancies in the metal products and related industries, and 23 trainees and 199 vacancies in the jewellery industry. Their distributions are shown below:

Job Level	Metal Products and Related Industries					Jewellery Industry				
	Manpower	Trainees		Vacancies		Manpower	Trainees		Vacancies	
		No.	% of Manpower	No.	% of Manpower		No.	% of Manpower	No.	% of Manpower
Technologist/Managerial	6 634	48	0.72%	23	0.35%	2 471	-	-	42	1.70%
Technician/Supervisory	16 949	13	0.08%	399	2.35%	9 183	-	-	153	1.67%
Craftsman	6 048	88	1.46%	114	1.88%	1 288	23	1.79%	4	0.31%
Operative/Unskilled	3 141	44	1.40%	70	2.23%	336	-	-	-	-
<b>Total</b>	<b>32 772</b>	<b>193</b>	<b>0.59%</b>	<b>606</b>	<b>1.85%</b>	<b>13 278</b>	<b>23</b>	<b>0.17%</b>	<b>199</b>	<b>1.50%</b>

6. According to employers' one-year forecast, there would be 33 414 and 13 504 employees in the metal products and related industries and the jewellery industry respectively by June 2015. A summary of the employers' one year forecast by job level is shown below:

Job Level	No. of Employees in June 2014	Employers' Forecast of Total No. of Employees by June 2015
<b>(a) Metal Products and Related Industries</b>		
Technologist/Managerial	6 634	6 714
Technician/Supervisory	16 949	17 246
Craftsman	6 048	6 202
Operative/Unskilled	3 141	3 252
<b>Total</b>	<b>32 772</b>	<b>33 414</b>
<b>(b) Jewellery Industry</b>		
Technologist/Managerial	2 471	2 513
Technician/Supervisory	9 183	9 363
Craftsman	1 288	1 292
Operative/Unskilled	336	336
<b>Total</b>	<b>13 278</b>	<b>13 504</b>

## **Business Outlook**

7. The global economy has quickly recovered after the 2008 financial tsunami. However, the recovery had not lasted long. The Baltic Dry Index (BDI)<sup>1</sup> reached its lowest ebb of 663 in December 2008 (caused by the financial tsunami) and then bounced and then rebound to peak at 11 771 in early 2009. It has since been gradually staggering downwards and in 2012, it hit several particularly low readings of 647, 661 and 698. The index rebound a bit in 2013 (in March 2013, it was recorded at around 900) and then it hovered between 700 and 1500. As indicated by the BDI, the global economy does not seem to fare well in the next couple of years.

8. A number of economic/financial experts including the World Economic Outlook (WEO) have projected that the global economic growth would continue to increase, but at a slower and uneven pace. The slow and uneven trend was mainly caused by risks of uncertainties, such as geopolitical tensions and changes in policies of the major countries on risk spread and volatility control in financial markets as well as stagnation of economic growth in advanced economies and emerging markets. Nevertheless, the extent of growth is mainly determined by the fiscal/economic policies undertaken by the US, European nations and Japan. For the emerging markets such as China, India, Russia, Eastern Europe and Latin American countries, it is expected the governments in those countries would try to stick to the policy of maintaining modest growth though they might have to deal with the problems of weak demand from overseas and domestic bottlenecks for their products and services. In essence, it is expected that global economic growth would be moving up at a much faster pace eventually.

### ***Sector A: Metal Products and Related Industries***

9. With the continued economic development in the Mainland during the past two decades, Hong Kong manufacturers have been enjoying growth and success in production operations in China. However, the business environment in China has undergone great changes in recent years, which were brought about by the Mainland's introduction of the various new laws, regulations and policies. Together with the shortage of labour supply in the Mainland and fierce competitions from the emergence of local enterprises, which compete mainly on cost advantages, Hong Kong manufacturers continue to face a lot of difficulties to maintain their manufacturing operations in China. As a consequence, some of Hong Kong's less effective manufacturers have been competed out of business. For those that remain, they have not only recovered but they also been able to make further expansions.

10. To cope with these challenges, many Hong Kong manufacturers are making continuous improvements in order to sustain their competitive advantages and beat down competitors through "differentiation", such as making breakthroughs in product design and innovation, maintaining a high standard of product quality, cutting down wastages and enhancing supply chain management, investing/modernizing machinery and equipment to

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<sup>1</sup> The Baltic Dry Index (BDI) is a number issued daily by the London-based Baltic Exchange, which provides "an assessment of the price of moving the major raw materials by sea" and is considered by many economic experts as a leading economic indicator of "future" economic growth and production. In other words, it is one of a widely adopted leading indicators for predict business/economic outlook.

enhance productivity and quality and to training/upgrading their manpower resources to sustain their competitive edges. Some employers have opted to relocate part of their activities, such as the production branch on value-added processes back to Hong Kong.

11. Under such unpredictable environment, a high demand for high quality tooling, industrial machinery, equipment and parts as well as technical-support, manufacturing-related services, as well as rising demand on product and engineering design, sales and marketing workforce with good business and costing concept and familiar with production and workflow processes are required, as evidenced by the survey results.

12. The Training Board opines that the metal products and related industries, in particular, the wholesale and import/export trading branch which employed about 50% of the manpower in this sector, will continue to play an important role and make valuable contributions to the further development of the manufacturing industries both in Hong Kong and the Mainland.

### ***Sector B: Jewellery Industry***

13. Hong Kong is one of the leading exporters and producers of jewellery products in the world. However, Hong Kong's jewellery exporters are also facing intensified competition from their counterparts in the Chinese Mainland and other countries, particularly India, Thailand, Singapore and Malaysia. Together with the price fluctuation of precious metals, diamonds, precious stones and materials, Hong Kong exports' profit margins have been trimmed down in recent years. To sustain their competitive edges, many Hong Kong manufacturers have opted for "differentiation" through investing and applying sophisticated and automated production equipment, including computer-aided design and manufacturing (CAD/CAM) systems, rapid prototyping and computer numerically controlled (CNC) machine tools, in their product design and manufacturing processes. They have also integrated advanced production techniques, such as electroforming, with handicraft skills to further enhance their efficiency.

14. Under the zero import tariff preference of the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA), Hong Kong jewellery manufacturers have been attracted to move up-market in producing more "brand name" products, apply more manufacturing processes with high value-added content and substantial intellectual property input. However, CEPA also requires that moulding of precious metals; moulding and setting of pearls, precious/semi-precious stones for jewellery articles and assembling processes must be carried out in Hong Kong. As a consequence, although many Hong Kong jewellery manufacturers have already shifted their production processes to the Mainland, mainly in Shenzhen and Panyu, value-added processes including those required to be carried out in Hong Kong by CEPA are still retained in Hong Kong. Hong Kong manufacturers are keen on preserving their brand image as well as upholding the quality, reliability and uniqueness of "made in/by Hong Kong" products and therefore, they have also relocated some of their core product design functions and/or value-added operations back to Hong Kong.

15. The Chinese government's policy on encouraging consumption had shored up the purchasing power and import appetite of Chinese residents, and this has indeed facilitate the sales of jewellery articles to the mainland, as well as retail sales in Hong Kong contributed by the influx of Chinese visitors over the years.

16. The Training Board is confident that China's vitality would continue. It is envisaged that the jewellery industry would continue to flourish in the coming years, albeit overshadowed by some potential and unpredictable challenges.

### **Future Manpower Demand**

17. Having considered the latest developments as well as the employers' forecast of future manpower requirements and their views on the expected change in business situation, the Training Board opines that in the years ahead there will be an on-going demand for properly trained technologists, technicians and craftsmen to sustain the development of the metal products and related industries and to stave off keen competition. In particular, demand on competencies in technology and product & engineering design, sales/marketing and production processes is high. Most of these technical personnel would be employed by the repair and installation, wholesale and import/export trading branches to provide marketing and after sales repair & maintenance services to the machinery and equipment they installed in the manufacturing establishments. On the other hand, the demand for operatives and unskilled workers would decrease.

18. As regards the jewellery industry, the Training Board is of the view that the jewellery wholesale and import/export trading branch will continue to enjoy growth in the coming years, while the jewellery manufacturing branch will continue to contract. There will be a high demand for jewellery manpower at the technologist and technician levels for design and development, marketing and sales for export-oriented activities in Hong Kong. However, the demand for additional craftsmen for production related jobs will be limited, and the number of operative/unskilled workers would further decrease.

19. The Training Board has also estimated the loss of manpower at different job levels due to natural wastage, i.e. workers leaving the metals industry through retirement, migration to other industries and other causes. The Training Board has decided that the annual wastage rates for most of the job levels should remain unchanged at 3% except for craftsmen level in the metal products and related industries, which should be adjusted to 5%, as aging of existing employees in this sector has become an issue in recent years.

20. The Training Board's forecast of the additional manpower required by the metals industry to cover both wastage and growth from 2015 to 2018 is given below:

Annual Manpower Demand in the Metals Industry from 2015 to 2018

Job Level	Annual Average Additional Demand for Employees	
	<u>Sector A</u> Metal Products and Related Industries	<u>Sector B</u> Jewellery Industry
Technologist/Managerial	483 – 591	147 – 179
Technician/Supervisory	1 213 – 1 483	297 – 363
Craftsman	250 – 306	53 – 65

21. The Training Board will conduct another manpower survey in 2016 to update the manpower statistics and review the training requirements of the metals industry.

# SECTION I

## INTRODUCTION

### **The Metals Training Board**

1.1 The Metals Training Board of the Vocational Training Council (VTC) is a statutory body appointed by the HKSAR Government to be responsible for matters pertaining to manpower training in the metals industry which also includes the jewellery sector. The Training Board comprises members nominated by major trade associations, professional bodies, workers unions, training and educational institutions, as well as representatives from government departments. The membership and terms of reference of the Training Board are given in Appendices 1 and 2 respectively.

1.2 The Training Board is required by its terms of reference to determine the manpower needs of the industry and to recommend to the VTC the development of vocational education and training facilities to meet such needs.

### **The Manpower Survey**

1.3 The Training Board conducted a survey from 25 June to 24 July 2014 to collect up-to-date information on the manpower situation of the metals industry. The survey was conducted with the assistance of the Census and Statistics Department of the HKSAR Government. Follow-up of the fieldwork was completed in November and data processing was carried out in December 2014.

1.4 The following manpower statistics and information were collected from the survey:

- (i) number of employees in various principal jobs at the time of the survey,
- (ii) number of existing vacancies,
- (iii) number of trainees,
- (iv) employers' forecast of the total number of employees by June 2015,
- (v) average monthly income of employees, and
- (vi) employers' views on the preferred education, training mode and training period of employees.

1.5 Employers were also requested to provide other information such as the number of technologists/managers, technicians/supervisors and craftsmen who had been promoted in the

past 12 months, and also those who had been deployed to work for more than 6 months outside Hong Kong during the 12 months prior to the survey.

## **Scope of Survey**

1.6 The survey covered the following 14 branches of the two major sectors of the metals industry:

### **Sector A : Metal Products and Related Industries**

Branch 1 : Plant maintenance section of food, beverage and tobacco manufacturing industries (HSIC 101-108, 110, 120)

Branch 2 : Manufacture of basic metals (HSIC 241-243)

Branch 3 : Manufacture of fabricated metal products (except machinery and equipment) and metal toys (HSIC 251, 259, 3244)

Branch 4 : Manufacture of machinery and equipment (HSIC 281-282)

Branch 5 : Manufacture of medical equipment (HSIC 266, 2672, 3251, 3259)

Branch 6 : Manufacture of electrical equipment (HSIC 271-275, 279)

Branch 7 : Repair and installation of machinery and equipment (HSIC 331-332)

Branch 8 : Manufacture of watches and clocks (HSIC 2652)

Branch 9 : Wholesale, import/export trading of machinery, equipment, watches and clocks (HSIC 451434, 451446, 451621, 451633, 451635, 451699, 451711, 452434, 452446, 452621, 452633, 452635, 452699, 452711, 460434, 460446, 460621, 460633, 460635, 460699 and 460711)

Branch 10 : Engineering services related to Metals industry including material testing, metallurgist, process development/testing, production line consulting/design and quality control (HSIC 712 and 719)

Branch 11 : Supplementary samples - relevant division/department in training/ education institutions

### **Sector B : Jewellery Industry**

Branch 12 : Manufacture of jewellery, bijouterie and related articles (HSIC 321)

Branch 13 : Wholesale, import/export trading of jewellery, bijouterie and related products (HSIC 451432, 451433, 452432, 452433, 460432 and 460433)

## Branch 14 : Supplementary Samples – Gemmological laboratory

*(HSIC denotes Hong Kong Standard Industrial Classification)*

1.7 Prior to the survey, the Census and Statistics Department recorded some 22 354 establishments in the above 14 branches of the metals industry in Hong Kong. In view of the limited resources available, a stratified random sampling method was adopted and a total of 1 005 samples were selected to be surveyed. The data collected were scaled up statistically to give an overall picture of the manpower situation of the industry.

### **Method of the Survey**

1.8 Two sets of survey documents including questionnaires, explanatory notes and lists of principal jobs were designed, one for Sector A (Appendices 13, 15 and 18) and the other for Sector B (Appendices 14, 16 and 19). About a week before the survey, relevant survey documents were mailed to the 1 005 establishments according to their nature of work. Prior publicity was given through the local press to solicit employers' co-operation. Relevant trade and industrial organizations were also requested to publicize the survey among their members and to encourage them to co-operate in the survey.

1.9 During the survey period, interviewing officers of the Census and Statistics Department visited all 1 005 establishments to collect the completed questionnaires and, where required, to assist employers in completing them. All returned questionnaires were scrutinized and where necessary, cross checked with the respondents.

### **Response to the Survey**

1.10 Of the 1 005 establishments, 636 completed the questionnaires and 36 refused to supply information. The remaining 333 establishments had either moved, closed and could not be traced, or no longer engaged in the trade. The effective response rate was 94.6%.

### **The Report**

1.11 After follow-up of the fieldwork and data processing, the Training Board compiled in February 2015 the manpower survey report which presented the manpower data collected from the survey. The report was subsequently mounted on the VTC web site for public information.

1.12 This report presents all the findings of the survey together with the Training Board's forecast of the training needs of the industry and recommendations on measures to meet these needs. In the report, the terms "employees", "workers" and "manpower" refer to the total number of persons employed in the principal jobs at the time of the survey but excluding trainees and apprentices. The term "trainees" means all persons receiving any form of training including those registered apprentices under a contract of apprenticeship.



## SECTION II

### SUMMARY OF SURVEY FINDINGS

#### Number of Workers Employed

2.1 The survey revealed that in June/July 2014, a total of 46 050 persons were employed in the principal jobs of the metals industry. Of them, 32 772 (71.2%) were employed in the metal products and related industries (Sector A), and 13 278 (28.8%) were in the jewellery industry (Sector B). Details of the manpower statistics are shown in Appendices 3, 4 and 5.

2.2 At the time of the survey, there were also 46 414 persons of other disciplines, such as accounting officers and clerks, working in the metals industry. Of them, 40 544 persons (87.35%) were in the metal products and related industries, and 5 870 persons (12.65%) in the jewellery industry.

2.3 The following paragraphs present only the manpower statistics of those workers engaged in the principal jobs of the metals industry.

#### Distribution of Employees by Job Level

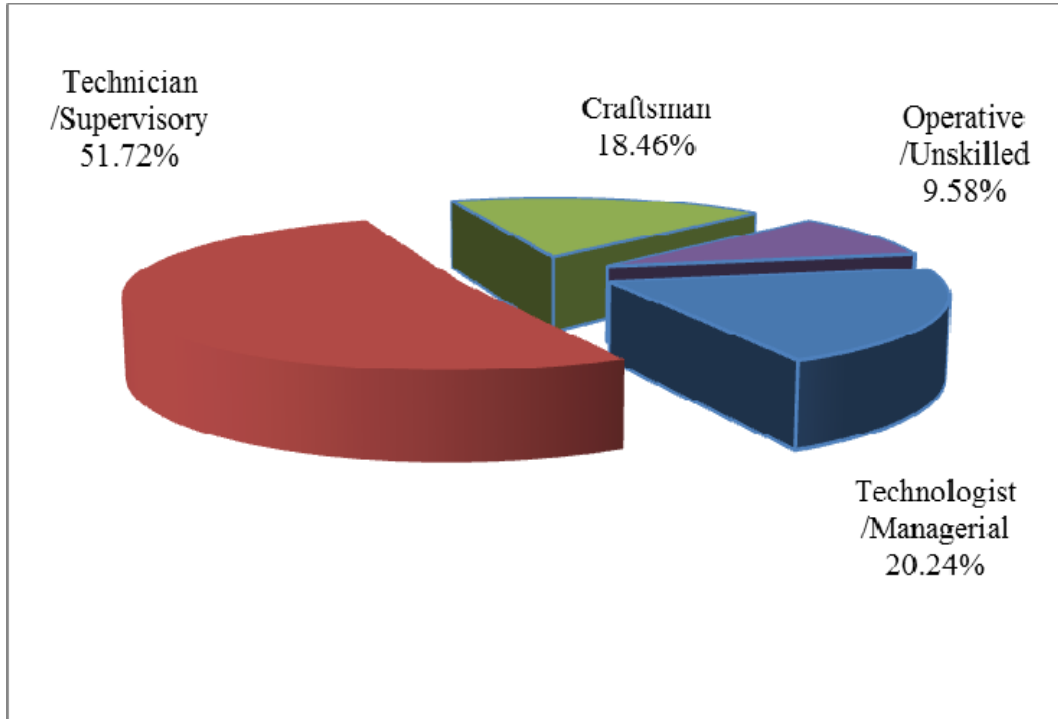
2.4 The distribution of employees in principal jobs by job level is shown in Table 2.1 and Figure 2.1:

Table 2.1 : Distribution of Employees by Job Level

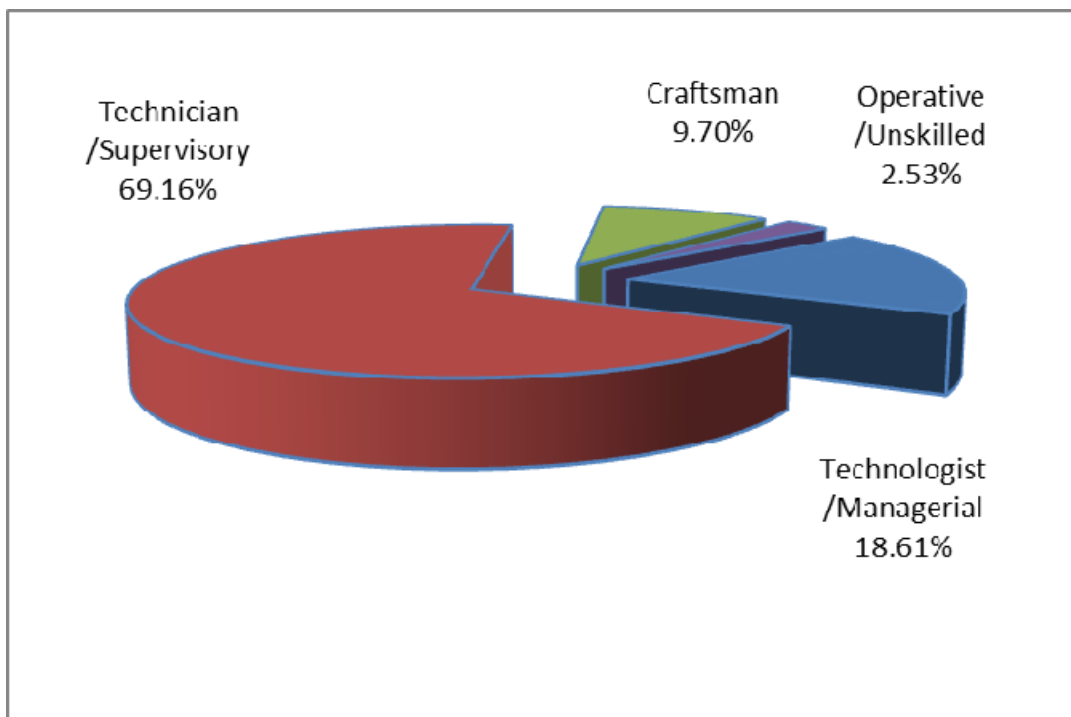
Job Level	<u>Sector A</u> Metal Products and Related Industries	<u>Sector B</u> Jewellery Industry
Technologist/Managerial	6 634	2 471
Technician/Supervisory	16 949	9 183
Craftsman	6 048	1 288
Operative/Unskilled	3 141	336
Total	<b>32 772</b>	<b>13 278</b>

Figure 2.1 (a & b) : Distribution of Employees by Job Level

(a) Metal Products and Related Industries



(b) Jewellery Industry



## Number of Trainees

2.5 At the time of the survey, there were 193 trainees in the metal products and related industries and 23 trainees in the jewellery industry. Details of the trainee statistics are shown in Appendices 3 and 5. The distribution of trainees by job level is shown in Table 2.2:

Table 2.2 : Distribution of Trainees by Job Level

Job Level	Metal Products and Related Industries		Jewellery Industry	
	No. of Trainees	% of Total No. of Employees at same Job Level	No. of Trainees	% of Total No. of Employees at same Job Level
Technologist/ Managerial	48	0.72%	-	-
Technician/ Supervisory	13	0.08%	-	-
Craftsman	88	1.46%	23	1.79%
Operative/ Unskilled	44	1.40%	-	-
<b>Total</b>	<b>193</b>	<b>0.59%</b>	<b>23</b>	<b>0.17%</b>

## Number of Vacancies at Time of Survey and Forecast Manpower by June 2015

2.6 At the time of the survey, the total number of job vacancies was 606 and 199, or 1.85% and 1.5% of the total number employed in the metal products and related industries and the jewellery industry respectively.

2.7 Employers also forecast that there would be 33 414 and 13 504 employees in the metal products and related industries and the jewellery industry respectively by June 2015, comparing with 32 772 and 13 278 employees at the time of the survey.

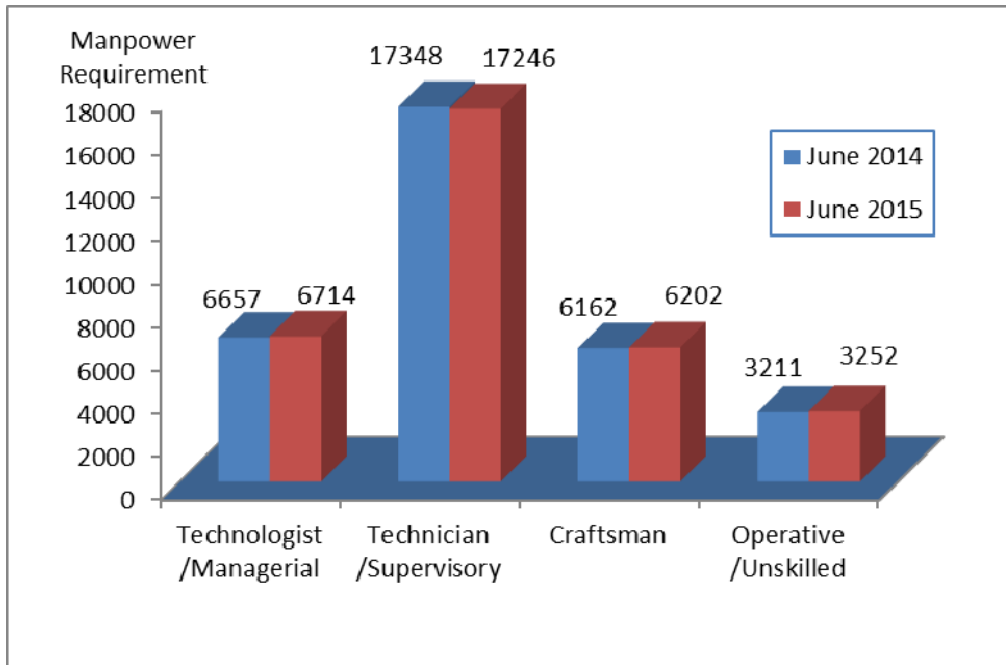
2.8 Details of the vacancy statistics and forecast manpower are shown in Appendices 3 and 5. A comparison of the manpower requirement at the time of the survey and the employers' forecast of the number of employees by June 2015 is shown in Table 2.3 and Figure 2.2:

Table 2.3 : Comparison of Manpower Requirement by  
June 2014 and June 2015

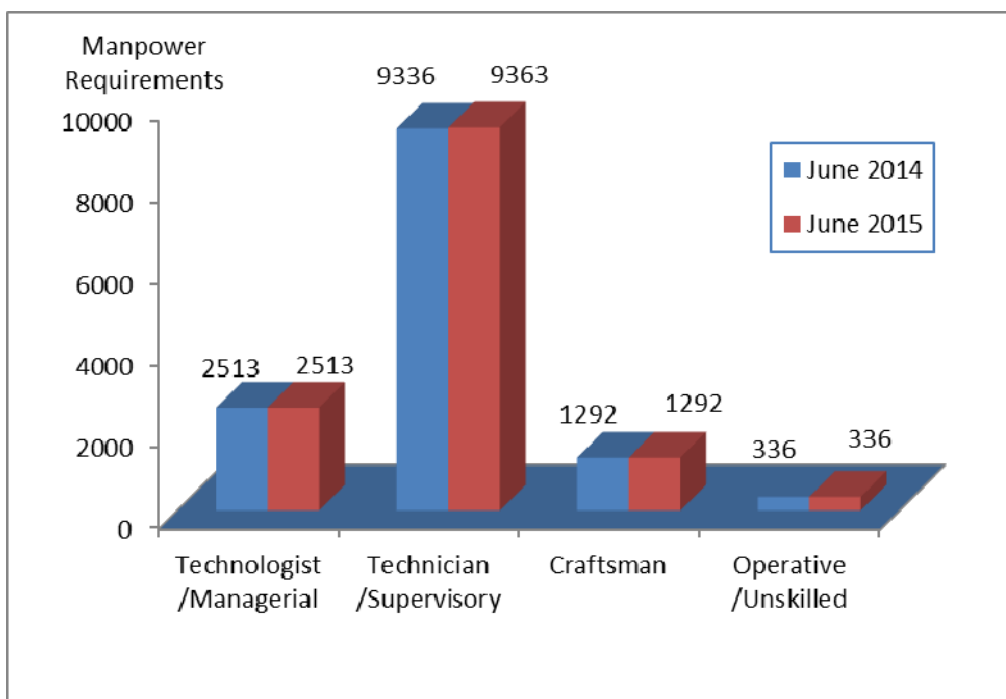
Job Level	At Time of Survey (June 2014)			Forecast Total No. of Employees by June 2015	Forecast Increase in No. of Employees
	No. of Employees	No. of Vacancies	Total Manpower Requirement		
(a) Metal Products and Related Industries					
Technologist/ Managerial	6 634	23	6 657	6 714	0.86%
Technician/ Supervisory	16 949	399	17 348	17 246	-0.59%
Craftsman	6 048	114	6 162	6 202	0.65%
Operative/ Unskilled	3 141	70	3 211	3 252	1.28%
Total	32 772	606	33 378	33 414	0.11%
(b) Jewellery Industry					
Technologist/ Managerial	2 471	42	2 513	2 513	-
Technician/ Supervisory	9 183	153	9 336	9 363	0.29%
Craftsman	1 288	4	1 292	1 292	-
Operative/ Unskilled	336	-	336	336	-
Total	13 278	199	13 477	13 504	0.20%

Figure 2.2 (a & b) : Comparison of Manpower Requirements by June 2014 and June 2015

(a) Metal Products and Related Industries



(b) Jewellery Industry



## Total Monthly Income Range of Employees

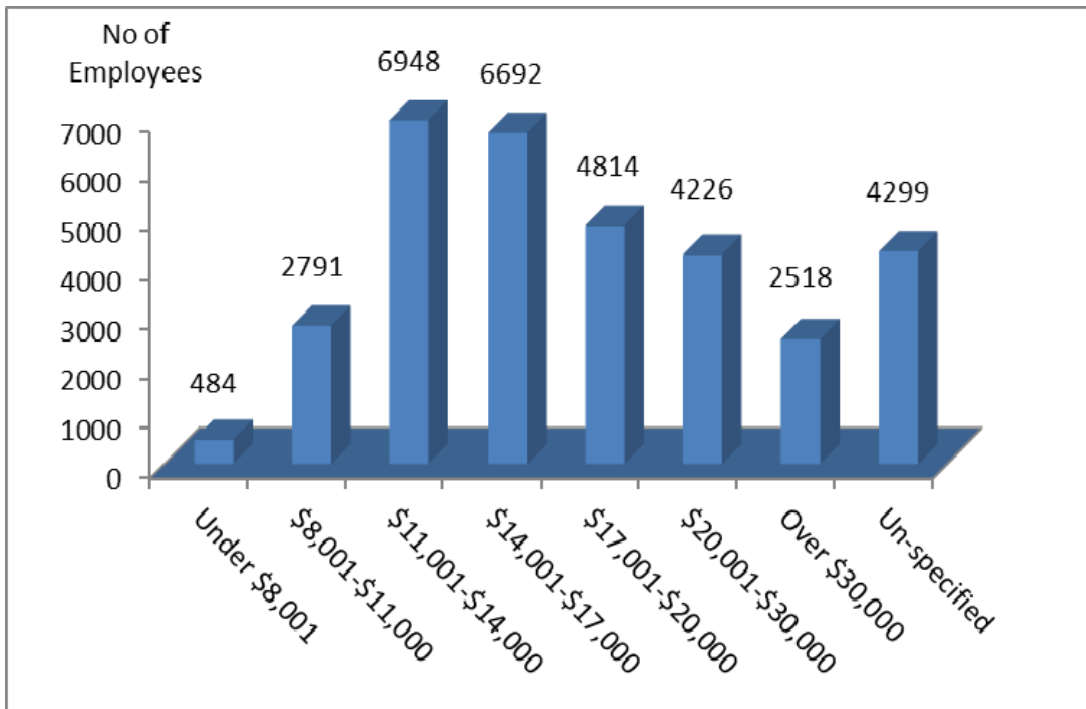
2.9 The distribution of employees by total monthly income range in the two major sectors of the metals industry is shown in Table 2.4 and Figure 2.3, and details are also given in Appendices 6 and 7:

Table 2.4 : Distribution of Employees by  
Total Monthly Income Range

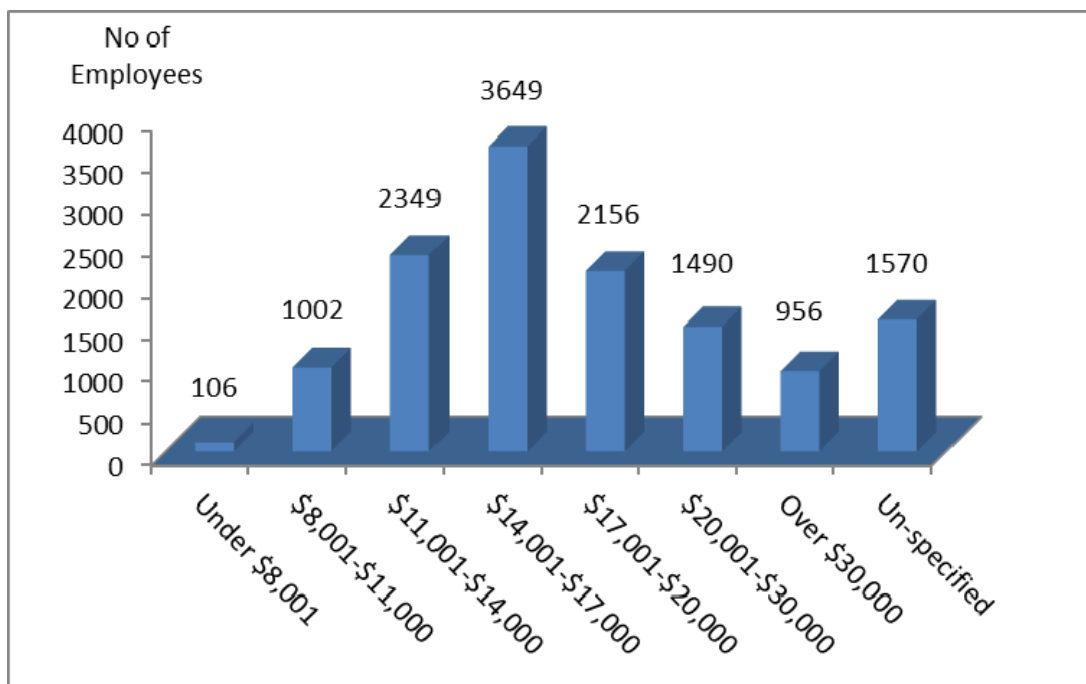
Job Level	Under \$8,001	\$8,001-\$11,000	\$11,001-\$14,000	\$14,001-\$17,000	\$17,001-\$20,000	\$20,001-\$30,000	Over \$30,000	Un-specified	Total
(a) Metal Products and Related Industries									
Technologist/Managerial	-	101	48	207	756	2 178	2 365	979	6 634
Technician/Supervisory	2	751	3 500	5 482	3 085	1 593	152	2 384	16 949
Craftsman	74	1 029	2 436	685	858	392	1	573	6 048
Operative/Unskilled	408	910	964	318	115	63	-	363	3 141
Total	484	2 791	6 948	6 692	4 814	4 226	2 518	4 299	32 772
(b) Jewellery Industry									
Technologist/Managerial	-	-	113	48	148	1 008	867	287	2 471
Technician/Supervisory	68	814	1 828	3 068	1 785	479	89	1 052	9 183
Craftsman	38	73	326	465	200	3	-	183	1 288
Operative/Unskilled	-	115	82	68	23	-	-	48	336
Total	106	1 002	2 349	3 649	2 156	1 490	956	1 570	13 278

Figure 2.3 (a & b) : Distribution of Employees by Total Monthly Income Range

(a) Metal Products and Related Industries



(b) Jewellery Industry



## Employers' Views on the Expected Change in Business Situation for the Coming Year

2.10 The survey revealed that 69.4% of the employers in the metal products & related industries and 69.8% of the employers in the jewellery industry had forecasted that the business situation would be the same in the coming year. However, 23.7% of the employers in the metal products & related industries had forecasted that the business situation would be worse in the coming year. The distribution of employers' views is shown in Table 2.5:

Table 2.5 : Distribution of Employer's Views on the Business Situation in the Coming Year

Employment Size	Business Situation in the Coming Year				
	Better	Same	Worse	Unspecified	Total
<b>(a) Metal Products and Related Industries</b>					
1 – 9	241	4 378	1 678	137	6 434
10 – 49	79	703	95	25	902
50 & Over	25	122	5	11	163
All	345 (4.6%)	5 203 (69.4%)	1 778 (23.7%)	173 (2.3%)	7 499 (100%)
<b>(b) Jewellery Industry</b>					
1 – 9	112	1 843	698	-	2 653
10 – 49	44	313	71	8	436
50 & Over	4	16	2	-	22
All	160 (5.1%)	2 172 (69.8%)	771 (24.8%)	8 (0.3%)	3 111 (100%)



## Preferred Education, Mode of Training and Period of Training of Employees

2.11 The majority views of employers on the preferred education, mode of training and period of training of their employees are shown in Table 2.6. Details are given in Appendices 8, 9 and 10.

Table 2.6 : Preferred Education, Mode of Training and  
Period of Training of Employees in the Metals Industry

Job Level	Preferred Education	Preferred Mode of Training	Preferred Period of Training
Technologist/ Managerial	Degree/ Higher Diploma	Graduate traineeship/ On-the-job training	2 years or above
Technician/ Supervisory	Diploma/ Higher Certificate	On-the-job training	1 - 4 years
Craftsman	Craft Certificate/Secondary school education	On-the-job training/ Apprenticeship	1 - 3 years

## Internal Promotion

2.12 In the twelve months prior to the survey, a total of 213 employees were promoted to higher level jobs in their own companies. Their distributions in each job level are shown below:

Table 2.7 : Internal Promotion in the Metals Industry

Internal Promotion	No. of Employees Promoted (a)	No. of Employees at the Promoted Level (b)	Percentage $\frac{(a)}{(b)} \times 100\%$
From Technician/Supervisor to Technologist/Manager	96	9 105	1.1%
From Craftsman to Technician/Supervisor	87	26 132	0.3%
From Other Levels to Craftsman	30	7 336	0.4%
Total	213	42 573	0.5%

## Employees Deployed to Work Outside Hong Kong

2.13 Employers reported the following number of employees who had been deployed to work outside Hong Kong more than 6 months during the 12 months prior to the survey:

Table 2.8 : Number of Employees Deployed to Work outside Hong Kong in the Metals Industry

Job Level	No. of Employees Deployed to Work Outside Hong Kong (a)	Total No. of Employees at Same Job Level (b)	Percentage $\frac{(a)}{(b)} \times 100\%$
Technologist/Managerial	1 028	9 105	11.3%
Technician/Supervisory	1 197	26 132	4.6%
Craftsman	236	7 336	3.2%
Total	2 461	42 573	5.8%

## Establishments with Operations in Chinese Mainland

2.14 The survey revealed that in the metals industry, there were 1 431 establishments (991 in 2012 survey) with active operations in the Chinese Mainland and they employed some 230 899 Mainland workers (110 042 in 2012 survey). Among these workers, 9 983 were technologists (4 242 in 2012 survey) including managers responsible for technical work. Employers also forecasted that the number of Mainland technologists in their Mainland operations would decrease to 9 903 by June 2015 (4 254 by June 2013 in 2012 survey).

## SECTION III

### CONCLUSIONS

3.1 The Training Board has carefully examined the survey findings and is of the view that they generally reflect the employment situation of the metals industry at the time of the survey.

#### Manpower Changes by Job Level

3.2 The survey revealed that the manpower of the metal products and related industries (Sector A) had increased at an annual rate of 3.7% from 30 501 employees in June 2012 to 32 772 employees in June 2014 (for comparison, in the 2012 survey, there was an annual increase of 7.3% from 26 507 employees in June 2010 to 30 501 employees in June 2012). The manpower of the jewellery industry (Sector B) had slightly increased at an annual rate of 1.2% from 12 971 to 13 278 employees during the same period (for comparison, in the 2012 survey, there was an annual increase of 1% from 12 706 employees in June 2010 to 12 971 employees in June 2012). Table 3.1 shows the manpower changes by job level of the two major sectors of the metals industry between 2012 and 2014:

Table 3.1: Manpower Changes by Job Level  
between 2012 and 2014

Job Level	No. of Employees		Change Per Annum
	June 2012	June 2014	
<b>(a) Metal Products and Related Industries</b>			
Technologist/Managerial	5 990	6 634	+5.2%
Technician/Supervisory	15 136	16 949	+5.8%
Craftsman	6 207	6 048	-1.3%
Operative/Unskilled	3 168	3 141	-0.4%
Total	30 501	32 772	+3.7%
<b>(b) Jewellery Industry</b>			
Technologist/Managerial	2 401	2 471	+1.4%
Technician/Supervisory	9 001	9 183	+1.0%
Craftsman	1 239	1 288	+2.0%
Operative/Unskilled	330	336	+0.9%
Total	12 971	13 278	+1.2%

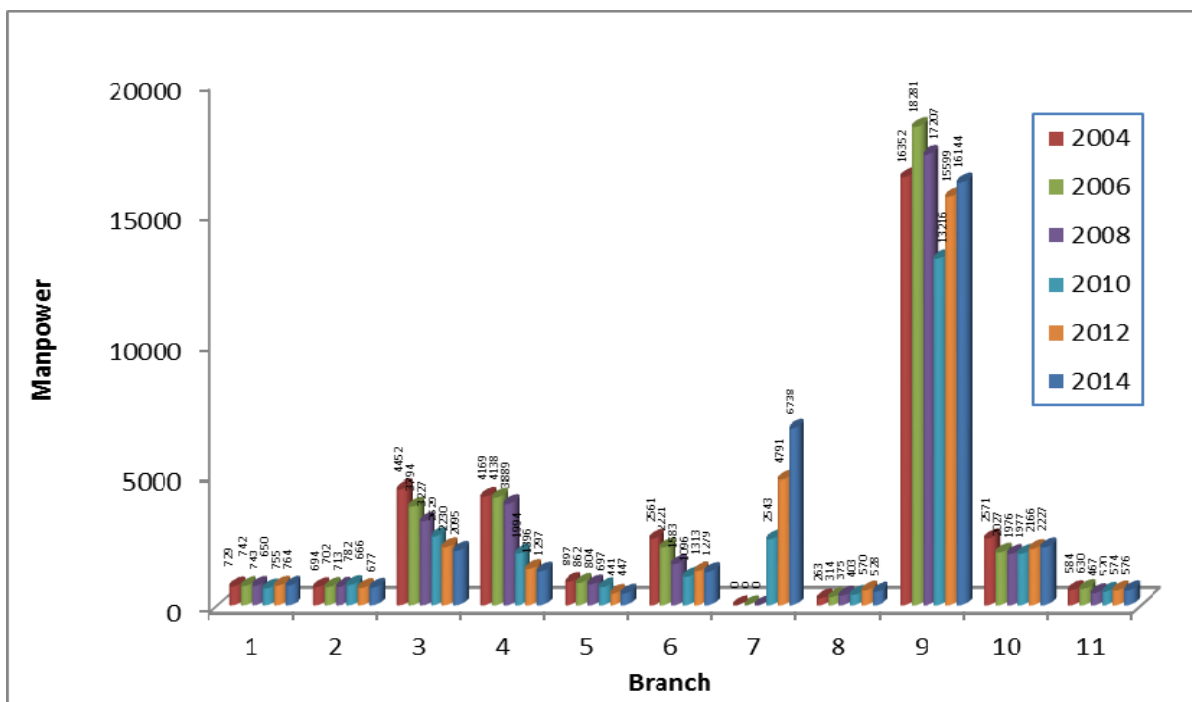
3.3 The survey revealed that for the metal products and related industries, there were some increase in the number of technologists/managers (5.2%) and technicians/supervisors (5.8%) while and craftsmen (-1.3%) and operative/unskilled workers (-0.4%) had slightly decreased during the past two years. As regards the jewellery industry, the manpower at technologists/managers (1.4%), technicians/supervisors (1%), craftsmen (2%) and operative/unskilled workers (0.9%) levels had a steady growth during the past two years.

### Manpower Changes by Branch

3.4 The scope of the manpower surveys of the metals industry has been expanded significantly to include more branches of the industry since the survey conducted in 2004. Figures 3.1(a) and 3.1(b) show the manpower changes by branch of the two major sectors of the metals industry between 2004 and 2014.

Figure 3.1(a): Manpower Changes by Branch  
between 2004 and 2014

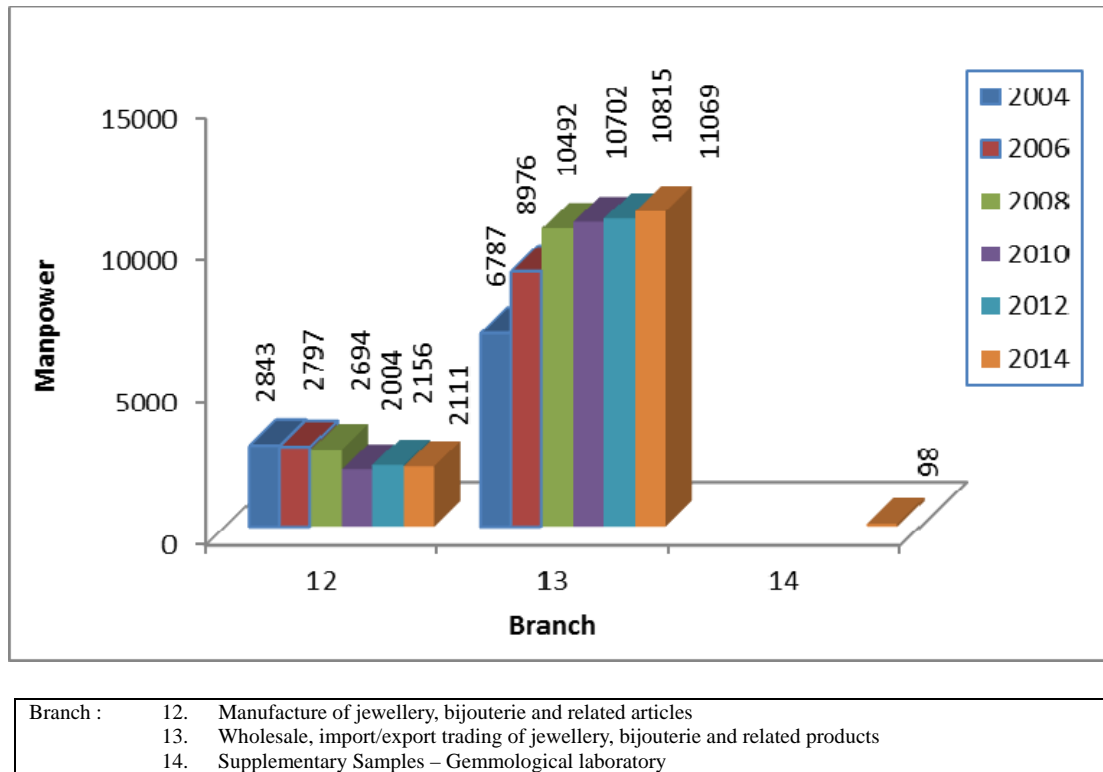
#### Sector A: Metal Products and Related Industries



- Branch :
1. Plant maintenance section of food, beverage and tobacco manufacturing industries
  2. Manufacture of basic metals
  3. Manufacture of fabricated metal products (except machinery and equipment) and metal toys
  4. Manufacture of machinery and equipment
  5. Manufacture of medical equipment
  6. Manufacture of electrical equipment
  7. Repair and installation of machinery and equipment
  8. Manufacture of watches and clocks
  9. Wholesale, import/export trading of machinery, equipment, watches and clocks
  10. Engineering services related to Metals industry including material testing, metallurgist, process development/testing, production line consulting/design, and quality control
  11. Supplementary samples – Relevant division/department in training/education institutions

Figure 3.1(b): Manpower Changes by Branch between 2004 and 2014

Sector B: Jewellery Industry



3.5 As shown in figure 3.1(a), the branch of “repair and installation of machinery and equipment” (Branch 7), had experienced significant increase in manpower from 4 791 in June 2012 to 6 738 in June 2014. That represents an average increase of 18.6% per annum. The branch of “wholesale, import/export trading of machinery, equipment, watches and clocks” (Branch 9), which employed about 50% of the total manpower in the metal products and related industries, had a slight increase in manpower from 15 599 in June 2012 to 16 144 in June 2014. That represents an average increase of 1.73% per annum. (for comparison, in the 2012 survey, there was an annual increase of 8.64% from 13 216 in June 2010 to 15 599 in June 2012).

3.6 On the other hand, the branch of “manufacture of fabricated metal products (except machinery and equipment) and metal toys” (Branch 3) continued to experience decrease in manpower from 2 230 in June 2012 to 2 095 in June 2014, representing an average decrease of 3.07% per annum (for comparison, in the 2012 survey, the reported manpower decrease for Branch 3 was from 2 629 in June 2010 to 2 230 in June 2012, representing an average decrease of 7.9% per annum).

3.7 For the branch of “manufacture of basic metals” (Branch 2), there had been a slight increase of manpower from 666 to 677, representing an average increase of 0.82% per annum (for comparison, in the 2012 survey, the reported change in manpower for Branch 2 was from 782 in June 2010 to 666 in June 2012, representing an average decrease of 7.71% per annum). For the branch of “manufacture of machinery and equipment” (Branch 4), there had been a slight decrease of manpower from 1 396 to 1 297, representing an average decrease of 3.61% per annum (for comparison, in the 2012 survey, the reported change in manpower for Branch 4 was from 1 994 in June 2010 to 1 396 in June 2012, representing an average decrease of 16.33% per annum). For the branch of “manufacture of medical equipment” (Branch 5), there had been a slight increase of manpower from 441 to 447, representing an average increase of 0.68% per annum (for comparison, in the 2012 survey, the reported change in manpower for Branch 5 was from 697 in June 2010 to 441 in June 2012, representing an average decrease of 20.46% per annum). Therefore, previous decrease of manpower in these three branches (Branch 2, Branch 4 and Branch 5) had either significantly slowed down or even halted.

3.8 For the branch of “manufacture of electrical equipment” (Branch 6), there had been a slight decrease of manpower from 1 313 to 1 279, representing an average decrease of 1.3% per annum (for comparison, in the 2012 survey, the reported change in manpower for Branch 6 was from 1 096 in June 2010 to 1 313 in June 2012, representing an average increase of 9.45% per annum). For the branch of “manufacture of watches and clocks” (Branch 8), there had been a slight decrease of manpower from 570 to 528, representing an average decrease of 3.75% per annum (for comparison, in the 2012 survey, the reported manpower increase for Branch 8 was from 403 in June 2010 to 570 in June 2012, representing an average increase of 18.9% per annum).

3.9 From the above analysis, it can be shown the magnitude of changes in manpower over the years have significantly narrowed or even slightly reversed. Moreover, as the total number of establishment in the metals industry remained steady (around 15 000 to 17 000 in number for the 2006, 2008, 2010, 2012 and 2014 surveys) and the significant increase in the number of persons of other disciplines, such as accounting officers and clerks, working in the metals industry had leveled out (35 165 in June 2008 and 35 218 in June 2010, and then increase to 47 129 in June 2012 and slightly decrease to 46 414 in June 2014), it indicates that the re-structuring process for the metals industry in Hong Kong (i.e., transformation from production based/labour intensive mode of operation to value-added/quality-emphasized mode of operation, such as championed/niched at financial management, sales and marketing, R&D, design, brand development, pre-sales and post-sales support etc.) had nearly completed and a few employers might even consider to “reverse” the re-structuring process to migrate part of the manufacturing process from the Mainland back to Hong Kong.

3.10 Regarding the jewellery industry (Sector B), manpower in both the branches of jewellery manufacture branch (Branch 12) and jewellery wholesale, import/export trading branch (Branch 13) remained very steady: from 2 156 and 10 815 in June 2012 to 2 111 (1.05% decrease) and 11 069 (1.17% increase) in June 2014 respectively (Figure 3.1(b)) (for comparison, in the 2012 survey, the reported change manpower increase for Branch 12 was from 2 004 in June 2010 to 2 156 in June 2012, representing an average increase of 3.72% per annum; the reported change manpower increase for Branch 13 was from 10 702 in June

2010 to 10 815 in June 2012, representing an average increase of 0.53% per annum;). This was attributable to stable demand from the local market, which also includes the Mainland tourists. Besides, jewellery products which are “made in” and/or “made by” Hong Kong have already well established in people’s minds, representing astute and outstanding product design as well as reliable product quality.

## **Business Outlook**

3.11 Owing to the combined efforts by the employers and employees in the metals industry (including the jewellery sector) during the past few years, with the former incessantly and continuously investing in people, machinery and technology; and the latter industriously striving for excellence and continuous improvement, the metals industry has been making significant growth (as shown from the survey figures) over the years. However, it is expected that the industry would encounter some challenges and difficulties ahead in the ensuing years.

3.12 The global economy has quickly recovered after the 2008 financial tsunami. However, the recovery had not lasted long. The Baltic Dry Index (BDI)<sup>1</sup> reached its lowest ebb of 663 in December 2008 (caused by the financial tsunami) and then bounced and then rebound to peak at 11 771 in early 2009. It has since been gradually staggering downwards and in 2012, it hit several particularly low readings of 647, 661 and 698. The index rebound a bit in 2013 (in March 2013, it was recorded at around 900) and then it hovered between 700 and 1500. As indicated by the BDI, the global economy does not seem to fare well in the next couple of years.

3.13 On the other hand, quite a number of economic/financial experts including the World Economic Outlook (WEO) have projected that the global economic growth would continue to increase, but at a slower and uneven pace. The slow and uneven trend was mainly caused by risks of uncertainties, such as geopolitical tensions and changes in policies of the major countries on risk spread and volatility control in financial markets as well as stagnation of economic growth in advanced economies and emerging markets. Nevertheless, the extent of growth is mainly determined by the fiscal/economic policies undertaken by the US, European nations and Japan. For the emerging markets such as China, India, Russia, Eastern Europe and Latin American countries, it is expected the governments in those countries would try to stick to the policy of maintaining modest growth though they might have to deal with the problems of weak demand from overseas and domestic bottlenecks for their products and services. In essence, it is expected that global economic growth would be moving up at a much faster pace eventually.

### ***Sector A: Metal Products and Related Industries***

3.14 As a result of the rapid economic development of China and the established

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<sup>1</sup> The Baltic Dry Index (BDI) is a number issued daily by the London-based Baltic Exchange, which provides "an assessment of the price of moving the major raw materials by sea" and is considered by many economic experts as a leading economic indicator of “future” economic growth and production. In other words, it is one of a widely adopted leading indicators for predict business/economic outlook.

collaboration between Hong Kong and the Pearl River Delta (PRD), local manufacturers had grasped the opportunities to expand their scales of operations and upgrade their manufacturing capabilities in the past two decades. Since the mid-1990s, manufacturing enterprises based in Hong Kong with production operations in Guangdong had also gradually expanded their operations to the Yangtze River Delta (YRD) region. Apart from being end-product producers, the metal products and related industries also serve as linkage industries by providing moulds and dies, parts and components, machine maintenance and technical services for other industries. With the continued economic development in the Mainland during the past two decades, Hong Kong manufacturers have been enjoying growth and success in production operations in China.

3.15 However, there have been quite a number of changes in recent years. Since the introduction of the Eleventh Five-Year Guideline (十一五規劃) in 2006, China has determined to shape its national policy to develop high value-added industries as well as maintain and sustain a “low-pollution” environment. It has also introduced the Housing Accumulation Fund (住房公積金), the minimum wage requirement (最低工資), proposal on collective rights of negotiation for employees (on wages, working hours, leave and holidays etc.), new Labour Contract Law, Taxation Laws, Environmental Laws and laws governing occupational safety and hygiene. It has also required employers to provide training, social insurance and benefits as well as tightened the import/export restrictions/inspections at customs. Together with the shortage of labour supply in the Mainland and fierce competitions from the emergence of local enterprises, which compete mainly on cost advantages, Hong Kong manufacturers continue to face a lot of difficulties to maintain their manufacturing operations in China. Nevertheless, Hong Kong manufacturers are indeed highly resilient. From the recent and the previous surveys (conducted in 2014, 2012, 2010 and 2008), it is revealed that they have circumvented and prevailed through the difficulties. From the surveys, it is noted that the number of enterprises/companies with active operations in Mainland China has decreased from 2 847 (employing 487 400 mainland workers) in June 2008, down to 1 106 (employing 245 351 mainland workers) in June 2010 and further down to 991 (employing 110 042 mainland workers) in June 2012 but afterwards, rebound back to 1 431 (employing 230-899 mainland workers) in June 2014. Therefore, it is shown that though some of Hong Kong’s less effective manufacturers have been competed out of business. For those that remain, they have not only recovered but they also been able to make further expansions.

3.16 In fact, many Hong Kong manufacturers have been making continuous improvements to sustain their competitive advantages to prevail over competitors through “differentiation”, such as making breakthroughs in product design and innovation, maintaining a high standard of product quality, cutting down wastages and enhance supply chain management as well as carrying out further market penetration into the Mainland and market expansion to reach for new overseas markets. Besides, many employers have shifted their production focus from OEM (Original Equipment Manufacturer) based to ODM (Original Design Manufacturer) and OBM (Original Brand Manufacturer) based. To effectuate the above changes, Hong Kong manufacturers have continued to invest in modernizing their machinery and equipment to enhance productivity and quality, as well as commit to upgrade and provide training for their manpower resources (both technical and managerial) to sustain their competitive edges in product & engineering design, operation processes and also, in other largely neglected but important areas/issues, such as work ethics



and attitude. On the other hand, over the years, some of the employers, particularly those in the watches and clocks and the optical goods industries have relocated part of their activities, such as the production branch on value-added processes back to Hong Kong. However, such trend has been slowed down as most of the remaining manufacturers have indicated that they would not consider relocating their operations back to Hong Kong (even high value-added business) at the moment. Rather, they would focus their business strategies on strengthening their product design, technology, business management, production automation, branding etc. and they have also considered to extend their business reach via the e-business platforms.

3.17 In summary, there is indeed a high demand for high quality tooling, industrial machinery, equipment and parts as well as technical-support, manufacturing-related services, as well as rising demand on product and engineering design, sales and marketing workforce with good business and costing concept and familiar with production and workflow processes, as evidenced by the survey results. In view of the above, the Training Board opines that the metal products and related industries, in particular, the wholesale and import/export trading branch which used to employ about 50% of the manpower in this sector, will continue to play an important role and make valuable contributions to the further development of the manufacturing industries both in Hong Kong and the Mainland.

### ***Sector B: Jewellery Industry***

3.18 Hong Kong is one of the largest exporters of fine jewellery amongst Italy, the US and Switzerland. It is the second largest exporter of imitation jewellery in the World. Hong Kong is also the leader in the production of pure gold items and jade jewellery and has recently evolved into a leading trading and distribution centre for pearls. Over the years, jewellery exports from Hong Kong are on the rise. In 2013, total export value of jewellery, goldsmiths' and silversmiths' wares, and other articles of precious or semi-precious materials (SITC 897) was amounted to HK\$65 578 million, which was about 5.5% higher than that of 2012.<sup>2</sup> Details of the export values between 2005 and 2013 are shown in Table 3.2 and Figure 3.2.

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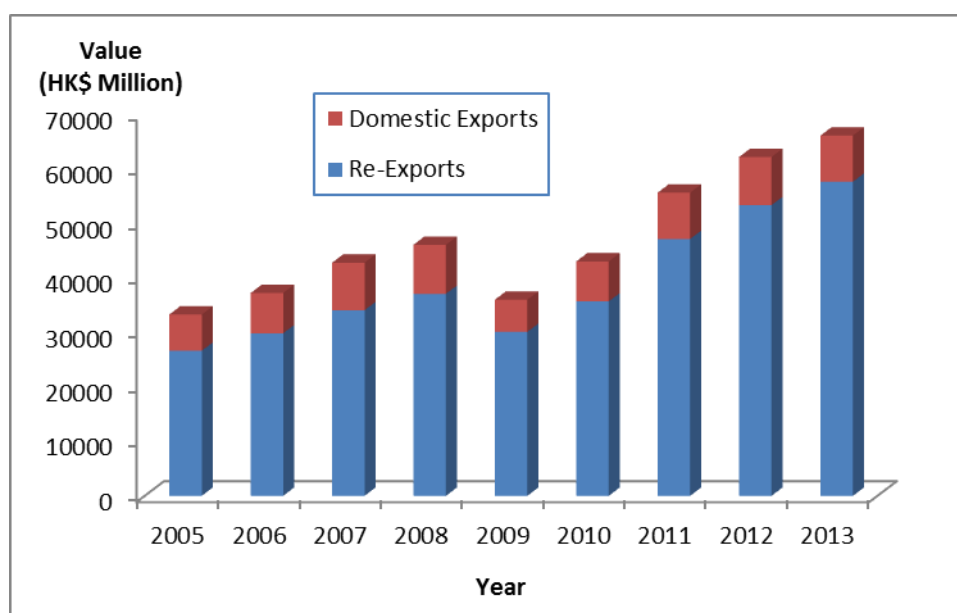
<sup>2</sup> If pearls and precious or semiprecious stones, unworked or worked (SITC 667) is also included, the total export value in 2012 would be amounted to \$117 805 million.

Table 3.2: Export Value of Jewellery Products  
(SITC 897)

Jewellery Products (SITC 897)	Value (HK\$ Million)								
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Domestic Exports	6 642	7 376	8 705	8 978	5 884	7 320	8 492	8 821	8 450
Re-Exports	26 607	29 820	34 049	37 064	30 084	35 671	47 118	53 325	57 128
Total Exports	33 249	37 196	42 754	46 042	35 968	42 991	55 610	62 146	65 578

Source: Hong Kong External Merchandise Trade, Census and Statistics Department and the Hong Kong Trade Development Council

Figure 3.2: Export Value of Jewellery Products



3.19 However, Hong Kong’s jewellery exporters are facing ever-intensified competition from their counterparts in the Chinese Mainland and other countries, particularly India, Thailand, Singapore and Malaysia. Together with the price fluctuation of precious metals, diamonds, precious stones and materials, exports’ profit margins have been trimmed down in recent years. In order to sustain their competitive edges, many manufacturers have opted for “differentiation” through investing and applying sophisticated and automated production equipment, including computer-aided design and manufacturing (CAD/CAM) systems, rapid

prototyping and computer numerically controlled (CNC) machine tools, in their product design and manufacturing processes. They also integrate advanced production techniques, such as electroforming, with handicraft skills to further enhance their efficiency.

3.20 Under the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA), the Mainland has given all products of Hong Kong origin, including jewellery, tariff-free treatment starting from 1 January 2006. The zero import tariff preference has attracted Hong Kong jewellery manufacturers to move up-market in producing more brand name products, or applying more manufacturing processes with high value-added content or substantial intellectual property input. However, to benefit from CEPA's tariff, moulding of precious metals; moulding and setting of pearls, precious/semi-precious stones for jewellery articles, which are identified as the principal process for the purpose of delineating their origin, are required to be carried out in Hong Kong. Besides, assembling is also required to be done in Hong Kong. As a consequence, although many Hong Kong jewellery manufacturers have already shifted their production processes to the Chinese Mainland, mainly in Shenzhen and Panyu, the value-added processes including moulding of precious metals; moulding and setting of precious metals, pearls, precious/semi-precious stones are still retained in Hong Kong. Besides, some Hong Kong manufacturers are keen on preserving their brand image as well as upholding the quality, reliability and uniqueness of "made in/by Hong Kong" products and therefore, they have relocated some of their core product design functions and/or value-added operations back to Hong Kong.

3.21 Chinese government's previous policy on encouraging consumption had shored up the purchasing power and import appetite of Chinese residents, and this has indeed facilitate the sales of jewellery articles to the mainland, as well as retail sales in Hong Kong contributed by the influx of Chinese visitors over the years.

3.22 The Training Board is highly convinced that China's vitality would continue. It is envisaged that further business growth in the jewellery industry would continue to flourish in the coming years, albeit overshadowed by some potential and unpredictable challenges.

### **Future Manpower Demand**

3.23 Having considered the latest developments as well as the employers' forecast of future manpower requirements and their views on the expected change in business situation, the Training Board opines that in the years ahead there will be an on-going demand for properly trained technologists, technicians and craftsmen to sustain the development of the metal products and related industries and to stave off keen competition. In particular, demand on competencies in technology and product & engineering design, sales/marketing and production processes is high. Most of these technical personnel would be employed by the repair and installation, wholesale and import/export trading branches to provide marketing and after sales repair & maintenance services to the machinery and equipment installed in the manufacturing establishments. However, demand for operatives/unskilled workers will further decrease.

3.24 As regards the jewellery industry, the Training Board is of the view that the jewellery wholesale and import/export trading branch will continue to enjoy growth in the coming years, while the jewellery manufacturing branch will continue to contract. There will be a high demand for jewellery manpower at the technologist and technician levels for design and development, marketing and sales for export-oriented activities in Hong Kong. However, the demand for additional craftsmen for production related jobs would be limited, and the number of operative/unskilled workers will further decrease.

3.25 The Training Board has also estimated the loss of manpower at different job levels due to natural wastage, i.e. workers leaving the metals industry through retirement, migration to other industries and other causes. The Training Board has decided that the annual wastage rates for most of the job levels should remain unchanged at 3% except for craftsmen level in the metal products and related industries, which should be adjusted to 5%, as aging of existing employees in this sector has become an issue in recent years.

3.26 The Training Board's forecast of the additional manpower required by the metals industry to cover both wastage and growth from 2015 to 2018 is given in Table 3.3 below:

Table 3.3: Annual Manpower Demand in the Metals Industry from 2015 to 2018

Job Level	Annual Average Additional Demand for Employees	
	<u>Sector A</u> Metal Products and Related Industries	<u>Sector B</u> Jewellery Industry
Technologist/Managerial	483 – 591	147 – 179
Technician/Supervisory	1 213 – 1 483	297 – 363
Craftsman	250 – 306	53 – 65

3.27 The Training Board will conduct another manpower survey in 2016 to update the manpower statistics and review the training requirements of the metals industry.

## SECTION IV

### RECOMMENDATIONS

4.1 Hong Kong employers (particularly manufacturers) in the metals industry (also including the jewellery sector) have been successful in expanding their production operations into the Pearl River Delta (PRD) in the past twenty years, and this has resulted in a sophisticated division of labour between their PRD and Hong Kong operations. While the labour intensive production activities are relocated and carried out by the PRD factories, the Hong Kong headquarters perform the value-added functions such as financial management, sales and marketing, R&D, design and brand development. The above transformation of the Hong Kong manufacturing industry had led to a major restructuring of the local manpower resources, resulting in a significant reduction in the number of production-related craft and operative jobs, and an constant demand for manpower in manufacturing-related services such as technical support, marketing, tooling, product design and development during the past two decades. However, with the rapid changes in business environment in China in recent years, Hong Kong employers have been under tremendous challenges and pressure to upgrade their manpower in order to stay competitive.

4.2 To cope with the surmounting challenges, many Hong Kong manufacturers have been making continuous improvements to sustain their competitive advantages to prevail over competitors through “differentiation”, such as making breakthroughs in product design and innovation, maintaining a high standard of product quality, cutting down wastages and enhance supply chain management as well as carrying out further market penetration into the Mainland and market expansion to reach for new overseas markets. To effectuate the above changes, Hong Kong manufacturers have continued to invest in modernizing their machinery and equipment to enhance productivity and quality, as well as commit to upgrade and provide training for their manpower resources (both technical and managerial) to sustain their competitive edges in product & engineering design, operation processes and also, in other largely neglected but important areas/issues, such as work ethics and attitude. On the other hand, over the years, some of the employers have relocated part of their activities, such as the production branch on value-added processes back to Hong Kong. However, such trend has been slowed down. Most manufacturers are now focusing on business strategies to strengthen their competitive edge in product design, technology, business management, production automation, branding etc. and some manufacturers have also considered to extend their business reach via the e-business platforms.

4.3 In view of the above challenges, the Training Board recommends that employers in the metals industry must step up their training efforts to ensure an adequate supply of properly trained manpower to meet the developing need of the industry, especially in the areas of product design & innovation, value-added production, costing, operation management and logistic & supply chain management, work ethics and attitudes. To develop quality and value-added products and services, abundant supply of well-trained staff is required. Therefore, employers should plan and seek for organized training for their employees to upgrade and update the latter’s knowledge and skills from time to time, in

addition to investing in sophisticated machinery and equipment. They should also provide long-term career development and training opportunities to help retain staff and reduce staff turnover and wastage rate. Moreover, as it is possible that some of the production processes might gradually be migrated back to Hong Kong in the longer term, it is recommendable that plans and provisions for corresponding recruitment/training would have to be made.

4.4 Employees in the metals industry, in particular, the younger generation, should expand their horizons and tap emerging opportunities in the Chinese Mainland and/or other emerging markets. They should equip themselves with the relevant knowledge and skills for working in Hong Kong, the Mainland or possibly, other emerging markets. To remain competitive, they should also pursue lifelong learning, particularly participation in programmes and training schemes that will lead to recognized qualifications.

### **Annual Intake of Trainees**

4.5 At the time of the survey, there were only 193 trainees in the metal products and related industries, and 23 trainees in the jewellery industry. Since it normally takes three to four years to train a trainee, it is evident that the present training efforts are insufficient to satisfy the industry's needs.

4.6 The Training Board recommends that the industry as a whole should embark on a training programme of a scale as set out in paragraph 3.26. A breakdown of the training requirements into various principal jobs is given in Appendices 11 and 12.

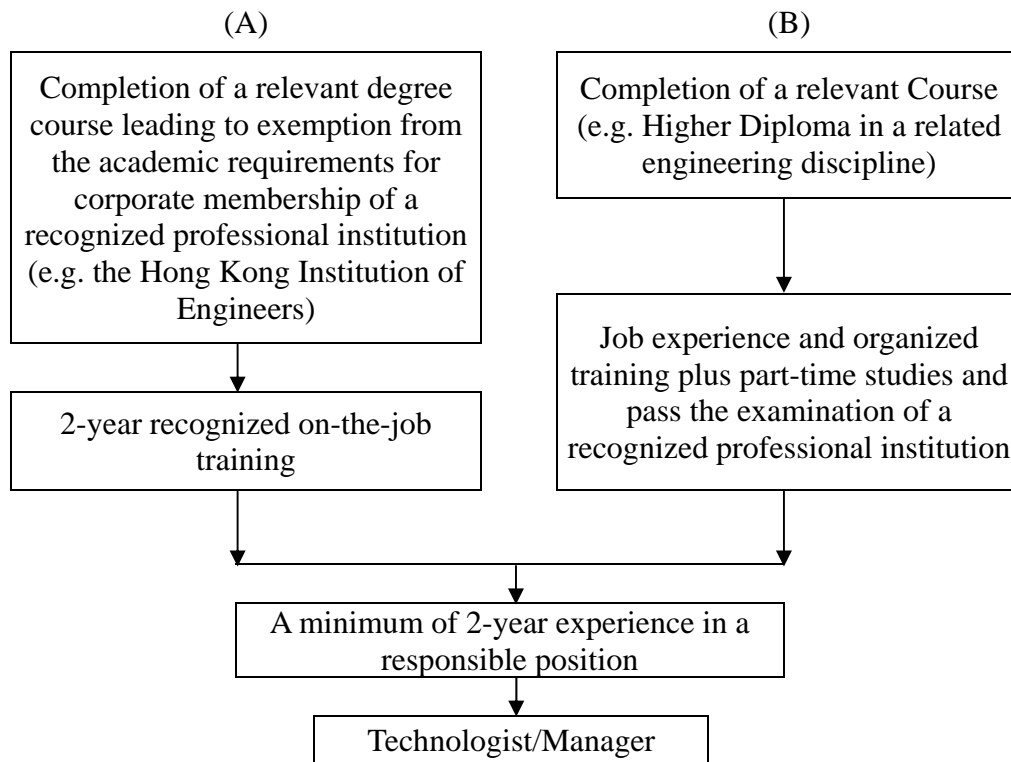
4.7 The recommended training routes for technologists/managers, technicians and craftsmen are outlined in the following paragraphs.

### ***Training in Sector A: Metal Products and Related Industries***

#### Training of Technologists/Managers

4.8 Technologists/Managers play an important role in bringing about improvement in management and technological innovations. The Training Board recommends that they should be trained via the following routes:

Figure 4.1: Training of Technologists/Managers



4.9 A number of local educational institutions funded by the University Grants Committee (UGC) offer various degree courses in mechanical/manufacturing engineering and related disciplines. The following table shows the estimated number of graduates from these full-time engineering degree courses in 2014/15 and 2015/16:

Table 4.1: Estimated Number of Graduates from UGC-funded Institutions

Full-time Degree Programme	Estimated Number of Graduates	
	2014/15	2015/16*
Mechanical Engineering	406	405
Manufacturing/Industrial/Systems Engineering & Engineering Management	339	259
Mechatronic Engineering	38	-
Materials Engineering	49	-
Total	832	664

\*Projected number of graduates for individual courses in 2015/16 is not available.

4.10 The Hong Kong Institute of Vocational Education (IVE) of the VTC offers a range of higher diploma courses in the mechanical/manufacturing engineering and related disciplines. An UGC-funded institution also offers higher diploma programmes in industrial & systems engineering, computer aided engineering design, and product innovation technologies. The following table shows the estimated number of graduates from relevant full-time higher diploma courses offered by these institutions:

Table 4.2: Estimated Number of Higher Diploma Graduates

Full-time Higher Diploma Programme	Estimated Number of Graduates	
	2014/15	2015/16
Mechanical Engineering (including Computer-Aided Engineering Design and Horological Science & Technology)	261	313
Manufacturing/Industrial/Systems Engineering & Engineering Management (including Ophthalmic Dispensing and Optical Technology)	77	56
Product Design/Innovation/Engineering	211	184
Total	549	553

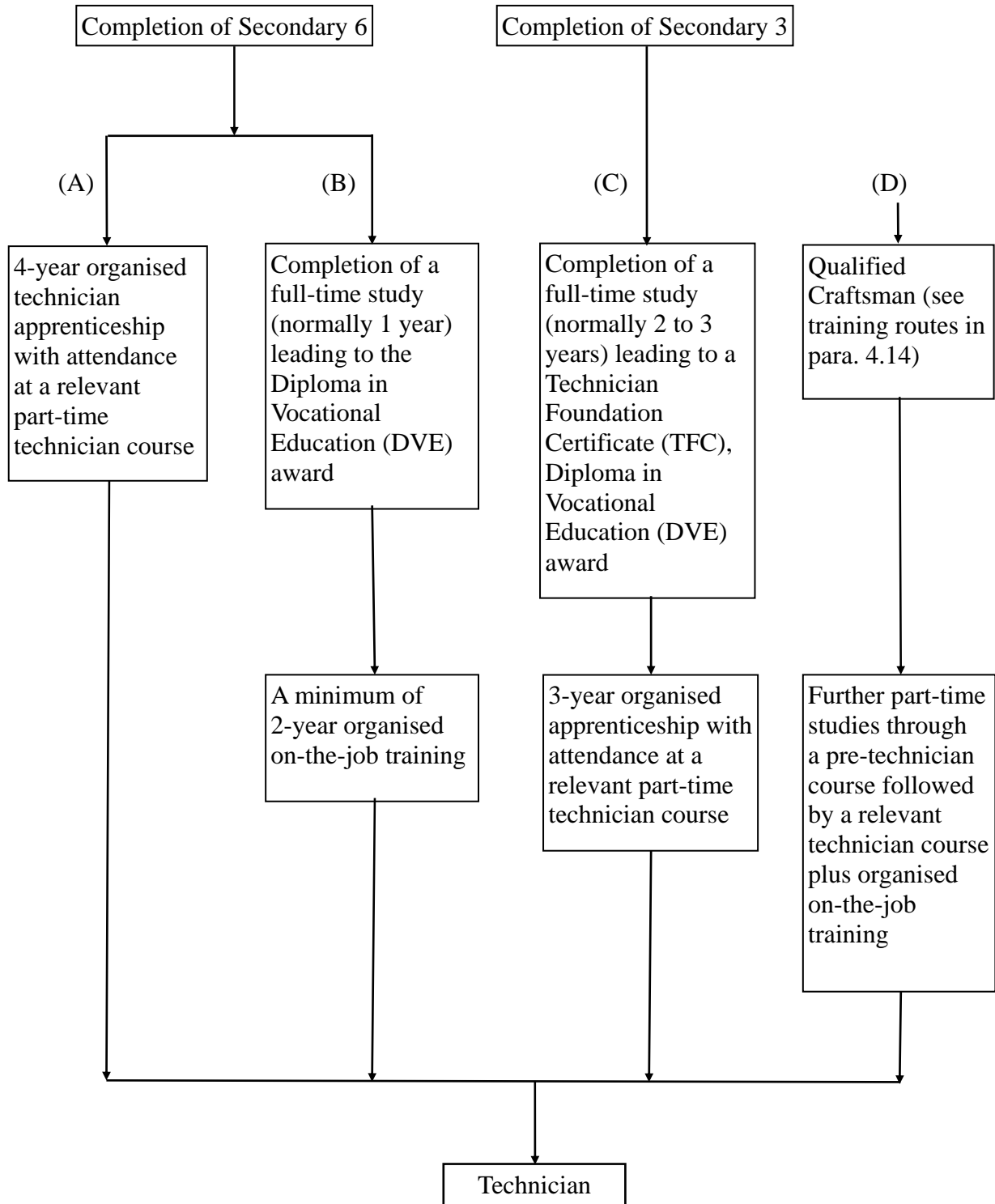
4.11 A large number of the degree and higher diploma graduates of the mechanical/manufacturing engineering and related disciplines are also employed by other economic sectors such as the electrical and mechanical services, construction and plastics industries. Many higher diploma graduates also enter jobs at the technician level, instead of technologist level.

#### Training of Technicians

4.12 A technician is one who occupies a position between the technologist and the craftsman. His education, training and practical experience should enable him to apply proven techniques to solve technical problems. He is expected to carry a measure of technical responsibility, normally under the guidance of a technologist. Since the introduction the new “3+3+4” academic structure under the Education Reform and the development of the Qualifications Framework (QF), the routes available for training technicians are shown in Figure 4.2.



Figure 4.2: Training of Technicians

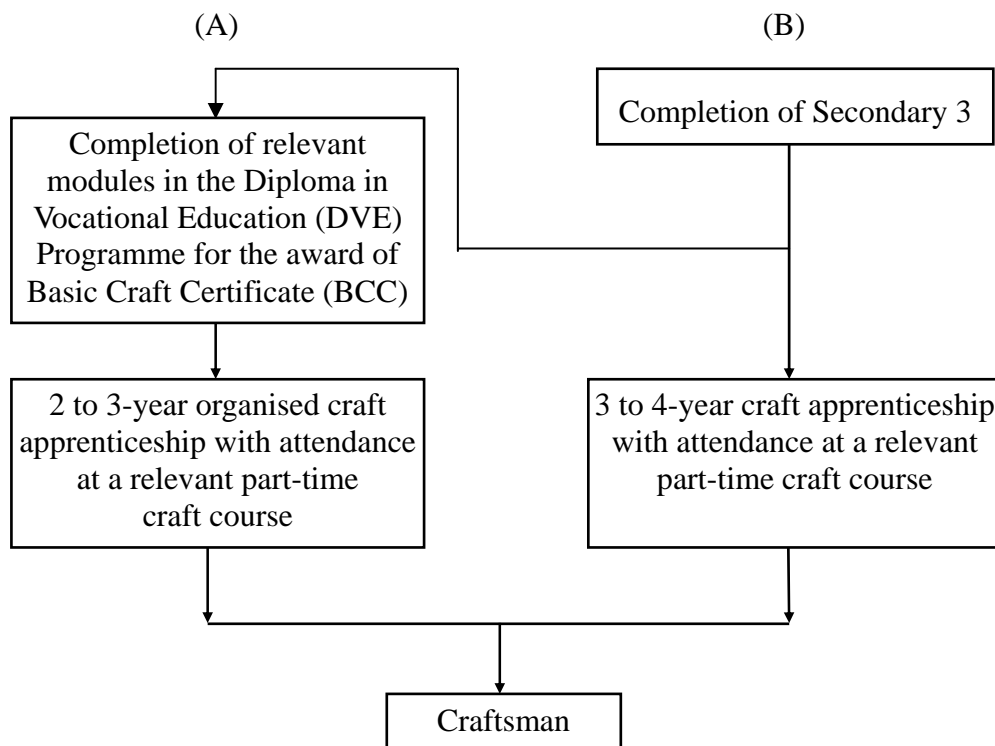


4.13 As mentioned in paragraph 4.11 above, many higher diploma graduates join the industry as technicians after completion of their courses, and they are an important source of technician supply for the metal products and related industries. The VTC, in particular, the Pro-Act Training and Development Centre (Mechanical), the Pro-Act Training and Development Centre (Precision Engineering) and the Pro-Act Training and Development Centre (Welding) also offer full-time and part-time Diploma in Vocational Education (DVE) Programme for Secondary 6 and/or Secondary 3 School leavers. Total numbers of planned places for the DVE Programme in the Mechanical Engineering and Watch & Clock are 200 and 60 respectively in 2015/16. However, the DVE Programme is designed as a “multi-entry-multi-exit” programme. Therefore, not all of the trainees studying the DVE Programme would graduate with the DVE Award. Some of the students might opt to enter the employment market earlier by taking fewer subjects and graduate with the Basic Craft Certificate (BCC) Award and then continue to study part-time for the Craft Certificate Award.

### Training of Craftsmen

4.14 A craftsman is a skilled worker who is able to apply a wide range of skills to his work with minimum direction and supervision. He requires not only practical skills but also related theoretical knowledge to enable him to adapt himself to new technologies. A proper craft apprenticeship would contain both components. Since the introduction the new “3+3+4” academic structure under the Education Reform and the development of the Qualifications Framework (QF), the routes available for training craftsmen are shown in Figure 4.3.

Figure 4.3: Training of Craftsmen



4.15 The Training Board recommends route (A) because the apprenticeship period is shorter and the apprentices have already undergone proper basic training and would be productive right from the start of their apprenticeship.

### ***Training in Sector B: Jewellery Industry***

#### Training of Jewellery Technologists

4.16 Technologists in the jewellery industry should preferably be corporate member of an appropriate professional institution. Alternatively, they should preferably possess either a university degree or a higher diploma in jewellery or in design. They should have undergone a period of organized training and acquired sufficient experience in a responsible position. At the time of the survey, there were 2 471 technologists in the jewellery industry. Some received their education and subsequent practical training abroad. Some were experienced technicians promoted to technologists after acquiring additional professional qualifications.

4.17 Starting from the 2004/05 academic year, the Hong Kong Institute of Vocational Education (Lee Wai Lee) has offered a full-time higher diploma course in jewellery design and technology. The estimated numbers of graduates from this course are 70 for both 2014/15 and 2015/16. Besides, the estimated number of graduates for Higher Diploma in Jewellery and Image Product Design, which is offered by the Hong Kong Design Institute (HKDI), is 60 in 2015/16. After completion of the higher diploma course, students can pursue further study in related degree courses offered by overseas universities.

#### Training of Jewellery Technicians

4.18 The recommended training routes of jewellery technician are similar to those shown in Figure 4.2. Jewellery technician courses are offered by the VTC's Pro-Act Training and Development Centre (Jewellery). Previously, trainees were enrolled to the Centre's 1-year Technician Foundation Certificate in Jewellery Design & Manufacturing. Starting from 2007/08, the Centre had also offered a 1-year Intensive Diploma in Vocational Studies in Jewellery Arts and Design. The two 1-year jewellery technician courses also provided a total of about 110 training places from 2007/08 onward. Now, the Centre offers both full-time and part-time Diploma in Vocational Education (DVE) Programme for Secondary 6 and/or Secondary 3 School leavers. Total number of planned places for the DVE Programme in the Jewellery, Arts & Design Stream is 120 in 2015/16. However, the DVE Programme is designed as a "multi-entry-multi-exit" programme. Therefore, not all of the trainees studying the DVE Programme would graduate with the DVE Award. Some of the students might opt to enter the employment market earlier by taking fewer subjects and graduate with the Basic Craft Certificate (BCC) Award and then continue to study part-time for the Craft Certificate Award.

## Training of Jewellery Craftsmen

4.19 The training routes of jewellery craftsmen are similar to those described in Figure 4.3. The Pro-Act Training and Development Centre (Jewellery) plays a key role in providing basic training for Secondary 3 school leavers to become apprentices/trainees in the jewellery industry. Previously, the Centre offers two 1-year Basic Craft Certificate (BCC) courses in goldsmithing and precious stone setting, as well as a 3-year Diploma in Vocational Studies (DVS) in Jewellery Arts and Design. Now the Centre offers both full-time and part-time Diploma in Vocational Education (DVE) Programme for Secondary 6 and/or Secondary 3 School leavers.

## **Educational and Training Institutions**

4.20 The VTC's Hong Kong Institute of Vocational Education (IVE), HKDI, the Pro-Act Training and Development Centre (Jewellery), the Pro-Act Training and Development Centre (Mechanical), the Pro-Act Training and Development Centre (Precision Engineering) and the Pro-Act Training and Development Centre (Welding) as well as several tertiary institutions offer a wide range of pre-employment and in-service training courses for workers in the metals industry. The Training Board strongly urges employers in the industry to make full use of the training facilities in these institutions by recruiting their graduates as apprentices/trainees and sponsoring employees to attend relevant upgrading courses.

## **Training Services of the Vocational Training Council**

4.21 The Vocational Training Council offers free services to help employers organize training schemes including:

- (a) The statutory **Apprenticeship Scheme**, through which technicians and craftsmen are effectively trained to meet the needs of the industry;
- (b) The **Engineering Graduate Training Scheme**, which helps engineering students and graduates complete their professional training as engineers;
- (c) The voluntary **Trade Testing and Certification Scheme**, which ascertains the standards of skilled workers; and
- (d) The **New Technology Training Scheme**, which provides financial assistance to local companies that wish to have their employees trained overseas or locally in new technologies. The maximum grant is 50% of the training cost.

The Training Board recommends employers to contact the Council for assistance in setting up training schemes and recruiting apprentices/trainees.

# 金屬業

## 2014 年人力調查報告摘要

### 目的

職業訓練局屬下金屬業訓練委員會於 2014 年 6 月 25 日至 7 月 24 日期間進行人力調查，蒐集金屬業（包括珠寶業）最新的人力資料。

### 調查範圍

2. 是次調查覆蓋金屬業兩大範疇的 14 個門類：

#### 行業 A：金屬品製造及相關行業

門類 1：食品、飲品及煙草製造業的廠房保養部門 (HSIC 101-108、110、120)

門類 2：基本金屬的製造 (HSIC 241-243)

門類 3：金屬製品（機械及設備除外）及金屬玩具的製造 (HSIC 251、259、3244)

門類 4：機械設備的製造 (HSIC 281-282)

門類 5：醫療設備的製造 (HSIC 266, 2672, 3251, 3259)

門類 6：電器設備的製造 (HSIC 271-275、279)

門類 7：機械及設備的維修及安裝 (HSIC 331-332)

門類 8：鐘錶的製造 (HSIC 2652)

門類 9 : 機械設備、鐘錶的批發及出入口貿易 (HSIC 451434, 451446, 451621, 451633, 451635, 451699, 451711, 452434, 452446, 452621, 452633, 452635, 452699, 452711, 460434, 460446, 460621, 460633, 460635, 460699 及 460711)

門類 10 : 與金屬有關的工程服務、包括物料測試、冶金服務、生產工序發展及測試、生產線顧問／設計及品質控制服務 (HSIC 712及719)

門類 11 : 補充樣本：訓練機構及教育院校的有關部門及學系

## 行業 B：珠寶業

門類 12 : 珠寶首飾及有關物品的製造 (HSIC 321)

門類 13 : 珠寶首飾及有關物品的批發及出入口貿易 (HSIC 451432、451433、452432、452433、460432 及 460433)

門類 14 : 補充樣本：寶石實驗室

(HSIC 代表香港標準行業分類)

3. 調查前，統計處錄得以上金屬業 14 個門類在全港約有 22 354 間機構。鑑於調查資源所限，本會採用了分層隨機抽樣法，選出 1 005 間作為調查樣本。所得數字其後用統計方法倍大，以反映業內整體人力情況。

## 調查結果

4. 調查顯示，2014 年 6／7 月間共有 **46 050** 人受僱從事金屬業主要職務。其中 **32 772** 人 (71.2%) 受僱於金屬品製造及相關行業，**13 278** 人 (28.8%) 從事珠寶業。兩大行業範疇各技能等級的人力分布如下：

技能等級	僱員人數	佔整體僱員 人數百分率
<b>(a) 金屬品製造及相關行業</b>		
技師級／經理級	6 634	20.24%
技術員級／督導級	16 949	51.72%
技工級	6 048	18.46%
操作工級／非技術工人級	3 141	9.58%
<b>總數</b>	<b>32 772</b>	<b>100.00%</b>
<b>(b) 珠寶業</b>		
技師級／經理級	2 471	18.61%
技術員級／督導級	9 183	69.16%
技工級	1 288	9.70%
操作工級／非技術工人級	336	2.53%
<b>總數</b>	<b>13 278</b>	<b>100.00%</b>

#### 受訓者人數及空缺數目

5. 調查期間，金屬品製造及相關行業有受訓者 193 人，空缺有 606 個；珠寶業有受訓者 23 人，空缺有 199 個。分布如下：

技能等級	金屬品製造及相關行業					珠寶業				
	人力	受訓者		空缺		人力	受訓者		空缺	
		人數	佔人力 百分率	數目	佔人力 百分率		人數	佔人力 百分率	數目	佔人力 百分率
技師級／ 經理級	6 634	48	0.72%	23	0.35%	2 471	-	-	42	1.70%
技術員級／ 督導級	16 949	13	0.08%	399	2.35%	9 183	-	-	153	1.67%
技工級	6 048	88	1.46%	114	1.88%	1 288	23	1.79%	4	0.31%
操作工級／ 非技術工人 級	3 141	44	1.40%	70	2.23%	336	-	-	-	-
<b>總數</b>	<b>32 772</b>	<b>193</b>	<b>0.59%</b>	<b>606</b>	<b>1.85%</b>	<b>13 278</b>	<b>23</b>	<b>0.17%</b>	<b>199</b>	<b>1.50%</b>

6. 按僱主對一年後的人力預測，2015年6月時金屬品製造及相關行業和珠寶業的僱員分別將有33 414人及13 504人，按技能等級分布如下：

技能等級	2014年6月 僱員人數	預測2015年6月 僱員人數
<b>(a) 金屬品製造及相關行業</b>		
技師級／經理級	6 634	6 714
技術員級／督導級	16 949	17 246
技工級	6 048	6 202
操作工級／非技術工人級	3 141	3 252
<b>總數</b>	<b>32 772</b>	<b>33 414</b>
<b>(b) 珠寶業</b>		
技師級／經理級	2 471	2 513
技術員級／督導級	9 183	9 363
技工級	1 288	1 292
操作工級／非技術工人級	336	336
<b>總數</b>	<b>13 278</b>	<b>13 504</b>

## 業務前景

7. 全球經濟自2008年金融海嘯後快速復甦，但從波羅的海綜合指數[*BDI*<sup>1</sup>]顯示，復甦勢頭並不持久。2008年12月*BDI*由金融海嘯時的663點開始反彈飆升，至2009年初到達11 771點「高峰」。但之後一直反覆向下，至2012年期間更錄得647、661和698幾個新低點。2013年3月間*BDI*稍見上升，一度錄得900點高位。隨後數月*BDI*徘徊於700至1500點之間。縱觀*BDI*走勢，似乎顯示未來幾年全球經濟發展將持續放緩。

8. 不少財經專家，如《世界經濟展望》[*World Economic Outlook, WEO*]等卻推斷全球經濟仍會繼續增長，但步伐將會放慢和不穩定。主要是由於不明朗的因素，如國家政策上的轉變，地緣政治局勢緊張和風險蔓延，以及金融市場的波動，加上成熟和新興市場的經濟增長停

<sup>1</sup> 波羅的海綜合指數 (*BDI*) 是由倫敦波羅的海交易所每日公報的一項數字，「評估主要原材料的海運價格」，經濟學專家大都以此作為「未來」經濟增長和貨品生產的重要經濟指標。可以說，*BDI* 獲廣泛採用作預測行情／經濟前景的領先指標。



滯。然而，經濟增長的幅度仍需視乎美國、歐洲國家和日本採取的經濟措施。而中國、印度、俄羅斯、東歐和拉丁美洲等新興國家的政府亦將會繼續推行穩定的經濟增長政策，促進經濟發展。期望全球經濟最終能夠以更快的步伐增長。

#### **行業 A： 金屬品製造及相關行業**

9. 過去二十年來國內經濟發展迅速，香港製造商在國內的生產業務亦因此受惠，持續錄得佳績。近年國內引入多項新法規和監管條例，加上近年國內勞工短缺、內地企業湧現，令在國內營運的香港廠商成本大增之餘，同時亦要面對來自內地企業的激烈競爭。結果，一些營運能力稍遜的香港製造商已遭淘汰，餘下來仍在國內活躍於生產業務的香港製造商亦需面對不少挑戰。

10. 面對這種種挑戰，港商一直謀求對策，不斷更新進步，靈活運用「特色化」(differentiation)策略，藉以保持競爭優勢。如創新產品設計、提升產品質素、減少資源浪費，並強化供應鏈管理，以別出心裁的營運方式擊敗競爭對手。不少港商更投放大量資金，令生產設備更為先進及現代化，從而提高生產力和產品質素；同時積極培訓人才，提升員工水準，務求加強競爭優勢。部分僱主甚至把某部分業務，如產品增值部門等從國內遷回香港。

11. 如統計顯示，在變幻莫測的業務環境中，業界對優質模具、工業機械、設備及零部件、技術支援、與製造相關的服務等人才有龐大需求；對產品及工程設計、能熟悉生產和 workflow 並具營商及成本核算概念的銷售及推廣等人才需求亦有上升趨勢。

12. 本會認為，金屬品製造及相關行業，特別是機械設備、鐘錶的批發及出入口貿易門類（僱用本行業約 50% 人力）將繼續扮演重要角色，對香港和國內製造業的進一步發展發揮寶貴貢獻。

#### **行業 B： 珠寶業**

13. 香港是世界最大的珠寶產品出口商和製造中心之一。不過，香港珠寶出口商亦面對來自中國內地及其他國家對手愈趨激烈的競爭，特別是印度、泰國、新加坡和馬來西亞，加上貴金屬、鑽石、寶石及原材料價格波動，邊際溢利近年已削弱。許多生產商為了保持競

爭力，靈活運用「特色化」(differentiation)策略，於產品設計及製造過程中引入先進精密及自動化生產設備，包括電腦輔助設計及製造(CAD/CAM)系統、快速原型技術及電腦數控(CNC)機床等。他們更進一步把先進生產技術，例如電鑄技術與人手工藝配合，進一步提升效率。

14. 內地與香港建立更緊密經貿關係的安排(CEPA)後，零進口關稅的優惠吸引製造商投向高消費市場，生產更多品牌產品，及於生產過程中引入更多高增值元素或原創設計。然而，CEPA亦要求這些製品的主要生產工序須在香港進行，包括貴金屬製模工序、製造珠寶成品過程中的珍珠、寶石／半寶石製模／鑲嵌工序、裝嵌工序等。因此，儘管珠寶製造商把生產工序遷往深圳和番禺等內地廠房，但CEPA所要求的高增值工序仍需留在香港境內進行。而且，對品牌形象甚為著緊的部分港商，為確保其產品擁有由「香港製造」這品牌所具備的優秀特質(如產品可靠、設技獨特及品質精良等)，亦將某些重要的設計工序及／或有增值工序的營運部門遷返香港。

15. 中國政府鼓勵消費的政策，大大刺激人民的購買力及對進口商品的需求，多少有助珠寶製品銷往國內；近年內地訪港旅客大增，亦有助刺激本地珠寶零售業務。

16. 本會深信中國經濟活力將會持續。儘管會有一些潛在挑戰，情況難測，預期珠寶業未來將會繼續蓬勃增長。

## 未來人力需求

17. 本會從業界的最新發展，以及僱主對未來人力需求及業務轉變的預測等因素加入考慮後，認為未來金屬品製造及相關行業對幹練的技師、技術員及技工人才將續有需求，以應付未來發展並在劇烈競爭中站穩。當中以技術、產品及工程設計、銷售／推廣及生產工序方面的專才需求尤其大。預計大部分技術人員將受僱於技術支援／推廣／保養維修服務門類，為生產商提供機器和設備的市場推廣及售後維修保養服務。另一方面，操作工及非技術工人的需求卻會進一步下降。

18. 至於珠寶業，本會認為珠寶批發、出入口門類未來將持續增長，而珠寶製造門類將持續收縮。另一方面，以出口為主的業務將渴求設計及發展、市場推廣及銷售的技師／技術員級人力。然而，從事

生產相關工作的技工需求增幅只屬有限，而操作工／非技術工人的人數將進一步下降。

19. 本會亦估計本業各職級的自然流失情況。自然流失指因退休、轉業或其他原因離開金屬業。預期本業大多數技能等級的每年流失率仍為 3%，不過，近年由於金屬品製造及相關行業的技工級僱員老化，須把該職級的每年流失率調整為 5%。

20. 本會預計，2015 至 2018 年為填補人手流失及應付業務增長，金屬業需增加人手如下表：

2015 至 2018 年  
金屬業平均每年所需增加的人力

技能等級	平均每年需增加的僱員人數	
	行業 A 金屬品製造及相關行業	行業 B 珠寶業
技師級／經理級	483 – 591	147 – 179
技術員級／督導級	1 213 – 1 483	297 – 363
技工級	250 – 306	53 – 65

21. 本會將於 2016 年進行另一次人力調查，以更新金屬業的人力數據和檢討訓練需求。

# 第一章

## 緒論

### 金屬業訓練委員會

1.1 金屬業訓練委員會隸屬於職業訓練局[VTC]，是香港特區政府所委任的法定組織，負責所有金屬業（亦包括珠寶業）的人力訓練事宜。本會委員由主要行業商會、專業團體、工會、教育培訓院校提名出任，亦有政府部門代表。成員名單及職權範圍分別見附錄 1、2。

1.2 本會按職權範圍確定業內的人力需求，並向 VTC 建議發展專業教育與培訓設施，配合有關需求。

### 人力調查

1.3 本會於2014年6月25日至7月24日期間進行人力調查，蒐集金屬業的最新人力資料。是次調查由政府統計處協助進行。於2014年11月完成跟進工作，並於2014年12月進行數據處理。

1.4 是次調查蒐集下列人力數據及資料：

- (i) 調查期間業內主要職務的僱員人數；
- (ii) 現有空缺數目；
- (iii) 受訓人數；
- (iv) 僱主對2015年6月時的僱員人數預測；
- (v) 僱員每月平均收入
- (vi) 僱主對僱員宜有教育程度、訓練方式及訓練期的意見。

1.5 是次調查亦請僱主提供過去12個月內部晉升的技師／經理級、技術員／督導級及技工級人數，以及調查進行之前12個月內，派駐港外地區工作超過6個月的各級僱員人數。

### 調查範圍

1.6 調查覆蓋金屬業兩大範疇的 14 個門類：

## **行業 A：金屬品製造及相關行業**

門類 1：食品、飲品及煙草製造業的廠房保養部門 (HSIC 101-108、110、120)

門類 2：基本金屬的製造 (HSIC 241-243)

門類 3：金屬製品（機械及設備除外）及金屬玩具的製造 (HSIC 251、259、3244)

門類 4：機械設備的製造 (HSIC 281-282)

門類 5：醫療設備的製造 (HSIC 266, 2672, 3251, 3259)

門類 6：電器設備的製造 (HSIC 271-275、279)

門類 7：機械及設備的維修及安裝 (HSIC 331-332)

門類 8：鐘錶的製造 (HSIC 2652)

門類 9：機械設備、鐘錶的批發及出入口貿易 (HSIC 451434, 451446, 451621, 451633, 451635, 451699, 451711, 452434, 452446, 452621, 452633, 452635, 452699, 452711, 460434, 460446, 460621, 460633, 460635, 460699 及 460711)

門類 10：與金屬有關的工程服務、包括物料測試、冶金服務、生產工序發展及測試、生產線顧問／設計及品質控制服務 (HSIC 712及719)

門類 11：補充樣本：訓練機構及教育院校的有關部門及學系

## **行業 B：珠寶業**

門類 12：珠寶首飾及有關物品的製造 (HSIC 321)

門類 13：珠寶首飾及有關物品的批發及出入口貿易 (HSIC 451432、451433、452432、452433、460432 及 460433)

門類 14：補充樣本：寶石實驗室

(HSIC 代表香港標準行業分類)

1.7 調查前，統計處錄得以上金屬業14個門類在全港約有22 354間機構。鑑於調查資源所限，本會採用了分層隨機抽樣法，選出1 005間作為調查樣本。所得數字其後用統計方法倍大，以反映業內整體人力情況。

## 調查方法

1.8 本會分別為行業 A (附錄 13、15 及 18)，以及行業 B (附錄 14、16 及 19) 設計調查表、附註及業內主要職務說明。大約在調查前一星期左右，本會將有關調查表、附註及工作說明寄予選出的 1 005 間機構。此外又透過本地報章宣傳調查工作，邀請僱主合作，亦請有關行業組織協助籲請其會員合作。

1.9 調查期間，統計處職員造訪所有 1 005 間選定機構，收集填妥的調查表，並在有需要時協助僱主填表。收回的調查表均經詳細審閱，有需要時與填表者複核，然後交由政府統計處處理。

## 受訪機構回應

1.10 1 005 間機構中，636 間填覆調查表，36 間拒絕作覆。其餘 333 間則或已搬遷、停業而無法跟查，又或不再從事本業。調查填覆率達 94.6 %。

## 調查報告

1.11 跟進實地調查及處理數據後，本會於 2015 年 2 月編寫調查

報告，分析調查所得的人力數據。報告已上載職業訓練局網頁供公眾參考。

1.12 本報告載列調查結果、本會對培訓需求的預測，以及應付需求的建議。文中「僱員」、「工人」及「人力」等詞，指調查期間業內從事主要職務的人手，但不包括受訓者及學徒。「受訓者」指正在接受各種形式訓練的人士，以及簽有學徒訓練合約的學徒。

## 第二章

### 調查結果摘要

#### 僱員數目

2.1 調查顯示，2014 年 6/7 月間共有 46 050 人受僱從事金屬業主要職務。其中 32 772 人 (71.2%) 受僱於金屬品製造及相關行業(行業 A)，13 278 人 (28.8%) 從事珠寶業 (行業 B)。詳細的人力統計數字載於附錄 3、4 及 5。

2.2 調查期間，金屬業亦有 46 414 名其他範疇的僱員，例如會計主任及文員。其中，40 544 人 (87.35%) 受僱於金屬品製造及相關行業，5 870 人 (12.65%) 受僱於珠寶業。

2.3 以下各段只顯示受僱於金屬業主要職務的人力情況。

#### 各技能等級僱員人數分布

2.4 按技能等級劃分的各主要職務僱員人數分布列載於表 2.1 及圖 2.1：

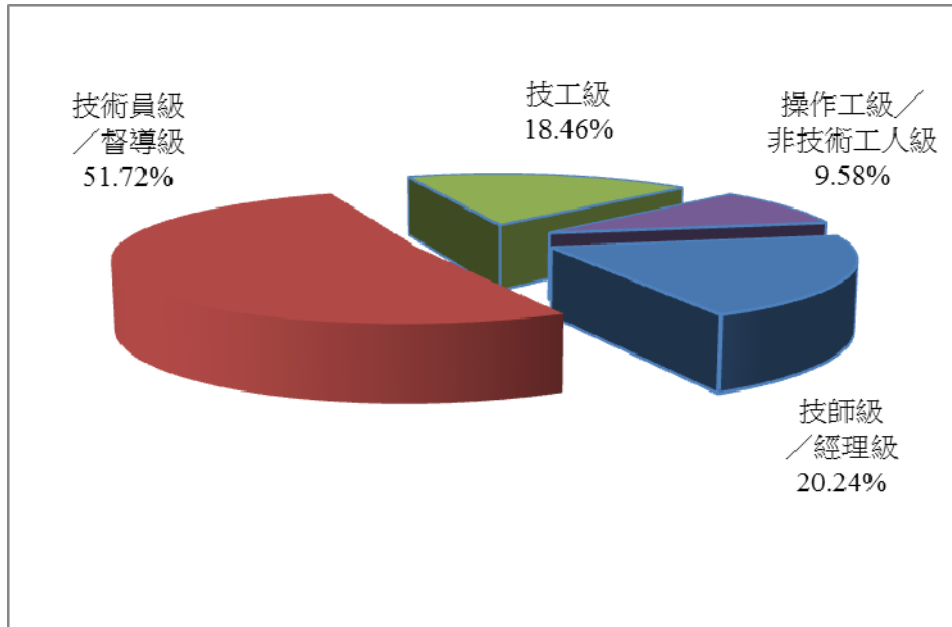
表 2.1： 僱員人數分布（按技能等級劃分）

技能等級	行業 A 金屬品製造 及相關行業	行業 B 珠寶業
技師級／經理級	6 634	2 471
技術員級／督導級	16 949	9 183
技工級	6 048	1 288
操作工級／非技術工人級	3 141	336
總數	<b>32 772</b>	<b>13 278</b>

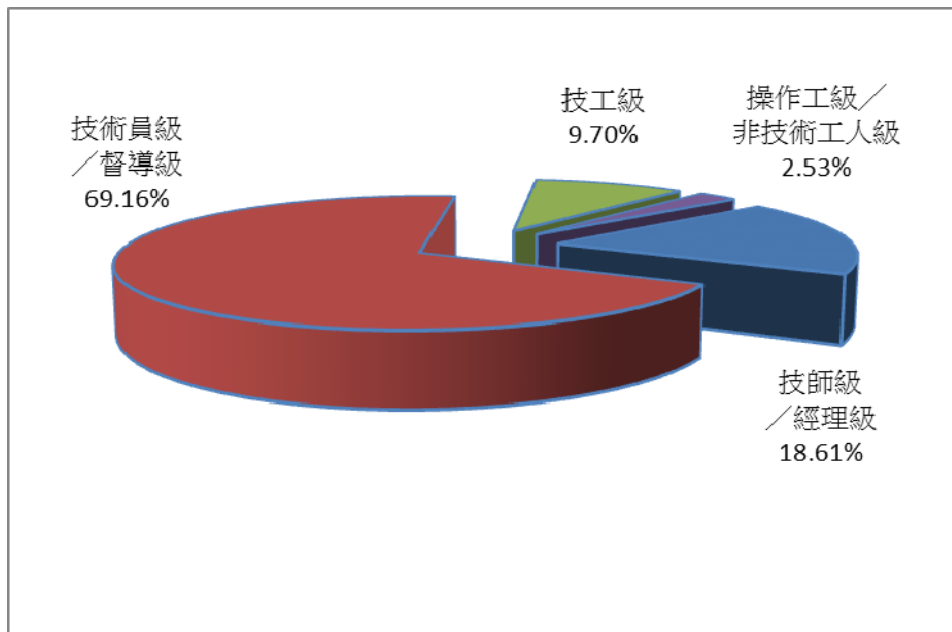


圖 2.1 (a 及 b) : 僱員人數分布 (按技能等級劃分)

(a) 金屬品製造及相關行業



(b) 珠寶業



## 受訓者人數

2.5 調查期間，金屬品製造及相關行業有受訓者 193 人，珠寶業有 23 人。詳細的受訓者統計數字載於附錄 3 及 5。按技能等級劃分的受訓者人數分布見表 2.2：

表 2.2：受訓者人數（按技能等級劃分）

技能等級	金屬品製造及相關行業		珠寶業	
	受訓者人數	佔同一技能等級僱員總數百分率	受訓者人數	佔同一技能等級僱員總數百分率
技師級／經理級	48	0.72%	-	-
技術員級／督導級	13	0.08%	-	-
技工級	88	1.46%	23	1.79%
操作工級／非技術工人級	44	1.40%	-	-
總數	<b>193</b>	<b>0.59%</b>	<b>23</b>	<b>0.17%</b>

## 調查期間空缺數目 及預測 2015 年 6 月時的人力

2.6 調查期間，金屬品製造及相關行業和珠寶業的空缺總數分別有 606 個及 199 個，佔僱員總數的 1.85% 及 1.5%。

2.7 僱主預測 2015 年 6 月時金屬品製造及相關行業和珠寶業的僱員分別有 33 414 人及 13 504 人，較調查期間受僱的 32 772 人及 13 278 人有所增加。

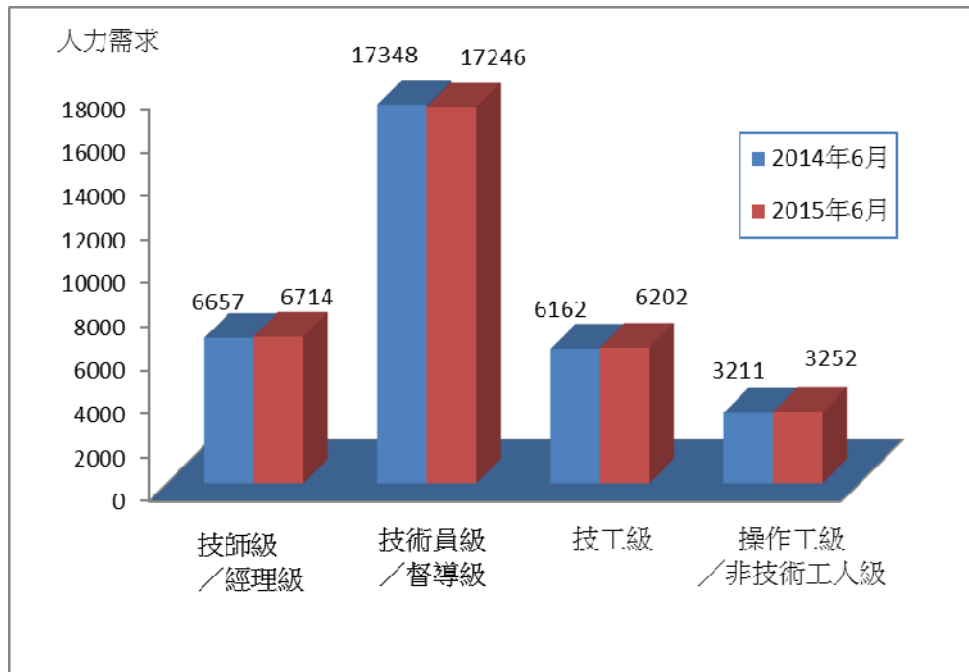
2.8 詳細的空缺及預測人力統計數字載於附錄 3 及 5。調查期間的人力需求以及僱主預測 2015 年 6 月時的僱員人數比較見表 2.3 及圖 2.2：

表 2.3：2014 年 6 月與 2015 年 6 月  
人力需求比較

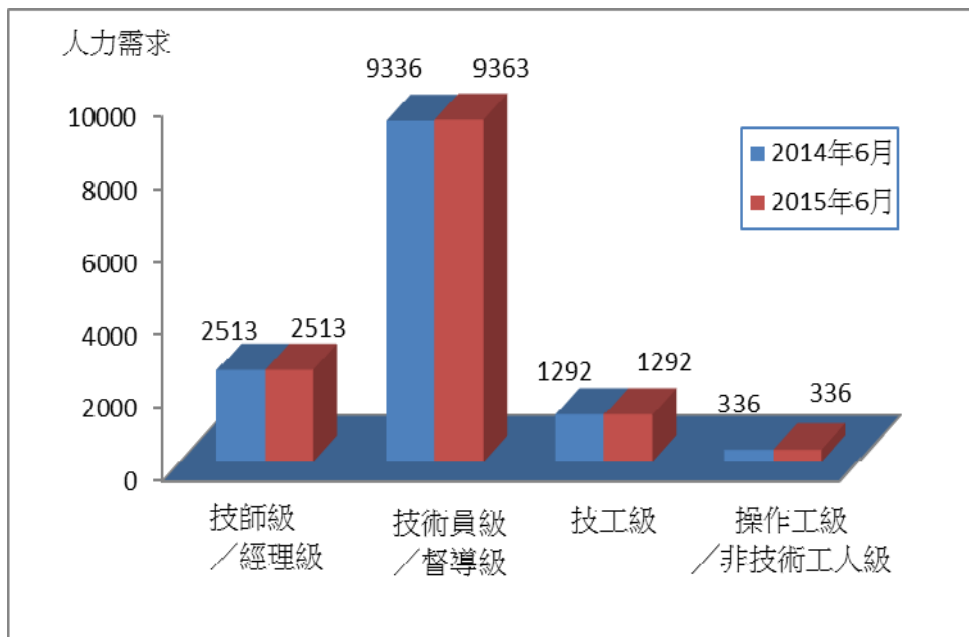
技能等級	調查期間（2014 年 6 月）			預測 2015 年 6 月 時的僱員總數	僱員人數 預測增幅
	僱員人數	空缺數目	人力需求 總數		
(a) 金屬品製造及相關行業					
技師級／ 經理級	6 634	23	6 657	6 714	0.86%
技術員級／ 督導級	16 949	399	17 348	17 246	-0.59%
技工級	6 048	114	6 162	6 202	0.65%
操作工級／ 非技術工人級	3 141	70	3 211	3 252	1.28%
總數	32 772	606	33 378	33 414	0.11%
(b) 珠寶業					
技師級／ 經理級	2 471	42	2 513	2 513	-
技術員級／ 督導級	9 183	153	9 336	9 363	0.29%
技工級	1 288	4	1 292	1 292	-
操作工級／ 非技術工人級	336	-	336	336	-
總數	13 278	199	13 477	13 504	0.20%

圖 2.2 (a 及 b) : 2014 年 6 月與 2015 年 6 月  
人力需求比較

(a) 金屬品製造及相關行業



(b) 珠寶業



## 僱員總月入幅度

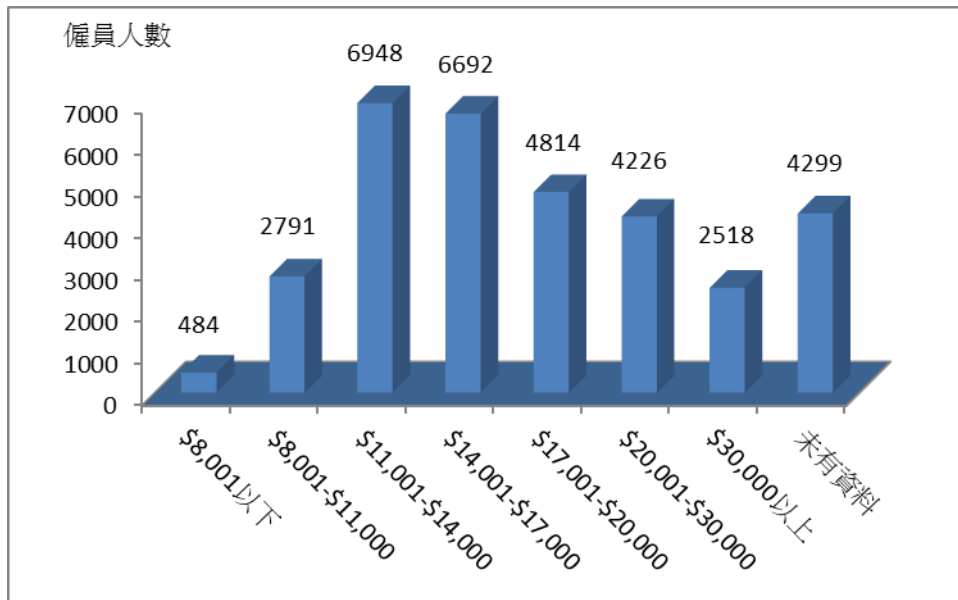
2.9 兩大金屬行業的僱員每月總收入幅度的分布情況分別載於表 2.4 及圖 2.3，詳細資料載於附錄 6 及 7：

表 2.4：僱員總月入幅度分布情況

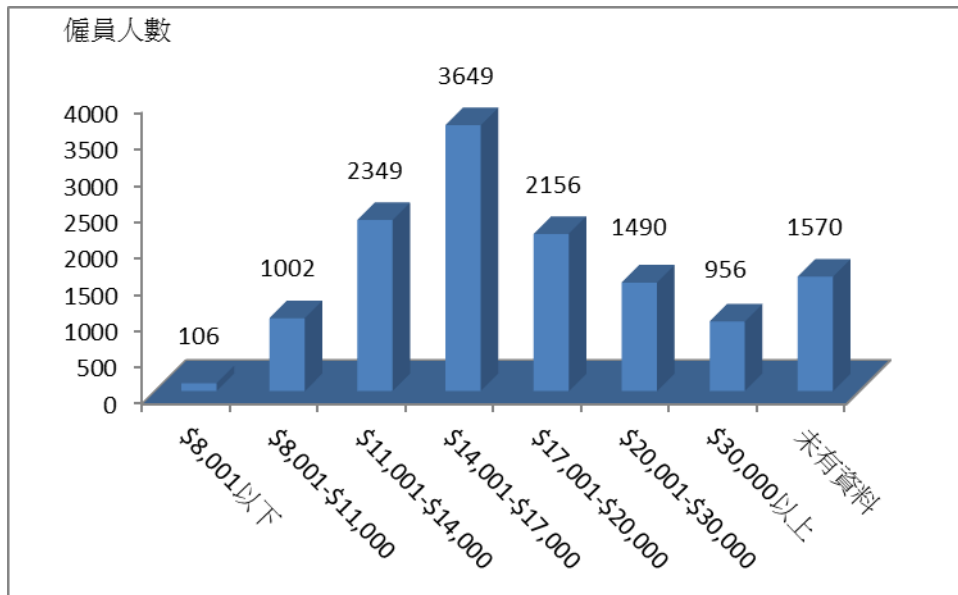
技能等級	\$8,001 以下	\$8,001- \$11,000	\$11,001- \$14,000	\$14,001- \$17,000	\$17,001- \$20,000	\$20,001- \$30,000	\$30,000 以上	未有 註明	總數
(a) 金屬品製造及相關行業									
技師級／ 經理級	-	101	48	207	756	2 178	2 365	979	6 634
技術員級 ／督導級	2	751	3 500	5 482	3 085	1 593	152	2 384	16 949
技工級	74	1 029	2 436	685	858	392	1	573	6 048
操作工級 ／非技術 工人級	408	910	964	318	115	63	-	363	3 141
總數	484	2 791	6 948	6 692	4 814	4 226	2 518	4 299	32 772
(b) 珠寶業									
技師級／ 經理級	-	-	113	48	148	1 008	867	287	2 471
技術員級 ／督導級	68	814	1 828	3 068	1 785	479	89	1 052	9 183
技工級	38	73	326	465	200	3	-	183	1 288
操作工級 ／非技術 工人級	-	115	82	68	23	-	-	48	336
總數	106	1 002	2 349	3 649	2 156	1 490	956	1 570	13 278

圖 2.3 (a 及 b) : 僱員總月入幅度分布情況

(a) 金屬品製造及相關行業



(b) 珠寶業



## 來年業務情況預期轉變—僱主看法

2.10 調查顯示，有 69.4% 金屬品製造及相關行業的僱主和 69.8% 珠寶業僱主預測來年的業務情況將會維持不變。然而，金屬品製造及相關行業有 23.7 % 僱主預期來年業務會變差。僱主意見的分布情況見表 2.5：

表 2.5： 僱主對來年業務情況的看法

僱員人數	來年業務情況				
	較佳	不變	較差	未有註明	總數
(a) 金屬品製造及相關行業					
1 – 9 人	241	4 378	1 678	137	6 434
10 – 49 人	79	703	95	25	902
50 人或以上	25	122	5	11	163
機構總數	345 (4.6%)	5 203 (69.4%)	1 778 (23.7%)	173 (2.3%)	7 499 (100%)
(b) 珠寶業					
1 – 9 人	112	1 843	698	-	2 653
10 – 49 人	44	313	71	8	436
50 人或以上	4	16	2	-	22
機構總數	160 (5.1%)	2 172 (69.8%)	771 (24.8%)	8 (0.3%)	3 111 (100%)

## 僱員宜有的教育程度、訓練方式及訓練期

2.11 僱主對各級僱員宜有教育程度、訓練方式及訓練期的主流意見載於表 2.6。詳細資料載於附錄 8、9 及 10。

表 2.6：金屬業僱員宜有的教育程度、  
訓練方式及訓練期

技能等級	宜有教育程度	宜有訓練方式	宜有訓練期
技師級／ 經理級	學位／ 高級文憑	工科畢業生訓練／ 在職訓練	2 年或以上
技術員級／ 督導級	高級文憑／ 高級證書	在職訓練	1 - 4 年
技工級	技工證書／ 中學程度	在職訓練／ 學徒訓練	1 - 3 年

## 內部晉升

2.12 調查前 12 個月，共有 213 名業內僱員獲得內部晉升，下表為各等級僱員獲晉升的情況：

表 2.7：金屬業內部晉升情況

內部晉升	獲晉升 僱員數目 (a)	所晉升等級 僱員人數 (b)	所佔比率 $\frac{(a)}{(b)} \times 100\%$
由技術員／督導人員晉升至 技師／經理	96	9 105	1.1%
由技工晉升至 技術員／督導人員	87	26 132	0.3%
由其他等級晉升至技工	30	7 336	0.4%
總數	213	42 573	0.5%



## 派駐港外地區工作的僱員

2.13 調查前 12 個月，派駐港外地區工作超過 6 個月的僱員人數按僱主填報如下：

表 2.8： 金屬業派駐港外地區工作僱員人數

技能等級	派駐港外地區 工作僱員人數 (a)	該技能等級僱 員總數 (b)	所佔比率 $\frac{(a)}{(b)} \times 100\%$
技師級／經理級	1 028	9 105	11.3%
技術員級／督導級	1 197	26 132	4.6%
技工級	236	7 336	3.2%
總數	2 461	42 573	5.8%

## 於中國內地設有業務的機構

2.14 調查顯示，內地業務活躍的金屬業機構有 1 431 間（2012 年：991 間），僱用約 230 899 名內地工人（2012 年：110 042 人）。其中 9 983 名是負責技術工作的技師（包括經理）（2012 年：4 242 人）。僱主預測，至 2015 年 6 月時僱用的內地技師人數將略減至 9 903 人（2012 年：預測 2013 年 6 月有 4 254 人）。

## 第三章

### 結論

3.1 本會仔細審閱是次調查結果，認為所得資料大致可反映調查期間金屬業的人力情況。

#### 各技能等級的人力轉變

3.2 調查顯示，金屬品及相關行業（行業 A）人力的年度增幅為 3.7%，由 2012 年 6 月的 30 501 人上升至 2014 年 6 月的 32 772 人。（相較 2012 年調查結果，人力有穩定回升趨勢。當年調查顯示人力由 2010 年 6 月的 26 507 人增加至 2012 年 6 月的 30 501 人，年度增幅為 7.3%。）至於珠寶業（行業 B）的同期人力則微升，由 12 971 人升至 13 278 人，年度增幅為 1.2%。（相較 2012 年調查結果，人力亦已有回升趨勢。當年調查顯示人力由 2010 年 6 月的 12 706 人增加至 2012 年 6 月的 12 971 人，年度增幅為 1%。）兩大行業各職級在 2012 年與 2014 年間的人力轉變見表 3.1：

表 3.1: 2012 至 2014 年各技能等級人力轉變

技能等級	僱員人數		每年增減幅度
	2012 年 6 月	2014 年 6 月	
<b>(a) 金屬品製造及相關行業</b>			
技師級／經理級	5 990	6 634	+5.2%
技術員級／督導級	15 136	16 949	+5.8%
技工級	6 207	6 048	-1.3%
操作工級／非技術工人級	3 168	3 141	-0.4%
總數	30 501	32 772	+3.7%
<b>(b) 珠寶業</b>			
技師級／經理級	2 401	2 471	+1.4%
技術員級／督導級	9 001	9 183	+1.0%
技工級	1 239	1 288	+2.0%
操作工級／非技術工人級	330	336	+0.9%
總數	12 971	13 278	+1.2%

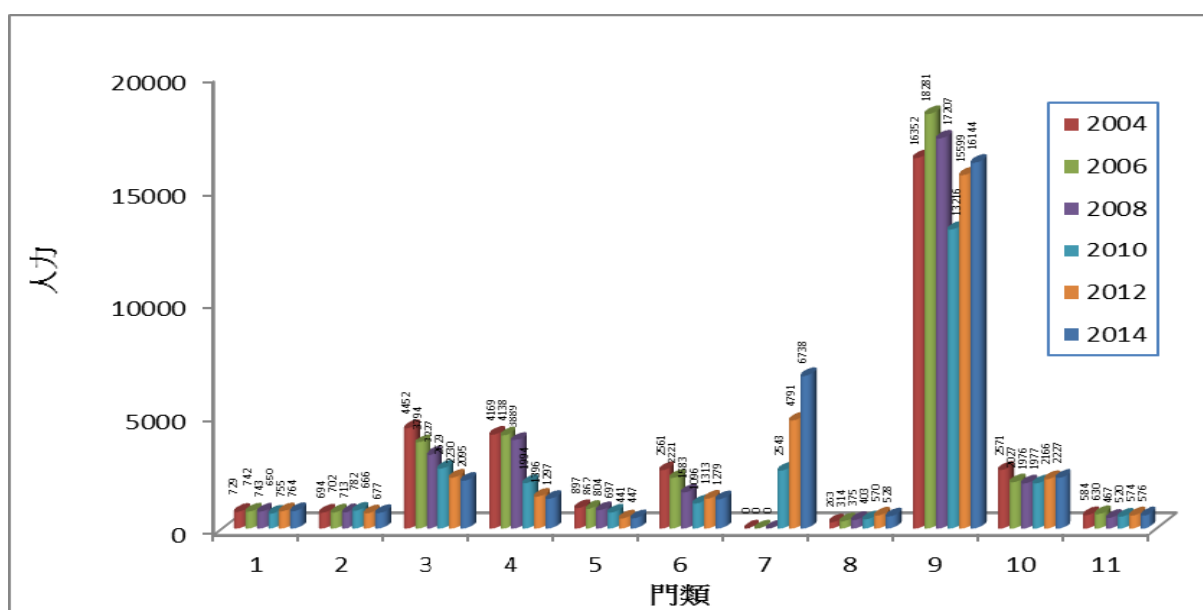
3.3 調查顯示，過去兩年，金屬品製造及相關行業的技師級／經理級(5.2%)和技術員級／督導級僱員人數均有上升(5.8%)，技工級和操作工級僱員人數則輕微減少(分別為-1.3%及-0.4%)；至於珠寶業，技師級／經理級(1.4%)、技術員級／督導級(1%)、技工級(2%)和操作工級(0.9%)僱員人數均有穩定的增加。

### 各門類的人力轉變

3.4 自 2004 年進行調查以來，金屬業人力調查的範圍已大幅擴闊，包括更多門類。圖 3.1(a) 及 3.1(b) 顯示 2004 至 2014 年兩大金屬行業按門類劃分的人力轉變。

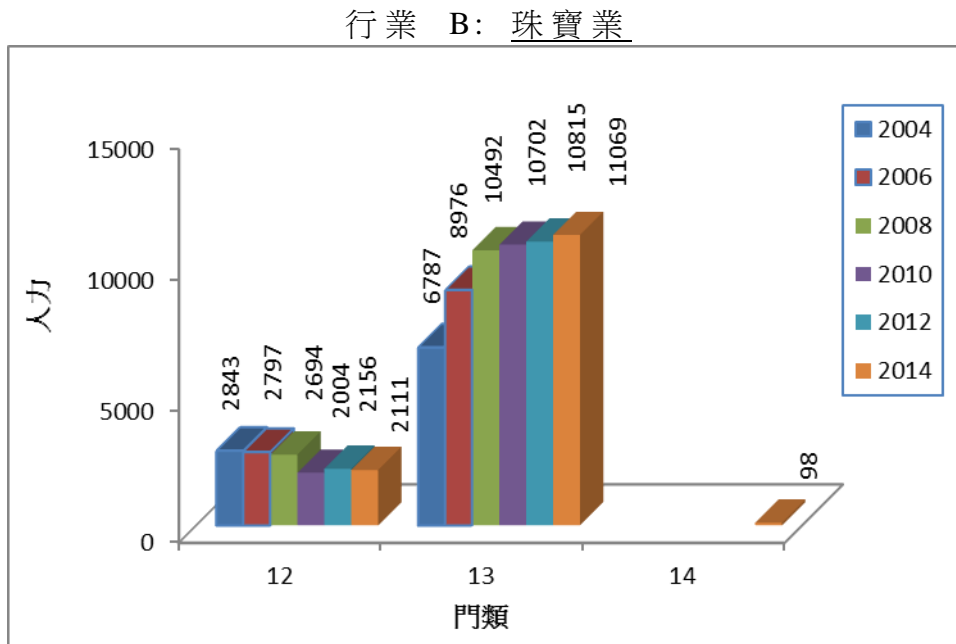
圖 3.1(a): 2004 至 2014 年各門類人力轉變

#### 行業 A: 金屬品製造及相關行業



- 門類：
1. 食品、飲品及煙草製造業的廠房保養部門
  2. 基本金屬的製造
  3. 金屬製品（機械及設備除外）及金屬玩具的製造
  4. 機械設備的製造
  5. 醫療設備的製造
  6. 電器設備的製造
  7. 機械及設備的維修及安裝
  8. 鐘錶的製造
  9. 機械設備、鐘錶的批發及出入口貿易
  10. 與金屬有關的工程服務、包括物料測試、冶金服務、生產工序發展及測試、生產線顧問／設計及品質控制服務
  11. 補充樣本 - 訓練機構及教育院校的有關部門及學系

圖 3.1(b)：2004 至 2014 年各門類人力轉變



門類：	12. 珠寶首飾及有關物品的製造
	13. 珠寶首飾及有關物品的批發及出入口貿易
	14. 補充樣本：寶石實驗室

3.5 如圖 3.1(a)所示，「機械及設備的維修及安裝」(門類 7) 的僱員人數有明顯增加，由 2012 年 6 月的 4 791 人增至 2014 年 6 月的 6 738 人，每年平均上升 18.6%。「機械設備、鐘錶的批發及出入口貿易」(門類 9) 的僱員佔金屬品製造及相關行業約 50% 人力，由 2012 年 6 月的 15 599 人稍增至 2014 年 6 月的 16 144 人，每年平均上升 1.73%。(相較 2012 年調查結果，人數的增幅回穩。當年調查顯示人力由 2010 年 6 月的 13 216 人增加至 2012 年 6 月的 15 599 人，年度增幅為 8.64%。)

3.6 然而，「金屬製品(機械及設備除外)及金屬玩具的製造」(門類 3) 的僱員人數持續下跌，由 2012 年 6 月的 2 230 人減至 2014 年 6 月的 2 095 人，每年平均減幅為 3.07%。(相較 2012 年調查結果，人數的持續減少。當年調查顯示人力由 2010 年 6 月的 2 629 人減至 2012 年 6 月的 2 230 人，年度減幅為 7.9%。)

3.7 「基本金屬的製造」(門類 2) 的僱員人數略為增加，由 2012 年 6 月的 666 人增至 2014 年 6 月的 677 人，每年平均增幅為 0.82%。

(相較 2012 年調查結果，人數微升。當年調查顯示人力由 2010 年 6 月的 782 人減至 2012 年 6 月的 666 人，年度減幅為 7.71%。)至於「機械設備的製造」(門類 4)的僱員人數持續下跌，由 2012 年 6 月的 1 396 人減至 2014 年 6 月的 1 297 人，每年平均減幅為 3.61%。(相較 2012 年調查結果，人數的持續減少。當年調查顯示人力由 2010 年 6 月的 1 994 人減至 2012 年 6 月的 1 396 人，年度減幅為 16.33%。)「醫療設備的製造」(門類 5)的僱員人數則略為增加，由 2012 年 6 月的 441 人增至 2014 年 6 月的 447 人，每年平均增幅為 0.68%。(相較 2012 年調查結果，人數略為增加。當年調查顯示人力由 2010 年 6 月的 697 人減至 2012 年 6 月的 441 人，年度減幅為 20.46%。)調查顯示，以上三個業內製造門類(門類 2、4、5)人力的減幅較之前有所緩和。

3.8 「電器設備的製造」(門類 6)的僱員人數略為減少，由 2012 年 6 月的 1 313 人減至 2014 年 6 月的 1 279 人，每年平均減幅為 1.3%。(當年調查顯示人力由 2010 年 6 月的 1 096 人增至 2012 年 6 月的 1 313 人，年度增幅為 9.45%。)至於「鐘錶的製造」(門類 8)的僱員人數亦有所下降，由 2012 年 6 月的 570 人減至 2014 年 6 月的 528 人，每年平均減幅為 3.75%。(當年調查顯示人力由 2010 年 6 月的 403 人增至 2012 年 6 月的 570 人，年度增幅為 18.9%。)

3.9 調查顯示，金屬業的人力明顯回穩。金屬業公司數目一直維持穩定(在 2006、2008、2010、2012 和 2014 年調查維持在 15 000 間至 17 000 間)，而會計主任與文員等其他範疇的僱員人數在過去幾年大增，至今亦見回穩(2008 年 6 月：35 165 人，2010 年 6 月：35 218 人，2012 年 6 月：47 129 人，2014 年 6 月：46 414 人)。由此看來，本港金屬業完成了業務流程的重整(例如：由生產為主／勞力密集形式轉型至增值／質素為重的營運模式，包括精確財務管理、銷售與市場推廣、研究與開發、設計、品牌發展、售前與售後支援服務等)。部分僱主甚至考慮把某部分業務從內地遷回香港。

3.10 珠寶業(行業 B)方面，珠寶製造(門類 12)、珠寶批發及出入口貿易(門類 13)的人力持續穩定，珠寶製造(門類 12)由 2012 年 6 月的 2 156 人減至 2014 年 6 月的 2 111 人，每年平均減幅為 1.05%。(當年調查顯示人力由 2010 年 6 月的 2 004 人增至 2012 年 6 月的 2 156 人，年度增幅為 3.72%。)而珠寶批發及出入口貿易(門類 13)由 2012 年 6 月的 10 815 人增至 2014 年 6 月的 11 069 人，每年平均增幅為 1.17%。(當年調查顯示人力由 2010 年 6 月的 10 702 人增至 2012 年 6 月的 10 815 人，年度增幅為 0.53%。)(見圖 3.1(b))。本地市

場業務擴展，包括遊客珠寶銷售，亦受惠於中國經濟迅速發展，刺激珠寶業的商貿和消費活動。而業界亦已建立品牌和形象，無論是以香港作為製造地或生產地，相關的珠寶產品都以精巧設計，品質可靠見稱，對促進人力增長亦起一定作用。

## 業務前景

3.11 過去幾年，金屬業（包括珠寶業）勞僱雙方攜手努力，僱主不斷在人才、機器、科技方面投放大量資金。而僱員則勤奮盡責，持續努力提升貨品質素。調查反映，金屬業在這兩年間有所增長。然而，業界仍需在未來面對其他挑戰，克服困難。

3.12 全球經濟自2008年金融海嘯後快速復甦，但從波羅的海綜合指數[*BDI*<sup>1</sup>]顯示，復甦勢頭並不持久。2008年12月*BDI*由金融海嘯時的663點開始反彈飆升，至2009年初到達11 771點「高峰」。但之後一直反覆向下，至2012年期間更錄得647、661和698幾個新低點。2013年3月間*BDI*稍見上升，一度錄得900點高位。隨後數月*BDI*徘徊於700至1500點之間。縱觀*BDI*走勢，似乎顯示未來幾年全球經濟發展將持續放緩。

3.13 另一方面，不少財經專家，如《世界經濟展望》[*World Economic Outlook, WEO*]等卻推斷全球經濟仍會繼續增長，但步伐將會放慢和不穩定。主要是由於不明朗的因素，如國家政策上的轉變，地緣政治局勢緊張和風險蔓延，以及金融市場的波動，加上成熟和新興市場的經濟增長停滯。然而，經濟增長的幅度仍需視乎美國、歐洲國家和日本採取的經濟措施。而中國、印度、俄羅斯、東歐和拉丁美洲等新興國家的政府亦將會繼續推行穩定的經濟增長政策，促進經濟發展。期望全球經濟最終能夠以更快的步伐增長。

### 行業 A： 金屬品製造及相關行業

3.14 由於國內經濟發展急速，加上香港與珠江三角洲[珠三角]合作關係穩固，本地製造商能於過去二十年擴大業務規模，提升產能。

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<sup>1</sup> 波羅的海綜合指數 (BDI) 是由倫敦波羅的海交易所每日公報的一項數字，「評估主要原材料的海運價格」，經濟學專家大都以此作為「未來」經濟增長和貨品生產的重要經濟指標。可以說，BDI 獲廣泛採用作預測行情／經濟前景的領先指標。

自九十年代中期，在廣東擁有生產設施的香港製造商逐步將業務拓展到長江三角洲[長三角]地區。除了生產製成品，亦提供模具、零部件、機器維修及技術服務，支援其他行業發展。受惠於過去二十年來國內經濟的持續發展，香港製造商在國內的生產業務一直增長，甚為成功。

3.15 可是，自內地於2006年起推行十一五規劃，致力發展高增值產業和實行環保措施；同時，引入住房公積金、最低工資規定，擬訂中的集體協商條例，新的勞動合同法，稅收法，環境法和管理職業安全和衛生法規等；並要求僱主提供培訓、保險和福利，以及在海關加強進口/出口限制和檢查。加上國內勞工短缺、內地企業湧現而引起的激烈競爭，令香港廠商在價格成本難佔優勢。仍在國內活躍於生產業務的香港製造商營運成本大增，要面對艱難日子。相較2012年與2010年的人力調查，業內機構已由2008年6月的2 847間，減至2010年6月的1 106間，再跌至2012年的991間，僱用內地工人數目亦由487 400名，減至245 351名，再減至110 042名。2014年業內機構則回升至1 431間，僱用內地工人數目亦增至230 899名。由以上數字所見，一些營運能力稍遜的香港製造商於較早前已被淘汰，至於現存的則需要進一步擴展其業務。

3.16 面對這種種挑戰，港商一直謀求對策，不斷更新進步，靈活運用「特色化」(differentiation) 策略，藉以保持競爭優勢。如創新產品設計、提升產品質素、減少資源浪費，並強化供應鏈管理和進一步拓展內地及海外市場，以別出心裁的營運方式擊敗競爭對手。此外，港商已由代工生產金屬部件(OEM)模式轉型為高增值成品原設計商(ODM)及建立品牌(OBM)模式；不少港商更投放大量資金，令生產設備更為先進及現代化，從而提高生產力和產品質素；同時積級培訓人才，提升員工水準，務求加強競爭優勢。另一方面，部份僱主，特別是鐘錶及光學用品行業已把某些業務，如產品增值工序遷回香港。然而，這趨勢漸已放緩，有製造商表示暫不會考慮將業務（即使是高增值業務）遷回香港。相反，他們會致力於加強產品設計、技術、企業管理、生產自動化，以及品牌的建立和推廣等營運策略，並考慮利用電子商務平台開拓其業務範圍。

3.17 如統計顯示，業界對優質模具、工業機械、設備及零部件、技術支援、與製造相關的服務等人才有龐大需求；對產品及工程設計、能熟悉生產和工作流程並具營商及成本核算概念的銷售及推廣等人才需求亦有上升趨勢。本會認為，金屬品製造及相關行業，本會認為，金屬品製造及相關行業，特別是機械設備、鐘錶的批發及出入口貿易

門類（僱用本行業約50%人力）將繼續扮演重要角色，對香港和國內製造業的進一步發展發揮寶貴貢獻。

## 行業 B：珠寶業

3.18 香港與意大利、美國和瑞士並列全球四大珠寶首飾出口商，亦是世界第二大的仿製首飾出口商。同時也是純金首飾和玉石珠寶的主要製造中心，最近更成為主要的珍珠首飾貿易和分發中心。過往多年，珠寶製品的出口均有增長。珠寶、金銀器、其他貴重金屬或半貴重金屬製品（SITC 897）在2013年的出口總值為港幣655億7,800萬元，較2012年<sup>2</sup>上升約5.5%。2005至2013年出口值的詳細資料載於表3.2及圖3.2。

圖 3.2: 珠寶產品出口值  
(SITC 897)

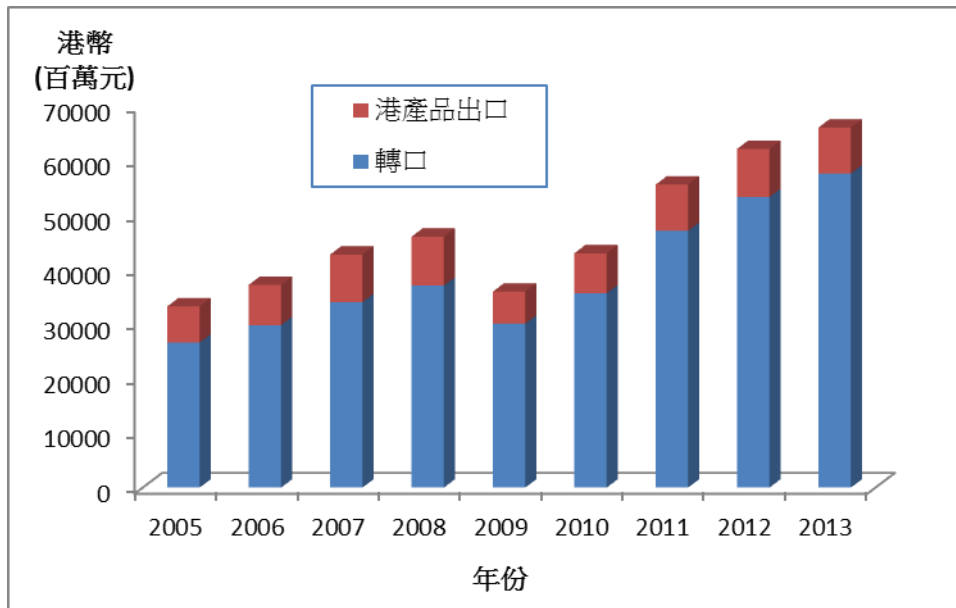
珠寶產品 (SITC 897)	價值（港幣百萬元）								
	2005	2006	2007	2008	2009	2010	2011	2012	2013
港產品出口	6 642	7 376	8 705	8 978	5 884	7 320	8 492	8 821	8 450
轉口	26 607	29 820	34 049	37 064	30 084	35 671	47 118	53 325	57 128
總出口	33 249	37 196	42 754	46 042	35 968	42 991	55 610	62 146	65 578

資料來源：統計處《香港對外商品貿易》數字及香港貿易發展局

<sup>2</sup> SITC 是《國際貿易標準分類》的簡稱。如把加工或未加工的珍珠、寶石、半寶石(SITC 667)計算在內，則2012年的出口總值為1,178億500萬元。



表 3.2：珠寶產品出口值



3.19 香港珠寶出口商所面對中國內地及其他國家對手的競爭愈趨激烈，特別是印度、泰國、新加坡和馬來西亞，加上貴金屬、鑽石、寶石及原材料價格波動，邊際溢利近年已削弱。許多生產商為了保持競爭力，靈活運用「特色化」(differentiation) 策略，於產品設計及製造過程中引入先進精密及自動化生產設備，包括電腦輔助設計及製造 (CAD/CAM) 系統、快速原型技術及電腦數控 (CNC) 機床等。他們更進一步把先進生產技術，例如電鑄技術與人手工藝配合，進一步提升效率。

3.20 內地與香港建立更緊密經貿關係的安排[CEPA]後，同意由2006年1月1日起，所有原產自香港的產品，包括珠寶首飾，均可獲豁免關稅。零進口關稅吸引製造商投向高消費市場，生產更多品牌產品，又或於生產過程中加入更多高增值元素或原創設計。然而，CEPA亦要求這些製品的主要生產工序須在香港進行，包括貴金屬製模工序、製造珠寶成品過程中的珍珠、寶石／半寶石製模／鑲嵌工序、裝嵌工序等。因此，儘管珠寶製造商把生產工序遷往深圳和番禺等內地廠房，但CEPA所要求的高增值工序仍需留在香港境內進行。而且，對品牌形象甚為著緊的部分港商，為確保其產品擁有由「香港製造」這品牌所具備的優秀特質（如產品可靠、設技獨特及品質精良等），亦將某些重要的設計工序及／或有增值工序的營運部門遷返香港。

3.21 中國政府先前鼓勵消費的政策大大刺激人民的購買力及對進

口商品的需求，多少有助珠寶製品銷往國內；近年內地訪港旅客大增，亦有助刺激本地珠寶零售業務。

3.22 本會深信中國經濟活力將會持續。儘管會有一些潛在挑戰，情況難測，預期珠寶業未來將會繼續蓬勃增長。

### 未來人力需求

3.23 本會從業界的最新發展，以及僱主對未來人力需求及業務轉變的預測等因素加入考慮後，認為未來金屬品製造及相關行業對幹練的技師、技術員及技工人才將續有需求，以應付未來發展並在劇烈競爭中站穩。當中以技術、產品及工程設計、銷售／推廣及生產工序方面的專才需求尤其大。預計大部分技術人員將受僱於技術支援／推廣／保養維修服務門類，為生產商提供機器和設備的市場推廣及售後維修保養服務。另一方面，操作工及非技術工人的需求卻會進一步下降。

3.24 至於珠寶業，本會認為珠寶批發、出入口門類未來將持續增長，而珠寶製造門類將持續收縮。另一方面，以出口為主的業務將渴求設計及發展、市場推廣及銷售的技師／技術員級人力。然而，從事生產相關工作的技工需求增幅只屬有限，而操作工／非技術工人的人數將進一步下降。

3.25 本會亦估計本業各職級的自然流失情況。自然流失指因退休、轉業或其他原因離開金屬業。預期本業大多數技能等級的每年流失率仍為3%，不過，近年由於金屬品製造及相關行業的技工級僱員老化，須把該職級的每年流失率調整為5%。

3.26 本會預計，2015至2018年為填補人手流失及應付業務增長，金屬業需增加人手如表3.3：

表 3.3: 2015 至 2018 年金屬業每年所需人力

技能等級	平均每年需增加的僱員人數	
	行業 A 金屬品製造及相關行業	行業 B 珠寶業
技師級／經理級	483 – 591	147 – 179
技術員級／督導級	1 213 – 1 483	297 – 363
技工級	250 – 306	53 – 65

3.27 本會將於2016年進行另一次人力調查，以更新金屬業的人力數據和檢討訓練需求。

## 第四章

### 建議

4.1 過去二十年，香港金屬業（包括珠寶業）僱主（尤其是製造商）成功擴展生產業務至珠三角地區，令兩地的業務分工更精細。港商遷移勞動力密集的生產工序到珠三角工廠，將財務管理、銷售及市場推廣、研發、設計、品牌發展等高增值工作保留於香港總部進行。這種分工導致本地人力資源結構大幅轉變，使從事生產相關工作的技工及操作工職位大減。相反，對技術支援、市場推廣、工模製造、產品設計及開發等與製造相關服務的需求則保持穩定。不過，內地近年的營商環境急劇轉變，令港商面臨重大挑戰，並飽受沉重壓力，需提高人力質素，以保持競爭力。

4.2 為應付上述挑戰，港商一直謀求對策，不斷更新進步，靈活運用「特色化」（differentiation）策略，藉以保持競爭優勢。如創新產品設計、提升產品質素、減少資源浪費，並強化供應鏈管理和進一步拓展內地及海外市場，以別出心裁的營運方式擊敗競爭對手。不少港商更投放大量資金，令生產設備更為先進及現代化，從而提高生產力和產品質素；同時積極培訓人才，提升員工在技術及管理水平，務求加強競爭優勢。另一方面，部分僱主甚至把某部分業務，如產品增值部門等從國內遷回香港。然而，這趨勢漸已放緩，有製造商現已致力於加強產品設計、技術、企業管理、生產自動化，以及品牌的建立和推廣等營運策略，並考慮利用電子商務平台開拓其業務範圍。

4.3 針對上述挑戰，本會建議本業僱主應加強員工培訓，以確保有足夠的幹練人才，滿足本業的最新需求，尤其是產品設計及創新、增值生產、成本核算、運作管理、物流和供應鏈管理、工作操守及態度等方面的培訓。本業如要發展優質的高增值產品和服務，就必需借助幹練員工的知識和技術；因此，僱主除了投放資源添置先進機械及設備外，亦應不時為員工安排有系統的訓練，以便提升員工的知識技術，使他們與時並進。為挽留員工及減少離職和流失，僱主應給予員工長線事業發展和培訓機會。長遠而言，本業僱主可能會將部分的內地生產工序遷回本港，因此在擬訂招聘／培訓計劃時或需一併顧及此趨勢。

4.4 本會鼓勵金屬業僱員擴闊視野，特別是年輕一代，應善用內地及其他新興市場的新機遇，努力學習相關知識及技能，以備日後於內地及本港，甚或其他新興地區工作；更應終身學習維持競爭力，特別是修讀頒授認可資歷的課程及培訓計劃。

### 每年的受訓者人數

4.5 調查期間，金屬品製造及相關行業只有 193 名受訓者，而珠寶業則只有 23 名。訓練新人一般需時三至四年，業界現時的受訓人數明顯不足以應付需求。

4.6 本會建議業界應參考第 3.26 段的規模舉辦培訓計劃。不同主要職務的培訓需求分析載於附錄 11 及 12。

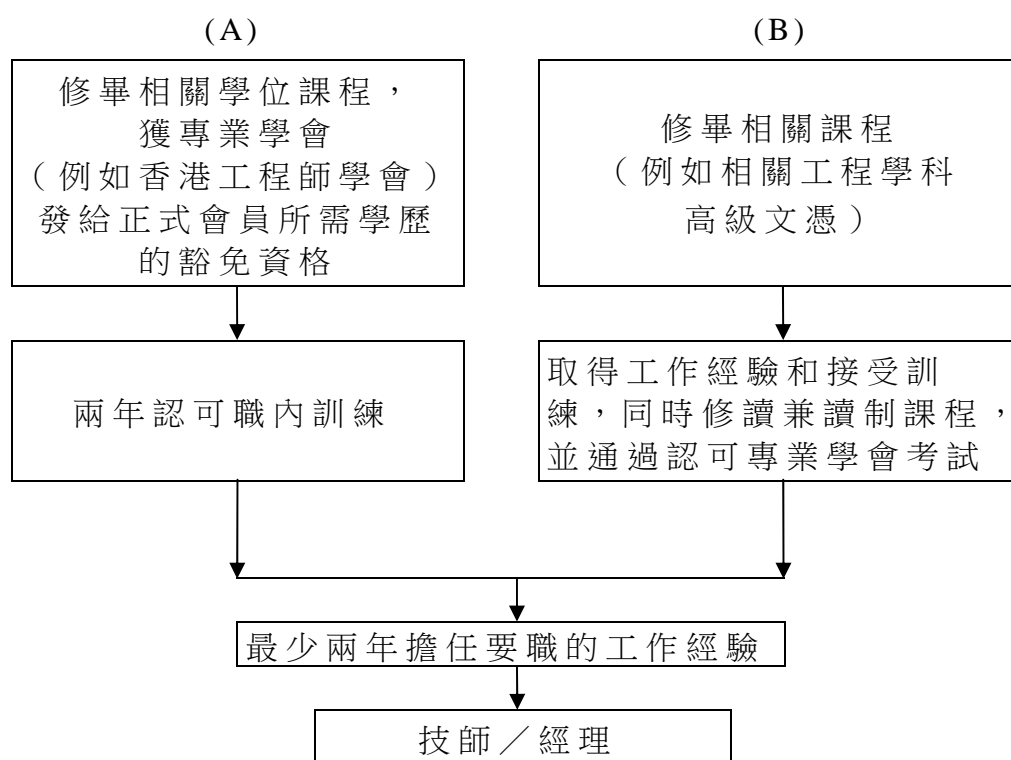
4.7 本會建議循以下途徑訓練技師／經理、技術員和技工：

### *行業 A：金屬品製造及相關行業的人力培訓*

#### 技師／經理訓練

4.8 技師／經理在改善管理及革新科技方面，均擔當重要角色。本會建議僱主循下列途徑訓練技師：

圖 4.1: 技師／經理訓練



4.9 大學教育資助委員會（教資會）多間本地院校均有開辦各類機械／製造工程及相關學科的學位課程。2014/15 及 2015/16 年度此類全日制工程學位課程的畢業生估計人數如下：

表 4.1: 教資會院校畢業生估計人數

全日制學位課程	畢業生估計人數	
	2014/15	2015/16*
機械工程	406	405
製造／工業／系統工程及工程管理	339	259
機電一體化工程	38	-
物料工程	49	-
總數	832	664

\* 2015/16 年度有個別課程的畢業生估計人數暫未能提供。

4.10 職業訓練局[VTC]屬下香港專業教育學院[IVE]提供一系列機械／製造工程及相關學科的高級文憑課程。此外，某教資會資助院校亦有提供工業及系統工程、電腦輔助工程設計，以及產品創新技術高級文憑課程。下表列載了這些院校開辦的相關全日制高級文憑課程的畢業生估計人數：

表 4.2: 高級文憑課程畢業生估計人數

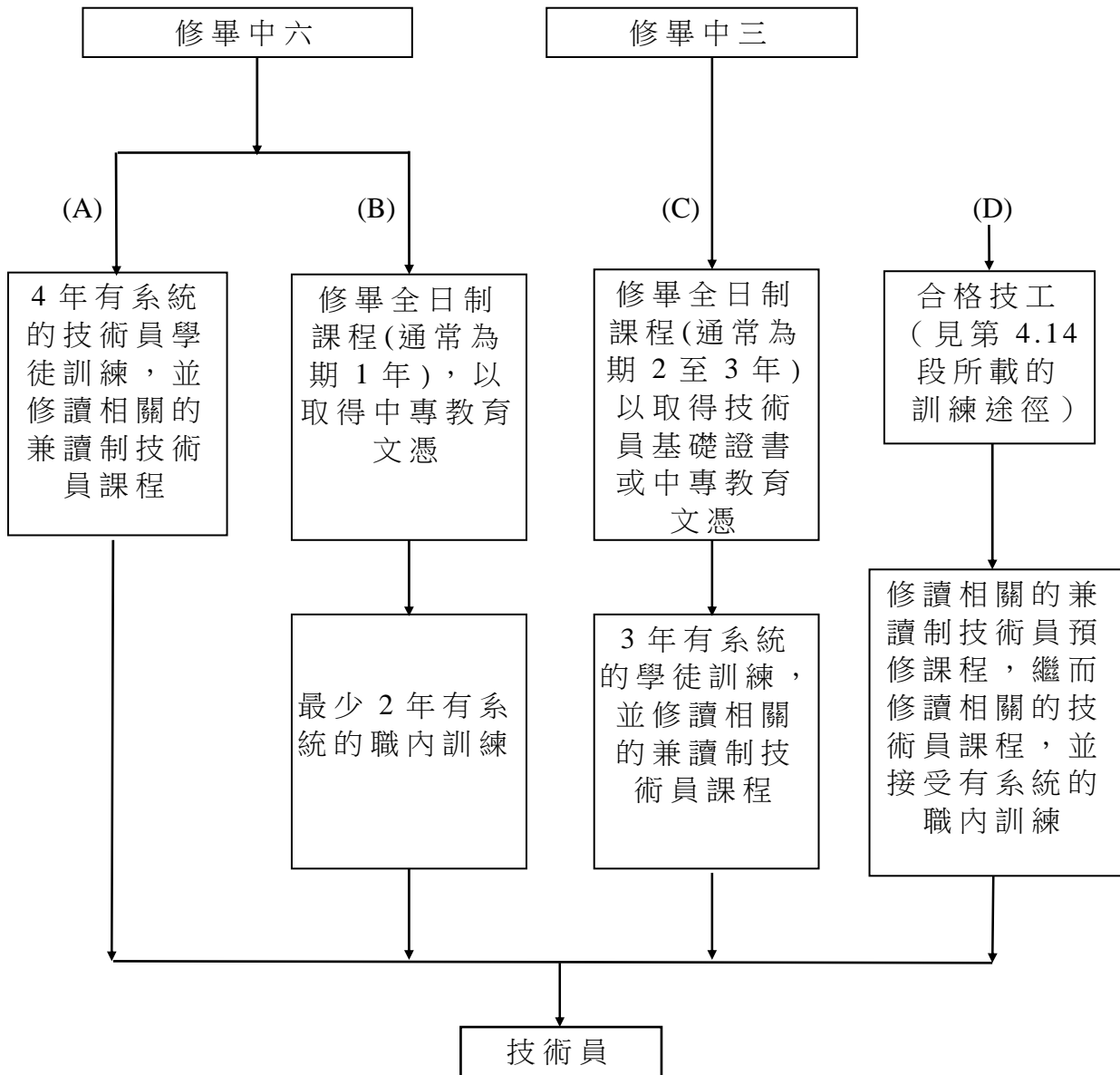
全日制高級文憑課程	畢業生估計人數	
	2014/15	2015/16
機械工程（包括電腦輔助工程設計和時計科技）	261	313
製造／工業／系統工程及工程管理（包括眼鏡配鏡學和光學科技）	77	56
產品設計／創新科技／工程	211	184
總數	549	553

4.11 許多機械／製造工程及相關學科的學位和高級文憑畢業生亦獲其他經濟界別聘用，如機電服務業、建造業和塑膠業。此外，亦有不少高級文憑畢業生入行後擔任技術員級職務，而非技師級工作。

#### 技術員訓練

4.12 技術員乃指技能等級介乎技師與技工之間的人員。他們曾受一定的教育、訓練，並具備實務經驗，能運用已確立的方法解決技術問題；一般能在技師的指示下，肩負部分技術責任。自政府推出「334」新學制及資歷架構機制後，訓練技術員的途徑如圖 4.2 所示。

圖 4.2: 技術員訓練

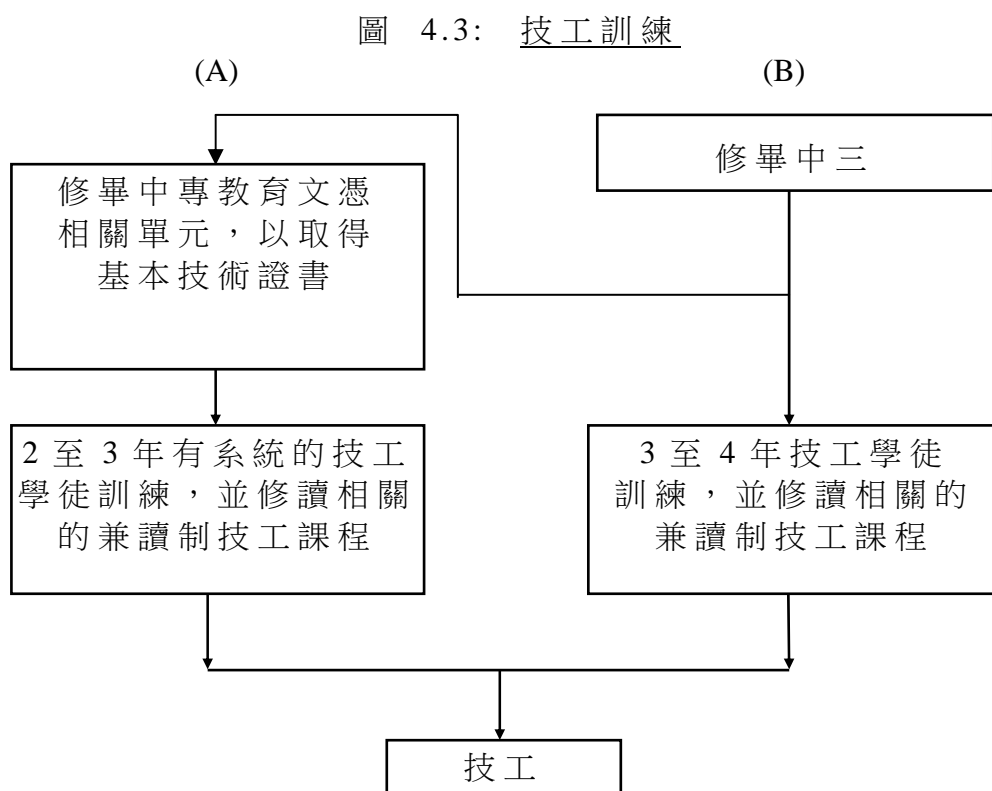


4.13 如上文第 4.11 段所述，許多高級文憑畢業生完成課程後，投身業界成為技術員，是金屬品製造及相關行業技術員的重要來源。VTC 的院校之中，特別是卓越培訓發展中心（機械業）、卓越培訓發展中心（精密工程業）及卓越培訓發展中心（焊接業），亦有為中六和中三離校生提供全日制及兼讀制中專教育文憑 [DVE] 課程。2015/16 年 DVE 機械工程和鐘錶課程計劃分別取錄 200 人和 60 人。然而，DVE 課程採用「多階進出」模式；因此，並非所有學生最終都以 DVE 學歷畢業；部分學生會選擇修讀較少科目，並於取得基本技術證書後提早投身就業市場，隨後繼續修讀兼讀制課程，以取得技工證書。



## 技工訓練

4.14 技工乃技術工人，能夠在極少指示及督導下，應用多種技術完成工作。技工不單要有實際技能，亦需具備相關的理論知識，才能適應科技發展。完善的技工學徒訓練定必兼備上述兩者。自政府推出「334」新學制及資歷架構機制後，訓練技工的途徑如圖 4.3 所示。



4.15 本會建議採用途徑 (A)，因為訓練期較短，而且因已受過適當的基本技術訓練，成為學徒後，很快便能投入工作。

## 行業 B：珠寶業的人力培訓

### 珠寶技師訓練

4.16 珠寶業的技師級人員宜具相關專業學會的正式會員資格，或持有珠寶或設計學科的大學學位／高級文憑學歷、曾接受有系統的訓

練，以及具備擔任要職的經驗。調查期間，業內共有 2 471 名珠寶技師。他們部分於海外接受教育及實務訓練，另一些則是資深技術員，在取得專業資格後獲晉升成為技師。

4.17 自 2004/05 學年開始，香港專業教育學院[IVE]（李惠利）開辦全日制珠寶設計及科技高級文憑課程，2014/15 及 2015/16 學年預計各有 70 名畢業生。此外，由香港知專設計學院[HKDI]開辦的全日制珠寶及形象產品設計高級文憑於 2015/16 學年預計有 60 名畢業生。學生可於畢業後修讀海外大學的相關學位課程。

### 珠寶技術員訓練

4.18 本會建議訓練珠寶技術員的途徑與圖 4.2 所載的相近。建議可修讀職業訓練局[VTC]轄下的卓越培訓發展中心（珠寶業）所開辦的珠寶技術員課程。以往，中心開辦一年制珠寶設計及製造技術員基礎證書課程，但由 2007/08 學年起增辦一年制珠寶設計與工藝中專文憑精修課程；往後，兩個課程每年合共提供約 110 個訓練名額。現時，中心亦為中六及中三離校生提供全日制和兼讀制中專教育文憑[DVE]課程，2015/16 學年此類課程（珠寶設計與工藝分流）計劃招收 120 名學生。然而，DVE 課程採用「多階進出」模式；因此，並非所有學生最終都以 DVE 學歷畢業；部分學生會選擇修讀較少科目，並於取得基本技術證書後提早投身就業市場，隨後繼續修讀兼讀制課程，以取得技工證書。

### 珠寶技工訓練

4.19 訓練珠寶技工的途徑與圖 4.3 所載的相近。卓越培訓發展中心（珠寶業）為中三離校生提供珠寶業學徒／受訓者基本訓練，在培訓技工方面擔當重要角色。以往，中心開辦打金及首飾鑲嵌兩項一年制基本技術證書課程，以及三年制珠寶設計與工藝中專文憑課程。現時則為中六及中三離校生開辦全日制及兼讀制的 DVE 課程。

## 教育及培訓機構

4.20 VTC 轄下的 IVE、HKDI、卓越培訓發展中心（珠寶業）、卓越培訓發展中心（機械業）、卓越培訓發展中心（精密工程業）及卓越培訓發展中心（焊接業），以及幾間專上教育院校，均有為金屬業從業員開辦各類職前及在職培訓課程。本會強烈籲請本業僱主充分利用這些院校的訓練設施，聘用其畢業生為學徒／受訓者，並保送僱員修讀相關技術提升課程。

## VTC 的培訓服務

4.21 VTC 免費協助僱主籌辦培訓計劃，包括：

- (a) 法定的**學徒訓練計劃** — 有效培訓技術員和技工，以應付業內需求；
- (b) **工科畢業生訓練計劃** — 協助工科學生及畢業生完成工程師所需的專業培訓；
- (c) 自願性質的**技能測驗及證書頒發計劃** — 旨在確立及認可技術工人的水平；
- (d) **新科技培訓計劃** — 向有意保送僱員到海外或於本地學習新科技的本地公司提供財政資助，金額最高可達培訓開支的 50%。

本會建議僱主在擬訂訓練計劃和僱用學徒／受訓者時與 VTC 聯絡，以取得協助。



# Appendices

## 附錄



Membership of the Metals Training Board

(March 2015)

金屬業訓練委員會委員名單

(二〇一五年三月)

Chairman:

主席

Dr NG Wang-pun, Dennis BBS, MH 吳宏斌博士, BBS, MH	(ad personam) (獨立人士)
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Members:

委員

Dr CHAI Ngai-chiu, Sunny 查毅超博士	(ad personam) (獨立人士)
Ir Dr CHAN Luen-chow 陳聯洲博士、工程師	(nominated by a local university) (本地某大學提名)
Mr CHAN Wing-yun, Peter 陳榮欣先生	(nominated by the Hong Kong Gold and Silver Ornament Workers and Merchants General Union) (香港金銀首飾工商總會提名)
Ms Grace CHO 曹綺梅女士	(nominated by a manufacturer of metal frame spectacles) (某金屬框眼鏡製造公司提名)
Mr KONG Hon-po 江漢波先生	(nominated by the Hong Kong Diecasting and Foundry Association) (香港壓鑄及鑄造業總會提名)
Mr KWOK Ngok-wing, Jimi 郭岳榮先生	(nominated by the Federation of Hong Kong Industries) (香港工業總會提名)
Mr LAI Poon-shing, Daniel 黎潘成先生	(nominated by the Hong Kong Mould and Die Council) (香港模具協會提名)
Dr LAU Ying-kei, Henry 劉應機博士	(nominated by a local university) (本地某大學提名)
Ir LEE Kwok-keung, Thomas 李國強工程師	(nominated by the Hong Kong Productivity Council) (香港生產力促進局提名)

Mr LEE Yuen-fat 李遠發先生	(nominated by the Hong Kong Federation of Innovative Technologies and Manufacturing Industries) (香港創新科技及製造業聯合總會提名)
Mr LEUNG Fai-man, Moses 梁輝文先生	(nominated by the Federation of Hong Kong Watch Trades and Industries) (香港鐘表業總會提名)
Ms LEUNG Wing-yan, Irene 梁詠茵女士	(nominated by the Hong Kong Jewelry Manufacturers' Association) (香港珠寶製造業廠商會提名)
Mr NG Ka-yan, Ben 吳家仁先生	(nominated by a machinery sales/marketing/services company) (某機器銷售、推廣及維修公司提名)
Mr SIN Kam-leung 冼錦良先生	(nominated by the Hong Kong Metals Manufacturers Association) (香港金屬製造業協會提名)
Mr YU Man-pui 余文培先生	(nominated by the Hong Kong Metal and Electronics Industries General Union) (香港五金電子科技業總工會提名)
Mr YU Tak-ming, Michael 余德明先生	(nominated by the Chinese Manufacturers' Association of Hong Kong) (香港中華廠商聯合會提名)
Ms Danielle LEUNG 梁淑娟女士	(representing the Director-General of Trade and Industry) (工業貿易署署長代表)
Ir SHIU Chi-yung 邵志勇工程師	(representing the Executive Director of the Vocational Training Council) (職業訓練局執行幹事代表)

**In Attendance:**

列席者

Mr HO Ching-tak, Joe 何正德先生	(Hong Kong Institute of Vocational Education (Lee Wai Lee)) (香港專業教育學院(李惠利分校))
Mr LAM Ki-yook, Ronald 林祺煜先生	(Pro-Act Training and Development Centre Jewellery) (卓越培訓發展中心(珠寶業))
Mr LEUNG Kim Ki, Tommy 梁劍奇先生	(Pro-Act Training and Development Centre (Precision Engineering)) (卓越培訓發展中心(精密工程業))



Mr WAN Siu-chung  
溫兆聰先生

(Pro-Act Training and Development Centre (Mechanical))  
(卓越培訓發展中心 (機械業))

Secretary:  
秘書

Mr HUI Yin-ho, Henry  
許賢浩先生

(Vocational Training Council)  
(職業訓練局)

Terms of Reference of the Metals Training Board

1. To determine the manpower demand of the industry, including the collection and analysis of relevant manpower and student/trainee statistics and information on socio-economic, technological and labour market developments.
2. To assess and review whether the manpower supply for the industry matches with the manpower demand.
3. To recommend to the Vocational Training Council the development of vocational education and training facilities to meet the assessed manpower demand.
4. To advise the Hong Kong Institute of Vocational Education (IVE) and Pro-Act Training & Development Centres on the direction and strategic development of their programmes in the relevant disciplines.
5. To advise on the course planning, curriculum development and quality assurance systems of the IVE and Pro-Act Training & Development Centres.
6. To prescribe job specifications for the principal jobs in the industry defining the skills, knowledge and training required.
7. To advise on training programmes for the principal jobs in the industry specifying the time a trainee needs to spend on each skill elements.
8. To tender advice in respect of skill assessments, trade tests and certification for in-service workers, apprentices and trainees, for the purpose of ascertaining that the specified skill standards have been attained.
9. To advise on the conduct of skill competitions in key trades in the industry for the promotion of vocational education and training as well as participation in international competitions.
10. To liaise with relevant bodies, including employers, employers' associations, trade unions, professional institutions, training and educational institutions and government departments, on matters pertaining to the development and promotion of vocational education and training in the industry.
11. To organize seminars/conferences/symposia on vocational education and training for the industry.
12. To advise on the publicity relating to the activities of the Training Board and relevant vocational education and training programmes of the VTC.
13. To submit to the Council an annual report on the Training Board's work and its recommendations on the strategies for programmes in the relevant disciplines.
14. To undertake any other functions delegated by the Council in accordance with Section 7 of the Vocational Training Council Ordinance.

金屬業訓練委員會職權範圍

1. 確定業內的人力需求，包括收集、分析相關的人力和學生／學員統計數字，以及關於社會經濟、科技及人力市場發展的資料。
2. 評估及研究本業的人力供求是否平衡。
3. 就發展業內專業教育及訓練設施應付人力需求，向職業訓練局提供意見。
4. 就相關學科的課程發展方向及策略，向香港專業教育學院(IVE)、卓越培訓發展中心提出建議。
5. 就 IVE、卓越培訓發展中心的課程策劃、課程發展及質素保證制度提供意見。
6. 擬訂本業主要職務的工作範圍，界定所需的技能、知識及訓練。
7. 建議本業主要職務訓練方案，訂定每種技能所需的訓練期。
8. 對技術評估、技能測驗及證書頒發制度提供意見，以確定從業員、學徒及見習員的技能水平。
9. 就本業主要行業舉辦技能比賽提供意見，以推廣專業教育與訓練和派員參加國際賽事。
10. 就本業專業教育及訓練的發展與推廣事宜，與僱主、僱主聯會、工會、專業團體、訓練及教育機構、政府部門等聯絡。
11. 為本業舉辦有關專業教育及訓練的研討會與會議。
12. 就業內訓練委員會工作、有關職訓局專業教育及訓練課程的宣傳事宜提供意見。
13. 每年向局方呈交訓練委員會工作報告，以及相關學科課程發展策略建議。
14. 根據《職業訓練局條例》第 7 條，負責局方所委派的其他工作。

## MANPOWER STATISTICS OF THE METAL PRODUCTS AND RELATED INDUSTRIES

## 金屬品製造及相關行業人力統計數字

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Forecast of Number of Employees by June 2015 (Excluding Trainees) 預計二〇一五年六月時的僱員人數 (受訓者除外)
TECHNOLOGIST LEVEL 技師級					
101	Mechanical Engineer 機械工程師	1 156	48	3	1 199
102	Manufacturing/Production/Industrial Engineer 製造/生產/工業工程師	219	-	5	224
103	Materials Engineer/Metallurgist 用料工程師/冶金技師	107	-	-	107
104	Electrical Engineer 電機工程師	503	-	1	504
105	Electronics Engineer 電子工程師	203	-	3	206
106	Technical Services Engineer 技術支援工程師	850	-	-	855
107	Technical Sales/Marketing Manager 技術營銷/市務/市場經理	1 837	-	10	1 847
108	Logistics Manager 物流經理	131	-	-	133
109	Merchandising Manager 採購經理	562	-	-	562
110	Training Manager 訓練經理	26	-	-	26
111	Engineering Manager 工程經理	312	-	-	312
112	Factory Manager 工廠經理	121	-	-	121
113	Production Manager 生產部經理	325	-	1	326
114	Quality Control Manager 品質控制經理	119	-	-	119
115	Product/Graphic Designer 產品/平面設計師	163	-	-	173
	Sub-total 小計	6 634	48	23	6 714

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Forecast of Number of Employees by June 2015 (Excluding Trainees) 預計二〇一五年六月時的僱員人數 (受訓者除外)
<b>TECHNICIAN LEVEL 技術員級</b>					
201	Mechanical Draftsman 機械繪圖員	55	-	-	55
202	Mechanical Engineering Technician 機械工程技術員	2 509	2	-	2 506
203	Manufacturing/Production/Industrial Engineering Technician 製造／生產／工業工程技術員	202	-	-	202
204	Electrical Engineering Technician 電機工程技術員	425	3	23	448
205	Foreman/Supervisor 管工／監督	939	-	15	954
206	Electronics Technician 電子技術員	153	-	-	153
207	Technical Services Technician 支援技術員	1 786	-	43	1 829
208	Technical Sales/Marketing Executive 技術營銷／市務主任	3 819	-	291	4 011
209	Co-ordinator 協理員／聯絡員	841	4	20	861
210	Logistics Executive/Supervisor 物流主任	552	-	-	552
211	Merchandiser 採購員	4 915	-	6	4 921
212	Production Supervisor 生產主管	321	4	1	322
213	Quality Control Supervisor 品質控制主管	234	-	-	234
214	Training Officer 訓練主任	7	-	-	7
215	Research and Development Technician 研究及發展技術員	191	-	-	191
	Sub-total 小計	16 949	13	399	17 246
<b>CRAFTSMAN LEVEL 技工級</b>					
301	Machinist 機床工	410	8	2	417
302	Precision Machinist 精密加工機床工	91	-	1	92
303	Machine Setter 機器調校工	37	-	-	37

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Forecast of Number of Employees by June 2015 (Excluding Trainees) 預計二〇一五年六月時的僱員人數 (受訓者除外)
CRAFTSMAN LEVEL (Continued) 技工級 (續)					
304	Tool and Die Maker 工具及工模製造工	7	-	-	7
305	Instrument Maker/Repairer 儀器製造/修理工	691	7	45	744
306	Electrician 電工	198	10	17	215
307	Mechanical Fitter 機械打磨裝配工	2 768	12	17	2 791
309	Furnaceman 熔爐工	39	-	5	44
310	Electric Arc and Gas Welder 電焊氣焊工	375	10	2	377
311	Sheetmetal Fabricator 薄片金屬構造工	204	26	-	225
312	Steel Fabricator (Thick Plate) 鋼板構造工	81	-	14	95
313	Plumber and Pipe Fitter 喉管工	65	2	-	65
314	Pattern/Model/Prototype Maker 樣本/模型/生產原型製造工	96	-	-	96
315	Electroplating and Metal Coating Worker 電鍍及金屬塗層工	112	-	3	115
316	Painter 髹漆工	141	2	1	142
317	Metal Printing Craftsman 金屬印製技工	26	-	-	26
318	Rolling Mill/Extrusion Press Craftsman 軋壓/擠壓技工	64	-	-	64
319	Silk Screen Printer 絲網印刷工	1	-	-	1
321	Mould Maker 製模技工	219	-	4	223
322	Repairer (Watches and Clocks) 鐘錶修理工	306	11	-	306
323	Heat Treatment Craftsman 熱處理技工	7	-	-	7
324	Edging/Shaping Craftsman 車邊工	84	-	3	87
333	Precious Stone Setter 首飾鑲嵌工	9	-	-	9

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Forecast of Number of Employees by June 2015 (Excluding Trainees) 預計二〇一五年六月時的僱員人數 (受訓者除外)
<b>CRAFTSMAN LEVEL (Continued) 技工級 (續)</b>					
336	Mould Maker/Caster 製模鑄造工	17	-	-	17
	Sub-total 小計	6 048	88	114	6 202
<b>OPERATIVE LEVEL 操作工級</b>					
401	Semi-skilled Machine Operator 機器操作工	525	15	10	550
404	Die-casting Machine Operator 金屬壓鑄機操作工	48	-	-	48
405	Electric-resistance Welder 電阻焊接工	46	-	-	46
406	Polishing Worker 磨光工	101	-	1	102
407	Striker 打鐵工	15	-	-	15
408	Press Operator 啤機操作工	276	-	-	276
409	Paint Spraying Gun Operator/ Zinc Sprayer 噴漆/噴鋅工	33	7	10	43
410	Semi-skilled Electro-plating and Metal Coating Worker 電鍍及金屬塗層半技工	14	-	-	14
411	Quality Control Operator 品質控制操作工	287	-	-	287
412	Assembler 裝配工	997	22	47	1 074
413	Injection Moulding Machine Operator 注塑機操作工	2	-	-	2
414	Crane Operator 起重機操作工	30	-	-	30
415	Polishing Worker (Lens) 磨鏡片工	62	-	2	64
435	Stone Selector/Sorter 配石工	1	-	-	1
	Sub-total 小計	2 437	44	70	2 552

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Forecast of Number of Employees by June 2015 (Excluding Trainees) 預計二〇一五年六月時的僱員人數 (受訓者除外)
UNSKILLED LEVEL 非技術工人級					
501	Labourer 雜工	704	-	-	700
	Sub-total 小計	704	-	-	700
	Grand Total 總計	32 772	193	606	33 414



**DISTRIBUTION OF EMPLOYEES BY BRANCH OF THE METAL PRODUCTS AND RELATED INDUSTRIES**  
金屬品製造及相關行業的僱員人數分佈情況

Code No. 編號	Job Title 職稱	Branch 1 門類一	Branch 2 門類二	Branch 3 門類三	Branch 4 門類四	Branch 5 門類五	Branch 6 門類六	Branch 7 門類七	Branch 8 門類八	Branch 9 門類九	Branch 10 門類十	Branch 11 門類十一	Total 總數
		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品(機械及設備除外)及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務, 包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
TECHNOLOGIST LEVEL 技師級													
101	Mechanical Engineer 機械工程師	16	8	3	135	1	2	203	1	478	223	86	1 156
102	Manufacturing/Production/ Industrial Engineer 製造/生產/工業工程師	14	3	7	4	-	8	2	5	124	12	40	219
103	Materials Engineer/Metallurgist 用料工程師/冶金技師	-	-	-	2	-	-	-	-	-	84	21	107

Code No. 編號	Job Title 職稱	Branch 門類											Total 總數
		Branch 1 門類一	Branch 2 門類二	Branch 3 門類三	Branch 4 門類四	Branch 5 門類五	Branch 6 門類六	Branch 7 門類七	Branch 8 門類八	Branch 9 門類九	Branch 10 門類十	Branch 11 門類十一	
		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品(機械及設備除外)及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, equipment, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務, 包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
TECHNOLOGIST LEVEL (Continued) 技師級 (續)													
104	Electrical Engineer 電機工程師	3	7	2	-	20	79	13	-	122	216	41	503
105	Electronics Engineer 電子工程師	2	-	-	2	-	11	-	-	41	89	58	203
106	Technical Services Engineer 技術支援工程師	47	13	1	17	12	-	450	1	177	117	15	850
107	Technical Sales/Marketing Manager 技術營銷/市務/市場經理	-	4	33	20	11	38	34	25	1 622	47	3	1 837
108	Logistics Manager 物流經理	-	1	10	8	2	-	21	1	88	-	-	131
109	Merchandising Manager 採購經理	-	3	2	5	1	5	22	7	517	-	-	562
110	Training Manager 訓練經理	-	-	-	1	-	-	4	-	-	-	21	26
111	Engineering Manager 工程經理	13	4	5	51	-	6	37	-	134	59	3	312

Code No. 編號	Job Title 職稱	Branch 門類											Total 總數
		Branch 1 門類一	Branch 2 門類二	Branch 3 門類三	Branch 4 門類四	Branch 5 門類五	Branch 6 門類六	Branch 7 門類七	Branch 8 門類八	Branch 9 門類九	Branch 10 門類十	Branch 11 門類十一	
		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品(機械及設備除外)及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, equipment, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務, 包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
TECHNOLOGIST LEVEL (Continued) 技師級 (續)													
112	Factory Manager 工廠經理	-	6	36	12	2	8	6	-	51	-	-	121
113	Production Manager 生產部經理	-	6	21	17	4	9	7	26	235	-	-	325
114	Quality Control Manager 品質控制經理	-	2	3	27	-	3	-	4	60	20	-	119
115	Product/Graphic Designer 產品/平面設計師	-	2	12	3	-	-	6	25	103	12	-	163
	Sub-total 小計	95	59	135	304	53	169	805	95	3 752	879	288	6 634
TECHNICIAN LEVEL 技術員級													
201	Mechanical Draftsman 機械繪圖員	-	-	2	1	-	16	6	-	30	-	-	55
202	Mechanical Engineering Technician 機械工程技術員	62	58	8	127	-	4	1 854	-	235	109	52	2 509

Code No. 編號	Job Title 職稱	Branch 門類											Total 總數
		Branch 1 門類一	Branch 2 門類二	Branch 3 門類三	Branch 4 門類四	Branch 5 門類五	Branch 6 門類六	Branch 7 門類七	Branch 8 門類八	Branch 9 門類九	Branch 10 門類十	Branch 11 門類十一	
		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品(機械及設備除外)及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, equipment, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務, 包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
TECHNICIAN LEVEL (Continued) 技術員級 (續)													
203	Manufacturing/Production/Industrial Engineering Technician 製造/生產/工業工程技術員	-	51	12	13	-	-	-	2	76	34	14	202
204	Electrical Engineering Technician 電機工程技術員	31	12	-	11	-	100	52	-	100	118	1	425
205	Foreman/Supervisor 管工/監督	25	66	54	36	10	64	340	14	244	56	30	939
206	Electronics Technician 電子技術員	10	-	1	6	-	54	8	-	20	31	23	153
207	Technical Services Technician 支援技術員	5	12	14	25	-	-	380	-	801	525	24	1 786
208	Technical Sales/Marketing Executive 技術營銷/市務主任	-	6	69	92	44	25	60	45	3 465	10	3	3 819
209	Co-ordinator 協理員/聯絡員	1	2	63	24	7	25	49	20	620	30	-	841

Code No. 編號	Job Title 職稱	Branch 門類											Total 總數
		Branch 1 門類一	Branch 2 門類二	Branch 3 門類三	Branch 4 門類四	Branch 5 門類五	Branch 6 門類六	Branch 7 門類七	Branch 8 門類八	Branch 9 門類九	Branch 10 門類十	Branch 11 門類十一	
		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品(機械及設備除外)及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, equipment, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務，包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
TECHNICIAN LEVEL (Continued) 技術員級(續)													
210	Logistic Executive/Supervisor 物流主任	-	7	5	18	3	8	13	5	493	-	-	552
211	Merchandiser 採購員	-	2	123	4	54	53	164	35	4 443	27	10	4 915
212	Production Supervisor 生產主管	-	18	33	8	14	8	6	9	225	-	-	321
213	Quality Control Supervisor 品質控制主管	-	2	8	5	-	11	2	14	88	104	-	234
214	Training Officer 訓練主任	-	-	-	1	-	-	4	-	-	-	2	7
215	Research and Development Technician 研究及發展技術員	-	-	-	-	-	2	2	6	16	65	100	191
	Sub-total 小計	134	236	392	371	132	370	2 940	150	10 856	1 109	259	16 949

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		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品(機械及設備除外)及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, equipment, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務，包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
CRAFTSMAN LEVEL 技工級													
301	Machinist 機床工	4	4	175	40	-	58	106	18	-	-	5	410
302	Precision Machinist 精密加工機床工	-	-	30	9	10	-	-	9	24	-	9	91
303	Machine Setter 機器調校工	-	-	12	4	-	1	-	-	20	-	-	37
304	Tool and Die Maker 工具及工模製造工	-	-	3	2	-	-	-	-	-	-	2	7
305	Instrument Maker/Repairer 儀器製造/修理工	55	-	48	10	-	-	379	1	198	-	-	691
306	Electrician 電工	34	1	3	1	-	55	104	-	-	-	-	198
307	Mechanical Fitter 機械打磨裝配工	258	10	98	137	1	39	1 630	-	490	99	6	2 768

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		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品(機械及設備除外)及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, equipment, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務，包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
CRAFTSMAN LEVEL (Continued) 技工級 (續)													
309	Furnaceman 熔爐工	5	34	-	-	-	-	-	-	-	-	-	39
310	Electric Arc and Gas Welder 電焊氣焊工	-	6	186	28	-	-	123	-	-	32	-	375
311	Sheetmetal Fabricator 薄片金屬構造工	-	-	65	20	-	45	74	-	-	-	-	204
312	Steel Fabricator (Thick Plate) 鋼板構造工	-	-	26	10	-	1	44	-	-	-	-	81
313	Plumber and Pipe Fitter 喉管工	1	7	25	-	-	-	32	-	-	-	-	65
314	Pattern/Model/Prototype Maker 樣本/模型/生產原型製造工	-	-	7	11	4	15	-	3	-	56	-	96
315	Electroplating and Metal Coating Worker 電鍍及金屬塗層工	-	-	86	-	10	1	15	-	-	-	-	112





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		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品(機械及設備除外)及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, equipment, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務, 包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
CRAFTSMAN LEVEL (Continued) 技工級 (續)													
324	Eding/Shaping Craftsman 車邊工	-	-	-	-	84	-	-	-	-	-	-	84
333	Precious Stone Setter 首飾鑲嵌工	-	-	-	-	-	-	-	9	-	-	-	9
336	Mould Maker/Caster 製模鑄造工	-	7	-	10	-	-	-	-	-	-	-	17
	Sub-total 小計	359	87	845	456	128	217	2 646	56	1 045	187	22	6 048
OPERATIVE LEVEL 操作工級													
401	Semi-skilled Machine Operator 機器操作工	100	13	201	81	15	95	-	-	20	-	-	525
404	Die-Casting Machine Operator 金屬壓鑄機操作工	-	-	38	-	-	-	-	10	-	-	-	48
405	Electric-resistance Welder 電阻焊接工	-	-	44	-	-	-	2	-	-	-	-	46

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		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品(機械及設備除外)及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, equipment, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務，包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
OPERATIVE LEVEL (Continued) 操作工級 (續)													
406	Polishing Worker 磨光工	-	-	49	2	-	-	5	-	45	-	-	101
407	Striker 打鐵工	-	-	12	-	-	-	3	-	-	-	-	15
408	Press Operator 啤機操作工	-	195	80	1	-	-	-	-	-	-	-	276
409	Paint Spraying Gun Operator/ Zinc Sprayer 噴漆/噴鋅工	-	-	-	-	-	-	33	-	-	-	-	33
410	Semi-skilled Electro-plating and Metal Coating Worker 電鍍及金屬塗層半技工	-	-	14	-	-	-	-	-	-	-	-	14
411	Quality Control Operator 品質控制操作工	-	11	68	2	2	42	8	43	63	48	-	287

Code No. 編號	Job Title 職稱	Branch 門類											Total 總數
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OPERATIVE LEVEL (Continued) 操作工級 (續)													
412	Assembler 裝配工	56	39	151	73	21	372	8	141	136	-	-	997
413	Injection Moulding Machine Operator 注塑機操作工	-	-	-	2	-	-	-	-	-	-	-	2
414	Crane Operator 起重機操作工	-	6	-	-	-	-	24	-	-	-	-	30
415	Polishing Worker 磨鏡片工	-	-	-	-	62	-	-	-	-	-	-	62
435	Stone Selector/Sorter 配石工	-	-	-	-	-	-	-	1	-	-	-	1
	Sub-total 小計	156	264	657	161	100	509	83	195	264	48	-	2 437

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		Plant maintenance section of food, beverage and tobacco manufacturing industries 食品、飲品及煙草製造業的廠房保養部門	Manufacture of basic metals 基本金屬的製造	Manufacture of fabricated metal products, (except machinery and equipment) and metal toys 金屬製品（機械及設備除外）及金屬玩具的製造	Manufacture of machinery and equipment 機械設備的製造	Manufacture of medical equipment. 醫療設備的製造	Manufacture of electrical equipment 電器設備的製造	Repair and installation of machinery and equipment 機械及設備的維修及安裝	Manufacture of watches and clocks 鐘錶的製造	Wholesale, import/export trading of machinery, equipment, watches and clocks 機械設備、鐘錶的批發及出入口貿易	Engineering services related to Metals industry including material testing, metallurgist, process development/ testing, production line consulting/ design and quality control 與金屬業有關的工程服務，包括物料測試、冶金服務、生產工序發展及測試、生產線顧問/設計及品質控制服務	Supplementary samples - Relevant division/ department in training/ education institutions 訓練機構及教育院校的有關部門及學系	
UNSKILLED LEVEL 非技術工人級													
501	Labourer 雜工	20	31	66	5	34	14	264	32	227	4	7	704
	Sub-total 小計	20	31	66	5	34	14	264	32	227	4	7	704
	Grand Total 總計	764	677	2 095	1 297	447	1 279	6 738	528	16 144	2 227	576	32 772

**MANPOWER STATISTICS OF THE JEWELLERY INDUSTRY**  
珠寶業人力統計數字

Code Number 編號	Job Title 職稱	Branch 12 門類十二  Manufacture of Jewellery, Bijouterie and Related Articles 珠寶首飾及有關物品的製造	Branch 13 門類十三  Wholesale, Import/Export Trading of Jewellery, Bijouterie and Related Products 珠寶首飾及有關物品的批發及出入口貿易	Branch 14 門類十四  Gemmological Laboratory 寶石實驗室	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數(受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目(受訓者除外)	Forecast of Number of Employees by June 2015 (Excluding Trainees) 預計二〇一五年六月時的僱員人數(受訓者除外)
<b>TECHNOLOGIST LEVEL 技師級</b>								
108	Logistics Manager 物流經理	-	7	-	7	-	1	8
110	Training Manager 訓練經理	-	1	-	1	-	-	1
131	Gemmologist 寶石鑒定師	-	-	44	44	-	3	47
132	Assay Officer 驗金師	-	-	4	4	-	-	4
133	Jewellery Sales/ Marketing Manager 珠寶營銷/市務/ 市場經理	87	1 042	-	1 129	-	-	1 129
134	Production Manager 生產部經理	20	134	-	154	-	-	154
135	Design and Development Manager 設計及發展經理	11	45	-	56	-	2	58
136	Merchandizing Manager 營銷採購經理	7	1 056	-	1 063	-	34	1 097
137	Brand Development Manager 品牌發展經理	-	13	-	13	-	2	15
	Sub-total 小計	125	2 298	48	2 471	-	42	2 513
<b>TECHNICIAN LEVEL 技術員級</b>								
210	Logistics Executive/Supervisor 物流主任	9	163	3	175	-	1	176
231	Jewellery Designer (Hand Sketch) 珠寶設計員(手繪)	70	604	-	674	-	1	675

Code Number 編號	Job Title 職稱	Branch 12 門類十二  Manufacture of Jewellery, Bijouterie and Related Articles 珠寶首飾及有關物品的製造	Branch 13 門類十三  Wholesale, Import/Export Trading of Jewellery, Bijouterie and Related Products 珠寶首飾及有關物品的批發及出入口貿易	Branch 14 門類十四  Gemmological Laboratory 寶石實驗室	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數(受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目(受訓者除外)	Forecast of Number of Employees by June 2015 (Excluding Trainees) 預計二〇一五年六月時的僱員人數(受訓者除外)
<b>TECHNICIAN LEVEL (Continued) 技術員級 (續)</b>								
232	Jewellery Designer (CAD) 珠寶設計員(電腦輔助設計)	93	248	-	341	-	1	342
233	Foreman/Supervisor 工場主管	59	81	-	140	-	-	140
234	Marketing Co-ordinator 業務協理員	35	238	-	273	-	-	273
235	Quality Controller 品質管理員	51	475	-	526	-	5	531
236	Merchandizer 營銷採購員	430	3 906	-	4 336	-	30	4 366
237	Jewellery Sales/ Marketing Executive 珠寶營銷/市務/ 市場主任	169	2 328	3	2 500	-	95	2 595
238	Diamond Grader 鑽石評級員	-	174	44	218	-	20	265
	Sub-total 小計	916	8 217	50	9 183	-	153	9 363
<b>CRAFTSMAN LEVEL 技工級</b>								
331	Goldsmith (K-gold) 打金工(西金)	463	135	-	598	14	-	598
332	Goldsmith (Fine-gold) 打金工(足金)	49	3	-	52	-	-	52
333	Precious Stone Setter 首飾鑲嵌工	210	156	-	366	5	4	370
334	Jewellery Pattern Maker (Metal) 首飾鑄造金屬樣板工	39	-	-	39	-	-	39
335	Jewellery Patter Maker (Wax) 首飾鑄造蠟板工	5	-	-	5	-	-	5
336	Mould Maker/Caster 製模鑄造工	56	-	-	56	-	-	56
337	Jewellery Plater 首飾電鍍工	47	24	-	71	3	-	71

Code Number 編號	Job Title 職稱	Branch 12 門類十二  Manufacture of Jewellery, Bijouterie and Related Articles 珠寶首飾及有關物品的製造	Branch 13 門類十三  Wholesale, Import/Export Trading of Jewellery, Bijouterie and Related Products 珠寶首飾及有關物品的批發及出入口貿易	Branch 14 門類十四  Gemmological Laboratory 寶石實驗室	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Forecast of Number of Employees by June 2015 (Excluding Trainees) 預計二〇一五年六月時的僱員人數 (受訓者除外)
<b>CRAFTSMAN LEVEL 技工級 (續)</b>								
338	Jewellery Engraver/Milligrainer 珠寶雕刻工	8	-	-	8	-	-	8
339	Gemstone Cutter/Polisher 寶石割切/打磨工	64	8	-	72	-	-	72
340	Diamond Cutter/Polisher 鑽石割切/打磨工	13	1	-	14	-	-	14
341	Rapid Prototyping (RP) Craftsman 快速原型製造技工	2	5	-	7	1	-	7
	Sub-total 小計	956	332	-	1 288	23	4	1 292
<b>OPERATIVE LEVEL 操作工級</b>								
432	Beads and Pearls Stringing Workers 穿珠工	4	16	-	20	-	-	20
433	Wax Pattern Mounter/Maker 蠟樣工	1	-	-	1	-	-	1
434	Jewellery Polisher 首飾打磨工	69	1	-	70	-	-	70
435	Stone Selector/Sorter 配石工	40	205	-	245	-	-	245
	Sub-total 小計	114	222	-	336	-	-	336
	Grand Total 總計	2 111	11 069	98	13 278	23	199	13 504

**DISTRIBUTION OF EMPLOYEES BY MONTHLY INCOME RANGE  
(METAL PRODUCTS AND RELATED INDUSTRIES)**

根據每月收入幅度區分的僱員人數分佈情況（金屬品製造及相關行業）

Code No. 編號	Job Title 職稱	Under \$8,001 以下	\$8,001 - \$11,000	\$11,001 - \$14,000	\$14,001 - \$17,000	\$17,001 - \$20,000	\$20,001 - \$30,000	Over \$30,000 以上	Unspecified 未有說明	Sub-total 小計
<b>TECHNOLOGIST LEVEL 技師級</b>										
101	Mechanical Engineer 機械工程師	-	-	1	47	109	494	441	64	1 156
102	Manufacturing/Production/ Industrial Engineer 製造/生產/工業工程師	-	-	-	-	27	109	64	19	219
103	Materials Engineer/Metallurgist 用料工程師/冶金技師	-	-	-	3	11	22	29	42	107
104	Electrical Engineer 電機工程師	-	-	-	-	76	253	112	62	503
105	Electronics Engineer 電子工程師	-	-	2	4	30	8	147	12	203
106	Technical Services Engineer 技術支援工程師	-	-	-	17	179	148	479	27	850
107	Technical Sales/Marketing Manager 技術營銷/市務/市場經理	-	1	-	100	175	618	674	269	1 837
108	Logistics Manager 物流經理	-	-	-	10	5	37	20	59	131
109	Merchandising Manager 採購經理	-	-	-	5	59	351	83	64	562
110	Training Manager 訓練經理	-	-	-	-	-	1	24	1	26
111	Engineering Manager 工程經理	-	-	41	-	2	66	127	76	312
112	Factory Manager 工廠經理	-	-	4	-	5	9	12	91	121
113	Production Manager 生產部經理	-	100	-	5	24	26	101	69	325
114	Quality Control Manager 品質控制經理	-	-	-	2	8	6	37	66	119
115	Product/Graphic Designer 產品/平面設計師	-	-	-	14	46	30	15	58	163
	Sub-total 小計	-	101	48	207	756	2 178	2 365	979	6 634
<b>TECHNICIAN LEVEL 技術員級</b>										
201	Mechanical Draftsman 機械繪圖員	-	-	2	37	4	8	2	2	55
202	Mechanical Engineering Technician 機械工程技術員	-	134	15	1 456	455	329	38	82	2 509
203	Manufacturing/Production/ Industrial Engineering Technician 製造/生產/工業 工程技術員	-	2	17	4	96	18	12	53	202
204	Electrical Engineering Technician 電機工程技術員	-	100	13	57	142	82	1	30	425



Code No. 編號	Job Title 職稱	Under \$8,001 以下	\$8,001 - \$11,000	\$11,001 - \$14,000	\$14,001 - \$17,000	\$17,001 - \$20,000	\$20,001 - \$30,000	Over \$30,000 以上	Unspecified 未有說明	Sub-total 小計
TECHNICIAN LEVEL (Continued) 技術員級 (續)										
205	Foreman/Supervisor 管工/監督	-	-	143	150	330	192	26	98	939
206	Electronics Technician 電子技術員	-	45	30	37	14	23	-	4	153
207	Technical Services Technician 支援技術員	-	124	306	279	749	52	-	276	1 786
208	Technical Sales/Marketing Executive 技術營銷/市務主任	2	1	1 027	1 130	458	432	50	719	3 819
209	Co-ordinator 協理員/聯絡員	-	21	407	187	12	58	-	156	841
210	Logistics Executive/Supervisor 物流主任	-	10	91	336	20	15	-	80	552
211	Merchandiser 採購員	-	281	1 396	1 688	483	235	9	823	4 915
212	Production Supervisor 生產主管	-	29	3	7	233	28	7	14	321
213	Quality Control Supervisor 品質控制主管	-	4	26	93	49	16	-	46	234
214	Training Officer 訓練主任	-	-	-	-	-	5	1	1	7
215	Research and Development Technician 研究及發展技術員	-	-	24	21	40	100	6	-	191
	Sub-total 小計	2	751	3 500	5 482	3 085	1 593	152	2 384	16 949
CRAFTSMAN LEVEL 技工級										
301	Machinist 機床工	14	33	143	59	48	88	-	25	410
302	Precision Machinist 精密加工機床工	-	3	54	-	9	-	1	24	91
303	Machine Setter 機器調校工	-	1	32	-	-	-	-	4	37
304	Tool and Die Maker 工具及工模製造工	-	-	5	-	-	2	-	-	7
305	Instrument Maker/Repairer 儀器製造/修理工	-	17	437	108	66	46	-	17	691
306	Electrician 電工	-	-	123	25	23	26	-	1	198
307	Mechanical Fitter 機械打磨裝配工	60	839	1 051	229	238	68	-	283	2 768
309	Furnaceman 熔爐工	-	2	17	5	12	-	-	3	39
310	Electric Arc and Gas Welder 電焊氣焊工	-	10	73	98	61	61	-	72	375
311	Sheetmetal Fabricator 薄片金屬構造工	-	16	49	55	74	10	-	-	204
312	Steel Fabricator (Thick Plate) 鋼板構造工	-	26	10	5	-	40	-	-	81
313	Plumber and Pipe Fitter 喉管工	-	-	26	-	17	22	-	-	65
314	Pattern/Model/Prototype Maker 樣本/模型/生產原型製造工	-	56	17	-	-	-	-	23	96
315	Electroplating and Metal Coating Worker 電鍍及金屬塗層工	-	-	67	44	1	-	-	-	112
316	Painter 髹漆工	-	-	76	49	-	16	-	-	141

Code No. 編號	Job Title 職稱	Under \$8,001 以下	\$8,001 - \$11,000	\$11,001 - \$14,000	\$14,001 - \$17,000	\$17,001 - \$20,000	\$20,001 - \$30,000	Over \$30,000 以上	Unspecified 未有說明	Sub-total 小計
CRAFTSMAN LEVEL (Continued) 技工級 (續)										
317	Metal Printing Craftsman 金屬印製技工	-	-	25	-	-	-	-	1	26
318	Rolling Mill/Extrusion Press Craftsman 軋壓/擠壓技工	-	6	15	2	38	3	-	-	64
319	Silk Screen Printer 絲網印刷工	-	-	1	-	-	-	-	-	1
321	Mould Maker 製模技工	-	4	63	-	130	-	-	22	219
322	Repairer (Watches and Clocks) 鐘錶修理工	-	7	82	6	141	-	-	70	306
323	Heat Treatment Craftsman 熱處理技工	-	-	3	-	-	-	-	4	7
324	Edging/Shaping Craftsman 車邊工	-	-	67	-	-	-	-	17	84
333	Precious Stone Setter 首飾鑲嵌工	-	9	-	-	-	-	-	-	9
336	Mould Maker/Caster 製模鑄造工	-	-	-	-	-	10	-	7	17
	Sub-total 小計	74	1 029	2 436	685	858	392	1	573	6 048
OPERATIVE LEVEL 操作工級										
401	Semi-skilled Machine Operator 機器操作工	20	96	352	44	-	-	-	13	525
404	Die-casting Machine Operator 金屬壓鑄機操作工	-	-	24	10	-	14	-	-	48
405	Electric-resistance Welder 電阻焊接工	-	-	16	1	-	14	-	15	46
406	Polishing Worker 磨光工	-	7	45	4	45	-	-	-	101
407	Striker 打鐵工	-	1	14	-	-	-	-	-	15
408	Press Operator 啤機操作工	1	80	-	195	-	-	-	-	276
409	Paint Spraying Gun Operator/ Zinc Sprayer 噴漆/噴鋅工	-	-	-	-	33	-	-	-	33
410	Semi-skilled Electro-plating and Metal Coating Worker 電鍍及金屬塗層半技工	-	-	14	-	-	-	-	-	14
411	Quality Control Operator 品質控制操作工	17	63	60	11	29	-	-	107	287
412	Assembler 裝配工	136	341	298	30	-	-	-	192	997
413	Injection Moulding Machine Operator 注塑機操作工	-	-	2	-	-	-	-	-	2
414	Crane Operator 起重機操作工	-	-	16	-	8	6	-	-	30
415	Polishing Worker 磨鏡片工	-	-	49	-	-	-	-	13	62
435	Stone Selector/Sorter 配石工	-	1	-	-	-	-	-	-	1
	Sub-total 小計	174	589	890	295	115	34	-	340	2 437

Code No. 編號	Job Title 職稱	Under \$8,001 以下	\$8,001 - \$11,000	\$11,001 - \$14,000	\$14,001 - \$17,000	\$17,001 - \$20,000	\$20,001 - \$30,000	Over \$30,000 以上	Unspecified 未有說明	Sub-total 小計
UNSKILLED LEVEL 非技術工人級										
501	Labourer 雜工	234	321	74	23	-	29	-	23	704
	Sub-total 小計	234	321	74	23	-	29	-	23	704
	Grand Total 總計	484	2 791	6 948	6 692	4 814	4 226	2 518	4 299	32 772

**DISTRIBUTION OF EMPLOYEES BY MONTHLY INCOME RANGE  
(JEWELLERY INDUSTRY)**

根據每月收入幅度區分的僱員人數分佈情況（珠寶業）

Code No. 編號	Job Title 職稱	Under \$8,001 以下	\$8,001 - \$11,000	\$11,001 - \$14,000	\$14,001 - \$17,000	\$17,001 - \$20,000	\$20,001 - \$30,000	Over \$30,000 以上	Unspecified 未有說明	Sub-total 小計
<b>TECHNOLOGIST LEVEL 技師級</b>										
108	Logistics Manager 物流經理	-	-	-	-	6	1	-	-	7
110	Training Manager 訓練經理	-	-	-	-	-	1	-	-	1
131	Gemmologist 寶石鑒定師	-	-	-	3	4	29	8	-	44
132	Assay Officer 驗金師	-	-	-	-	-	4	-	-	4
133	Jewellery Sales/ Marketing Manager 珠寶營銷／市務／市場經理	-	-	13	5	54	450	491	116	1 129
134	Production Manager 生產部經理	-	-	-	-	5	20	44	85	154
135	Design and Development Manager 設計及發展經理	-	-	-	-	-	10	39	7	56
136	Merchandizing Manager 營銷採購經理	-	-	100	40	79	485	280	79	1 063
137	Brand Development Manager 品牌發展經理	-	-	-	-	-	8	5	-	13
	Sub-total 小計	-	-	113	48	148	1 008	867	287	2 471
<b>TECHNICIAN LEVEL 技術員級</b>										
210	Logistics Executive/ Supervisor 物流主任	-	-	16	120	39	-	-	-	175
231	Jewellery Designer (Hand Sketch) 珠寶設計員（手繪）	-	20	218	119	271	9	-	37	674
232	Jewellery Designer (CAD) 珠寶設計員（電腦輔助設計）	-	10	98	39	85	-	-	109	341
233	Foreman/Supervisor 工場主管	-	15	-	46	52	5	1	21	140
234	Marketing Co-ordinator 業務協理員	-	42	147	35	37	-	-	12	273
235	Quality Controller 品質管理員	-	-	127	192	113	8	-	86	526
236	Merchandizer 營銷採購員	34	672	776	1 493	806	181	12	362	4 336
237	Jewellery Sales/ Marketing Executive 珠寶營銷／市務／市場主任	34	55	437	948	380	258	43	345	2 500
238	Diamond Grader 鑽石評級員	-	-	9	76	2	18	33	80	218
	Sub-total 小計	68	814	1 828	3 068	1 785	479	89	1 052	9 183

Code No. 編號	Job Title 職稱	Under \$8,001 以下	\$8,001 - \$11,000	\$11,001 - \$14,000	\$14,001 - \$17,000	\$17,001 - \$20,000	\$20,001 - \$30,000	Over \$30,000 以上	Unspecified 未有說明	Sub-total 小計
<b>CRAFTSMAN LEVEL 技工級</b>										
331	Goldsmith (K-gold) 打金工 (西金)	12	-	89	267	107	-	-	123	598
332	Goldsmith (Fine-gold) 打金工 (足金)	-	13	27	-	12	-	-	-	52
333	Precious Stone Setter 首飾鑲嵌工	26	13	72	184	21	-	-	50	366
334	Jewellery Pattern Maker (Metal) 首飾鑄造金屬樣板工	-	1	5	-	33	-	-	-	39
335	Jewellery Patter Maker (Wax) 首飾鑄造蠟板工	-	-	2	-	-	-	-	3	5
336	Mould Maker/Caster 製模鑄造工	-	40	13	-	-	1	-	2	56
337	Jewellery Plater 首飾電鍍工	-	-	45	11	8	2	-	5	71
338	Jewellery Engraver/Milligrainer 珠寶雕刻工	-	-	8	-	-	-	-	-	8
339	Gemstone Cutter/Polisher 寶石割切/打磨工	-	-	65	-	7	-	-	-	72
340	Diamond Cutter/Polisher 鑽石割切/打磨工	-	1	-	1	12	-	-	-	14
341	Rapid Prototyping (RP) Craftsman 快速原型製造技工	-	5	-	2	-	-	-	-	7
	Sub-total 小計	38	73	326	465	200	3	-	183	1 288
<b>OPERATIVE LEVEL 操作工級</b>										
432	Beads and Pearls Stringing Workers 穿珠工	-	20	-	-	-	-	-	-	20
433	Wax Pattern Moulder/Maker 蠟樣工	-	1	-	-	-	-	-	-	1
434	Jewellery Polisher 首飾打磨工	-	13	28	-	3	-	-	26	70
435	Stone Selector/Sorter 配石工	-	81	54	68	20	-	-	22	245
	Sub-total 小計	-	115	82	68	23	-	-	48	336
	Grand Total 總計	106	1 002	2 349	3 649	2 156	1 490	956	1 570	13 278

**PREFERRED EDUCATION OF EMPLOYEES**

僱員宜有的教育程度

Number 號碼	Branch 門類	Degree or above 大學學位 或 以上	Higher Diploma 高級文憑	Diploma 文憑	Higher Certificate / Certificate / Secondary 7 高級證書 / 證書 / 中七	Secondary 5 - Secondary 6/ Hong Kong Diploma of Secondary Education 中五至 中六/ 香港中學 文憑	Craft Certificate / Secondary 4 技工證書 / 中四	Secondary 3 or below 中三 或 以下	Unspecified 未有說明	Sub-total 小計
<b>TECHNOLOGIST LEVEL 技師級</b>										
1	Plant Maintenance 廠房保養	86	5	4	-	-	-	-	-	95
2	Manufacture of Basic Metal 基本金屬製造	31	10	11	-	2	-	-	5	59
3	Manufacture of Metal Products 金屬製品製造	78	35	15	-	1	-	-	6	135
4	Manufacture of Machinery and Equipment 機械設備製造	122	16	4	-	-	-	-	162	304
5	Manufacture of Medical Equipment 醫療設備製造	49	3	1	-	-	-	-	-	53
6	Manufacture of Electrical Equipment 電器設備製造	71	70	1	-	6	-	-	21	169
7	Repair and Installation of Machinery and Equipment 機械設備維修及安裝	372	355	14	4	-	-	-	60	805
8	Manufacture of Watches and Clocks 鐘錶製造	43	14	30	5	-	-	-	3	95
9	Wholesale, Import/Export Trading of Machinery, Equipment, Watches and Clocks 機械設備、鐘錶的批發及 出入口貿易	2 147	409	882	40	226	-	-	48	3 752
10	Engineering Services 工程服務	638	207	24	-	10	-	-	-	879
11	Training/Educational Institutions 訓練機構／教育院校	277	10	1	-	-	-	-	-	288
12	Manufacture of Jewellery 珠寶製造	12	-	88	6	4	3	-	12	125
13	Wholesale, Import/Export Trading of Jewellery 珠寶批發及出入口貿易	830	810	504	21	86	-	-	47	2 298
14	Gemmological Laboratory 寶石鑒定所	18	16	14	-	-	-	-	-	48
	Sub-total 小計	4 774	1 960	1 593	76	335	3	-	364	9 105

Number 號碼	Branch 門類	Degree or above 大學學位 或 以上	Higher Diploma 高級文憑	Diploma 文憑	Higher Certificate / Certificate / Secondary 7 高級證書 / 證書 / 中七	Secondary 5 - Secondary 6/ Hong Kong Diploma of Secondary Education 中五至 中六/ 香港中學 文憑	Craft Certificate / Secondary 4 技工證書 / 中四	Secondary 3 or below 中三 或 以下	Unspecified 未有說明	Sub-total 小計
TECHNICIAN LEVEL 技術員級										
1	Plant Maintenance 廠房保養	11	72	11	35	1	2	2	-	134
2	Manufacture of Basic Metal 基本金屬製造	-	-	57	45	-	55	5	74	236
3	Manufacture of Metal Products 金屬製品製造	34	-	177	120	-	7	33	21	392
4	Manufacture of Machinery and Equipment 機械設備製造	10	2	79	133	42	-	-	105	371
5	Manufacture of Medical Equipment 醫療設備製造	4	-	49	74	5	-	-	-	132
6	Manufacture of Electrical Equipment 電器設備製造	14	23	94	190	11	4	-	34	370
7	Repair and Installation of Machinery and Equipment 機械設備維修及安裝	89	515	1 878	299	13	43	43	60	2 940
8	Manufacture of Watches and Clocks 鐘錶製造	3	9	10	107	4	-	-	17	150
9	Wholesale, Import/Export Trading of Machinery, Equipment, Watches and Clocks 機械設備、鐘錶的批發及 出入口貿易	1 363	1 342	1 703	4 170	2 031	-	-	247	10 856
10	Engineering Services 工程服務	92	182	224	279	332	-	-	-	1 109
11	Training/Educational Institutions 訓練機構／教育院校	184	56	17	2	-	-	-	-	259
12	Manufacture of Jewellery 珠寶製造	18	45	191	609	22	6	-	25	916
13	Wholesale, Import/Export Trading of Jewellery 珠寶批發及出入口貿易	984	385	1 822	3 341	1 570	-	-	115	8 217
14	Gemmological Laboratory 寶石鑒定所	-	-	48	2	-	-	-	-	50
	Sub-total 小計	2 806	2 631	6 360	9 406	4 031	117	83	698	26 132

Number 號碼	Branch 門類	Degree or above 大學學位 或 以上	Higher Diploma 高級文憑	Diploma 文憑	Higher Certificate / Certificate / Secondary 7 高級證書 / 證書 / 中七	Secondary 5 - Secondary 6/ Hong Kong Diploma of Secondary Education 中五至 中六/ 香港中學 文憑	Craft Certificate / Secondary 4 技工證書 / 中四	Secondary 3 or below 中三 或 以下	Unspecified 未有說明	Sub-total 小計
CRAFTSMAN LEVEL 技工級										
1	Plant Maintenance 廠房保養	-	48	-	2	-	276	12	21	359
2	Manufacture of Basic Metal 基本金屬製造	-	-	-	-	-	50	30	7	87
3	Manufacture of Metal Products 金屬製品製造	-	-	-	112	166	60	500	7	845
4	Manufacture of Machinery and Equipment 機械設備製造	-	-	-	-	338	30	86	2	456
5	Manufacture of Medical Equipment 醫療設備製造	-	-	-	-	12	12	104	-	128
6	Manufacture of Electrical Equipment 電器設備製造	-	-	1	96	82	-	23	15	217
7	Repair and Installation of Machinery and Equipment 機械設備維修及安裝	-	-	-	100	854	941	691	60	2 646
8	Manufacture of Watches and Clocks 鐘錶製造	-	-	-	-	3	18	32	3	56
9	Wholesale, Import/Export Trading of Machinery, Equipment, Watches and Clocks 機械設備、鐘錶的批發及 出入口貿易	-	141	-	-	253	650	1	-	1 045
10	Engineering Services 工程服務	-	-	-	-	15	153	19	-	187
11	Training/Educational Institutions 訓練機構／教育院校	-	2	-	10	10	-	-	-	22
12	Manufacture of Jewellery 珠寶製造	-	1	-	-	420	156	345	34	956
13	Wholesale, Import/Export Trading of Jewellery 珠寶批發及出入口貿易	-	-	-	-	292	15	25	-	332
14	Gemmological Laboratory 寶石鑒定所	-	-	-	-	-	-	-	-	-
	Sub-total 小計	-	192	1	320	2 445	2 361	1 868	149	7 336
	Grand Total 總計	7 580	4 783	7 954	9 802	6 811	2 481	1 951	1 211	42 573



**PREFERRED MODE OF TRAINING OF EMPLOYEES**

## 僱員宜有的訓練方式

Number 號碼	Branch 門類	Graduate Traineeship 工科畢業生 訓練	On-the-job Training 在職訓練	Apprentice- ship 學徒訓練	Others 其他	Unspecified 未有說明	Sub-total 小計
<b>TECHNOLOGIST LEVEL 技師級</b>							
1	Plant Maintenance 廠房保養	63	32	-	-	-	95
2	Manufacture of Basic Metal 基本金屬製造	27	27	-	-	5	59
3	Manufacture of Metal Products 金屬製品製造	65	64	-	-	6	135
4	Manufacture of Machinery and Equipment 機械設備製造	110	32	-	-	162	304
5	Manufacture of Medical Equipment 醫療設備製造	38	15	-	-	-	53
6	Manufacture of Electrical Equipment 電器設備製造	29	119	-	-	21	169
7	Repair and Installation of Machinery and Equipment 機械設備維修及安裝	40	705	-	-	60	805
8	Manufacture of Watches and Clocks 鐘錶製造	3	89	-	-	3	95
9	Wholesale, Import/Export Trading of Machinery, Equipment, Watches and Clocks 機械設備、鐘錶的批發及出入口貿易	347	3 357	-	-	48	3 752
10	Engineering Services 工程服務	162	717	-	-	-	879
11	Training/Educational Institutions 訓練機構／教育院校	198	90	-	-	-	288
12	Manufacture of Jewellery 珠寶製造	6	103	4	-	12	125
13	Wholesale, Import/Export Trading of Jewellery 珠寶批發及出入口貿易	148	2 103	-	-	47	2 298
14	Gemmological Laboratory 寶石鑒定所	2	44	-	2	-	48
	Sub-total 小計	1 238	7 497	4	2	364	9 105
<b>TECHNICIAN LEVEL 技術員級</b>							
1	Plant Maintenance 廠房保養	-	80	54	-	-	134
2	Manufacture of Basic Metal 基本金屬製造	-	162	-	-	74	236
3	Manufacture of Metal Products 金屬製品製造	-	343	28	-	21	392
4	Manufacture of Machinery and Equipment 機械設備製造	-	266	-	-	105	371
5	Manufacture of Medical Equipment 醫療設備製造	-	132	-	-	-	132
6	Manufacture of Electrical Equipment 電器設備製造	-	336	-	-	34	370
7	Repair and Installation of Machinery and Equipment 機械設備維修及安裝	-	2 880	-	-	60	2 940
8	Manufacture of Watches and Clocks 鐘錶製造	-	133	-	-	17	150

Number 號碼	Branch 門類	Graduate Traineeship 工科畢業生 訓練	On-the-job Training 在職訓練	Apprentice- ship 學徒訓練	Others 其他	Unspecified 未有說明	Sub-total 小計
TECHNICIAN LEVEL (Continued) 技術員級 (續)							
9	Wholesale, Import/Export Trading of Machinery, Equipment, Watches and Clocks 機械設備、鐘錶的批發及出入口貿易	43	10 465	-	101	247	10 856
10	Engineering Services 工程服務	-	1 109	-	-	-	1 109
11	Training/Educational Institutions 訓練機構／教育院校	-	259	-	-	-	259
12	Manufacture of Jewellery 珠寶製造	-	891	-	-	25	916
13	Wholesale, Import/Export Trading of Jewellery 珠寶批發及出入口貿易	-	8 102	-	-	115	8 217
14	Gemmological Laboratory 寶石鑒定所	-	50	-	-	-	50
	Sub-total 小計	43	25 208	82	101	698	26 132
CRAFTSMAN LEVEL 技工級							
1	Plant Maintenance 廠房保養	-	280	58	-	21	359
2	Manufacture of Basic Metal 基本金屬製造	-	80	-	-	7	87
3	Manufacture of Metal Products 金屬製品製造	-	574	264	-	7	845
4	Manufacture of Machinery and Equipment 機械設備製造	-	184	270	-	2	456
5	Manufacture of Medical Equipment 醫療設備製造	-	106	22	-	-	128
6	Manufacture of Electrical Equipment 電器設備製造	-	177	25	-	15	217
7	Repair and Installation of Machinery and Equipment 機械設備維修及安裝	-	2 289	297	-	60	2 646
8	Manufacture of Watches and Clocks 鐘錶製造	-	23	30	-	3	56
9	Wholesale, Import/Export Trading of Machinery, Equipment, Watches and Clocks 機械設備、鐘錶的批發及出入口貿易	-	1 005	40	-	-	1 045
10	Engineering Services 工程服務	-	187	-	-	-	187
11	Training/Educational Institutions 訓練機構／教育院校	-	13	9	-	-	22
12	Manufacture of Jewellery 珠寶製造	-	646	276	-	34	956
13	Wholesale, Import/Export Trading of Jewellery 珠寶批發及出入口貿易	-	332	-	-	-	332
14	Gemmological Laboratory 寶石鑒定所	-	-	-	-	-	-
	Sub-total 小計	-	5 896	1 291	-	149	7 336
	Grand Total 總計	1 281	38 601	1 377	103	1 211	42 573

## PREFERRED PERIOD OF TRAINING OF EMPLOYEES

## 僱員宜有的訓練期

Number 號碼	Branch 門類	4 Years or above 4 年或 以上	3 Years to less than 4 Years 3 年至 4 年以下	2 Years to less than 3 Years 2 年至 3 年以下	1 Year to less than 2 Years 1 年至 2 年以下	6 months to less than 1 Year 6 個月至 1 年以下	Below 6 Months 6 個月 以下	Unspecified 未有說明	Sub-total 小計
TECHNOLOGIST LEVEL 技師級									
1	Plant Maintenance 廠房保養	27	68	-	-	-	-	-	95
2	Manufacture of Basic Metal 基本金屬製造	29	14	11	-	-	-	5	59
3	Manufacture of Metal Products 金屬製品製造	59	47	23	-	-	-	6	135
4	Manufacture of Machinery and Equipment 機械設備製造	96	39	7	-	-	-	162	304
5	Manufacture of Medical Equipment 醫療設備製造	11	38	4	-	-	-	-	53
6	Manufacture of Electrical Equipment 電器設備製造	27	73	48	-	-	-	21	169
7	Repair and Installation of Machinery and Equipment 機械設備維修及安裝	278	377	2	88	-	-	60	805
8	Manufacture of Watches and Clocks 鐘錶製造	45	18	29	-	-	-	3	95
9	Wholesale, Import/Export Trading of Machinery, Equipment, Watches and Clocks 機械設備、鐘錶的批發及 出入口貿易	1 952	380	893	100	231	148	48	3 752
10	Engineering Services 工程服務	689	115	49	26	-	-	-	879
11	Training/Educational Institutions 訓練機構／教育院校	259	29	-	-	-	-	-	288
12	Manufacture of Jewellery 珠寶製造	39	2	66	6	-	-	12	125
13	Wholesale, Import/Export Trading of Jewellery 珠寶批發及出入口貿易	1 199	683	288	81	-	-	47	2 298
14	Gemmological Laboratory 寶石鑒定所	8	18	17	-	-	5	-	48
	Sub-total 小計	4 718	1 901	1 437	301	231	153	364	9 105
TECHNICIAN LEVEL 技術員級									
1	Plant Maintenance 廠房保養	49	63	17	5	-	-	-	134
2	Manufacture of Basic Metal 基本金屬製造	2	92	58	10	-	-	74	236
3	Manufacture of Metal Products 金屬製品製造	80	20	195	76	-	-	21	392
4	Manufacture of Machinery and Equipment 機械設備製造	35	32	110	89	-	-	105	371
5	Manufacture of Medical Equipment 醫療設備製造	59	18	45	10	-	-	-	132

Number 號碼	Branch 門類	4 Years or above 4年或 以上	3 Years to less than 4 Years 3年至 4年以下	2 Years to less than 3 Years 2年至 3年以下	1 Year to less than 2 Years 1年至 2年以下	6 months to less than 1 Year 6個月至 1年以下	Below 6 Months 6個月 以下	Unspecified 未有說明	Sub-total 小計
TECHNICIAN LEVEL (Continued) 技術員級 (續)									
6	Manufacture of Electrical Equipment 電器設備製造	4	212	88	32	-	-	34	370
7	Repair and Installation of Machinery and Equipment 機械設備維修及安裝	137	1 769	422	552	-	-	60	2 940
8	Manufacture of Watches and Clocks 鐘錶製造	15	11	53	46	8	-	17	150
9	Wholesale, Import/Export Trading of Machinery, Equipment, Watches and Clocks 機械設備、鐘錶的批發及 出入口貿易	1 057	1 271	3 728	3 782	303	468	247	10 856
10	Engineering Services 工程服務	26	325	163	303	-	292	-	1 109
11	Training/Educational Institutions 訓練機構／教育院校	15	232	12	-	-	-	-	259
12	Manufacture of Jewellery 珠寶製造	83	71	652	85	-	-	25	916
13	Wholesale, Import/Export Trading of Jewellery 珠寶批發及出入口貿易	1 234	596	3 305	2 809	32	126	115	8 217
14	Gemmological Laboratory 寶石鑒定所	-	2	-	38	-	10	-	50
	Sub-total 小計	2 796	4 714	8 848	7 837	343	896	698	26 132
CRAFTSMAN LEVEL 技工級									
1	Plant Maintenance 廠房保養	97	5	187	39	-	10	21	359
2	Manufacture of Basic Metal 基本金屬製造	-	-	19	61	-	-	7	87
3	Manufacture of Metal Products 金屬製品製造	3	60	321	454	-	-	7	845
4	Manufacture of Machinery and Equipment 機械設備製造	280	-	46	118	-	10	2	456
5	Manufacture of Medical Equipment 醫療設備製造	13	-	9	106	-	-	-	128
6	Manufacture of Electrical Equipment 電器設備製造	-	-	39	162	-	1	15	217
7	Repair and Installation of Machinery and Equipment 機械設備維修及安裝	313	439	807	1 025	-	2	60	2 646
8	Manufacture of Watches and Clocks 鐘錶製造	-	4	25	18	3	3	3	56
9	Wholesale, Import/Export Trading of Machinery, Equipment, Watches and Clocks 機械設備、鐘錶的批發及 出入口貿易	129	226	142	548	-	-	-	1 045
10	Engineering Services 工程服務	-	-	46	141	-	-	-	187
11	Training/Educational Institutions 訓練機構／教育院校	2	3	7	-	10	-	-	22
12	Manufacture of Jewellery 珠寶製造	331	65	328	198	-	-	34	956

Number 號碼	Branch 門類	4 Years or above 4 年或 以上	3 Years to less than 4 Years 3 年至 4 年以下	2 Years to less than 3 Years 2 年至 3 年以下	1 Year to less than 2 Years 1 年至 2 年以下	6 months to less than 1 Year 6 個月至 1 年以下	Below 6 Months 6 個月 以下	Unspecified 未有說明	Sub-total 小計
CRAFTSMAN LEVEL (Continued) 技工級 (續)									
13	Wholesale, Import/Export Trading of Jewellery 珠寶批發及出入口貿易	7	-	285	40	-	-	-	332
14	Gemmological Laboratory 寶石鑒定所	-	-	-	-	-	-	-	-
	Sub-total 小計	1 175	802	2 261	2 910	13	26	149	7 336
	Grand Total 總計	8 689	7 417	12 546	11 048	587	1 075	1 211	42 573

**RECOMMENDED ANNUAL TRAINING REQUIREMENTS  
FOR 2015 TO 2018 (METAL PRODUCTS AND RELATED INDUSTRIES)**

金屬品及相關行業於 2015 年至 2018 年間建議的每年訓練人數

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Recommended Number of Trainees to be Taken on Annually 建議招收的每年受訓者人數
<b>TECHNOLOGIST LEVEL 技師級</b>					
101	Mechanical Engineer 機械工程師	1 156	48	3	84 – 103
102	Manufacturing/Production/ Industrial Engineer 製造/生產/工業工程師	219	-	5	16 – 19
103	Materials Engineer/Metallurgist 用料工程師/冶金技師	107	-	-	8 – 10
104	Electrical Engineer 電機工程師	503	-	1	36 – 45
105	Electronics Engineer 電子工程師	203	-	3	15 – 18
106	Technical Services Engineer 技術支援工程師	850	-	-	62 – 76
107	Technical Sales/Marketing Manager 技術營銷/市務/市場經理	1 837	-	10	134 – 163
108	Logistics Manager 物流經理	131	-	-	9 – 12
109	Merchandising Manager 採購經理	562	-	-	41 – 50
110	Training Manager 訓練經理	26	-	-	2
111	Engineering Manager 工程經理	312	-	-	23 – 28
112	Factory Manager 工廠經理	121	-	-	9 – 11
113	Production Manager 生產部經理	325	-	1	24 – 29
114	Quality Control Manager 品質控制經理	119	-	-	8 – 10
115	Product/Graphic Designer 產品/平面設計師	163	-	-	12 – 15
	Sub-total 小計	6 634	48	23	483 – 591
<b>TECHNICIAN LEVEL 技術員級</b>					
201	Mechanical Draftsman 機械繪圖員	55	-	-	4 – 5

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Recommended Number of Trainees to be Taken on Annually 建議招收的每年受訓者人數
<b>TECHNICIAN LEVEL (Continued) 技術員級 (續)</b>					
202	Mechanical Engineering Technician 機械工程技術員	2 509	2	-	180 – 220
203	Manufacturing/Production/ Industrial Engineering Technician 製造/生產/工業工程技術員	202	-	-	14 – 18
204	Electrical Engineering Technician 電機工程技術員	425	3	23	30 – 37
205	Foreman/Supervisor 管工/監督	939	-	15	67 – 82
206	Electronics Technician 電子技術員	153	-	-	11 – 13
207	Technical Services Technician 支援技術員	1 786	-	43	128 – 156
208	Technical Sales/Marketing Executive 技術營銷/市務主任	3 819	-	291	273 – 334
209	Co-ordinator 協理員/聯絡員	841	4	20	60 – 74
210	Logistics Executive/Supervisor 物流主任	552	-	-	39 – 48
211	Merchandiser 採購員	4 915	-	6	352 – 430
212	Production Supervisor 生產主管	321	4	1	23 – 28
213	Quality Control Supervisor 品質控制主管	234	-	-	17 – 20
214	Training Officer 訓練主任	7	-	-	1
215	Research and Development Technician 研究及發展技術員	191	-	-	14 – 17
	Sub-total 小計	16 949	13	399	1 213 – 1 483
<b>CRAFTSMAN LEVEL 技工級</b>					
301	Machinist 機床工	410	8	2	17 – 21
302	Precision Machinist 精密加工機床工	91	-	1	4 – 5
303	Machine Setter 機器調校工	37	-	-	1 – 2
304	Tool and Die Maker 工具及工模製造工	7	-	-	-
305	Instrument Maker/Repairer 儀器製造/修理工	691	7	45	29 – 35
306	Electrician 電工	198	10	17	8 – 10

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Recommended Number of Trainees to be Taken on Annually 建議招收的每年受訓者人數
<b>CRAFTSMAN LEVEL (Continued) 技工級 (續)</b>					
307	Mechanical Fitter 機械打磨裝配工	2 768	12	17	115 – 140
309	Furnaceman 熔爐工	39	-	5	2
310	Electric Arc and Gas Welder 電焊氣焊工	375	10	2	15 – 19
311	Sheetmetal Fabricator 薄片金屬構造工	204	26	-	8 – 10
312	Steel Fabricator (Thick Plate) 鋼板構造工	81	-	14	3 – 4
313	Plumber and Pipe Fitter 喉管工	65	2	-	3
314	Pattern/Model/Prototype Maker 樣本/模型/生產原型製造工	96	-	-	4 – 5
315	Electroplating and Metal Coating Worker 電鍍及金屬塗層工	112	-	3	5 – 6
316	Painter 髹漆工	141	2	1	6 – 7
317	Metal Printing Craftsman 金屬印製技工	26	-	-	1
318	Rolling Mill/Extrusion Press Craftsman 軋壓/擠壓技工	64	-	-	3
319	Silk Screen Printer 絲網印刷工	1	-	-	-
321	Mould Maker 製模技工	219	-	4	9 – 11
322	Repairer (Watches and Clocks) 鐘錶修理工	306	11	-	13 – 16
323	Heat Treatment Craftsman 熱處理技工	7	-	-	-
324	Edging/Shaping Craftsman 車邊工	84	-	3	3 – 4
333	Precious Stone Setter 首飾鑲嵌工	9	-	-	0 – 1
336	Mould Maker/Caster 製模鑄造工	17	-	-	1
	Sub-total 小計	6 048	88	114	250 – 306
	Grand Total 總計	29 631	149	536	1 946 – 2 380



**RECOMMENDED ANNUAL TRAINING REQUIREMENTS  
FOR 2015 TO 2018 (JEWELLERY INDUSTRY)**

珠寶業於 2015 年至 2018 年間建議的每年訓練人數

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Recommended Number of Trainees to be Taken on Annually 建議招收的每年受訓者人數
<b>TECHNOLOGIST LEVEL 技師級</b>					
108	Logistics Manager 物流經理	7	-	1	1
110	Training Manager 訓練經理	1	-	-	-
131	Gemmologist 寶石鑒定師	44	-	3	3
132	Assay Officer 驗金師	4	-	-	-
133	Jewellery Sales/Marketing Manager 珠寶營銷／市務／市場經理	1 129	-	-	67 – 82
134	Production Manager 生產部經理	154	-	-	9 – 11
135	Design and Development Manager 設計及發展經理	56	-	2	3 – 4
136	Merchandizing Manager 營銷採購經理	1 063	-	34	63 – 77
137	Brand Development Manager 品牌發展經理	13	-	2	1
	Sub-total 小計	2 471	-	42	147 – 179
<b>TECHNICIAN LEVEL 技術員級</b>					
210	Logistics Executive/Supervisor 物流主任	175	-	1	6 – 7
231	Jewellery Designer (Hand Sketch) 珠寶設計員 (手繪)	674	-	1	22 – 27
232	Jewellery Designer (CAD) 珠寶設計員 (電腦輔助設計)	341	-	1	11 – 13
233	Foreman/Supervisor 工場主管	140	-	-	4 – 5
234	Marketing Co-ordinator 業務協理員	273	-	-	9 – 11
235	Quality Controller 品質管理員	526	-	5	17 – 21
236	Merchandizer 營銷採購員	4 336	-	30	140 – 171

Code No. 編號	Job Title 職稱	Number of Employees at Date of Survey (Excluding Trainees) 調查期間的僱員人數 (受訓者除外)	Number of Trainees at Date of Survey 調查期間的受訓者人數	Number of Vacancies at Date of Survey (Excluding Trainees) 調查期間的空缺數目 (受訓者除外)	Recommended Number of Trainees to be Taken on Annually 建議招收的每年受訓者人數
TECHNICIAN LEVEL (Continued) 技術員級 (續)					
237	Jewellery Sales/Marketing Executive 珠寶營銷/市務/市場主任	2 500	-	95	81 – 99
238	Diamond Grader 鑽石評級員	218	-	20	7 – 9
	Sub-total 小計	9 183	-	153	297 – 363
CRAFTSMAN LEVEL 技工級					
331	Goldsmith (K-gold) 打金工 (西金)	598	14	-	25 – 30
332	Goldsmith (Fine-gold) 打金工 (足金)	52	-	-	2 – 3
333	Precious Stone Setter 首飾鑲嵌工	366	5	4	15 – 18
334	Jewellery Pattern Maker (Metal) 首飾鑄造金屬樣板工	39	-	-	2
335	Jewellery Patter Maker (Wax) 首飾鑄造蠟板工	5	-	-	-
336	Mould Maker/Caster 製模鑄造工	56	-	-	2 – 3
337	Jewellery Plater 首飾電鍍工	71	3	-	3 – 4
338	Jewellery Engraver/Milligrainer 珠寶雕刻工	8	-	-	-
339	Gemstone Cutter/Polisher 寶石割切/打磨工	72	-	-	3 – 4
340	Diamond Cutter/Polisher 鑽石割切/打磨工	14	-	-	1
341	Rapid Prototyping (RP) Craftsman 快速原型製造技工	7	1	-	-
	Sub-total 小計	1 288	23	4	53 – 65
	Grand Total 總計	12 942	23	199	497 – 607



(A) Job 工作  (See Appendix CM) (參閱附錄CM)		(B) Average Monthly Income 每月 平均 收入		(C) Number of Employees as at 23.6.2014 (excl. Trainees)  在2014年 6月23日的 僱員人數 (受訓者除外)	(D) Number of Vacancies as at 23.6.2014 (excl. Trainees) 在2014年 6月23日的 空缺額 (受訓者 除外)	(E) Forecast of Number Employed as at June 2015 (excl. Trainees)  預計 在2015年 6月的 僱員人數 (受訓者除外)	(F) Number of Trainees* as at 23.6.2014  在2014年 6月23日的 受訓者* 人數	Code* 編號*	Average Monthly Income Range 每月平均收入幅度
Title 職稱	Rec. Type	Job Code 職稱編號	Code* 編號*	12-15	16-18	19-22	23-25		
For Official Use Only 此欄毋須填寫 →		8-10	11	12-15	16-18	19-22	23-25		
1		2						1	Under \$8,001 以下
2		2						2	\$8,001 - \$11,000
3		2						3	\$11,001 - \$14,000
4		2						4	\$14,001 - \$17,000
5		2						5	\$17,001 - \$20,000
6		2						6	\$20,001 - \$30,000
7		2						7	Over \$30,000 以上
8		2							
9		2							
10		2							
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36		2							
37		2							
38		2							

\* The term "trainees" includes all trainees receiving any form of training and apprenticeship under a contract of apprenticeship.

\* 「受訓者」包括正在接受各種訓練的人士，以及簽有學徒合約的登記學徒。

<p><b>Internal Promotion</b> 內部晉升</p> <p>Q1. Number of internal promotion <u>in the past 12 months</u> 過去十二個月內，內部晉升的人數</p> <table style="width:100%; text-align: center;"> <tr> <td style="width:25%;">From Technician/ Supervisor to Technologist/Manager 由技術員／督導員 晉升至技師／經理</td> <td style="width:25%;">From Craftsman to Technician/Supervisor 由技工晉升至 技術員／督導員</td> <td style="width:25%;">From Others to Craftsman 由其他職級 晉升至技工</td> <td style="width:25%;"></td> </tr> <tr> <td><input type="text" value="3"/> 1</td> <td><input type="text" value=""/> 8 9 10</td> <td><input type="text" value=""/> 11 12 13</td> <td><input type="text" value=""/> 14 15 16</td> </tr> </table>	From Technician/ Supervisor to Technologist/Manager 由技術員／督導員 晉升至技師／經理	From Craftsman to Technician/Supervisor 由技工晉升至 技術員／督導員	From Others to Craftsman 由其他職級 晉升至技工		<input type="text" value="3"/> 1	<input type="text" value=""/> 8 9 10	<input type="text" value=""/> 11 12 13	<input type="text" value=""/> 14 15 16	<p><b>Hong Kong Technical Staff Posted Outside Hong Kong</b> 被派往香港以外地方任職的香港技術員工</p> <p>Q2. Number of technologists/managers, technicians/supervisors and craftsmen who had been posted outside Hong Kong for <u>more than half year in the past 12 months</u> 過去十二個月內，被派往香港以外地方任職超過半年的技師／經理、技術員／督導員及技工人數</p> <table style="width:100%; text-align: center;"> <tr> <td style="width:33%;">Number of Technologists/Managers 技師／經理人數</td> <td style="width:33%;">Number of Technicians/Supervisors 技術員／督導員人數</td> <td style="width:33%;">Number of Craftsmen 技工人數</td> </tr> <tr> <td><input type="text" value=""/> 17 18 19 20</td> <td><input type="text" value=""/> 21 22 23 24</td> <td><input type="text" value=""/> 25 26 27 28</td> </tr> </table>	Number of Technologists/Managers 技師／經理人數	Number of Technicians/Supervisors 技術員／督導員人數	Number of Craftsmen 技工人數	<input type="text" value=""/> 17 18 19 20	<input type="text" value=""/> 21 22 23 24	<input type="text" value=""/> 25 26 27 28	<p><b>With Metals Industry Related Operations in the Mainland of China</b> 於中國內地擁有與金屬業有關業務</p> <table style="width:100%;"> <tr> <td style="width:33%;">Q3. Total number of <u>mainland workers</u> (excluding Hong Kong Residents) employed in operations in the mainland of China  中國內地機構內僱用的內地員工總數 (不包括香港人)</td> <td style="width:33%;">Q4. Number of <u>mainland technologists</u> (excluding Hong Kong Residents) employed in operations in the mainland of China, as included in Q3  中國內地機構內僱用，及已包括在 Q3 項內的內地技師人數 (不包括香港人)</td> <td style="width:33%;">Q5. Forecast number of <u>mainland technologists</u> (excluding Hong Kong Residents) to be employed in operations in the mainland of China <u>12 months from now</u>  預計十二個月後，中國內地機構內僱用的內地技師人數 (不包括香港人)</td> </tr> <tr> <td><input type="text" value=""/> 29 30 31 32 33</td> <td><input type="text" value=""/> 34 35 36</td> <td><input type="text" value=""/> 37 38 39</td> </tr> </table>	Q3. Total number of <u>mainland workers</u> (excluding Hong Kong Residents) employed in operations in the mainland of China  中國內地機構內僱用的內地員工總數 (不包括香港人)	Q4. Number of <u>mainland technologists</u> (excluding Hong Kong Residents) employed in operations in the mainland of China, as included in Q3  中國內地機構內僱用，及已包括在 Q3 項內的內地技師人數 (不包括香港人)	Q5. Forecast number of <u>mainland technologists</u> (excluding Hong Kong Residents) to be employed in operations in the mainland of China <u>12 months from now</u>  預計十二個月後，中國內地機構內僱用的內地技師人數 (不包括香港人)	<input type="text" value=""/> 29 30 31 32 33	<input type="text" value=""/> 34 35 36	<input type="text" value=""/> 37 38 39
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<p>Q6. <b>Employer's View on the Expected Change in Business Situation</b> 僱主對未來業務狀況預期變動的意見</p> <table style="width:100%; text-align: center;"> <tr> <td style="width:50%;"> <p>Coming Year 未來一年</p> <table style="width:100%;"> <tr> <td style="width:33%;">Better 較佳</td> <td style="width:33%;">The Same 不變</td> <td style="width:33%;">Worse 較差</td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> </tr> </table> </td> <td style="width:50%;"> <p>Coming 3 Years 未來三年</p> <table style="width:100%;"> <tr> <td style="width:33%;">Better 較佳</td> <td style="width:33%;">The Same 不變</td> <td style="width:33%;">Worse 較差</td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> </tr> </table> </td> </tr> </table> <p style="text-align: center;">(Please tick as appropriate) (請在適當的格內填上✓號)</p>	<p>Coming Year 未來一年</p> <table style="width:100%;"> <tr> <td style="width:33%;">Better 較佳</td> <td style="width:33%;">The Same 不變</td> <td style="width:33%;">Worse 較差</td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> </tr> </table>	Better 較佳	The Same 不變	Worse 較差	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<p>Coming 3 Years 未來三年</p> <table style="width:100%;"> <tr> <td style="width:33%;">Better 較佳</td> <td style="width:33%;">The Same 不變</td> <td style="width:33%;">Worse 較差</td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> </tr> </table>	Better 較佳	The Same 不變	Worse 較差	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<p><b>For official use only 此欄毋須填寫</b></p> <table style="width:100%; text-align: center;"> <tr> <td style="width:12.5%;">Q1</td> <td style="width:12.5%;">Q2</td> <td style="width:25%;">Q3 - Q5</td> <td style="width:12.5%;">Q6</td> <td style="width:37.5%;"></td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td>Est. No. _____</td> </tr> <tr> <td>40 41 42</td> <td>43 44 45</td> <td>46 47 48</td> <td>49 50</td> <td>Er. No. _____</td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td colspan="2"></td> <td></td> </tr> <tr> <td>51</td> <td>52</td> <td colspan="2"></td> <td></td> </tr> </table>	Q1	Q2	Q3 - Q5	Q6		<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	Est. No. _____	40 41 42	43 44 45	46 47 48	49 50	Er. No. _____	<input type="text" value=""/>	<input type="text" value=""/>				51	52			
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<p>Q7. <b>Preferred Education, Mode of Training and Period of Training of Employees<sup>#</sup></b> 僱員宜有的教育程度、訓練方式及訓練期<sup>#</sup></p> <table style="width:100%; text-align: center;"> <tr> <td style="width:33%;">Technologist/Manager 技師／經理</td> <td style="width:33%;">Technician/Supervisor 技術員／督導員</td> <td style="width:33%;">Craftsman 技工</td> </tr> <tr> <td>Education 教育</td> <td>Education 教育</td> <td>Education 教育</td> </tr> <tr> <td>Training Mode 訓練方式</td> <td>Training Mode 訓練方式</td> <td>Training Mode 訓練方式</td> </tr> <tr> <td>Training Period 訓練期</td> <td>Training Period 訓練期</td> <td>Training Period 訓練期</td> </tr> <tr> <td><input type="text" value=""/> 53</td> <td><input type="text" value=""/> 56</td> <td><input type="text" value=""/> 59</td> </tr> <tr> <td><input type="text" value=""/> 54</td> <td><input type="text" value=""/> 57</td> <td><input type="text" value=""/> 60</td> </tr> <tr> <td><input type="text" value=""/> 55</td> <td><input type="text" value=""/> 58</td> <td><input type="text" value=""/> 61</td> </tr> </table>	Technologist/Manager 技師／經理	Technician/Supervisor 技術員／督導員	Craftsman 技工	Education 教育	Education 教育	Education 教育	Training Mode 訓練方式	Training Mode 訓練方式	Training Mode 訓練方式	Training Period 訓練期	Training Period 訓練期	Training Period 訓練期	<input type="text" value=""/> 53	<input type="text" value=""/> 56	<input type="text" value=""/> 59	<input type="text" value=""/> 54	<input type="text" value=""/> 57	<input type="text" value=""/> 60	<input type="text" value=""/> 55	<input type="text" value=""/> 58	<input type="text" value=""/> 61	<p><sup>#</sup>Please enter in the boxes the preferred education, mode of training and period of training an employee should have according to the following codes : <sup>#</sup>請將僱員宜有的教育程度、訓練方式及訓練期按照下列類別編號填入格內：</p> <table style="width:100%;"> <thead> <tr> <th>Code 編號</th> <th>Education 教育</th> <th>Code 編號</th> <th>Training Mode 訓練方式</th> <th>Code 編號</th> <th>Training Period 訓練期</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Degree or above 大學學位或以上</td> <td>1</td> <td>Graduate traineeship 工科畢業生訓練</td> <td>1</td> <td>4 years or above 四年或以上</td> </tr> <tr> <td>2</td> <td>Higher Diploma 高級文憑</td> <td>2</td> <td>On-the-job training 在職訓練</td> <td>2</td> <td>3 to less than 4 years 三年至四年以下</td> </tr> <tr> <td>3</td> <td>Diploma 文憑</td> <td>3</td> <td>Apprenticeship 學徒訓練</td> <td>3</td> <td>2 to less than 3 years 二年至三年以下</td> </tr> <tr> <td>4</td> <td>Higher Certificate / Certificate / Secondary 7 高級證書／證書／中七</td> <td>4</td> <td>Others 其他</td> <td>4</td> <td>1 to less than 2 years 一年至二年以下</td> </tr> <tr> <td>5</td> <td>Secondary 5 - Secondary 6 / Hong Kong Diploma of Secondary Education 中五 - 中六／香港中學文憑</td> <td>5</td> <td></td> <td>5</td> <td>6 months to less than 1 year 六個月至一年以下</td> </tr> <tr> <td>6</td> <td>Craft Certificate / Secondary 4 技工證書／中四</td> <td>6</td> <td></td> <td>6</td> <td>Below 6 months 六個月以下</td> </tr> <tr> <td>7</td> <td>Secondary 3 or below 中三或以下</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Code 編號	Education 教育	Code 編號	Training Mode 訓練方式	Code 編號	Training Period 訓練期	1	Degree or above 大學學位或以上	1	Graduate traineeship 工科畢業生訓練	1	4 years or above 四年或以上	2	Higher Diploma 高級文憑	2	On-the-job training 在職訓練	2	3 to less than 4 years 三年至四年以下	3	Diploma 文憑	3	Apprenticeship 學徒訓練	3	2 to less than 3 years 二年至三年以下	4	Higher Certificate / Certificate / Secondary 7 高級證書／證書／中七	4	Others 其他	4	1 to less than 2 years 一年至二年以下	5	Secondary 5 - Secondary 6 / Hong Kong Diploma of Secondary Education 中五 - 中六／香港中學文憑	5		5	6 months to less than 1 year 六個月至一年以下	6	Craft Certificate / Secondary 4 技工證書／中四	6		6	Below 6 months 六個月以下	7	Secondary 3 or below 中三或以下				
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<input type="text" value=""/> 54	<input type="text" value=""/> 57	<input type="text" value=""/> 60																																																																				
<input type="text" value=""/> 55	<input type="text" value=""/> 58	<input type="text" value=""/> 61																																																																				
Code 編號	Education 教育	Code 編號	Training Mode 訓練方式	Code 編號	Training Period 訓練期																																																																	
1	Degree or above 大學學位或以上	1	Graduate traineeship 工科畢業生訓練	1	4 years or above 四年或以上																																																																	
2	Higher Diploma 高級文憑	2	On-the-job training 在職訓練	2	3 to less than 4 years 三年至四年以下																																																																	
3	Diploma 文憑	3	Apprenticeship 學徒訓練	3	2 to less than 3 years 二年至三年以下																																																																	
4	Higher Certificate / Certificate / Secondary 7 高級證書／證書／中七	4	Others 其他	4	1 to less than 2 years 一年至二年以下																																																																	
5	Secondary 5 - Secondary 6 / Hong Kong Diploma of Secondary Education 中五 - 中六／香港中學文憑	5		5	6 months to less than 1 year 六個月至一年以下																																																																	
6	Craft Certificate / Secondary 4 技工證書／中四	6		6	Below 6 months 六個月以下																																																																	
7	Secondary 3 or below 中三或以下																																																																					

**Q8. Recruitment**  
**招聘**

(a) Number of new recruits in the past 12 months  
過去十二個月內，新招聘的僱員人數

Number of Technologists/ Managers 技師／經理人數	Number of Technicians/ Supervisors 技術員／督導員人數	Number of Craftsmen 技工人數	Number of Operatives 操作工人數
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
62 63 64 65	66 67 68 69	70 71 72 73	74 75 76 77

(b) From the new recruits reported in (a) above, how many of them have performed metals industry related duties in their last job  
上列 (a) 項新招聘的僱員中，在上一個工作崗位是從事金屬業相關職務的人數

Number of Technologists/ Managers 技師／經理人數	Number of Technicians/ Supervisors 技術員／督導員人數	Number of Craftsmen 技工人數	Number of Operatives 操作工人數
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
78 79 80 81	82 83 84 85	86 87 88 89	90 91 92 93

**Q9. Employees Left**  
**僱員離職**

Number of employees who had left your establishment in the past 12 months  
過去十二個月內，離職的僱員人數

Number of Technologists/ Managers 技師／經理人數	Number of Technicians/ Supervisors 技術員／督導員人數	Number of Craftsmen 技工人數	Number of Operatives 操作工人數
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
94 95 96 97	98 99 100 101	102 103 104 105	106 107 108 109

**For official use only 此欄毋須填寫**

Q8(a) <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Q8(b) <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Q9 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Q10 <input type="text"/> <input type="text"/> <input type="text"/>
110 111 112 113	114 115 116 117	118 119 120 121	122 123 124
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
125	126	127	128

**Q10. Skills an Employee Need to Enhance**  
**僱員需加強培訓的技能**

The three most important skills that your employees need to enhance  
(Please see the table on the right for the choice of skills)  
貴機構現有僱員最需要加強培訓的三項技能  
(請參閱右面的編號表以選擇技能)

Technologist/ Manager 技師／經理	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
129 130 131	132 133 134	135 136 137	
Technician/ Supervisor 技術員／督導員	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
138 139 140	141 142 143	144 145 146	
Craftsman 技工	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
147 148 149	150 151 152	153 154 155	

Code Types of skills / knowledge / attributes  
編號 技能/知識/個人特質的類別

Management skills

101	Production and engineering management 工業生產及工程管理	104	Quality management 品質管理
102	Marketing management 經銷管理	105	Purchasing management 採購管理
103	Project management 計劃管理	106	Personnel management 人事管理
		107	Leadership 領導能力

China-related knowledge and world vision

201	Social and economic development in the mainland of China 在中國大陸的社會和經濟發展
202	Laws and regulatory restrictions for access to China's market 進入中國市場的法律和規條限制
203	Trade practices in the mainland of China 在中國大陸的營商常規
204	Cross-cultural knowledge 跨文化的知識
205	World vision 世界視野

Language skills

301	Spoken English 英語會話
302	Written English 英文書寫
303	Putonghua 普通話
304	Written Chinese 中文書寫

Interpersonal and intrapersonal skills for the workplace

401	Problem solving 解決問題	405	Team building 團隊建立	409	Perseverance 毅力	413	Ability to learn/adapt to new skills/knowledge 學習或適應新技能、新知識的能力	699	Others (Please specify) 其他 (請說明)
402	Creativity 創意力	406	Time management 時間管理	410	Change management 變革管理				
403	Critical thinking 批判思考能力	407	Optimism/Positive 樂觀/積極	411	Customer services 客戶服務				
404	Communication skills 溝通技巧	408	Self-esteem 自尊	412	Numerical skills 數學運用技巧				

**Q11. Recruitment of Trainees**  
**招聘受訓者**

(a) Is your company recruiting trainees at this moment? (Please enter the code from the right representing Yes or No respectively)  
現時，貴公司是否正在招聘受訓者？(請參閱右面分別代表是或否的編號填入格內)

156

(b) Will your company consider recruiting trainees in the next 12 months? (Please enter the code from the right representing Yes or No respectively)  
在未來十二個月，貴公司會否考慮招聘受訓者？(請參閱右面分別代表是或否的編號填入格內)

157

Code Recruiting trainees  
編號 招聘受訓者

1	Yes 是
2	No 否

**VOCATIONAL TRAINING COUNCIL**

職業訓練局

**THE 2014 MANPOWER SURVEY OF THE METALS INDUSTRY (JEWELLERY SECTOR)**

金屬業(珠寶行業)二〇一四年人力調查

**QUESTIONNAIRE**

調查表

*PLEASE READ THE EXPLANATORY NOTES BEFORE COMPLETING THIS QUESTIONNAIRE*

填表前,請參閱附註

<i>For official use only:</i> 此欄毋須填寫	Rec. Type	Survey Code	Industry Code	Establishment No.	Enumerator's No.	Editor's No.	Check Digit	No. of Employees Covered by the Questionnaire
	<div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">1</div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">07</div>	<div style="border: 1px solid black; width: 40px; height: 20px; display: flex; justify-content: space-around;"><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div></div>	<div style="border: 1px solid black; width: 40px; height: 20px; display: flex; justify-content: space-around;"><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">  </div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">  </div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">  </div>	<div style="border: 1px solid black; width: 40px; height: 20px; display: flex; justify-content: space-around;"><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div><div style="width: 5px; height: 15px;"></div></div>
	1	2 3	4 5 6 7 8 9	10 11 12 13 14 15	16 17	18 19	20 21 22	23 24 25 26 27

NAME OF ESTABLISHMENT: \_\_\_\_\_

機構名稱

ADDRESS: \_\_\_\_\_

地址

TYPE OF PRODUCTS/SERVICES: \_\_\_\_\_

產品/服務

TOTAL NUMBER OF PERSONS ENGAGED: \_\_\_\_\_

僱員總人數

NAME OF PERSON TO CONTACT: \_\_\_\_\_

聯絡人姓名

28
47

POSITION: \_\_\_\_\_

職位

TEL. NO.: \_\_\_\_\_ - \_\_\_\_\_

電話

48
55
56
63

FAX NO.: \_\_\_\_\_

圖文傳真

E-MAIL: \_\_\_\_\_

電郵

64
98

Part I 第一部份

(A) Job 工作  (See Appendix CJ) (參閱附錄CJ)		(B) Average Monthly Income 每月 平均 收入	(C) Number of Employees as at 23.6.2014 (excl. Trainees)  在2014年 6月23日的 僱員人數 (受訓者除外)	(D) Number of Vacancies as at 23.6.2014 (excl. Trainees)  在2014年 6月23日的 空缺額 (受訓者 除外)	(E) Forecast of Number Employed as at June 2015 (excl. Trainees)  預計 在2015年 6月的 僱員人數 (受訓者除外)	(F) Number of Trainees <sup>#</sup> as at 23.6.2014  在2014年 6月23日的 受訓者 <sup>#</sup> 人數	Code* 編號*	Average Monthly Income Range 每月平均收入幅度
Title 職稱	Rec. Type	Job Code 職稱編號	Code* 編號*	12-15	16-18	19-22	23-25	Code* 編號*
For Official Use Only 此欄毋須填寫 →		8-10	11	12-15	16-18	19-22	23-25	Code* 編號*
1 Logistics Manager 物流經理	2	1   0   8						1 Under \$8,001 以下
2 Training Manager 訓練經理	2	1   1   0						2 \$8,001 - \$11,000
3 Gemmologist 寶石鑒定師	2	1   3   1						3 \$11,001 - \$14,000
4 Assay Officer 驗金師	2	1   3   2						4 \$14,001 - \$17,000
5 Jewellery Sales/Marketing Manager 珠寶營銷/市務/市場經理	2	1   3   3						5 \$17,001 - \$20,000
6 Production Manager 生產部經理	2	1   3   4						6 \$20,001 - \$30,000
7 Design and Development Manager 設計及發展經理	2	1   3   5						7 Over \$30,000 以上
8 Merchandising Manager 採購經理	2	1   3   6						
9 Brand Development Manager 品牌發展經理	2	1   3   7						
10 Logistics Executive/Supervisor 物流主任	2	2   1   0						
11 Jewellery Designer (Hand Sketch) 珠寶設計員(手繪)	2	2   3   1						# The term "trainees" includes all trainees receiving any form of training and apprentices under a contract of apprenticeship.
12 Jewellery Designer (CAD) 珠寶設計員(電腦輔助設計)	2	2   3   2						
13 Foreman/Supervisor 工場主管	2	2   3   3						
14 Co-ordinator 協理員/聯絡員	2	2   3   4						# 「受訓者」包括正在接受各種訓練的人士，以及簽有學徒合約的登記學徒。
15 Quality Controller 品質管制員	2	2   3   5						
16 Merchandiser 營銷採購員	2	2   3   6						
17 Jewellery Sales/Marketing Executive 珠寶營銷/市務/市場主任	2	2   3   7						
18 Diamond Grader 鑽石評級員	2	2   3   8						
19 Goldsmith (K-gold) 打金工(西金)	2	3   3   1						
20 Goldsmith (Fine-gold) 打金工(足金)	2	3   3   2						
21 Precious Stone Setter 首飾鑲嵌工	2	3   3   3						
22 Jewellery Pattern Maker (Metal) 首飾鑄造金屬模型工	2	3   3   4						
23 Jewellery Pattern Maker (Wax) 首飾鑄造蠟模型工	2	3   3   5						
24 Mould Maker/Caster 製模鑄造工	2	3   3   6						
25 Jewellery Plater 首飾電鍍工	2	3   3   7						
26 Jewellery Engraver/Millgrainer 珠寶雕刻工	2	3   3   8						
27 Gemstone Cutter/Polisher 寶石割切/打磨工	2	3   3   9						
28 Diamond Cutter/Polisher 鑽石割切/打磨工	2	3   4   0						
29 Rapid Prototyping (RP) Craftsman 快速原型製造技師	2	3   4   1						
30 Pearl Dyer 珍珠染色工	2	4   3   1						
31 Beads and Pearls Stringing Workers 穿珠工	2	4   3   2						
32 Wax Pattern Moulder/Maker 蠟樣工	2	4   3   3						
33 Jewellery Polisher 首飾打磨工	2	4   3   4						
34 Stone Selector/Sorter 配石工	2	4   3   5						
35 Colouring Worker 著色工	2	4   3   6						
36 Gold Refiner 煉金工	2	4   3   7						
37 Electroforming Operator 電鑄操作工	2	4   3   8						
38	2							

If additional lines are necessary, please tick here  and enter on supplementary sheet(s).  
如此頁填滿，請先將(✓)號填入此  內，然後在附頁繼續填寫。



<p><b>Internal Promotion</b> 內部晉升</p> <p>Q1. Number of internal promotion <u>in the past 12 months</u> 過去十二個月內，內部晉升的人數</p> <table style="width:100%; text-align: center;"> <tr> <td style="width:25%;">From Technician/ Supervisor to Technologist/Manager 由技術員／督導員 晉升至技師／經理</td> <td style="width:25%;">From Craftsman to Technician/Supervisor 由技工晉升至 技術員／督導員</td> <td style="width:25%;">From Others to Craftsman 由其他職級 晉升至技工</td> <td style="width:25%;"></td> </tr> <tr> <td><input type="text" value="3"/> 1</td> <td><input type="text" value=""/> 8 9 10</td> <td><input type="text" value=""/> 11 12 13</td> <td><input type="text" value=""/> 14 15 16</td> </tr> </table>	From Technician/ Supervisor to Technologist/Manager 由技術員／督導員 晉升至技師／經理	From Craftsman to Technician/Supervisor 由技工晉升至 技術員／督導員	From Others to Craftsman 由其他職級 晉升至技工		<input type="text" value="3"/> 1	<input type="text" value=""/> 8 9 10	<input type="text" value=""/> 11 12 13	<input type="text" value=""/> 14 15 16	<p><b>Hong Kong Technical Staff Posted Outside Hong Kong</b> 被派往香港以外地方任職的香港技術員工</p> <p>Q2. Number of technologists/managers, technicians/supervisors and craftsmen who had been posted outside Hong Kong for <u>more than half year in the past 12 months</u> 過去十二個月內，被派往香港以外地方任職超過半年的技師／經理、技術員／督導員及技工人數</p> <table style="width:100%; text-align: center;"> <tr> <td style="width:33%;">Number of Technologists/Managers 技師／經理人數</td> <td style="width:33%;">Number of Technicians/Supervisors 技術員／督導員人數</td> <td style="width:33%;">Number of Craftsmen 技工人數</td> </tr> <tr> <td><input type="text" value=""/> 17 18 19 20</td> <td><input type="text" value=""/> 21 22 23 24</td> <td><input type="text" value=""/> 25 26 27 28</td> </tr> </table>	Number of Technologists/Managers 技師／經理人數	Number of Technicians/Supervisors 技術員／督導員人數	Number of Craftsmen 技工人數	<input type="text" value=""/> 17 18 19 20	<input type="text" value=""/> 21 22 23 24	<input type="text" value=""/> 25 26 27 28	<p><b>With Metals Industry (Jewellery Sector) Related Operations in the Mainland of China</b> 於中國內地擁有與金屬業內珠寶行業有關業務</p> <p>Q3. Total number of <u>mainland workers</u> (excluding Hong Kong Residents) employed in operations in the mainland of China 中國內地機構內僱用的內地員工總數 (不包括香港人)</p> <p>Q4. Number of <u>mainland technologists</u> (excluding Hong Kong Residents) employed in operations in the mainland of China, as included in Q3 中國內地機構內僱用，及已包括在 Q3 項內的內地技師人數 (不包括香港人)</p> <p>Q5. Forecast number of <u>mainland technologists</u> (excluding Hong Kong Residents) employed in operations in the mainland of China <u>12 months from now</u> 預計十二個月後，中國內地機構內僱用的內地技師人數 (不包括香港人)</p> <table style="width:100%; text-align: center;"> <tr> <td style="width:33%;"><input type="text" value=""/> 29 30 31 32 33</td> <td style="width:33%;"><input type="text" value=""/> 34 35 36</td> <td style="width:33%;"><input type="text" value=""/> 37 38 39</td> </tr> </table>	<input type="text" value=""/> 29 30 31 32 33	<input type="text" value=""/> 34 35 36	<input type="text" value=""/> 37 38 39
From Technician/ Supervisor to Technologist/Manager 由技術員／督導員 晉升至技師／經理	From Craftsman to Technician/Supervisor 由技工晉升至 技術員／督導員	From Others to Craftsman 由其他職級 晉升至技工																	
<input type="text" value="3"/> 1	<input type="text" value=""/> 8 9 10	<input type="text" value=""/> 11 12 13	<input type="text" value=""/> 14 15 16																
Number of Technologists/Managers 技師／經理人數	Number of Technicians/Supervisors 技術員／督導員人數	Number of Craftsmen 技工人數																	
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<p>Q6. <b>Employer's View on the Expected Change in Business Situation</b> 僱主對未來業務狀況預期變動的意見</p> <table style="width:100%; text-align: center;"> <tr> <td style="width:50%;"> <p>Coming Year 未來一年</p> <table style="width:100%;"> <tr> <td style="width:33%;">Better 較佳</td> <td style="width:33%;">The Same 不變</td> <td style="width:33%;">Worse 較差</td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> </tr> </table> </td> <td style="width:50%;"> <p>Coming 3 Years 未來三年</p> <table style="width:100%;"> <tr> <td style="width:33%;">Better 較佳</td> <td style="width:33%;">The Same 不變</td> <td style="width:33%;">Worse 較差</td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> </tr> </table> </td> </tr> </table> <p style="text-align: center;">(Please tick as appropriate) (請在適當的格內填上✓號)</p>	<p>Coming Year 未來一年</p> <table style="width:100%;"> <tr> <td style="width:33%;">Better 較佳</td> <td style="width:33%;">The Same 不變</td> <td style="width:33%;">Worse 較差</td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> </tr> </table>	Better 較佳	The Same 不變	Worse 較差	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<p>Coming 3 Years 未來三年</p> <table style="width:100%;"> <tr> <td style="width:33%;">Better 較佳</td> <td style="width:33%;">The Same 不變</td> <td style="width:33%;">Worse 較差</td> </tr> <tr> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> <td><input type="text" value=""/></td> </tr> </table>	Better 較佳	The Same 不變	Worse 較差	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<p><b>For official use only 此欄毋須填寫</b></p> <table style="width:100%; text-align: center;"> <tr> <td style="width:15%;">Q1 <input type="text" value=""/> 40 41 42</td> <td style="width:15%;">Q2 <input type="text" value=""/> 43 44 45</td> <td style="width:15%;">Q3 - Q5 <input type="text" value=""/> 46 47 48</td> <td style="width:15%;">Q6 <input type="text" value=""/> 49 50</td> <td style="width:40%;">Est. No. _____</td> </tr> <tr> <td><input type="text" value=""/> 51</td> <td><input type="text" value=""/> 52</td> <td></td> <td></td> <td>Er. No. _____</td> </tr> </table>	Q1 <input type="text" value=""/> 40 41 42	Q2 <input type="text" value=""/> 43 44 45	Q3 - Q5 <input type="text" value=""/> 46 47 48	Q6 <input type="text" value=""/> 49 50	Est. No. _____	<input type="text" value=""/> 51	<input type="text" value=""/> 52			Er. No. _____
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<p>Q7. <b>Preferred Education, Mode of Training and Period of Training of Employees #</b> 僱員宜有的教育程度、訓練方式及訓練期 #</p> <table style="width:100%; text-align: center;"> <tr> <td style="width:33%;"> <p>Technologist/Manager 技師／經理</p> <table style="width:100%;"> <tr> <td style="width:33%;">Education 教育</td> <td style="width:33%;">Training Mode 訓練方式</td> <td style="width:33%;">Training Period 訓練期</td> </tr> <tr> <td><input type="text" value=""/> 53</td> <td><input type="text" value=""/> 54</td> <td><input type="text" value=""/> 55</td> </tr> </table> </td> <td style="width:33%;"> <p>Technician/Supervisor 技術員／督導員</p> <table style="width:100%;"> <tr> <td style="width:33%;">Education 教育</td> <td style="width:33%;">Training Mode 訓練方式</td> <td style="width:33%;">Training Period 訓練期</td> </tr> <tr> <td><input type="text" value=""/> 56</td> <td><input type="text" value=""/> 57</td> <td><input type="text" value=""/> 58</td> </tr> </table> </td> <td style="width:33%;"> <p>Craftsman 技工</p> <table style="width:100%;"> <tr> <td style="width:33%;">Education 教育</td> <td style="width:33%;">Training Mode 訓練方式</td> <td style="width:33%;">Training Period 訓練期</td> </tr> <tr> <td><input type="text" value=""/> 59</td> <td><input type="text" value=""/> 60</td> <td><input type="text" value=""/> 61</td> </tr> </table> </td> </tr> </table>	<p>Technologist/Manager 技師／經理</p> <table style="width:100%;"> <tr> <td style="width:33%;">Education 教育</td> <td style="width:33%;">Training Mode 訓練方式</td> <td style="width:33%;">Training Period 訓練期</td> </tr> <tr> <td><input type="text" value=""/> 53</td> <td><input type="text" value=""/> 54</td> <td><input type="text" value=""/> 55</td> </tr> </table>	Education 教育	Training Mode 訓練方式	Training Period 訓練期	<input type="text" value=""/> 53	<input type="text" value=""/> 54	<input type="text" value=""/> 55	<p>Technician/Supervisor 技術員／督導員</p> <table style="width:100%;"> <tr> <td style="width:33%;">Education 教育</td> <td style="width:33%;">Training Mode 訓練方式</td> <td style="width:33%;">Training Period 訓練期</td> </tr> <tr> <td><input type="text" value=""/> 56</td> <td><input type="text" value=""/> 57</td> <td><input type="text" value=""/> 58</td> </tr> </table>	Education 教育	Training Mode 訓練方式	Training Period 訓練期	<input type="text" value=""/> 56	<input type="text" value=""/> 57	<input type="text" value=""/> 58	<p>Craftsman 技工</p> <table style="width:100%;"> <tr> <td style="width:33%;">Education 教育</td> <td style="width:33%;">Training Mode 訓練方式</td> <td style="width:33%;">Training Period 訓練期</td> </tr> <tr> <td><input type="text" value=""/> 59</td> <td><input type="text" value=""/> 60</td> <td><input type="text" value=""/> 61</td> </tr> </table>	Education 教育	Training Mode 訓練方式	Training Period 訓練期	<input type="text" value=""/> 59	<input type="text" value=""/> 60	<input type="text" value=""/> 61	<p># Please enter in the boxes the preferred education, mode of training and period of training an employee should have according to the following codes : # 請將僱員宜有的教育程度、訓練方式及訓練期按照下列類別編號填入格內：</p> <table style="width:100%;"> <thead> <tr> <th style="width:10%;">Code 編號</th> <th style="width:50%;">Education 教育</th> <th style="width:10%;">Code 編號</th> <th style="width:50%;">Training Mode 訓練方式</th> <th style="width:10%;">Code 編號</th> <th style="width:50%;">Training Period 訓練期</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Degree or above 大學學位或以上</td> <td>1</td> <td>Graduate traineeship 工科畢業生訓練</td> <td>1</td> <td>4 years or above 四年或以上</td> </tr> <tr> <td>2</td> <td>Higher Diploma 高級文憑</td> <td>2</td> <td>On-the-job training 在職訓練</td> <td>2</td> <td>3 to less than 4 years 三年至四年以下</td> </tr> <tr> <td>3</td> <td>Diploma 文憑</td> <td>3</td> <td>Apprenticeship 學徒訓練</td> <td>3</td> <td>2 to less than 3 years 二年至三年以下</td> </tr> <tr> <td>4</td> <td>Higher Certificate / Certificate / Secondary 7 高級證書／證書／中七</td> <td>4</td> <td>Others 其他</td> <td>4</td> <td>1 to less than 2 years 一年至二年以下</td> </tr> <tr> <td>5</td> <td>Secondary 5 - 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**Q8. Recruitment**  
**招聘**

(a) Number of new recruits in the past 12 months  
過去十二個月內，新招聘的僱員人數

Number of Technologists/ Managers 技師／經理人數	Number of Technicians/ Supervisors 技術員／督導員人數	Number of Craftsmen 技工人數	Number of Operatives 操作工人數
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(b) From the new recruits reported in (a) above, how many of them have performed metals industry (jewellery sector) related duties in their last job  
上列 (a) 項新招聘的僱員中，在上一個工作崗位是從事金屬業內珠寶行業相關職務的人數

Number of Technologists/ Managers 技師／經理人數	Number of Technicians/ Supervisors 技術員／督導員人數	Number of Craftsmen 技工人數	Number of Operatives 操作工人數
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**Q9. Employees Left**  
**僱員離職**

Number of employees who had left your establishment in the past 12 months  
過去十二個月內，離職的僱員人數

Number of Technologists/ Managers 技師／經理人數	Number of Technicians/ Supervisors 技術員／督導員人數	Number of Craftsmen 技工人數	Number of Operatives 操作工人數
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**For official use only 此欄毋須填寫**

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<input type="text"/> 125	<input type="text"/> 126	<input type="text"/> 127	<input type="text"/> 128

**Q10. Skills an Employee Need to Enhance**  
**僱員需加強培訓的技能**

The three most important skills that your employees need to enhance  
(Please see the table on the right for the choice of skills)  
貴機構現有僱員最需加強培訓的三項技能  
(請參閱右面的編號表以選擇技能)

Technologist/ Manager 技師／經理	<input type="text"/> <input type="text"/> <input type="text"/> 129 130 131	<input type="text"/> <input type="text"/> <input type="text"/> 132 133 134	<input type="text"/> <input type="text"/> <input type="text"/> 135 136 137
Technician/ Supervisor 技術員／督導員	<input type="text"/> <input type="text"/> <input type="text"/> 138 139 140	<input type="text"/> <input type="text"/> <input type="text"/> 141 142 143	<input type="text"/> <input type="text"/> <input type="text"/> 144 145 146
Craftsman 技工	<input type="text"/> <input type="text"/> <input type="text"/> 147 148 149	<input type="text"/> <input type="text"/> <input type="text"/> 150 151 152	<input type="text"/> <input type="text"/> <input type="text"/> 153 154 155

Code Types of skills / knowledge / attributes  
編號 技能/知識/個人特質的類別

Management skills

101	Production and engineering management 工業生產及工程管理	104	Quality management 品質管理
102	Marketing management 經銷管理	105	Purchasing management 採購管理
103	Project management 計劃管理	106	Personnel management 人事管理
		107	Leadership 領導能力

China-related knowledge and world vision

201	Social and economic development in the mainland of China 在中國內地的社會和經濟發展
202	Laws and regulatory restrictions for access to China's market 進入中國市場的法律和規條限制
203	Trade practices in the mainland of China 在中國內地的營商常規
204	Cross-cultural knowledge 跨文化的知識
205	World vision 世界視野

Language skills

301	Spoken English 英語會話
302	Written English 英文書寫
303	Putonghua 普通話
304	Written Chinese 中文書寫

Interpersonal and intrapersonal skills for the workplace

401	Problem solving 解決問題	405	Team building 團隊建立	409	Perseverance 毅力	413	Ability to learn/adapt to new skills/knowledge 學習或適應新技能、新知識的能力	699	Others (Please specify) 其他 (請說明)
402	Creativity 創意力	406	Time management 時間管理	410	Change management 變革管理				
403	Critical thinking 批判思考能力	407	Optimism/Positive 樂觀／積極	411	Customer services 客戶服務				
404	Communication skills 溝通技巧	408	Self-esteem 自尊	412	Numerical skills 數學運用技巧				

**Q11. Recruitment of Trainees**  
**招聘受訓者**

(a) Is your company recruiting trainees at this moment? (Please enter the code from the right representing Yes or No respectively)  
現時，貴公司是否正在招聘受訓者？(請參閱右面分別代表是或否的編號填入格內)

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(b) Will your company consider recruiting trainees in the next 12 months? (Please enter the code from the right representing Yes or No respectively)  
在未來十二個月，貴公司會否考慮招聘受訓者？(請參閱右面分別代表是或否的編號填入格內)

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Code Recruiting trainees  
編號 招聘受訓者

1	Yes 是
2	No 否

**The 2014 Manpower Survey of the Metals Industry**  
**金屬業二〇一四年人力調查**

**Explanatory Note**  
**附註**

1. Please ignore the numbers in the row immediately beneath the boxes. They are purely for data processing.  
每個方格下的編號只供資料處理之用，請毋須理會。
2. Before completing the questionnaire, please read carefully the job titles and job descriptions in **Appendix CM**.  
填寫調查表前，請參閱附錄 CM 所列的職稱與工作說明。
3. Please fill in information as accurate as possible because the information collected from this survey is vital for determining the manpower requirements of the industry in order that the Metals Training Board can make meaningful recommendations to Government on how to meet training needs.  
請填入準確的資料，因有關資料對於確定本業的人力需求極為重要，而金屬業訓練委員會亦將以此為根據，向政府建議如何應付業內的訓練需求。

**Part I**

第一部份

4. **Job Title - Column "A"**  
**職稱 - "A" 欄**
  - (a) Please enter into column "A" those job titles, together with their appropriate job codes specified in **Appendix CM**, applicable to your establishment in order of their skill levels (i.e. technologist/manager first, followed by technician/supervisor, craftsman, operative and unskilled worker).  
請將附錄 CM 內適用於貴機構的職稱連同職稱編號，按其技能等級，填入 "A" 欄內（即先填技師／經理，其後填寫技術員／督導員、技工、操作工及非技工）。
  - (b) Please add in column "A" titles of any technical jobs not mentioned in **Appendix CM**, and briefly describe them and indicate their skill levels.  
如貴機構另有技術性職稱未載於附錄 CM，請一併填入 "A" 欄空格內，並扼要說明其工作性質及技能等級。

- (c) Please classify an employee according to his/her main duty irrespective of any additional secondary duties he/she may be required to perform, e.g. a craftsman, who works mainly as a tool and die maker but is also required to perform the work of a mould and die maker occasionally, should be classified as a tool and die maker.

請根據僱員的主要職務分類，而不以其兼任的其他職務分類。例如，某技工的主要職務為工具及工模製造工，但間中亦須擔任為製模技工，則應歸類為工具及工模製造工。

5. Average Monthly Income - Column "B"

每月平均收入 – “B” 欄

Please enter into column "B" the average monthly income range for employees under each type of jobs. Monthly income should include basic wages, regular overtime pay, commission, cash allowance and average monthly amount of year end bonus etc., if any. If you have more than one employee doing the same job, please enter the average figure. (Please refer to the codes in the last column of the same page of the questionnaire)

請在 “B” 欄填入每類工作的僱員每月平均收入幅度的編號；這包括底薪、定期性超時工作工資、佣金、現金津貼及每月平均之年終花紅等。若從事同類工作的僱員多於一名，則請取其平均收入。（請參閱調查表同一頁最後一欄的編號）

6. Number of Employees as at 23.6.2014 (excl. Trainees) - Column "C"

在 2014 年 6 月 23 日的僱員人數（受訓者除外） – “C” 欄

Please fill in the total number of employees (excluding trainees) for each type of jobs in your establishment as at 23.6.2014.

請填寫貴機構在 2014 年 6 月 23 日的每類工作的僱員人數（受訓者除外）。

7. Number of Vacancies as at 23.6.2014 (excl. Trainees) - Column "D"

在 2014 年 6 月 23 日的空缺額（受訓者除外） – “D” 欄

Please fill in the number of vacancies (excluding those for trainees) for each type of jobs in your establishment as at 23.6.2014. "Vacancies" refer to those unfilled, immediately available job openings for which the establishment is actively trying to recruit personnel.

請填入貴機構在 2014 年 6 月 23 日的每類工作空缺數目（受訓者空缺數目除外）。「空缺額」是指該職位仍懸空，須立刻填補而現正積極招聘人員填補。

8. Forecast of Number Employed as at June 2015 (excl. Trainees) - Column "E"

預計在 2015 年 6 月的僱員人數（受訓者除外） – “E” 欄

The forecast of number employed means the number of employees (excluding trainees) for each type of jobs you will be employing in your establishment as at June 2015.

預計僱員人數指貴機構在2015年6月的所僱用每類工作的僱員人數（受訓者除外）。

9. Number of Trainees as at 23.6.2014 - Column "F"

在2014年6月23日的受訓者人數－“F”欄

Please fill in the number of employees undergoing training for each type of jobs in your establishment as at 23.6.2014.

請填寫在2014年6月23日，於貴機構接受訓練的每類工作的僱員人數。

10. Example

例子

To facilitate proper completion, an example is given after this explanatory note for your reference.

為協助閣下填表，現將例子夾附於本附註後，以供參考。

Part II

第二部份

11. Internal Promotion

內部晉升

An internal promotion is the promotion of an employee to a higher job level by virtue of his/her performance or abilities. In Q1, please fill in the number of internal promotions “from Technician/Supervisor to Technologist/Manager”, “from Craftsman to Technician/Supervisor” and “from Others to Craftsman” in the past 12 months in the respective columns. If an employee has more than one promotion during the year in your establishment, only the last and one promotion should be counted.

內部晉升是指僱員因工作表現良好或具所需才能而獲提升至較高職位。請於Q1所屬欄內填寫過去十二個月，機構內部由技術員／督導員晉升至技師／經理，由技工晉升至技術員／督導員，以及由其他職級晉升至技工的人數。如貴機構僱員在一年內有多過一次晉升，只需計算最後一次晉升在調查表內。

12. Hong Kong Technical Staff Posted Outside Hong Kong

被派往香港以外地方任職的香港技術員工

In Q2, please enter the number of technologists/managers, technicians/supervisors and craftsmen who had been posted outside Hong Kong for more than half year in the past 12 months.

請在 Q 2 填寫過去十二個月內，被派往香港以外地方任職超過半年的技師／經理、技術員／督導員及技工人數。

13. With Metals Industry Related Operations in the Mainland of China

於中國內地擁有與金屬業有關業務

Q3 Please enter the total number of mainland workers (excluding Hong Kong residents) employed in metals industry related operations in the mainland of China. All mainland workers involved in engineering, management, clerical and production work in such operations should be included (but workers seconded from Hong Kong should be excluded).

請填寫於中國內地擁有與金屬業有關業務機構內僱用的內地員工總數(不包括香港人)。內地員工總數包括工程人員、管理人員、文職人員及生產人員(但不包括派往內地工作的香港人)。

Q4 Please enter the number of mainland technologists (excluding Hong Kong residents) employed in metals industry related operations in the mainland of China, as included in Q3. Mainland managers responsible for technical work should be included as technologists.

請填寫於中國內地擁有與金屬業有關業務機構內僱用及已包括在 Q 3 項內的內地技師人數(不包括香港人)。負責技術工作的內地經理亦作內地技師計算。

Q5 Please enter the forecast number of mainland technologists (excluding Hong Kong residents) to be employed in metals industry related operations in the mainland of China 12 months from now.

請填寫預計十二個月後，於中國內地擁有與金屬業有關業務機構內僱用的內地技師人數(不包括香港人)。

14. Employer's View on the Expected Change in Business Situation

僱主對未來業務狀況預期變動的意見

The purpose of Q6 is to seek employer's view on the expected change in business situation for the coming year and the coming three years: whether the business situation will be better, the same or worse than this year.

Q 6 旨在調查僱主對未來一年及未來三年業務狀況預期變動的意見，即預計業務會比今年較佳、不變或較差。

15. Preferred Education, Mode of Training and Period of Training of Employees

僱員宜有的教育程度、訓練方式及訓練期

In Q7, please enter in the boxes the preferred education, mode of training and period of training which an employee in each of the three job levels (i.e. technologist/managerial level, technician/supervisory level and craftsman level) should have if he/she were to carry out his/her work competently. (Please refer to the codes in the same page of the questionnaire.)

請在 Q 7 格內填寫技師／經理級、技術員／督導級及技工級的僱員宜具備何種教育程度、訓練方式及訓練期，才能勝任其工作。（請參閱調查表同一頁的編號）。

16. Recruitment  
招聘

In Q8(a), please enter the number of new recruits in the past 12 months for each job level. And, from the new recruits reported in Q8(a), please indicate in Q8(b) how many of them had performed metals industry related duties in their last job for each job level.

請在 Q 8 ( a ) 填寫過去十二個月內，貴機構新招聘的各類職級的僱員人數。並在 Q 8 ( b ) 中，標示當中在上一個工作崗位是從事金屬業相關職務的人數。

17. Employees Left  
僱員離職

In Q9, please enter the number of employees who had left your establishment in the past 12 months for each job level.

請在 Q 9 填寫過去十二個月內，貴機構各類職級的離職僱員人數。

18. Skills an Employee Need to Enhance  
僱員需加強培訓的技能

In Q10, please indicate the three most important skills that your employees need to enhance for each job level. (Please refer to the codes in the same page of the questionnaire.)

請在 Q 1 0 標示各類職級僱員最需要加強培訓的三項技能。  
（請參閱調查表同一頁的編號）。

19. Recruitment of Trainees  
招聘受訓者

In Q11(a), please indicate if your company is recruiting trainees at this moment. And in Q11(b), please indicate if your company will consider recruiting trainees in the next 12 months.

請在 Q 1 1 ( a ) 填寫貴公司是否正在招聘受訓者。並在 Q 1 1 ( b ) 填寫貴公司會否考慮在未來十二個月招聘受訓者。

**The 2014 Manpower Survey of the Jewellery Sector of the Metals Industry**  
**金屬業（珠寶行業）二〇一四年人力調查**

Explanatory Note  
附註

1. Please ignore the numbers in the row immediately beneath the boxes. They are purely for data processing.  
每個方格下的編號只供資料處理之用，請毋須理會。
2. Before completing the questionnaire, please read carefully the job titles and job descriptions in **Appendix CJ**.  
填寫調查表前，請參閱附錄 C J 所列的職稱與工作說明。
3. Please fill in information as accurate as possible because the information collected from this survey is vital for determining the manpower requirements of the industry in order that the Metals Training Board can make meaningful recommendations to Government on how to meet training needs.  
請填入準確的資料，因有關資料對於確定本業的人力需求極為重要，而金屬業訓練委員會亦將以此為根據，向政府建議如何應付業內的訓練需求。

Part I

第一部份

4. Job Title - Column “A”  
職稱 – “A” 欄
  - (a) The job titles and job codes have been pre-printed.  
職稱及職稱編號已代為印上。
  - (b) Please add in column “A” titles of any technical jobs not mentioned in **Appendix CJ**, and briefly describe them and indicate their skill levels.  
如貴機構另有技術性職稱未載於附錄 C J，請一併填入“A”欄空格內，並扼要說明其工作性質及技能等級。



- (c) Please classify an employee according to his/her main duty irrespective of any additional secondary duties he/she may be required to perform, e.g. a craftsman, who works mainly as a goldsmith but is also required to perform the work of a jewellery pattern maker occasionally, should be classified as a goldsmith.

請根據僱員的主要職務分類，而不以其兼任的其他職務分類。例如，某技工的主要職務為打金工，但間中亦須擔任為首飾鑄模樣板工，則應歸類為打金工。

5. Average Monthly Income - Column "B"

每月平均收入 – “B” 欄

Please enter into column “B” the average monthly income range for employees under each type of jobs. Monthly income should include basic wages, regular overtime pay, commission, cash allowance and average monthly amount of year end bonus etc., if any. If you have more than one employee doing the same job, please enter the average figure. (Please refer to the codes in the last column of the same page of the questionnaire)

請在 “B” 欄填入每類工作的僱員每月平均收入幅度的編號；這包括底薪、定期性超時工作工資、佣金、現金津貼及每月平均之年終花紅等。若從事同類工作的僱員多於一名，則請取其平均收入。（請參閱調查表同一頁最後一欄的編號）

6. Number of Employees as at 23.6.2014 (excl. Trainees) - Column "C"

在 2014 年 6 月 23 日的僱員人數（受訓者除外） – “C” 欄

Please fill in the total number of employees (excluding trainees) for each type of jobs in your establishment as at 23.6.2014.

請填寫貴機構在 2014 年 6 月 23 日的每類工作的僱員人數（受訓者除外）。

7. Number of Vacancies as at 23.6.2014 (excl. Trainees) - Column "D"

在 2014 年 6 月 23 日的空缺額（受訓者除外） – “D” 欄

Please fill in the number of vacancies (excluding those for trainees) for each type of jobs in your establishment as at 23.6.2014. “Vacancies” refer to those unfilled, immediately available job openings for which the establishment is actively trying to recruit personnel.

請填入貴機構在 2014 年 6 月 23 日的每類工作空缺數目（受訓者空缺數目除外）。「空缺額」是指該職位仍懸空，須立刻填補而現正積極招聘人員填補。

8. Forecast of Number Employed as at June 2015 (excl. Trainees) - Column "E"

預計在 2015 年 6 月的僱員人數（受訓者除外） – “E” 欄

The forecast of number employed means the number of employees (excluding trainees) for each type of jobs you will be employing in your establishment as at June 2015.

預計僱員人數指貴機構在2015年6月的所僱用每類工作的僱員人數（受訓者除外）。

9. Number of Trainees as at 23.6.2014 - Column “F”

在2014年6月23日的受訓者人數－“F”欄

Please fill in the number of employees undergoing training for each type of jobs in your establishment as at 23.6.2014.

請填寫在2014年6月23日，於貴機構接受訓練的每類工作的僱員人數。

10. Example

例子

To facilitate proper completion, an example is given after this explanatory note for your reference.

為協助閣下填表，現將例子夾附於本附註後，以供參考。

Part II

第二部份

11. Internal Promotion

內部晉升

An internal promotion is the promotion of an employee to a higher job level by virtue of his/her performance or abilities. In Q1, please fill in the number of internal promotions “from Technician/Supervisor to Technologist/Manager”, “from Craftsman to Technician/Supervisor” and “from Others to Craftsman” in the past 12 months in the respective columns. If an employee has more than one promotion during the year in your establishment, only the last and one promotion should be counted.

內部晉升是指僱員因工作表現良好或具所需才能而獲提升至較高職位。請於Q1所屬欄內填寫過去十二個月，機構內部由技術員／督導員晉升至技師／經理，由技工晉升至技術員／督導員，以及由其他職級晉升至技工的人數。如貴機構僱員在一年內有多過一次晉升，只需計算最後一次晉升在調查表內。

12. Hong Kong Technical Staff Posted Outside Hong Kong

被派往香港以外地方任職的香港技術員工

In Q2, please enter the number of technologists/managers, technicians/supervisors and craftsmen who had been posted outside Hong Kong for more than half year in the past 12 months.

請在Q2填寫過去十二個月內，被派往香港以外地方任職超過半年的技師／經理、技術員／督導員及技工人數。

13. With Metals Industry (Jewellery Sector) Related Operations in the Mainland of China  
於中國內地擁有與金屬業內珠寶行業有關業務

Q3 Please enter the total number of mainland workers (excluding Hong Kong residents) employed in metals industry (jewellery sector) related operations in the mainland of China. All mainland workers involved in engineering, management, clerical and production work in such operations should be included (but workers seconded from Hong Kong should be excluded).

請填寫於中國內地擁有與金屬業內珠寶行業有關業務機構內僱用的內地員工總數(不包括香港人)。內地員工總數包括工程人員、管理人員、文職人員及生產人員(但不包括派往內地工作的香港人)。

Q4 Please enter the number of mainland technologists (excluding Hong Kong residents) employed in metals industry (jewellery sector) related operations in the mainland of China, as included in Q3. Mainland managers responsible for technical work should be included as technologists.

請填寫於中國內地擁有與金屬業內珠寶行業有關業務機構內僱用及已包括在 Q3 項內的內地技師人數(不包括香港人)。負責技術工作的內地經理亦作內地技師計算。

Q5 Please enter the forecast number of mainland technologists (excluding Hong Kong residents) to be employed in metals industry (jewellery sector) related operations in the mainland of China 12 months from now.

請填寫預計十二個月後，於中國內地擁有與金屬業內珠寶行業有關業務機構內僱用的內地技師人數(不包括香港人)。

14. Employer's View on the Expected Change in Business Situation

僱主對未來業務狀況預期變動的意見

The purpose of Q6 is to seek employer's view on the expected change in business situation for the coming year and the coming three years: whether the business situation will be better, the same or worse than this year.

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15. Preferred Education, Mode of Training and Period of Training of Employees

僱員宜有的教育程度、訓練方式及訓練期

In Q7, please enter in the boxes the preferred education, mode of training and period of training which an employee in each of the three job levels (i.e. technologist/managerial level, technician/supervisory level and craftsman level) should have if he/she were to carry out his/her work competently. (Please refer to the codes in the same page of the questionnaire.)

請在 Q7 格內填寫技師／經理級、技術員／督導級及技工級的僱員宜具備何種教育程度、訓練方式及訓練期，才能勝任其工作。(請參閱調查表同一頁的編號)。

16. Recruitment  
招聘

In Q8(a), please enter the number of new recruits in the past 12 months for each job level. And, from the new recruits reported in Q8(a), please indicate in Q8(b) how many of them had performed metals industry (jewellery sector) related duties in their last job for each job level.

請在 Q 8 ( a ) 填寫過去十二個月內，貴機構新招聘的各類職級的僱員人數。並在 Q 8 ( b ) 中，標示當中在上一個工作崗位是從事金屬業內珠寶行業相關職務的人數。

17. Employees Left  
僱員離職

In Q9, please enter the number of employees who had left your establishment in the past 12 months for each job level.

請在 Q 9 填寫過去十二個月內，貴機構各類職級的離職僱員人數。

18. Skills an Employee Need to Enhance  
僱員需加強培訓的技能

In Q10, please indicate the three most important skills that your employees need to enhance for each job level. (Please refer to the codes in the same page of the questionnaire.)

請在 Q 1 0 標示各類職級僱員最需要加強培訓的三項技能。  
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19. Recruitment of Trainees  
招聘受訓者

In Q11(a), please indicate if your company is recruiting trainees at this moment. And in Q11(b), please indicate if your company will consider recruiting trainees in the next 12 months.

請在 Q 1 1 ( a ) 填寫貴公司是否正在招聘受訓者。並在 Q 1 1 ( b ) 填寫貴公司會否考慮在未來十二個月招聘受訓者。

## **General Definition of Job Levels in the Metals Industry**

### 金屬業技能等級的一般定義

#### **Professional/Technologist**

##### 專業人士／技師

A professional/technologist is a person who has the qualification and experience equivalent to that required for corporate membership of a professional institution. He/She should be competent in analysing and solving a wide range of technical problems. Furthermore, he/she should be able to assume personal responsibility for the development and application of engineering principles, to exercise original thought and judgment, to keep abreast of technology, to apply the latest techniques and to supervise/develop his/her sub-ordinates.

專業人士／技師須具備相當於有關專業學會正式會員所需的資歷及經驗，並能分析及解決各類技術上的問題。此外，亦須負責發展及應用工程原理，具創見和判斷力；與科技發展並進，應用最新技術，以及督導和培訓下屬。

#### **Associate Professional/Technician**

##### 輔助專業人士／技術員

An associate professional/technician is a person who occupies a position between the professional/ technologist and the tradesman/craftsman. His/Her education, training and practical experience enable him/her to apply proven techniques and procedures to carry out technical tasks, normally under the guidance of a professional/technologist.

輔助專業人士／技術員的職級介乎專業人士／技師與技工之間，須具備相當學歷、工作經驗及曾接受訓練，一般可在專業人士／技師的督導下，運用已確立的技術和方法去完成工作。

#### **Tradesman/Craftsman**

##### 技工

A tradesman/craftsman is a skilled worker who is able to apply his/her skills to a wide range of jobs within his/her trade, with minimum direction and supervision. A tradesman/craftsman possesses not only practical skills but also related theoretical knowledge which enables him/her to adapt himself/herself to new technologies.

技工是指熟練工人，能在有限度的指示及督導下，應用各種技能執行個別行業的職務。技工除須具備實際技能外，亦需有相關的理論知識，以便能適應日新月異的科技發展。

**Job Descriptions for Principal Jobs in the Metals Products and Related Industries****金屬品製造及相關行業主要職務的工作說明**

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
<b>TECHNOLOGIST / MANAGERIAL LEVEL      技師／經理級</b>		
101	Mechanical Engineer  機械工程師	<p>Researches on mechanical engineering problems and product analysis; designs and advises on mechanical plant, equipment and machinery; plans and supervises their development, parts manufacture, installation, operation and maintenance. Usually specialises in one or more of the followings:</p> <ol style="list-style-type: none"> <li>(1) product analysis, design and development; and quality assurance of products;</li> <li>(2) sales and technical service;</li> <li>(3) plant engineering (installation and maintenance);</li> <li>(4) tooling design and manufacture.</li> </ol> <p>研究機械或產品工程問題及產品分析；擔任廠房、設施與機器等的設計工作，並就這方面提供意見；策劃及管理這些器材的發展、零部件製造、安裝、操作與保養。通常專門處理下列一種或多種工作：</p> <ol style="list-style-type: none"> <li>(1) 產品分析，設計與發展，以及品質測試等工作；</li> <li>(2) 推銷及技術方面的服務；</li> <li>(3) 廠房裝置工程（安裝與保養）；</li> <li>(4) 工具工模設計與製造。</li> </ol>
102	Manufacturing/Production/ Industrial Engineer  製造／生產／工業工程師	<p>Designs, operates and controls manufacturing/production systems in industrial plants to ensure efficient use of the resources. This includes:</p> <ol style="list-style-type: none"> <li>(1) layout and design of plant and services;</li> <li>(2) choice of tooling, production equipment, materials, and fabrication/assembly methods;</li> <li>(3) provision of services such as manufacturing capability study, production scheduling, work study, quality assurance, and cost control.</li> </ol> <p>設計、操作及控制工廠內的製造／生產系統，以確保資源得以有效運用。有關工作包括：</p> <ol style="list-style-type: none"> <li>(1) 安排及設計廠房裝置與服務；</li> <li>(2) 選擇工具、生產設備、物料及構製／裝配方法；</li> <li>(3) 提供服務，例如生產力研究、生產調度、工作研究、品質控制及成本控制。</li> </ol>

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
TECHNOLOGIST / MANAGERIAL LEVEL (Continued)		技師／經理級（續）
103	Materials Engineer; Metallurgist  物料工程師； 冶金技師	Provides a specialist service to the design, quality assurance and production functions by: <ol style="list-style-type: none"> <li>(1) advising on choice of materials for use in products and processes;</li> <li>(2) testing properties of materials, both incoming and during production;</li> <li>(3) advising on production process specifications such as temperature, composition, pressure, time, quenching media etc. for processes such as rolling, heat treatment, foundry, die-casting and plastic processing;</li> <li>(4) investigating production problems and product defects.</li> </ol> 在設計、保持產品品質及生產過程方面提供下列專門服務： <ol style="list-style-type: none"> <li>(1) 就選擇產品及工序所用的物料提供意見；</li> <li>(2) 對輸入及生產進行中的物料性質進行測試；</li> <li>(3) 就各種工序如軋壓、熱處理、鑄造、鑄模及塑膠加工等提供有關生產工序規格的意見，例如溫度、組合、壓力、時間、驟冷劑等；</li> <li>(4) 調查生產方面的問題及產品的缺陷。</li> </ol>
104	Electrical Engineer  電機工程師	Designs and advises on: <ol style="list-style-type: none"> <li>(1) electrical equipment and systems, and plans and supervises their installation, operation and maintenance;</li> <li>(2) electrical components and devices used in products.</li> </ol> 負責下列範圍的設計工作，並提供建議： <ol style="list-style-type: none"> <li>(1) 電氣設備及系統；此外，亦須策劃與監督這些器材的安裝、操作和保養工作；</li> <li>(2) 產品所用的電氣零件及配件。</li> </ol>

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
TECHNOLOGIST / MANAGERIAL LEVEL (Continued)		技師／經理級（續）
105	Electronics Engineer  電子工程師	<p>Designs and advises on:</p> <p>(1) electronic equipment and systems, and plans and supervises their installation, operation and maintenance;</p> <p>(2) electronic components and devices used in products.</p> <p>負責下列範圍的設計工作，並提供建議：</p> <p>(1) 電子設備及系統；此外，亦須策劃與監督這些器材的安裝、操作和保養工作；</p> <p>(2) 產品所用的電子配件及部件。</p>
106	Technical Services Engineer  技術支援工程師	<p>Provides expertise and technical services relating to a specific machinery/equipment/apparatus in one of the following aspects:</p> <p>(1) application of the software/hardware, and related customer training;</p> <p>(2) installation, commissioning, testing, repair and maintenance.</p> <p>為有關機器／設備／儀器提供以下一項或多項技術支援服務：</p> <p>(1) 使用軟件／硬件的說明及客戶培訓；</p> <p>(2) 安裝、啟動、測試及維修服務。</p>
107	Technical Sales/Marketing Manager  技術營銷／市務／市場經理	<p>Plans, organises, directs and controls technical sales, marketing and promotional activities of professional equipment and products;</p> <p>Co-ordinates with research and development, production control and shipping departments in anticipating, identifying and satisfying customer needs;</p> <p>Reviews performance analysis for forecasting future technical market situation.</p> <p>策劃、籌辦、指導及監督專業技術儀器／產品的市務推廣、營業及宣傳工作；</p> <p>協調機構內的研究開發、生產控制、貨運等部門，作出預測、確定及滿足客戶需求；</p> <p>檢討業績分析，預測未來產品市場狀況。</p>



Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
TECHNOLOGIST / MANAGERIAL LEVEL (Continued)		技師／經理級（續）
108	Logistics Manager  物流經理	<p>Takes charge of the overall operation of the supply chain management;</p> <p>Plans, directs and controls the materials procurement activities of the company including material flow, from the stage of raw material supply throughout finished goods shipment and to meet in-house or customer's stringent Just-in-time (JIT) requirement;</p> <p>Be responsible to establish cost effective strategy to support the business needs.</p> <p>負責公司供應鏈管理的一切運作；</p> <p>策劃督導及控制公司物料採購工作，包括確保由原材料供應商至製成品／付運之間物料流程暢順，以符合內部或客戶對“悉時付運 JIT”的嚴格要求；</p> <p>負責制定策略以配合機構整頓業務需求，以達到成本效益。</p>
109	Merchandising Manager  採購經理	<p>Keeps abreast of the up-to-date design, feature and quality requirements of the machinery/parts and component market;</p> <p>Leads a team of merchandisers in the co-ordination and presentation of sample and quotation and to negotiate with buyers/clients;</p> <p>Oversees and follow up buyers'/clients' orders, liaise with appropriate departments to ensure prompt shipment of these orders.</p> <p>留意市場對機械、零部件的設計、特色及品質上最新要求；</p> <p>領導一組採購員，配合樣辦及報價過程與客戶／買家商談；</p> <p>統籌及跟進客戶／買家的訂單，與有關部門協作確保準時付運。</p>
110	Training Manager  訓練經理	<p>Plans, implements and coordinates staff training and employee career development programmes.</p> <p>策劃、推行及統籌員工訓練和僱員職業發展計劃的工作。</p>

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
TECHNOLOGIST / MANAGERIAL LEVEL (Continued)		技師／經理級（續）
111	Engineering Manager  工程經理	Plans, directs and controls the engineering activities of the company including product development, procurement, installation, maintenance and servicing the company's mechanical, electrical, electronic equipment and systems.  策劃、督導及掌管公司內各項與工程有關的工作，包括產品發展、採購，以及公司內的機械、電氣、電子裝備和系統的安裝和維修。
112	Factory Manager  工廠經理	Takes charge of the overall operation of the factory. Assumes full responsibility of the management of staff and workers in the factory. Enforces fire, safety and other government regulations. Supervises factory activities such as plant layout, assembly and delivery of finished products.  負責工廠運作的一切事務；負起管理工廠內職員及工人的全部責任；執行防火、安全及其他有關的政府規例；監督工廠內各項工作，例如廠房佈置、製成品的收發等。
113	Production Manager  生產部經理	Plans, directs and controls the production activities of the company. Takes charges of the overall production programmes to ensure the maintenance of specified standards of quality, efficiency and economy.  策劃、督導及掌管公司內有關生產的工作；負責全面管理生產計劃，以確保其符合品質、效率及經濟等指標。
114	Quality Control Manager  品質控制經理	Plans, directs, and supervises the quality control of incoming materials/parts, work-in-progress, and finished products of the company.  策劃、督導及管理公司內交來的物料／零件、以及在生產程序中的半製成品及製成品的品質。
115	Product/Graphic Designer  產品／平面設計師	Originates and develops ideas to design, create, modify and arrange the form of manufactured products, layouts and containers for the products based on factors such as design-function relationship, knowledge of design, art concepts, market and pricing characteristics, client specifications, method and cost of production to achieve aesthetically pleasing and functional effect for the products.  能根據設計與功能的關係、設計知識、美術概念、市場與價格特性、顧客規格、生產方法及成本等因素進行創作，並加以發揮，以便設計、創作、修改及安排製成品的形狀、結構及包裝，務求產品既美觀又實用。

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TECHNICIAN / SUPERVISORY LEVEL		技術員／督導級
201	Mechanical Draftsman  機械繪圖員	Prepares arrangement, assembly and detailed drawings of machines, machine parts, tools, other mechanical equipment as well as manufactured products from sketches, specifications and existing parts.  依據草圖、規格及現有零件，繪製機器、機件、工具、其他機械設備及製成品的排列圖、組裝圖及明細圖。
202	Mechanical Engineering Technician  機械工程技術員	Performs technical tasks contributory to design, fabrication, construction, automation, installation, operation, maintenance and repair of mechanical plant and equipment, including maintenance of aircraft, either independently or under the direction of a qualified engineer.  獨自或在合資格工程師指導下，擔任技術工作，如從事設計、構製、建造、自動操作、安裝、操作、維修機械廠房和設備，包括飛機的保養。
203	Manufacturing/Production/ Industrial Engineering Technician  製造／生產／ 工業工程技術員	Performs technical tasks contributory to tooling, and the efficient and economical manufacturing/production of products through proper management of machinery and human resources, either independently or under the direction of a qualified engineer.  獨自或在合資格工程師指導下，擔任技術工作，如正確管理機器及人力資源，以便製造工具，以及有效和經濟地製造產品。
204	Electrical Engineering Technician  電機工程技術員	Performs technical tasks contributory to design, development, manufacture, installation, operation, maintenance and repair of electrical systems and equipment, either independently or under the direction of a qualified engineer.  獨自或在合資格工程師指導下，擔任技術工作，如從事設計、發展、製造、安裝、操作及維修電氣系統和設備。
205	Foreman/Supervisor  管工／監督	Controls a group or groups of craftsmen or other workers by virtue of his/her skill, training and experience; maintains production at predetermined quality, rate and cost, discipline and safety; liaison between management and workers.  憑本身的技能、訓練及經驗，管理一組或數組技工或其他工人，使產品達到預定的品質、保持預算的生產率及生產成本不超出預算；維持管理部門與工人之間的溝通，以及工場內良好紀律及安全措施。

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
TECHNICIAN / SUPERVISORY LEVEL (Continued)      技術員／督導級（續）		
206	Electronics Technician  電子技術員	Performs technical tasks, contributory to design, development, manufacture, installation, operation, maintenance and repairs of electronic components, equipment and systems, either independently or under the direction of a qualified engineer.  獨自或在合資格工程師的指導下，擔任技術工作，如從事設計、發展、製造、安裝、操作、維修電子配件、設備和系統。
207	Technical Services Technician  支援技術員	Performs technical tasks, normally under the direction and supervision of the Technical Services Engineer to assist in:  (1) application of the software/hardware, and related customer training; (2) installation, commissioning, testing, repair and maintenance; (3) calibration of equipment, quality control and assurance of process, parts and products at satellite/sub-contractor's plant.  通常在技術支援工程師的指導及監督下，擔任下列技術工作：  (1) 使用軟件／硬件的說明及客戶培訓； (2) 安裝、啟動、測試及維修服務； (3) 儀器校準，品質控制及保證，使屬下分廠及分包商的生產加工、零部件及成品符合規格。
208	Technical Sales/Marketing Executive  技術營銷／市務主任	Assists the Technical Sales/Marketing Manager in soliciting business, preparing marketing plans and other sales and promotional activities;  Monitors market conditions and reflect customer changing requirements to management.  協助技術營銷／市務經理招攬生意，製訂市務、推廣、營銷計劃及活動；  監察市場動態，及時反映客戶需求的變化。

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
TECHNICIAN / SUPERVISORY LEVEL (Continued)		技術員／督導級（續）
209	Co-ordinator  協理員／聯絡員	<p>Plans, schedules and controls workload making optimum use of all equipment, material and labour throughout the company, its workshop/sub-contractors and co-ordinates with clients;</p> <p>Carries out process planning for jobs and estimates the time requirement for operations as to ensure that schedules are met.</p> <p>充分有效使用機構內部資源（包括工廠及分包商的設備、材料及勞務），及制定進度表，與客戶密切聯繫；</p> <p>估計每項職務的操作程序及所需時間，制定流程，以確保工作能夠依期完成。</p>
210	Logistics Executive/ Supervisor  物流主任	<p>Assists the Logistics Manager in following up the operation of the supply chain management;</p> <p>Co-ordinates the material procurement and flow of goods activities with suppliers, shipping companies, production control and shipping departments and customer's receiving department as to ensure that schedules are met on time.</p> <p>協助物流經理跟進供應鏈管理上各項事宜；</p> <p>協調供應商、貨運商、生產控制及船務部門，及客戶的收貨部門，保持材料採購至產品付運的流程暢順，以確保工作依期完成。</p>
211	Merchandiser  採購員	<p>Assists the Merchandising Manager;</p> <p>Negotiates with buyers/clients/customers and preparing quotations and handling production samples and orders;</p> <p>Follows up buyers order including liaising with other departments on the quality requirements and tracing the production progress as to ensure prompt shipment.</p> <p>協助採購經理；</p> <p>買賣商談及報價工作，處理生產訂單及樣辦製作；</p> <p>跟進客戶訂單，包括與其他部門協調品質要求、生產進度以確保依期付運。</p>

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
<b>TECHNICIAN / SUPERVISORY LEVEL (Continued)</b> 技術員／督導級（續）		
212	Production Supervisor  生產主管	Works independently or under the direction of Production Manager to set up and carry out production programmes.  獨立工作，或在生產經理的督導下設立及推行生產計劃。
213	Quality Control Supervisor  品質控制主管	Works independently or under the direction of the Quality Control Manager to ensure that incoming materials/parts, work-in-progress, and finished products are in compliance with standards and specifications.  獨立工作或在品質控制經理督導下，確保交來的物料／零件、在生產程序中的半製成品及製成品的品質能符合標準及規格。
214	Training Officer  訓練主任	Assists the Training Manager in participating a wide range of training duties including employee development programmes.  協助訓練經理執行各項訓練職務，包括僱員發展計劃。
215	Research and Development Technician  研究及發展技術員	Performs technical tasks contributory to research of market trend, development of new products and improvement of process efficiency, either independently or under the direction of a qualified engineer.  獨自或在合資格工程師指導下，擔任技術工作，如市場研究、產品開發及流程改善。
<b>CRAFTSMAN LEVEL</b> 技工級		
301	Machinist  機床工	Sets up and operates common machine tools such as lathe, milling machine and surface grinding machine to produce components according to drawings and specifications.  裝設及操作一般機床，例如車床、銑床及平面磨床，並按照圖則及規格，製造配件。
302	Precision Machinist  精密加工機床工	Sets up and operates precision and CNC machine tools, such as jig boring/grinding machine, EDM wirecut/diesinking machine, CNC milling machine and CNC lathe, to produce components according to drawings and specifications.  裝設及操作精密及電腦數控機床，例如座標鏜床／磨床、火花線切機／火花電蝕機、電腦數控銑床及電腦數控車床，以按照圖則及規格，製造配件。

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
CRAFTSMAN LEVEL (Continued)		技工級 (續)
303	Machine Setter  機器調校工	Sets up, for others to operate, metal working machines such as automatic lathes to produce components according to drawings and specifications.  裝設金屬加工機床，例如自動車床，供其他工人操作，以生產符合圖則及規格的配件。
304	Tool and Die Maker  工具及工模製造工	Makes, services and repairs press tools and dies in accordance with drawings and specifications.  按照圖則和規格製造及維修沖壓工具及模具。
305	Instrument Maker/Repairer  儀器製造／修理工	Inspects, tests, repairs, calibrates and maintains mechanical/electrical instruments including the making of replacement parts as necessary.  檢查、測試、修理、標正及保養機械／電氣儀器，包括製造所需的替換零件。
306	Electrician  電工	Installs electrical wiring of all types at low voltage (i.e. not exceeding 1 000 Volts) and tests, maintains and repairs low voltage fixed electrical installation in accordance with regulations and specifications under the direction of a supervisory grade of employee.  在管理級人員指導下，按照規例及規格敷設各類不超過 1 000 伏特低電壓的電氣佈線，並測試及維修低壓固定電力裝置。
307	Mechanical Fitter  機械打磨裝配工	Fits, assembles, erects, installs, services, repairs and tests mechanical plant and machinery according to drawings and specifications; keeps records of work.  按照圖則及規格，打磨、裝配、安裝、維修及測試廠房機械裝置及機器；並保存工作記錄。
308	Moulder and Core Maker (Sand)  砂模及模心製造工	Makes sand moulds and cores for castings, constructs runners, risers and feeders, and uses various foundry equipment and machinery.  製造鑄件用的砂模及模心，構築流道、升流管及進料器，並使用各類鑄造用的設備及機器。
309	Furnaceman  熔爐工	Operates melting furnaces to produce castings.  操作各種熔爐以生產鑄鐵。
310	Electric Arc and Gas Welder  電焊氣焊工	Joins, cuts and deposits metals by electric-arc or flame of oxy-acetylene or other gases, or by other welding and brazing processes.  使用電弧、氧乙炔焰、其他氣體、其他焊接法或黃銅焊接法，以接合、割切金屬及補焊。

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
CRAFTSMAN LEVEL (Continued)		技工級 (續)
311	Sheetmetal Fabricator  薄片金屬構造工	Makes sheetmetal articles of thickness not exceeding 10 s.w.g. (or 3.2 mm) such as containers, ducts, ornaments either by hand or machine, assembles, joins and repairs components by welding, brazing, soldering, riveting etc. according to specifications.  按照規格，利用手工具或機器製造厚度不超過 10 s.w.g. (或 3.2 毫米) 的薄金屬片器具，如容器、槽管及裝飾品；使用溶焊、銅焊、錫焊、鉚釘等方法裝配、接合及修理該等器具。
312	Steel Fabricator (Thick Plate)  鋼板構造工	Constructs, assembles, inspects and repairs boilers, tanks, and articles of heavy steel sections above 10 s.w.g. (or 3.2 mm thick).  建造、裝配、查驗及修理用超過 10 s.w.g. (或 3.2 毫米) 鋼板製成的鍋爐、水箱及其他重型鋼件。
313	Plumber and Pipe Fitter  喉管工	Assembles, installs and maintains pipes, fittings and fixtures for supplying air, gas, steam, water and other fluids.  裝配、安裝及保養喉管、配件及夾具，以供應空氣、氣體、蒸氣、水及其他流體。
314	Pattern/Model/Prototype Maker  樣本／模型／生產原型製造工	Sets up and operates metal working and other processing machines to cut, shape and fit parts to fabricate or modify models, patterns and/or prototypes of plastics and other products from drawings and specifications.  按照圖則及規格，調校及操作金屬製造及其他加工機床以切割、鉋削及打磨配件，以便構造或修改塑料製品及其他產品的模型、樣本及／或生產原型。
315	Electroplating and Metal Coating Worker  電鍍及金屬塗層工	Carries out surface treatment of objects by:  (1) electro-chemical and chemical processes including deposition of common metals by electrolyses, electro-chemical polishing, galvanizing, etching and anodising; and  (2) metal spraying.  使用下列方法對物體進行表面處理：  (1) 電化及化學程序，包括以電解、電化磨光、鍍鋅、腐蝕及陽極氧化將一般金屬沉積；及  (2) 噴鍍金屬。



Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
CRAFTSMAN LEVEL (Continued)		技工級 (續)
316	Painter  髹漆工	Prepares and mixes paint appropriate to the surface to be painted and prepares surfaces for painting; applies paint by spraying or brushing.  配製及混合油漆以配合須髹漆的表面，並處理表面以便髹漆；用噴油法或手掃法塗漆。
317	Metal Printing Craftsman  金屬印製技工	Sets, controls, and operates printing machines to print metals and related products.  調校、控制與操作金屬印製機，以便在金屬及有關產品上進行印刷。
318	Rolling Mill/Extrusion Press Craftsman  輾壓／擠壓技工	Sets, controls and operates rolling mill and/or extrusion press.  調校、控制與操作輾壓機及／或擠壓機。
319	Silk Screen Printer  絲網印刷工	Produces hand and photographic screen stencils, sets up and operates silk screen printing equipment and machinery.  製備手繪及攝影的絲網印版，調校及操作絲網印刷設備及機器。
320	Cameraman; Darkroom Processor  攝影師； 黑房整理員	Prepares and photographs all types of copy for black and white and colour production, and retouches negatives and positives films.  製備及拍攝各類圖片，供黑白及彩色印刷使用；修飾負片及正片。
321	Mould Maker  製模技工	Makes, maintains and repairs moulds and dies for plastics processing machines and die-casting machines according to drawings and specifications.  按照圖則及規格，製造塑膠處理機及壓鑄機所用工模，並負責維修工模。
322	Repairer (Watches and Clocks)  鐘錶修理工	Diagnoses, locates and repairs faults in the manufacture of watches and clocks, systematically records these faults and recommends changes to minimise such occurrence.  在製造鐘錶的程序中，判斷、根查及修理其間的毛病，並有系統地記錄這些毛病，以及建議如何盡量減少此等情況出現。

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
<b>CRAFTSMAN LEVEL (Continued)</b> 技工級 (續)		
323	Heat Treatment Craftsman  熱處理技工	Sets up and operates heat treatment furnaces, baths and quenching equipment to alter physical and chemical properties of metal parts according to specifications for heat treatment processes such as hardening, tempering, annealing, case-hardening, and normalising.  調校及操作熱處理爐、熱處理槽及驟冷設備，從而改變金屬零件的物理及化學特性，以符合熱處理程序的規格，例如淬火、回火、退火、表面淬火及正火。
324	Edging/Shaping Craftsman  車邊工	Shapes the lenses to fit into the prescribed spectacle frame and comply with the optometrical requirement.  根據驗光度數要求，對眼鏡片加工車邊以便合適裝配於顧客選用的眼鏡框內。
<b>OPERATIVE LEVEL</b> 操作工級		
401	Semi-skilled Machine Operator  機器操作工	Operates one or more of the following machines: drilling machine, capstan (turret) lathe, sawing machine, shearing machine, punching machine, rolling machine, grinding machine, or automatic machine which have been set up by other persons.  操作下列已由他人校妥的一種或多種機床：鑽床、六角車床、鋸床、剪床、打孔機、轉軸機、磨床或自動機床。
402	Fettler  鑄件整理工	Removes runners, risers, cores, flash metal at joints, surface imperfection etc. from castings.  除去鑄成品的水口、模心、不平滑的接口及表面。
403	Pourer  澆鑄工	Pours molten metal into moulds.  負責將熔化的金屬倒入模型。
404	Die-casting Machine Operator  金屬壓鑄機操作工	Operates a die-casting machine.  操作金屬壓鑄機器。
405	Electric-resistance Welder  電阻焊接工	Welds metal parts by means of resistance welding machines (i.e. butt, spot and seam welding machines).  使用電阻焊機（例如對頭焊機、點焊機及接縫焊機）焊接。
406	Polishing Worker  磨光工	Buffers and polishes metal.  磨光金屬製品。

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
OPERATIVE LEVEL (Continued)		操作工級 (續)
407	Striker 打鐵工	Uses hammer to assist a blacksmith to form and shape articles. 運用鐵鎚協助打鐵匠工作。
408	Press Operator 啤機操作工	Operates a power press to produce metal articles. 操作五金啤機以生產金屬品。
409	Paint Spraying Gun Operator/ Zinc Sprayer 噴漆／噴鋅工	Operates spray-gun to spray onto metallic surface to build up its resistance against corrosion. 操控噴漆槍，將一層金屬噴在金屬的表面，以加強抵抗腐蝕的能力。
410	Semi-skilled Electro-plating and Metal Coating Worker 電鍍及金屬塗層半技工	Assists skilled workers in the process of metal coating. 協助技工進行電鍍金屬表面電化處理的工作。
411	Quality Control Operator 品質控制操作工	Assists in the routine examination of components or finished products according to predetermined standards. 協助日常的檢查工作，以確定配件或製成品符合既定標準。
412	Assembler 裝配工	Assembles components into finished products in accordance with specific job instructions. 按照既定的工作指示裝配配件使成製成品。
413	Injection Moulding Machine Operator 注塑機操作工	Operates a plastic injection moulding machine to produce plastic components. 操作塑膠注塑機以生產塑膠零件。
414	Crane Operator 起重機操作工	Operates a crane to lift, move and position equipment, machinery or materials. 使用起重機吊起、搬運及安放設備、機械或物料。
415	Polishing Worker (Lens) 磨鏡片工	Buffers and polishes lens for spectacle to comply with the optometrical requirement. 打磨及拋光眼鏡片以符合驗光度數要求。
UNSKILLED LEVEL		非技術工人級
501	Labourer 雜工	Undertakes general cleaning work, removal of industrial waste from machines and light material handling. 擔任各類清潔工作，清理機床上的工業廢料及運送輕物料。

**Job Descriptions for Principal Jobs in the Jewellery Sector**

## 珠寶業主要職務的工作說明

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
TECHNOLOGIST / MANAGERIAL LEVEL		技師／經理級
108	Logistics Manager  物流經理	<p>Takes charge of the overall operation of the supply chain management;</p> <p>Plans, directs and controls the materials procurement activities of the company including material flow, from the stage of raw material supply throughout finished goods shipment and meets in-house or customer's stringent Just-in-time (JIT) requirement;</p> <p>Be responsible to establish cost effective strategy to support the business needs.</p> <p>負責公司供應鏈管理的一切運作；</p> <p>策劃督導及控制公司物料採購工作，包括確保由原材料供應商至製成品／付運之間物料流程暢順，以符合內部或客戶對“悉時付運 JIT”的嚴格要求；</p> <p>負責制定策略以配合機構整頓業務需求，以達到成本效益。</p>
110	Training Manager  訓練經理	<p>Plans, implements and coordinates staff training and employee career development programmes.</p> <p>策劃、推行及統籌員工訓練和僱員職業發展計劃的工作。</p>

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
<b>TECHNOLOGIST / MANAGERIAL LEVEL (Continued)      技師／經理級（續）</b>		
131	Gemmologist  寶石鑒定師	<p>Analyses, examines and classifies a wide range of diamonds and gem stones using test equipment and prepare reports.</p> <p>利用測試儀器設備對各類型鑽石及寶石進行分析、檢查及分類，並編製報告。</p> <p>A qualified gemmologist should obtain Fellowship / Graduate membership / status in either one of the following associations / institutions:</p> <p>合資格寶石鑒定師須在以下學會或學院具備院士或畢業生會員資格：</p> <ul style="list-style-type: none"> <li>(i) Gemmological Institutes in China - GIC ; 中國地質大學珠寶學院；</li> <li>(ii) American Gem Society – AGS ; 美國寶石協會；</li> <li>(iii) Canadian Institute of Gemmology – CIG ; 加拿大寶石學院；</li> <li>(iv) Canadian Gemmological Association - CGA ; 加拿大寶石學院；</li> <li>(v) Gemmological Association of Great Britain - Gem-A ; 英國寶石協會和寶石鑒定實驗室；</li> <li>(vi) Gemological Institute of America – GIA ; 美國寶石學學院；</li> <li>(vii) Swiss Gemmological Institute – SSEF ; 瑞士寶石學院；</li> <li>(viii) International School of Gemmology ; 國際寶石學校；</li> <li>(ix) International Gem Society – IGS ; 國際寶石協會；</li> <li>(x) Other equivalent Associations / Institutions. 其他同等學會或學院。</li> </ul>

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
<b>TECHNOLOGIST / MANAGERIAL LEVEL (Continued)      技師／經理級（續）</b>		
132	Assay Officer  驗金師	Tests and analyses the standard purity of a precious metal (gold or platinum) or the constituents proportions in the jewellery piece by means of touch stone and chemical etching (aqua regia), x-ray or spectrometer.  使用試金石及“王水”作化學腐蝕，或用 X-射綫及質譜儀以測試及分析貴金屬（黃金或鉑金）的標準成色（純度），或珠寶首飾件內所含金屬成份的比例。
133	Jewellery Sales/ Marketing Manager  珠寶營銷／市務／市場 經理	Plans, organizes, directs and controls jewellery sales, marketing and promotional activities. Co-ordinates with in-house design and development team, in anticipating, identifying and satisfying customer needs. Visits jewellery fairs and exhibitions to keep abreast of world market situation and development trend.  策劃、籌辦、指導及監督珠寶市務推廣、營業及宣傳等工作。協調機構內的設計開發部門，預測、確定及滿足客戶需求。參觀珠寶展覽會、交易會、瞭解當前的市場狀況及發展路向。
134	Production Manager  生產部經理	Plans and executes production systems for goldsmithing, precious stone setting, casting and finishing plant. Takes charge of production, manages and directs the production department personnel to maintain quality and productivity and minimizes manpower and raw material wastage in all production processes.  策劃與執行有關打金、首飾鑲嵌、鑄造及潤飾的生產方針；領導下屬，以保持產品質素與生產效率，並盡量避免浪費廠內各生產程序所用人力及原料。
135	Design and Development Manager  設計及發展經理	Analyses the latest trends in jewellery design and keeps abreast with developments in production, and manages all phases of the design and development cycles. Manages and directs the design department personnel to originate jewellery designs in accordance with requirements.  分析研究珠寶設計的最新潮流及生產技術的最新發展，以及管理整個設計及發展的流程；領導珠寶設計部門下屬，以顧客要求設計珠寶首飾。
136	Merchandising Manager	Keeps abreast of the up-to-date design and quality requirements of the jewellery market; plans, approves and leads a team of merchandisers in the co-ordination and presentation of sample and quotation, negotiation with buyers/clients. Oversees and follows up buyers'/clients' orders, liaise with appropriate departments to ensure prompt shipment of these orders.

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
<b>TECHNOLOGIST / MANAGERIAL LEVEL (Continued)      技師／經理級（續）</b>		
	採購經理	密切留意珠寶市場對設計及品質的最新要求，策劃、批准及領導一隊營銷採購員，配合樣辦及報價過程與客戶／買家商談。統籌及跟進客戶／買家的訂單，與有關部門協作以確保準時付運。
137	Brand Development Manager  品牌發展經理	Plans, develops, and directs promotional efforts for a particular brand. Co-ordinates activities of specialists of production, sales, advertising, market research, distribution and package development.  策劃、發展及指導指定品牌的宣傳工作。協調機構內的專門人才負責的產品銷售、廣告、市場調查、分發及包裝發展。
<b>TECHNICIAN / SUPERVISORY LEVEL      技術員／督導級</b>		
210	Logistics Executive/ Supervisor  物流主任	Assists the Logistics Manager in following up the operation of the supply chain management;  Co-ordinates the material procurement and flow of goods activities with suppliers, shipping companies, production control and shipping departments and customer's receiving department as to ensure that schedules are met on time  協助物流經理跟進供應鏈管理上各項事宜；  協調供應商、貨運商、生產控制及船務部門，及客戶的收貨部門，保持材料採購至產品付運的流程暢順，以確保工作依期完成。
231	Jewellery Designer (Hand Sketch)  珠寶設計員 (手繪)	Originates jewellery design by taking into account materials and manufacture processes, cost and customers' requirements; and prepares basic artwork and working drawing of the products by hand.  以人手繪畫產品的基本美術稿及工作圖，因應材料、製造程序、成本及顧客要求設計珠寶首飾。
232	Jewellery Designer (CAD)  珠寶設計員 (電腦輔助設計)	Originates jewellery design by taking into account materials and manufacture processes, cost and customers' requirements; and prepares basic artwork and working drawing of the products using the computer-aided design software.  利用電腦輔助設計軟件繪畫產品的基本美術稿及工作圖，因應材料、製造程序、成本及顧客要求設計珠寶首飾。
233	Foreman/Supervisor  工場主管	Supervises and co-ordinates activities of workers in fabricating, assembling and repairing jewellery, precious stones and metal products by virtue of his skill and experience.  運用本身的技能及經驗，監督、安排工人從事珠寶首飾物品的生產及修改等工作。

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
TECHNICIAN / SUPERVISORY LEVEL (Continued)		技術員／督導級（續）
234	Co-ordinator  協理員／聯絡員	Plans, schedules and controls workload making optimum use of all equipment, material and labour throughout the factory; and coordinates with clients. Carries out process planning for jobs and estimates the time requirement for operations as to ensure that production schedules are met.  充分及有效利用工廠所有設備、材料及人力，以計劃及控制工作量，並制定工作程序表，與客戶保持聯繫。估計每項職務的操作程序，計劃每個程序所需時間，並確保生產工作依期完成。
235	Quality Controller  品質管制員	Ensures that materials of the correct quality are used; controls the quality standard of the finished products by measurement and laboratory test; and supervises final inspection.  確保用料正確；利用量度及測試方法管制珠寶首飾產品的品質，並督導最後階段的檢查工作。
236	Merchandiser  營銷採購員	Assists in the negotiation with buyers/clients/customers and preparation of quotations, and handles their production orders and samples. Follows up buyers orders including liaising with other departments on the quality requirements of buyers and tracing the progress of production to ensure prompt shipment.  協助與客戶商談及報價的工作，處理生產訂單及樣辦（首辦）的製作。跟進客戶訂單，包括與其他部門聯絡有關客戶對品質的要求，及跟查生產進度，以確保客戶訂單能依期付運。
237	Jewellery Sales/ Marketing Executive  珠寶營銷／市務／市場主任	Assists the Jewellery Sales/Marketing Manager in soliciting business, preparing marketing plans and other sales and promotional activities;  Monitors jewellery market situations and reflects customer changing requirements to management.  協助珠寶市務經理招攬生意，製訂市務推廣、營銷計劃及活動；監察市場動態，及時反映客戶需求的變化。
238	Diamond Grader  鑽石評級員	Evaluate the quality of diamonds and gem stones used in jewellery or industrial tools.  為珠寶首飾或工業用具上的鑽石及寶石進行品質評級。
CRAFTSMAN LEVEL		技工級
331	Goldsmith (K-gold)  打金工（西金）	Makes and repairs all kinds of K-gold (including platinum or other precious metals) jewellery using hand or power tools.  利用手動或電動工具，製造及修改各種西金（包括白金或其他貴重金屬）珠寶首飾。



Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
CRAFTSMAN LEVEL (Continued)      技工級 (續)		
332	Goldsmith (Fine-gold)  打金工 (足金)	Makes and repairs all kinds of fine-gold jewellery using hand or power tools.  利用手動或電動工具，製造及修改各種足金首飾。
333	Precious Stone Setter  首飾鑲嵌工	Sets precious and semi-precious stones in jewellery mountings in accordance with specifications.  按規格在首飾胚上鑲嵌寶石或半寶石。
334	Jewellery Pattern Maker (Metal)  首飾鑄造金屬模型工	Makes metal patterns or models to specifications for making moulds in the process of jewellery casting.  製造符合規格的金屬模型以供製模之用。
335	Jewellery Pattern Maker (Wax)  首飾鑄造蠟模型工	Makes wax patterns or models to specifications for making moulds in the process of jewellery casting.  製造符合規格的蠟模型以供製模之用。
336	Mould Maker/Caster  製模鑄造工	Makes all kinds of moulds and to cast precious metal ornaments.  製造各種鑄模以鑄造貴重金屬首飾。
337	Jewellery Plater  首飾電鍍工	Carries out gold plating, silver plating, rhodium plating, metal colouring and sand blasting.  進行金鍍、銀鍍、銻鍍、金屬著色及噴沙等工作。
338	Jewellery Engraver/ Milligrainer  珠寶雕刻工	Engraves designs or lettering onto the surfaces of jewellery by hand and power tools. Makes milligrains along the edges of bezels, or around stone settings.  利用手動或電動工具，在珠寶首飾的表面刻上設計圖案或字體；在鑲口及首飾鑲件上轆上珠邊。
339	Gemstone Cutter/Polisher  寶石割切／打磨工	Cuts, shapes, carves and polishes gemstones by hand tools or by machine in accordance with specifications.  按規格利用手動工具或機器割切、雕刻及打磨寶石。
340	Diamond Cutter/Polisher  鑽石割切／打磨工	Cuts, shapes, carves and polishes diamonds by hand tools or by machine in accordance with specifications.  按規格利用手動工具或機器割切、雕刻及打磨鑽石。
341	Rapid Prototyping (RP) Craftsman  快速原型製造技工	Uses rapid prototyping (RP) equipment for the prototype output of precious metal ornaments and parts from CAD file.  使用快速原型製造設備製造貴重金屬首飾及配件原型。

Job Code 職稱編號	Job Title 職稱	Job Description 工作說明
<b>OPERATIVE LEVEL</b> 操作工級		
431	Pearl Dyer 珍珠染色工	Dyes pearls in various colours. 將珍珠染上各種顏色。
432	Beads and Pearls Stringing Workers 穿珠工	Strings gemstones/precious metals beads and natural/cultured pearls on wire or thread for jewellery products such as necklaces, bracelets, hair ornaments, etc. 用金屬線或其他絲線，把寶石／貴重金屬珠及天然珍珠／養珠串成項鍊、手鐲、髮飾等首飾製品。
433	Wax Pattern Moulder/Maker 蠟樣工	Makes wax pattern by injecting molten wax into the cavity of the rubber mould and mounts the pattern onto the sprue. 將熔蠟注入橡膠模內製造蠟樣，並將蠟樣焊在水口棍上（即種樹）。
434	Jewellery Polisher 首飾打磨工	Polishes all kinds of K-gold, find-gold and platinum jewellery by hand or polishing machine. 利用手動工具或研磨機器拋光各種珠寶首飾。
435	Stone Selector/Sorter 配石工	Selects gemstones including jade and diamond, and to classify them into groups according to their size, weight and colour. 挑選寶石，包括玉石及鑽石，並按其形狀大小、重量及顏色分類，以配合各種首飾。
436	Colouring Worker 著色工	Colours metal parts of jewellery and related articles for electro-plating. 在珠寶物品的金屬部分著色，以便進行分色電鍍。
437	Gold Refiner 煉金工	Recovers precious metals such as gold, platinum, rhodium and palladium from saw/file dust, scrap polishing wheels, chemical waste disposal, etc., using furnace, retort, and laboratory equipment. 用熔煉、蒸餾方法及實驗室設備，回收鋸／銼屑、拋光輪碎片、化學廢料等所含的貴重金屬，如金、白金、銻、鈮等。
438	Electroforming Operator 電鑄操作工	Ranges and immerses liquid silver painted jewellery/ornamental article models into electrolyte and carries out fine-gold/K-gold electroforming. 將塗上銀溶液的珠寶／飾物模型排列，浸在電解液內進行足金／西金電鑄。