

2008 MANPOWER SURVEY REPORT

AUTOMOBILE INDUSTRY

汽車業

2008 年人力調查報告

AUTOMOBILE TRAINING BOARD

VOCATIONAL TRAINING COUNCIL

職業訓練局

汽車業訓練委員會

CONTENTS

	<u>Paragraphs</u>	<u>Page</u>
<u>Executive Summary</u>	1 – 14	1 – 3
 <u>Section</u>		
I	INTRODUCTION	1.1 – 1.9
II	SUMMARY OF SURVEY FINDINGS	2.1 – 2.9
III	CONCLUSIONS	3.1 – 3.14
IV	RECOMMENDATIONS	4.1 – 4.20
 <u>Appendices</u>		 41 – 74

目 錄

	<u>段 數</u>	<u>頁 數</u>
<u>報告摘要</u>	1 – 14	21 – 23
<u>章 數</u>		
第一章 緒論	1.1 – 1.9	25 – 26
第二章 調查結果摘要	2.1 – 2.9	27 – 30
第三章 結論	3.1 – 3.14	31 – 33
第四章 建議	4.1 – 4.20	35 – 40
<u>附錄</u>		41 – 74

LIST OF APPENDICES

<u>Appendix</u>	<u>Title</u>	<u>Page</u>
1	Membership	41
2	Terms of Reference	43
3	Survey Document - Questionnaire and Explanatory Note on the Questionnaire	47 – 53
4	Job Descriptions for Principal Jobs in the Automobile Industry	55 – 58
5	Manpower Statistics in the Industry	59 – 60
6	Preferred Education of Employees	61
7	Preferred Training Mode of Employees	63
8	Preferred Training Period of Employees	65
9	Distribution of Employees by Total Monthly Income Range	67 – 68
10	Vehicle Population and Manpower in the Automobile Industry	69
11	Manpower Forecasting Method	71
12	Recommended Annual Training Requirement for Workers from 2009 to 2012	73 – 74

附錄表

<u>附 錄</u>	<u>標 題</u>	<u>頁 數</u>
1	委員名單	42
2	職權範圍	44 – 45
3	調查文件 — 調查表及調查表附註	47 – 53
4	汽車業主要職務的工作說明	55 – 58
5	汽車業內的僱員統計數字	59 – 60
6	僱員宜有的教育程度	61
7	僱員宜有的訓練方式	63
8	僱員宜有的訓練期	65
9	根據每月總收入幅度劃分的僱員人數分布情況	67 – 68
10	車輛數目及汽車業人力數字	69
11	人力預測法	72
12	2009 至 2012 年間平均每年建議培訓的 僱員人數	73 – 74

Executive Summary

Report on the 2008 Manpower Survey of the Automobile Industry

Objective

The survey was conducted between March and May of 2008 to collect the latest manpower information from the automobile industry with a view to assessing the industry's future manpower requirements.

Coverage

2. The number of establishments surveyed was 435 from some 2 211 establishments. The data collected were statistically scaled up to give the overall manpower picture of the whole automobile industry.

Survey Findings

3. The survey revealed that in May 2008, the industry employed a total of 11 750 workers in its 18 principal jobs. The most populous job was vehicle mechanic which had 6 150 workers, equivalent to 52.3% of the total manpower.

4. Employers also reported a total of 423 vacancies, representing 3.6% of the total manpower.

5. There were 443 trainees receiving various forms of training, among them 373 were being trained for craft level jobs, amounting to 4.1% of the working population at that skill level.

6. Employers forecasted that by May 2009, the manpower requirement would increase from 12 173 (i.e. existing number of employees plus vacancies) to 12 201.

7. The distribution of the workforce by job level is summarized as below. Manpower statistics relating to the various principal jobs are given in the Appendices of the Report.

<u>Job Level</u>	<u>Number of Workers</u>	<u>Percentage of Total Number of Workers</u>
Technologist	246	2.1%
Technician	1 832	15.6%
Craftsman	9 147	77.8%
Unskilled	525	4.5%
Total	11 750	100%

Manpower Changes Since 2006

8. Comparing with the findings of the previous survey carried out in April 2006, the manpower had decreased from 12 099 to 11 750, at an average annual rate of 1.5%. The number of technicians and craftsmen had decreased from 1 874 to 1 832 and from 9 383 to 9 147, representing an average annual declining rate of 1.1% and 1.3% respectively. On the other hand, the number of technologists had increased from 242 to 246, representing an average annual growth rate of 0.8%.

9. It is worth noting that there were 1 311 workers recorded under the craft level job title 'Foreman' in the 1998 survey. As this job title was deleted since the survey in 2000, the Training Board estimated that some of these workers who carried out supervisory duties were categorized under the 'Service Supervisor' or other job titles at technician level in the 2000, 2002, 2004, 2006 and 2008 surveys.

Future Manpower Requirements

10. The economic downturn which emerged since the second half of 2008 has substantially affected the sales of new vehicles in subsequent months. Anyway, according to the figures released by the Transport Department of the HKSAR Government, the total number of registered vehicles remained quite steady during this period. The Training Board is of the view that in the current economic climate, people tend to keep their vehicles longer before replacing with new ones. Since old vehicles generally require more maintenance, the manpower demand of the automobile industry should at least be able to maintain the current level.

11. The Training Board is optimistic about the future of the automobile industry. The Training Board considers the followings are major factors affecting the changes in the manpower of the automobile industry:

- (a) With the tightened measures in over-speed detection, the introduction of random breath test and heavier penalties for offences of dangerous driving and drink driving, vehicle drivers should become more careful on roads. This, together with the improved design and quality of vehicles, would reduce the demand for maintenance and repairs.
- (b) With the opening of the Hong Kong-Shenzhen Western Corridor in 2007 and the construction of the Hong Kong-Zhuhai-Macao Bridge expected to start in late 2009, it is envisaged that vehicle traffic between Hong Kong and Mainland will grow in the coming few years. The rise in vehicle usage should lead to more maintenance needs which will more or less compensate for the drop mentioned in the previous paragraph.
- (c) The adoption of new technologies and equipment in the maintenance and repair of vehicles resulted in less demand for traditional servicing works, but more on the use of sophisticated equipment for maintenance and diagnosis

which demands higher skill level workers such as technicians.

- (d) With the enforcement of the tightened requirement on environmental issues, sophisticated models of vehicles utilizing the latest technologies would gain popularity in Hong Kong. There would be strong demand for in-service workers to acquire such new technologies to cope with the development trend of the industry.
- (e) The implementation of the Voluntary Registration Scheme for Vehicle Mechanics in early 2007 by the Hong Kong SAR Government has aroused employers' attention for qualified craftsmen. This might attract further interest from employers to recruit more apprentices in their operations.

12. The Training Board considers that the overall demand of maintenance and repair services will likely remain steady in the near future. The Training Board also considers that the demand of higher quality workers at technician level will be growing in order to cope with the adoption of new technologies and sophisticated equipment for maintenance and diagnosis of modern vehicles. To cope with the introduction of the Voluntary Registration Scheme for Vehicle Mechanics starting from the year 2007, the Training Board also envisages that the demand for qualified craftsmen will become strong in the coming years. The Training Board recommends the industry to train up the following number of additional workers in the next four years:

<u>Skill Level</u>	<u>No. of Additional Workers</u>
Technologist	6 - 8
Technician	59 - 73
Craftsman	368 - 450

13. To cope with the developing needs of the automobile industry, it is vital for in-service workers of the industry to embark on a life-long learning philosophy during their working life. It is also of equal importance that employers recognise such a need and support their employees to undertake/participate in up-grading courses, training programmes, workshops and seminars for the acquisition of advanced technologies.

14. A wide range of full-time, part-time day-release and part-time evening training courses relevant to the automobile industry are being offered by training institutions including the Hong Kong Institute of Vocational Education and the Automobile Industry Training Centre of the Vocational Training Council. The Training Board encourages employers to make full use of the training facilities in these institutions and sponsor their employees to attend relevant courses for upgrading their technical knowledge and skills.

SECTION I

INTRODUCTION

The Automobile Training Board

1.1 The Automobile Training Board of the Vocational Training Council is required by its terms of reference to determine the manpower and training needs of the automobile industry and to make recommendations to the Council for the development of training facilities to meet such needs. The Automobile Training Board comprises members nominated by major trade associations, trade unions, professional bodies, education/training institutions and government departments. The membership and terms of reference of the Automobile Training Board are given respectively in Appendices 1 and 2.

The Manpower Survey

1.2 In fulfilling its terms of reference, the Training Board conducted a manpower survey from 3rd March 2008 to 2nd May 2008 to collect the latest manpower information with a view to determining the current and future manpower requirements of the industry and making recommendations to the industry and the Council to meet these requirements. The survey was carried out with the assistance of the Census and Statistics Department.

Scope of the Survey

1.3 The survey covered technical persons employed in establishments engaged in the manufacture, servicing and repair of motor vehicles. In addition, the survey also covered the technical personnel employed by members of the relevant trade associations, companies maintaining a fleet of vehicles, government departments and educational institutions.

1.4 According to the Census and Statistics Department and other sources, some 2 211 establishments as mentioned in paragraph 1.3 above were included in the survey scope. Owing to resources constraints, 435 establishments were selected for the survey, comprising:

- (i) 370 establishments recorded by the Census and Statistics Department, (selected by a stratified random sampling method):
 - (a) Manufacture of motor vehicles (HSIC 3884)
 - (b) Servicing and repairing of motor vehicles and motor-cycles (HSIC 9513)

Note: HSIC denotes Hong Kong Standard Industrial Classification

- (ii) 65 establishments not recorded by the Census and Statistics Department (excluded from HSIC 3884 and HSIC 9513):
 - (a) establishments recorded by the Office of the Director of Apprenticeship of the Vocational Training Council,
 - (b) companies maintaining a fleet of vehicles and having their own repairing facilities, and
 - (c) other establishments including garages, government departments and educational institutions.

Method of Survey

1.5 Two weeks before the survey, questionnaire together with an explanatory note (Appendix 3) and a list of job descriptions of the principal jobs in the industry (Appendix 4) were sent to the selected establishments. Prior to the fieldwork, the survey was publicized through the media and trade associations.

1.6 During the survey period from 3rd March 2008 to 2nd May 2008, officers of the Census and Statistics Department called at the establishments to collect the completed questionnaires and, if required, answered queries and assisted in the completion of questionnaires.

1.7 All returned questionnaires were scrutinized and, where necessary, checked with the respondents. These questionnaires were then processed by the Census and Statistics Department to produce the overall manpower statistics of the automobile industry at the time of survey.

Response to the Survey

1.8 Of these 435 establishments selected for the survey, 349 had supplied the required information. A total of 9 establishments were found to be either closed or ceased in operation. Another 17 establishments could not be contacted due to the change in address. The remaining 60 establishments were no longer engaged in the automobile trade.

The Report

1.9 This report presents the findings of the survey, the Training Board's forecast of the manpower needs of the automobile industry and its recommendations on measures to meet these needs. In the report, the terms 'manpower', 'employees' and 'workers' refer to the total number of technical persons (excluding trainees and apprentices) employed in the 18 principal jobs of the automobile industry; the term 'trainees' means all persons receiving any form of training including those under a contract of apprenticeship. The list of 18 principal jobs adopted in the survey and their job descriptions are shown in Appendix 4.

SECTION II

SUMMARY OF SURVEY FINDINGS

Number of Workers Employed (Excluding Trainees)

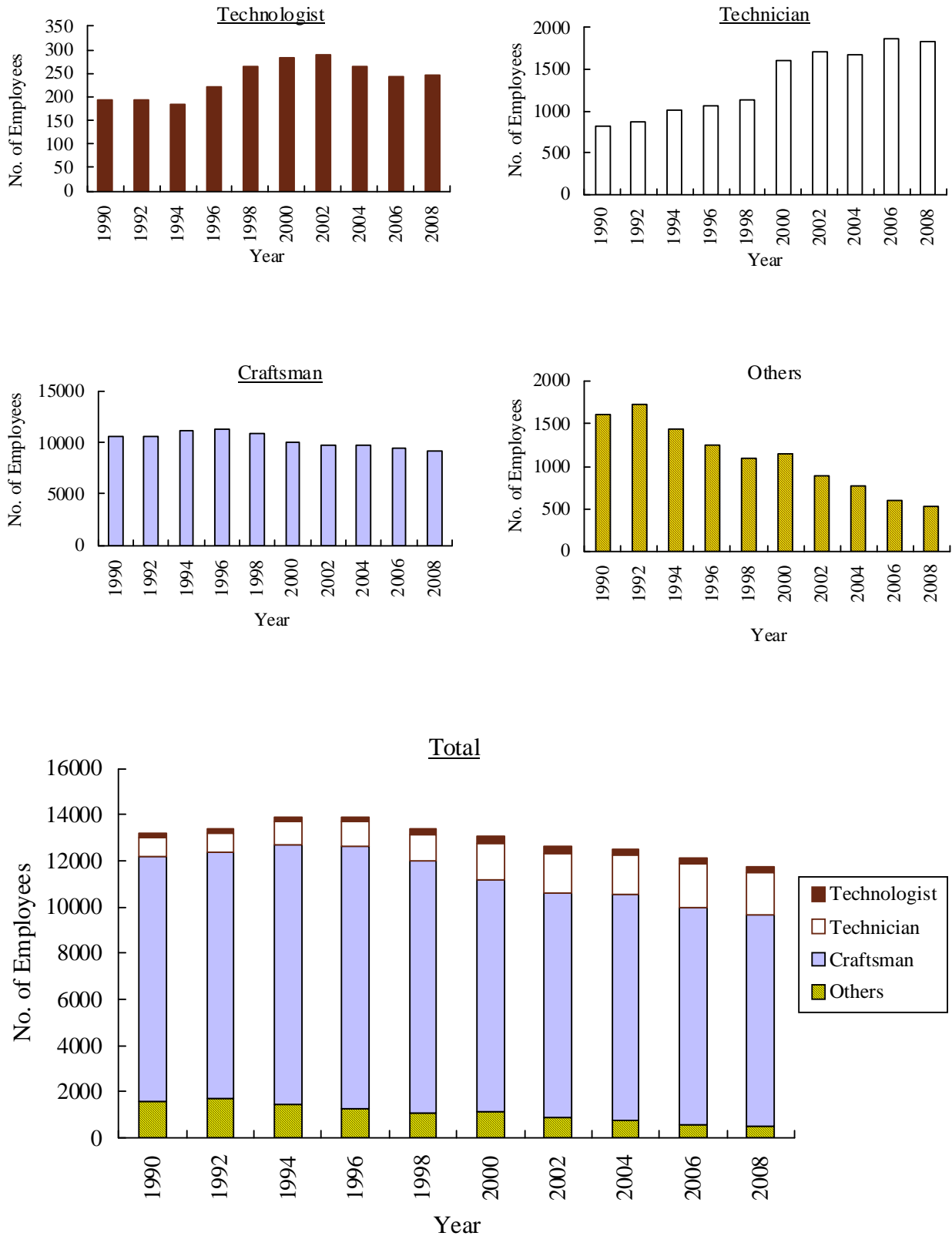
2.1 The survey revealed that in May 2008, 11 750 workers were engaged in the 18 principal jobs in the automobile industry. The distribution of workers by skill level is as follows:

<u>Skill Level</u>	<u>Number of Workers</u>	<u>Percentage of Total Manpower</u>
Technologist	246	2.1%
Technician	1 832	15.6%
Craftsman	9 147	77.8%
Unskilled	525	4.5%
	—————	—————
	11 750	100%

2.2 The occupations with the most workers were vehicle mechanic with 6 150 employees followed by vehicle body repairer with 958, representing 52.3% and 8.2% of the total manpower respectively.

2.3 Figure 1 shows the comparative distribution of employees by skill level based on the 10 consecutive surveys conducted by the Training Board.

Figure 1: Comparative Distribution of Employees by Skill Level in the 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, 2006 and 2008 Manpower Surveys



Number of Trainees

2.4 At the time of the survey, a total of 443 trainees were employed in the industry. The distribution by skill level is as follows:

<u>Skill Level</u>	<u>Number of Trainees</u>	<u>Percentage of Workers at the Same Skill Level</u>
Technologist	2	0.8%
Technician	68	3.7%
Craftsman	373	4.1%

2.5 The distribution of trainees by occupation is given at Appendix 5. The job with the most trainees was vehicle mechanic, numbering 241.

Number of Vacancies

2.6 At the time of the survey, employers reported a total of 423 vacancies, representing 3.6% of the total employment in the industry. A breakdown of these vacancies by skill level is as follows:

<u>Skill Level</u>	<u>Number of Vacancies</u>	<u>Percentage of Total Vacancies</u>	<u>Percentage of Workers at the Same Skill Level</u>
Technologist	3	0.7%	1.2%
Technician	8	1.9%	0.4%
Craftsman	377	89.1%	4.1%
Unskilled	35	8.3%	6.7%
	—————	—————	
	423	100.0%	

Forecast Manpower Requirement by May 2009 (Excluding Trainees)

2.7 Employers estimated that by May 2009, the manpower requirement would grow from the existing 12 173 (11 750 employees plus 423 vacancies) to 12 201 workers, representing an increase of 0.2%. The following table presents the manpower requirement by May 2009 by skill level. Further details are given at Appendix 5.

<u>Skill Level</u>	<u>Number Employed in May 2008</u>	<u>Total Manpower* Requirement in May 2008</u>	<u>Employers' Forecast Manpower Requirement by May 2009</u>	<u>Employers' Estimated Net Growth in Manpower</u>
Technologist	246	249	239	-10 (-4.0%)
Technician	1 832	1 840	1 836	-4 (-0.2%)
Craftsman	9 147	9 524	9 573	49 (0.5%)
Unskilled	525	560	553	-7 (-1.3%)
	<hr/>	<hr/>	<hr/>	<hr/>
	11 750	12 173	12 201	28 (0.2%)

Note *: vacancies are included.

Preferred Education, Mode and Period of Training of Employees

2.8 Employers' views on the educational standard, mode of training and period of training they preferred their workers to have, are tabulated at Appendices 6, 7 and 8 respectively (the data on tables at Appendices 6, 7, 8 and 9 are statistically rounded up).

Distribution of Employees by Monthly Income Range

2.9 The distribution of employees by total monthly income range is tabulated at Appendix 9.

SECTION III

CONCLUSIONS

Manpower Changes

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

3.2 The workforce of the industry in May 2008 was 11 750. Compared with 12 099 in the 2006 survey, the workforce had decreased by 349 persons, i.e. at an average annual rate of 1.5%. The number of trainees had dropped from 588 to 443 in the same period.

3.3 In terms of skill level, the number of technicians and craftsmen had decreased from 1 874 to 1 832 and from 9 383 to 9 147, representing an average annual declining rate of 1.1% and 1.3% respectively over the past two years. On the other hand, the number of technologists had increased from 242 to 246, representing an average annual growth rate of 0.8% over the two years. It is worth noting that there were 1 311 workers recorded under the craftsman level job title 'Foreman' in the 1998 survey. As this job title was deleted in the 2000, 2002, 2004, 2006 and 2008 surveys, the Training Board estimated that some 260 craftsman level workers who carried out supervisory duties were reported in the above surveys under the 'Service Supervisor' and other job titles at technician level.

Business Outlook

3.4 Between 1986 and 1994, the vehicle population in Hong Kong grew by 5% to 8% annually. Starting from 1995, the growth has slowed down to around 2% or lower per year. In recent years, the total number of registered vehicles was quite steady. Anyway, from 2004 to 2008, growths of 4 000, 6 000, 8 000, 13 500 and 13 000 registered vehicles were still observed. In November 2008, the total number of registered vehicles in Hong Kong reached a record of 636 176. A graph showing the historical trend of vehicle population and workforce is at Appendix 10.

3.5 The economic downturn which emerged since the second half of 2008 has substantially affected the sales of new vehicles in subsequent months. Anyway, according to the figures released by the Transport Department of the HKSAR Government, the total number of registered vehicles remained quite steady during this period. The Training Board is of the view that in the current economic climate, people tend to keep their vehicles longer, before replacing with new ones. Since old vehicles generally require more maintenance, the manpower demand of the automobile industry should at least be able to maintain the current level.

3.6 The Voluntary Registration Scheme for Vehicle Mechanics was launched by the Electrical and Mechanical Services Department of the Hong Kong SAR Government in January 2007 for in-service workers of the automobile industry. Workers including vehicle mechanics, vehicle electricians, vehicle body repairers, builders and vehicle painters in possession of the necessary qualification and/or experience could be registered under the relevant categories of the scheme on voluntary basis. The scheme aims to facilitate the public to identify registered vehicle mechanics easily and will uplift the professional image of the vehicle maintenance trade. As in March of 2009, about 9 700 applications have been received and over 9 200 applicants have successfully registered in the scheme.

3.7 The Training Board is optimistic about the future of the automobile industry. The Training Board considers the followings are major factors affecting the changes in the manpower of the automobile industry:

- (a) With the tightened measures in over-speed detection, the introduction of random breath test and heavier penalties for offences of dangerous driving and drink driving, vehicle drivers should become more careful on roads. This, together with the improved design and quality of vehicles, would reduce the demand for maintenance and repairs.
- (b) With the opening of the Hong Kong-Shenzhen Western Corridor in 2007 and the construction of the Hong Kong-Zhuhai-Macao Bridge expected to start in late 2009, it is envisaged that vehicle traffic between Hong Kong and Mainland will grow in the coming few years. The rise in vehicle usage should lead to more maintenance needs which will more or less compensate for the drop mentioned in the previous paragraph.
- (c) The adoption of new technologies and equipment in the maintenance and repair of vehicles resulted in less demand for traditional servicing works, but more on the use of sophisticated equipment for maintenance and diagnosis which demands higher skill level workers such as technicians.
- (d) With the enforcement of the tightened requirement on environmental issues, sophisticated models of vehicles utilizing the latest technologies would gain popularity in Hong Kong. There would be strong demand for in-service workers to acquire such new technologies to cope with the development trend of the industry.
- (e) The implementation of the Voluntary Registration Scheme for Vehicle Mechanics in early 2007 by the Hong Kong SAR Government has aroused employers' attention for qualified craftsmen. This might attract further interest from employers to recruit more apprentices in their operations.

Future Manpower Demand

3.8 The employers estimated that in the 12 months following the survey, the manpower requirement would grow from 12 173 (existing number of employees plus vacancies) to 12 201, i.e. an increase of 0.2%, indicating that the demand for workforce in the industry will likely stabilize at the present level.

3.9 Taking various factors into consideration and using the Adaptive Filtering Method (AFM) described in Appendix 11, the Training Board has assessed the industry's annual requirement for technologists, technicians, and craftsmen for the years from 2009 to 2012. The value of the parameter 'A' was chosen as 0.7 for all three job levels so as to follow the medium term trends.

3.10 The Training Board also considers that in the past two years, there had been no substantial change affecting workers retiring or leaving the industry. Accordingly the Training Board adopts the following wastage rates in the manpower forecasting, i.e. 3%, 4% and 5% for manpower at the technologist, technician and craftsman levels respectively which the industry should train to cover workers retiring or leaving the industry for whatever reasons.

3.11 From the above estimates, the Training Board has projected the industry's average annual training requirement at each level for the coming 4 years which is given as follows:

**Average annual training
requirement
for workers from 2009 to 2012**

<u>Job level</u>	<u>Annual training requirement</u>
Technologist	6 – 8
Technician	59 – 73
Craftsman	368 – 450

A breakdown of these figures into various principal jobs is given at Appendix 12.

3.12 At the technologist level, the average training demand is about 7 each year. This figure will cover the natural wastage.

3.13 At the technician level, the forecast annual training demand of technicians is about 66. This figure caters for continual average growth of some 3 workers per year.

3.14 At the craftsman level, the forecast annual training demand would be about 409. This figure will cover the natural wastage.

SECTION IV

RECOMMENDATIONS

4.1 The Training Board anticipates a persistent demand for technical manpower particularly at the higher skill levels.

4.2 To meet the forecast manpower requirement the industry should embark on a manpower training programme of a scale set out in paragraph 3.11.

4.3 For manpower planning at company level, employers are requested to note that the scale when expressed in terms of existing manpower, represents an average annual intake of trainees of about 2.8%, 3.6% and 4.5% of their respective workforce at the technologist, the technician and the craftsman level.

4.4 The Training Board is aware of the operational difficulties experienced by employers in recent years. However, unless employers are willing and able to train up a sufficient number of technical people to meet their manpower needs, the development of the automobile industry will be hindered. The Training Board therefore urges employers to maintain their efforts to recruit young people to join the industry.

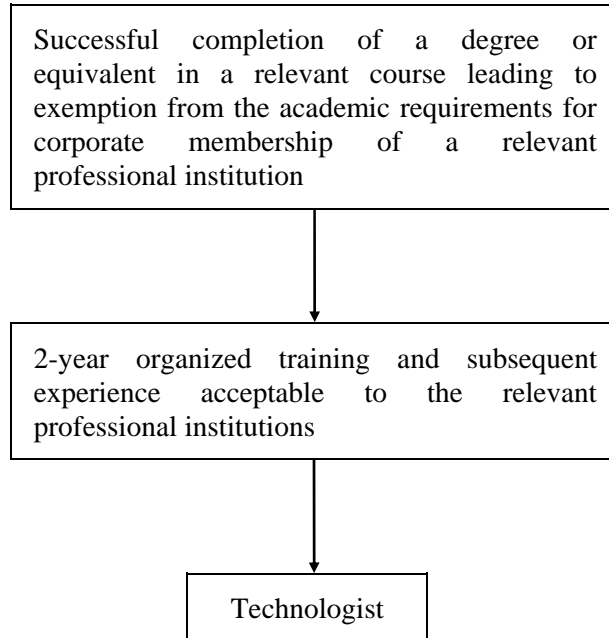
Training at Technologist Level

4.5 Technologists in the automobile industry are mostly engineers and service managers who have reached a level of professional competence in the discipline of mechanical or road transport engineering recognized by the appropriate professional institutions.

4.6 Technologists should be competent in analyzing and solving a wide range of technical problems. They should also be able to assume personal responsibility for the development and application of engineering principles, exercise original thinking and judgement, apply the latest techniques, and manage all commercial and technical activities.

4.7 The recommended route for training technologists is as follows:

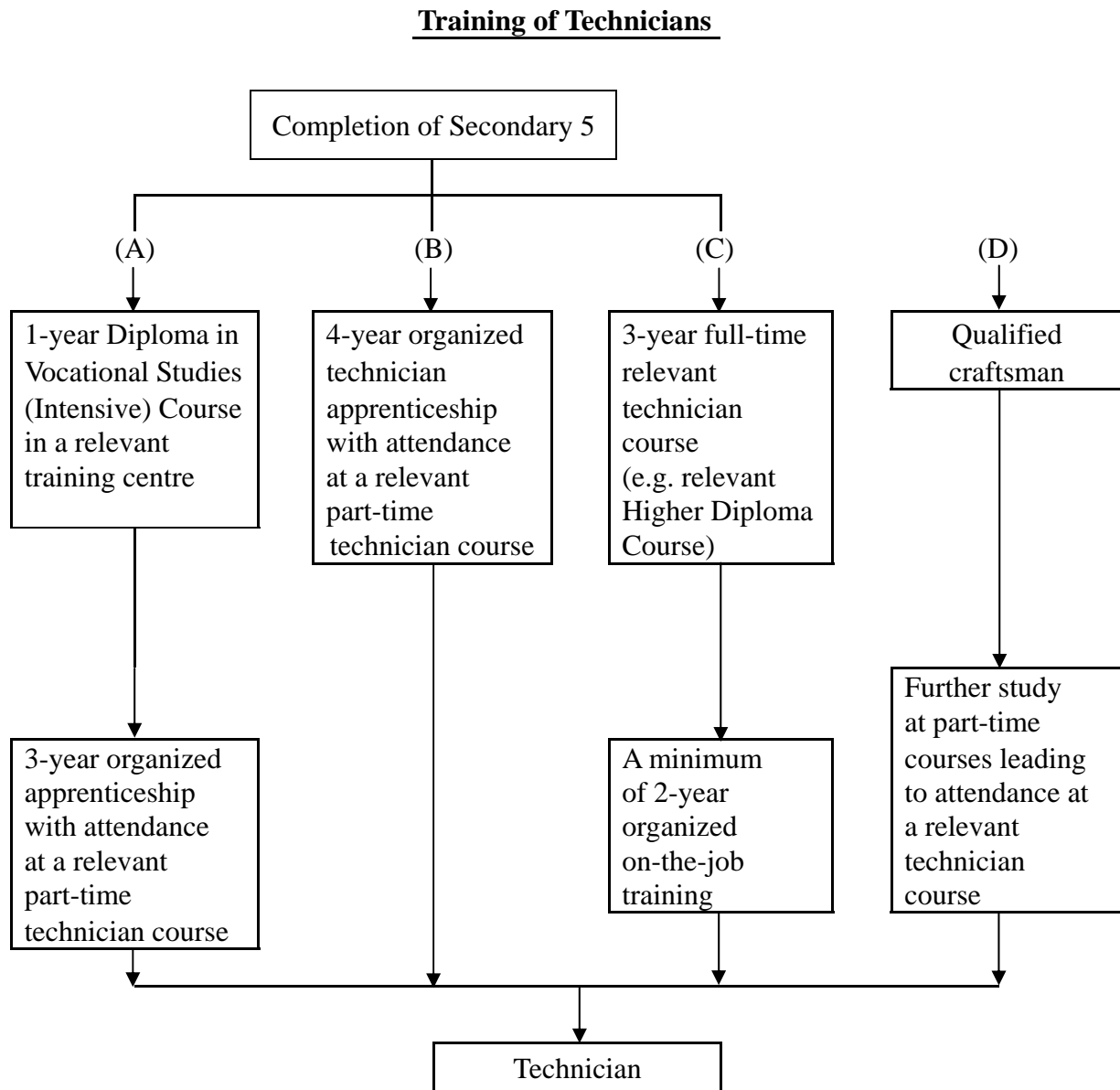
Training of Technologists



Training at Technician Level

4.8 Technicians are persons whose education, practical training and experience enable them to apply proven techniques and procedures and to carry a measure of technical responsibility, normally under the supervision of a technologist.

4.9 The recommended routes for training technicians are shown below:



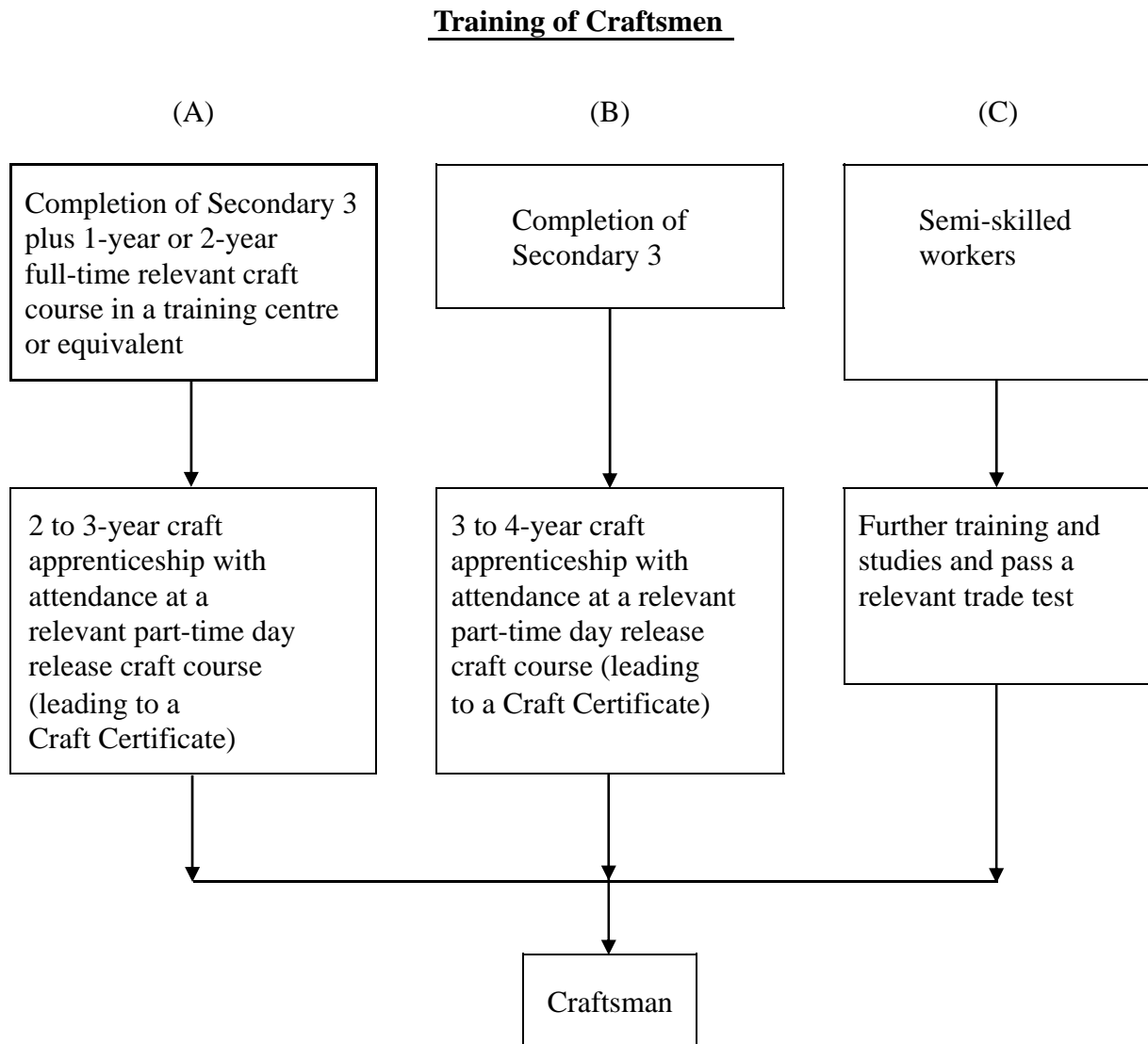
4.10 Most employers prefer their technicians to acquire Higher Diploma qualifications as a progression in their career.

4.11 Route (D), although a useful avenue for the determined craftsmen to become technicians, should not be relied upon as a regular source of technicians.

Training at Craftsman Level

4.12 Craftsmen require both a high degree of practical skills and sound technical knowledge if they are to venture into new skills resulting from technological advancement. He needs to have a general education of at least completion of Secondary 3.

4.13 The recommended routes for training craftsmen are as follows:



4.14 Of the three routes the Training Board recommends Route (A) because the apprentices will have already had some basic training prior to commencing apprenticeship and are therefore capable of doing some useful productive work right from the start of their apprenticeship.

Technical Education and Training Institutions

4.15 A wide range of full-time, part-time day-release and part-time evening training courses relevant to the automobile industry are being offered by training institutions including the Hong Kong Institute of Vocational Education and the Automobile Industry Training Centre of the Vocational Training Council. Employers are encouraged to make full use of the training facilities in these institutions and sponsor their employees to attend relevant courses for upgrading their technical knowledge and skills.

4.16 To cope with the developing needs of the automobile industry, it is vital for in-service workers of the industry to embark on a life-long learning philosophy during their working life. It is also of equal importance that employers recognise such a need and support their employees to undertake/participate in up-grading courses, training programmes, workshops and seminars for the acquisition of advanced technologies.

Development and Training Centre of the Vocational Training Council

4.17 The Training Board has been charged with the responsibility to provide advice on matters relating to the development of training services of the Department of Automotive Engineering of the Hong Kong Institute of Vocational Education, and the Automobile Industry Training Centre. The following full-time long courses are offered by the Department of Automotive Engineering and the Automobile Industry Training Centre for generating new-entrants for the industry:

Full-time Long Courses offered by the Department of Automotive Engineering of the Hong Kong Institute of Vocational Education

	<u>Course Title</u>	<u>Level</u>	<u>Duration</u>
(a)	Higher Diploma in Automotive Engineering	Technician	3 year
(b)	Higher Diploma in Automotive Technology & Systems Design	Technician	3 years
(c)	Higher Diploma in Automotive Business and Management	Technician	3-4 years*

* (The duration of study varies according to the entrance qualification of trainees.)

Full-time Long Courses offered by the Automobile Industry Training Centre

	<u>Course Title</u>	<u>Level</u>	<u>Duration</u>
(a)	Diploma in Vocational Education Programme - Automotive Technology Stream #	Craftsman / Technician	Credit-based, 1 to 3 years

(Upon satisfying the credit requirements for a specific award, trainees will be awarded with the Basic Craft Certificate (BCC), Technician Foundation Certificate (TFC) or Diploma in Vocational Education (DVE) award for employment or further studies)

4.18 Apart from the above full-time courses, the Department of Automotive Engineering of the Hong Kong Institute of Vocational Education, and the Automobile Industry Training Centre also offer a wide range of full-time short, part-time day-release and part-time-evening courses for in-service workers of the industry with the purpose of developing the local workforce to cope with the development needs of the automobile industry in Hong Kong. The Training Board strongly urges employers to give full support to

the training services offered by Department of Automotive Engineering of the Hong Kong Institute of Vocational Education and the Automobile Industry Training Centre by recruiting their graduates and sending their in-service workers to attend the relevant up-grading courses for enhancing their technical competence in their work.

Related Training Services of the Vocational Training Council

4.19 The Vocational Training Council offers services to help employers organize their training schemes including:

- (i) The statutory **Apprenticeship Scheme**, through which technicians and craftsmen are effectively trained to meet the needs of the industry.
- (ii) The **Engineering Graduate Training Scheme**, which helps engineering students and graduates complete their professional training as engineers.
- (iii) The voluntary **Trade Testing and Certification Scheme**, which is for the purpose of ascertaining and recognizing the standards of skilled workers. Trade tests on Vehicle Mechanics, Vehicle Electricians, Vehicle Body Repairers and Vehicle Painters are also offered to the industry in recent years.
- (iv) The **New Technology Training Scheme** provides financial assistance to local companies up to a maximum of 50% of the training cost for their employees to be trained in new technologies. The Scheme covers various types of training mode including overseas training courses or working attachment; local training courses; and tailor-made local training courses/working attachments for individual companies.

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

汽車業 2008 年人力調查

報告摘要

目的

是次調查於 2008 年 3 月至 5 月期間進行，旨在蒐集汽車業最新的人力資料，以評估未來的人力需求。

範圍

2. 本會從約 2 211 間業內機構中，抽取了 435 間進行調查；所得資料其後用統計方法倍大，以反映汽車業整體的人力情況。

調查結果

3. 調查顯示，2008 年 5 月，汽車業 18 個主要職務共有僱員 11 750 名。最多人從事的職務為汽車機械工，共有 6 150 名僱員，佔總人力的 52.3%。

4. 僱主亦報稱業內共有 423 個空缺，佔僱員總數 3.6%。

5. 業內共有 443 名受訓者接受各種形式的訓練，其中 373 名受訓擔任技工級工作，佔同級僱員總數 4.1%。

6. 僱主預測，至 2009 年 5 月時，本業所需的僱員將由 12 173 人（現有僱員人數加空缺數目）增至 12 201 人。

7. 各技能等級的人力統計數字分布如下；有關各主要職務的人力統計數字則載於附錄。

<u>技能等級</u>	<u>僱員人數</u>	<u>佔總人力百分率</u>
技師	246	2.1%
技術員	1 832	15.6%
技工	9 147	77.8%
非技術工人	525	4.5%
總計	11 750	100%

2006 年後的人力轉變情況

8. 本業的僱員總數由 2006 年 4 月調查時的 12 099 人，減至是次調查時的 11 750 人，每年平均跌幅為 1.5%。技術員由 1 874 名減至 1 832 名，每年平均減幅為 1.1%，技工則由 9 383 名減至 9 147 名，每年平均減幅為 1.3%。至於技師，則由 242 名增至 246 名，每年平均增幅為 0.8%。

9. 值得注意的是，98 年調查時，技工級「管工」職務下共有 1 311 人。由於自 2000 年起的調查已刪除上述職務，故這類負責督導工作的技工，部分已於 2000、2002、2004、2006 及 2008 年的調查中納入技術員級內的「維修監督」或其他職務。

未來人力需求

10. 2008 年下半年經濟下滑，嚴重影響其後數月的新車銷情。然而根據香港特區政府運輸署公佈的數字顯示，這段期間的汽車註冊數字維持穩定。本會認為在目前的經濟氣候中，人們傾向保留現有的汽車而押後更換新車。由於舊車通常需要較多保養，汽車業的人力需求應至少可維持現有水平。

11. 本會對汽車業未來發展抱持樂觀態度，並認為汽車業的人力變化主要受下列因素影響：

- (a) 隨著當局加強超速測試，引進隨機酒精呼氣測試，以及加重危險駕駛和醉酒駕駛的罰則，駕車人士在道路上將更為謹慎；加上汽車設計和質素有所改善，將使車輛保養和維修的需求減少。
- (b) 隨著深港西部通道於 2007 年開通，以及預計港珠澳大橋將於 2009 年底動工，預期未來數年本港與內地間的汽車交通流量將會上升。汽車使用量增加將帶動維修需求，或多或少能彌補前段提及的需求下降情況。
- (c) 維修和保養的工作應用新技術和設備，使傳統維修服務的需求下降，而配合採用先進的維修技術和檢測儀器，高技術水平員工如技術員的需求將會增加。
- (d) 隨著當局落實更嚴格的環保要求，運用最新科技的先進汽車型號在香港將更受歡迎。在職技工更需要學習新技術，以配合行業的發展趨勢。
- (e) 香港特別行政區政府在 2007 年初實施的「車輛維修技工自願註冊計劃」，使僱主關注技工是否具認可資格，或可因而吸引僱主招聘技工學徒。

12. 本會認為汽車維修保養的需求將於未來數年間保持穩定。本會亦察覺，業內大量採用先進的汽車維修技術及檢測儀器，對高質素技術員級僱員的需求將有所增加。為應付 2007 年實施的「車輛維修技工自願註冊計劃」，本會亦預計未來數年業內對合資格技工的需求將有所增長。本會建議未來四年內，行業每年應額外培訓如下數目的人手：

<u>技能等級</u>	<u>須增加的人手</u>
技師	6 - 8
技術員	59 - 73
技工	368 - 450

13. 為配合汽車業的發展需要，在職從業員必須積極終身學習。而同樣重要的，是僱主給予認同，並支持僱員參加技能提升計劃課程、專業訓練課程、專題工作坊和研討會，以掌握最先進的行業技術。

14. 多間教育機構，包括職業訓練局轄下的香港專業教育學院及汽車業訓練中心，為汽車業僱員提供全日制課程、日間兼讀給假調訓制及夜間訓練課程。本會鼓勵僱主充分利用有關培訓機構所提供的訓練課程，並保送屬下員工修讀相關增修課程，提升他們的專業知識及技能。

第一章

緒 論

汽車業訓練委員會

1.1 職業訓練局轄下汽車業訓練委員會（下稱「本會」），須根據職權範圍確定業內的人力需求，並就發展訓練設施向局方提出建議，以應付行業所需。本會的委員均由主要商會、工會、專業團體、教育／訓練機構及政府部門提名。委員名單及職權範圍分別載於附錄 1 及 2。

人力調查

1.2 本會根據職權範圍，於 2008 年 3 月 3 日至 2008 年 5 月 2 日期間進行人力調查，蒐集最新的人力資料，以便確定汽車業目前及未來的人力需求，並就有關需求向業內人士及職業訓練局提供建議。是次調查在政府統計處協助下進行。

調查範圍

1.3 調查對象為汽車製造、保養及維修機構的技術人員。此外，業內團體的會員機構、擁有龐大車隊的公司、政府部門及教育機構所僱用的技術人員亦包括在內。

1.4 根據政府統計處紀錄及其他資料，第 1.3 段所述的機構約有 2 211 間。由於資源所限，本會選出 435 間機構作為調查對象，其中包括：

(i) 政府統計處所紀錄的 370 間機構（以分層隨機抽樣方法選出）：

(a) 汽車製造（HSIC 3884）

(b) 汽車及電單車維修服務（HSIC 9513）

註：HSIC 指香港標準行業分類

(ii) 65 間並無在政府統計處紀錄的機構（HSIC 3884 及 HSIC 9513 以外機構）：

(a) 職業訓練局屬下學徒事務署所紀錄的機構，

- (b) 擁有龐大車隊並自行負責維修工作的公司，以及
- (c) 其他機構，包括車房、政府部門及教育機構。

調查方法

1.5 調查前兩週，本會將調查表、調查表附註（附錄 3），以及本業各主要職務工作說明（附錄 4）寄送各選定機構。實地調查工作開始前，亦透過傳媒及同業聯會廣作宣傳。

1.6 調查期內，即 2008 年 3 月 3 日至 5 月 2 日期間，政府統計處職員到各機構收集填妥的調查表，並於有需要時解答詢問和協助填寫調查表。

1.7 交回的調查表均經詳細審核，並於有需要時，與填覆機構核對，然後交由政府統計處處理，以得出調查期間汽車業內的整體人力數字。

調查所得反應

1.8 435 間接受調查機構中，349 間提供所需資料，其餘 9 間已關閉或停業，另外 17 間因地址不符而聯絡不上，另有 60 間已不再從事汽車業。

調查報告

1.9 本報告書列出是次調查結果、預測汽車業的人力需求，並就有關需求建議措施。報告書內，「人力」、「僱員」及「工人」等均指所有在調查期間受僱從事業內 18 個主要職務的技術人員（受訓者及學徒除外）。「受訓者」指正在接受各種形式訓練，包括簽有學徒合約的人士。是次人力調查所包括的 18 個主要職務，以及這些職務的工作說明見載於附錄 4。

第二章

調查結果摘要

現有僱員人數（受訓者除外）

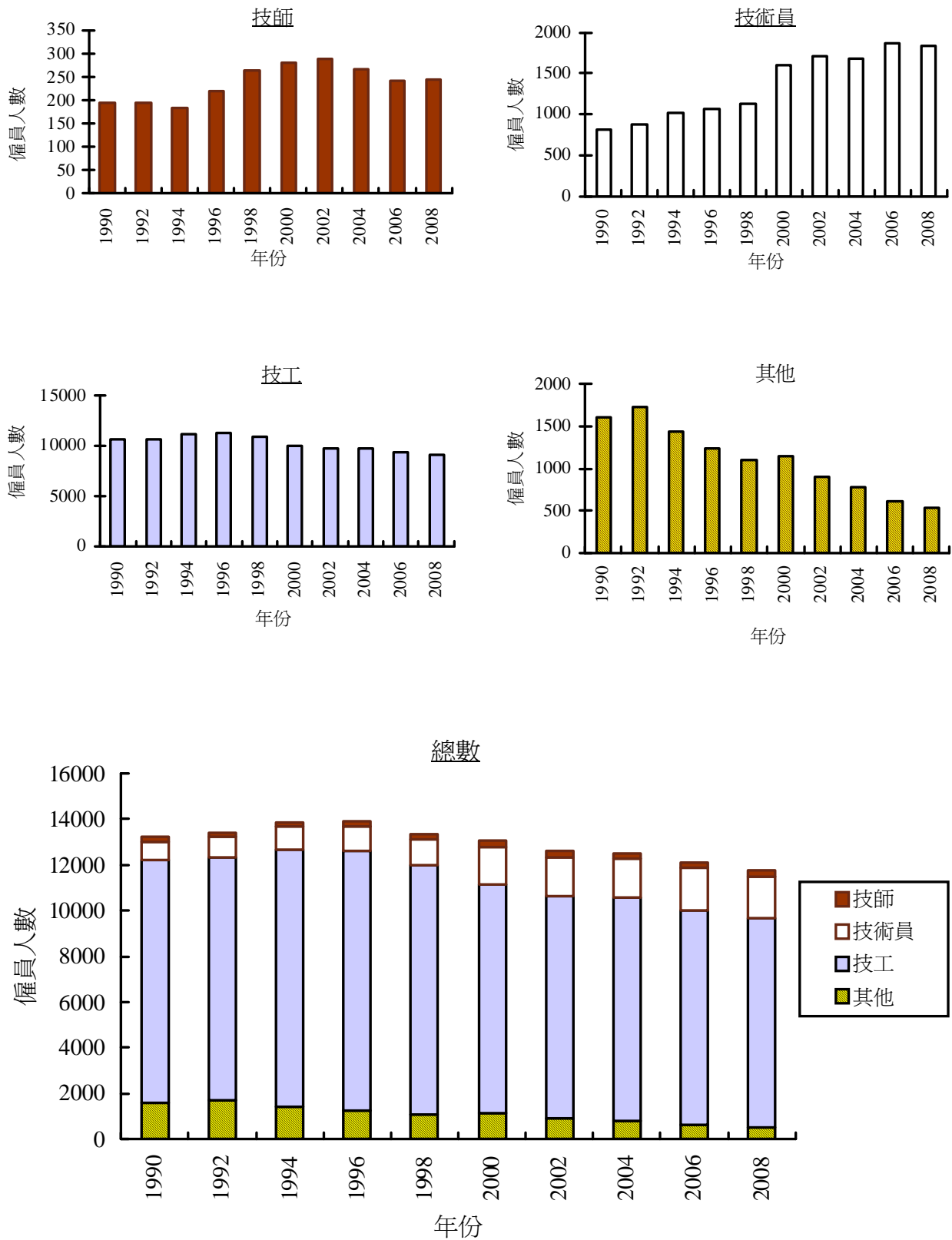
2.1 調查顯示，2008年5月時，共有11 750名僱員從事汽車業內18個主要職務。各技能等級僱員分布情況如下：

<u>技能等級</u>	<u>僱員人數</u>	<u>佔總人力 百分率</u>
技師	246	2.1%
技術員	1 832	15.6%
技工	9 147	77.8%
非技術工人	525	4.5%
	————	————
	11 750	100%

2.2 僱員最多的職務為汽車機械工，共有6 150名；其次是車身修理工，有958名；兩個職務的人數分別佔總人力的52.3%及8.2%。

2.3 圖1比較本會10次人力調查所得的各級僱員的分布情況。

圖 1： 1990、1992、1994、1996、1998、2000、2002、2004、2006 及 2008 人力調查
各技能等級僱員分布情況



受訓者人數

2.4 調查期間，本業共有 443 名受訓者。各技能等級受訓者分布情況如下：

<u>技能等級</u>	<u>受訓者數目</u>	<u>佔同級僱員總數 百分率</u>
技師	2	0.8%
技術員	68	3.7%
技工	373	4.1%

2.5 各職務受訓者分布情況載於附錄 5。受訓者最多的職務是汽車機械工，有 241 名。

空缺數目

2.6 調查期間業內共有 423 個空缺，佔本業僱員總數的 3.6%。各技能等級空缺數目如下：

<u>技能等級</u>	<u>空缺數目</u>	<u>佔空缺總數 百分率</u>	<u>佔同級僱員總數 百分率</u>
技師	3	0.7%	1.2%
技術員	8	1.9%	0.4%
技工	377	89.1%	4.1%
非技術工人	35	8.3%	6.7%
	-----	-----	
	423	100.0%	

預測至 2009 年 5 月所需的僱員人數（受訓者除外）

2.7 僱主預測，至 2009 年 5 月，本業所需人力將由現有的 12 173 人（11 750 名僱員加 423 個空缺），增至 12 201 人，增幅為 0.2%。僱主預測至 2009 年 5 月各技能等級所需僱員人數見下表；有關詳情則載於附錄 5。

<u>技能等級</u>	<u>2008 年 5 月 僱員人數</u>	<u>2008 年 5 月 總人力 需求*</u>	<u>僱主預測 2009 年 5 月 所需 僱員人數</u>	<u>僱主估計 僱員人數 增長淨額</u>
技師	246	249	239	-10 (-4.0%)
技術員	1 832	1 840	1 836	-4 (-0.2%)
技工	9 147	9 524	9 573	49 (0.5%)
非技術工人	525	560	553	-7 (-1.3%)
	-----	-----	-----	-----
	11 750	12 173	12 201	28 (0.2%)

註*：包括空缺額在內

僱員宜有教育程度、訓練方式及訓練期

2.8 附錄 6、7、8 分別臚列僱主認為其僱員宜有的教育程度、所需訓練方式及訓練期（附錄 6、7、8、9 圖表內為四捨五入後的數據）。

僱員每月收入幅度分布情況

2.9 僱員每月總收入幅度分布情況載於附錄 9。

第三章

結 論

人力變化

3.1 本會詳細分析調查結果後，認為所得資料大致能反映調查期間汽車業的就業情況。

3.2 2008年5月時，汽車業共有11 750名僱員，與2006年調查時的12 099名比較，僱員總數減少了349人，平均每年減幅為1.5%。同期，受訓者數目亦由588名減至443名。

3.3 各技能等級中，技術員及技工的人數均有減少。技術員人數由1 874名減至1 832名，技工人數由9 383名減至9 147名，過去兩年平均每年減幅分別為1.1%及1.3%。至於技師人數，則由242名增至246名，平均每年增幅為0.8%。值得注意的是，1998年調查時，技工級「管工」職務下共錄得1 311人。由於2000年、2002年、2004年、2006年及本次調查已刪除上述職務，估計約有260名負責督導工作的技工於上述調查中，被列入技術員級內的「維修監督」或其他職務。

行業前景

3.4 本港車輛數目於1986至1994年之間，每年增長5%至8%。自1995年起，增長開始放緩至每年2%或更低。登記車輛總數於近年保持穩定，並於2004至2008年間分別增長大約4000、6000、8000、13 500及13 000輛。2008年11月，本港登記的車輛總數達到了破紀錄的636 176輛。附錄10顯示車輛總數及汽車業人力數字的歷史趨勢。

3.5 2008年下半年經濟下滑，嚴重影響其後數月的新車銷情。然而根據香港特區政府運輸署公佈的數字顯示，這段期間的汽車註冊數字依然穩定。本會認為在目前的經濟氣候中，人們傾向保留現有的汽車而押後更換新車。由於舊車通常需要較多保養，汽車業的人力需求應至少可維持現有水平。

3.6 香港特別行政區政府機電工程署於2007年1月初，為汽車業在職從業員實施「車輛維修技工自願註冊計劃」。具備必要資格及／或經驗的技工，包括汽車機械工、汽車電工、車身修理工、車身建造工和汽車噴漆工，可根據該計劃於相關類別自願註冊。計劃旨在協助公眾更容易辨識

註冊技工，並可提升汽車維修行業的專業形象。截至 2009 年 3 月，計劃約收到 9 700 份申請，當中超過 9 200 名申請人成功註冊。

3.7 本會對汽車業未來持樂觀態度，並認為汽車業的人力變化主要受下列因素影響：

- (a) 隨著當局加強超速測試，引進隨機酒精呼氣測試，以及加重危險駕駛和醉酒駕駛的罰則，駕車人士在道路上將更為謹慎；加上汽車設計和質素有所改善，將使車輛保養和維修的需求減少。
- (b) 隨著深港西部通道於 2007 年開通，以及預計港珠澳大橋將於 2009 年底動工，預期未來數年本港與內地間的汽車交通流量將會上升。汽車使用量增加將帶動維修需求，或多或少能彌補前段提及的需求下降情況。
- (c) 維修和保養的工作應用新技術和設備，使傳統維修服務的需求下降，而配合採用先進的維修技術和檢測儀器，高技術水平員工如技術員的需求將會增加。
- (d) 隨著當局落實更嚴格的環保要求，運用最新科技的先進汽車型號在香港將更受歡迎。在職技工更需要學習新技術，以配合行業的發展趨勢。
- (e) 香港特別行政區政府在 2007 年初實施的「車輛維修技工自願註冊計劃」，使僱主關注技工是否具認可資格，或可因而吸引僱主招聘技工學徒。

未來人力需求

3.8 僱主預測，調查後的 12 個月內，所需的僱員會由 12 173 人（包括現有僱員人數及空缺數目）增至 12 201 人，增幅為 0.2%，顯示業內的人力需求應會維持現有水平。

3.9 本會考慮各種因素，並採用附錄 11 所載的「調節過濾」人力預測方法，推算出 2009 至 2012 年間本業每年所需技師、技術員及技工級僱員數目。三個技能等級的參數值(A)均為 0.7，以配合中期趨勢。

3.10 本會亦認為過去兩年，並無影響員工退休或離開本業的重大轉變，故本會應用下列的流失率，即本業須額外訓練 3% 的技師級、4% 的技術員級及 5% 的技工級僱員，以填補僱員因退休或其他原因離職而造成的人力流失。

3.11 根據上述預測，未來四年汽車業每年平均須培訓的僱員人數如下：

2009 至 2012 年間
每年平均須培訓的僱員人數

<u>技能等級</u>	<u>每年須培訓的人數</u>
技 師	6 – 8
技術員	59 – 73
技 工	368 – 450

各技能等級各主要職務須培訓的僱員人數見附錄 12。

3.12 就技師級而言，每年平均須培訓約 7 人，即可填補人力自然流失。

3.13 技術員級方面，預計本業每年須培訓約 66 名技術員，即平均每年增加 3 名技術員。

3.14 至於技工級，預計業內每年須培訓約 409 人，約等於自然流失的人數。

第四章

建 議

4.1 本會預計業內對技術人員，特別是較高技能等級者會續有需求。

4.2 為應付預計的人力需求，本業應推行培訓計劃，規模如第 3.11 段所述。

4.3 僱主進行人力策劃時，應注意每年平均須招聘的受訓者人數，分別約為現時技師、技術員及技工級僱員的 2.8%、3.6% 及 4.5%。

4.4 本會了解僱主近年在業務運作上所遇到的困難。然而，除非僱主願意及能夠培訓足夠的技術人才以應付人力需求，否則本業發展將受限制。因此本會呼籲僱主繼續僱用青年人投身本業。

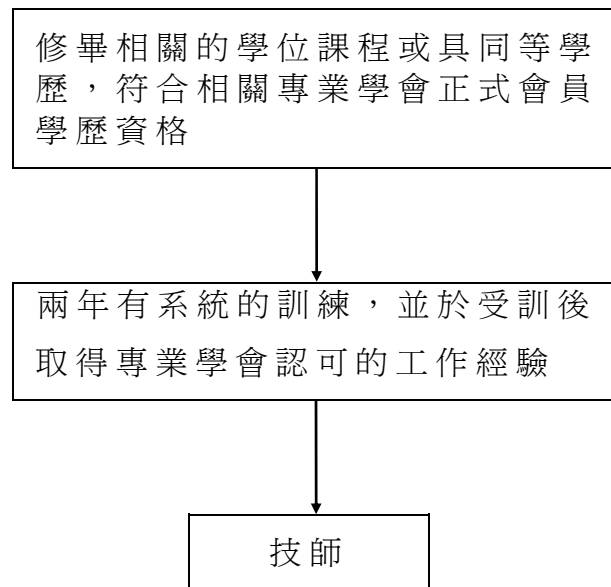
技師級訓練

4.5 本業的技師，通常擔任工程師和維修部經理職務。他們在機械工程或道路運輸工程方面的專業知識，應達專業學會認可的水平。

4.6 技師應能勝任以下工作：分析及解決廣泛的技術問題；獨立發展及應用工程學原理；具創見及判斷力；運用最新的科技知識執行工作；管理各種商業及技術任務。

4.7 建議訓練技師的途徑如下：

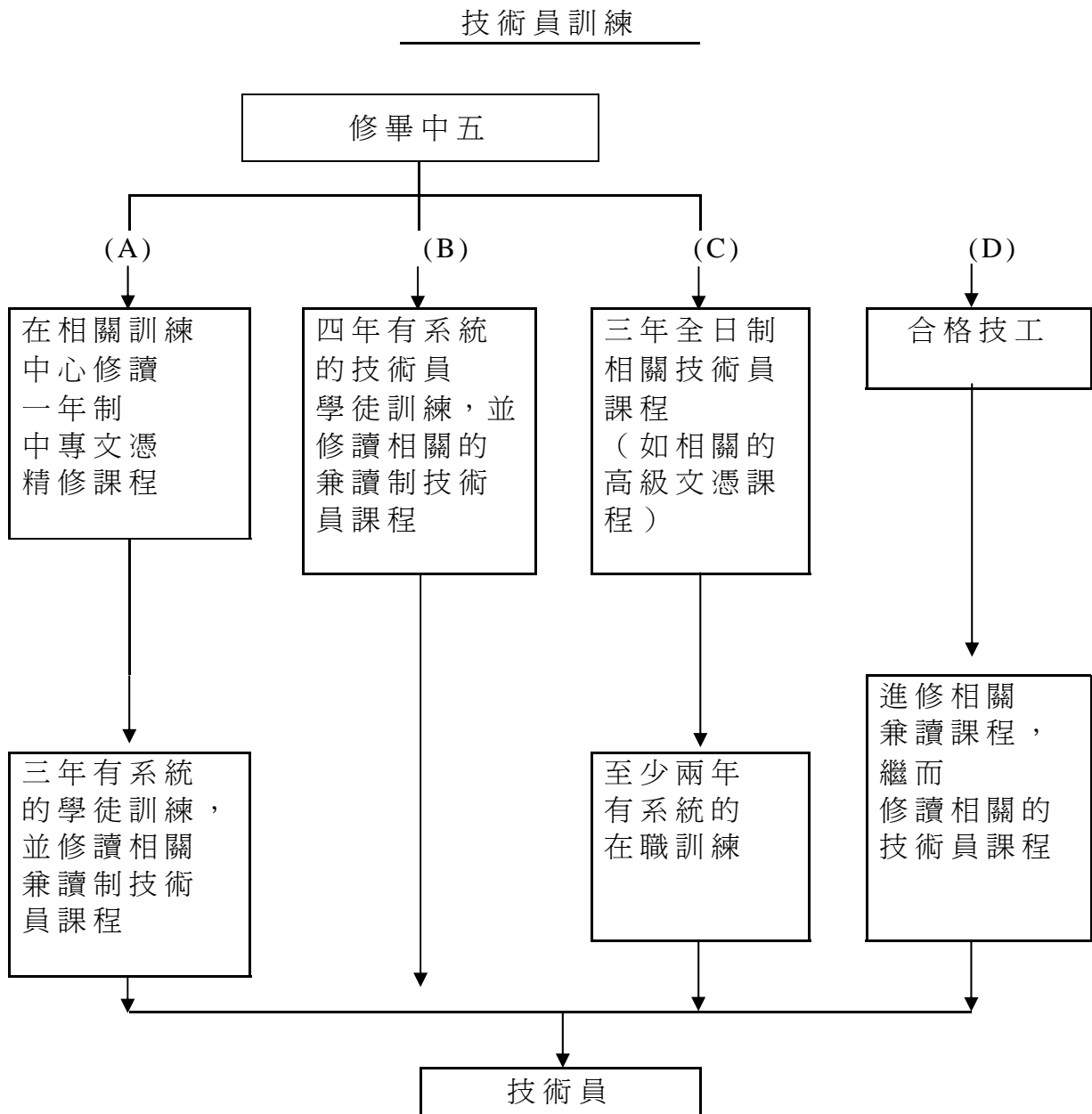
技師訓練



技術員級訓練

4.8 技術員須接受適當教育及實務訓練，具備工作經驗，一般能夠在技師督導下，運用已確立的技術及程序執行工作。

4.9 建議訓練技術員的途徑如下：



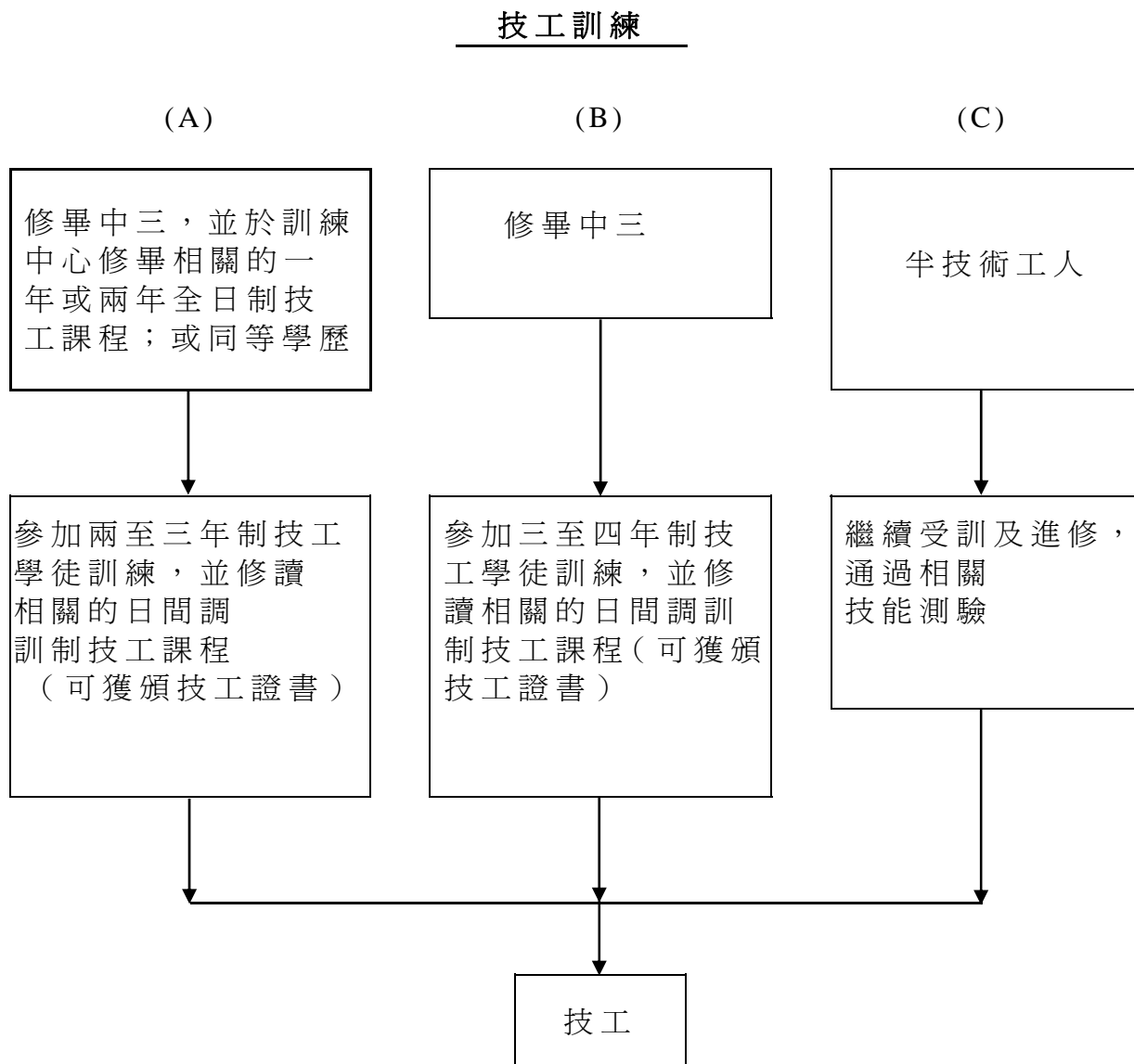
4.10 大部分僱主均認為技術員宜考獲高級文憑資格，作為其事業的進階基礎。

4.11 途徑（D）雖可為有志技工提供晉升至技術員的機會，但不宜過度依賴這個途徑訓練技術員。

技工級訓練

4.12 技工須精於實務，並具相當的技術知識，方可配合最新的科技發展。技工大致需具中三程度。

4.13 建議訓練技工的途徑如下：



4.14 三個訓練途徑中，本會推薦途徑（A），因為參加學徒訓練者已接受基本訓練，故一開始即能擔任生產工作。

工業教育及訓練機構

4.15 多間培訓機構，包括職業訓練局轄下的香港專業教育學院及汽車業訓練中心，均辦有多項與汽車業相關的全日制、日間兼讀給假調訓制及夜間兼讀制訓練課程。本會籲請僱主充分利用這些院校及機構的訓練設施，保送員工修讀有關課程，提升其專業知識及技能。

4.16 為應付汽車業的發展需要，從業員必須不斷進修、終身學習。僱主亦須了解僱員在進修上的需要，鼓勵他們修讀增修／訓練課程、參加研習班或研討會，學習先進科技。

職業訓練局屬下的發展及訓練中心

4.17 本會負責就發展香港專業教育學院汽車工程系及汽車業訓練中心的培訓服務提供意見。汽車工程系及汽車業訓練中心提供下列全日制課程，為本業培訓新血：

香港專業教育學院汽車工程系提供的全日制長期課程：

	<u>課程名稱</u>	<u>程度</u>	<u>訓練期</u>
(a)	汽車工程高級文憑課程	技術員	三年
(b)	汽車科技及系統設計 高級文憑課程	技術員	三年
(c)	汽車商務及管理 高級文憑課程	技術員	三至四年*

* (修讀年期視乎學員的入學學歷而定。)

汽車業訓練中心提供的全日制長期課程：

	<u>課程名稱</u>	<u>程度</u>	<u>訓練期</u>
(a)	中專教育文憑課程－汽車 科技分流#	技工／ 技術員	學分制， 一至三年

(學員修滿指定學歷的要求學分後，可獲發基本技術證書、技術員基礎證書或中專教育文憑，其後可選擇就業或繼續進修。)

4.18 除上述全日制課程外，香港專業教育學院汽車工程系，以及汽車業訓練中心亦為業內僱員提供各種全日制短期、日間兼讀給假調訓制及夜間兼讀制課程，目的是培訓本地從業員以配合香港汽車業發展所需。本會促請僱主全力支持汽車工程系及汽車業訓練中心提供的

培訓服務，僱用修畢課程的學員，並保送屬下員工修讀有關的增修課程，增強其專業技術，滿足工作需求。

職業訓練局的相關培訓服務

4.19 職業訓練局為僱主提供服務，協助籌辦訓練計劃，包括：

- (i) 法定的**學徒訓練計劃** — 為技術員及技工提供完善訓練，應付業內需求；
- (ii) **工科畢業生訓練計劃** — 協助工科學生及畢業生完成工程師專業訓練；
- (iii) 自願性質的**技能測驗及證書頒發制度** — 旨在確立及認可技術工人的水平。本會近年亦舉辦汽車機械工、汽車電工、汽車修理工及汽車噴漆工等各種技能測驗；
- (iv) **新科技培訓計劃** — 資助本地機構保送僱員學習新科技，資助金額可達訓練費用的 50%。計劃涵蓋各類訓練模式，包括海外課程或實習、本地訓練課程，以及專為個別機構而設的本地訓練課程／實習。

4.20 建議僱主在擬定訓練計劃和僱用受訓者時與職業訓練局聯絡。

Membership of the Automobile Training Board
(as on 16 February 2009)

Chairman:

Mr LEE Yiu-pui, Ringo (nominated by the Hong Kong Vehicle Repair Merchants Association Ltd.)

Members:

Mr CHAN Yan-ting, Gordon (nominated by the Hong Kong Auto Parts Industry Association)

Mr CHENG Chung-yan, Ramuel (nominated by a bus company)

Mr LAM Hing-cheong (nominated by a motor vehicle servicing establishment other than vehicle distributors)

Mr LEUNG Tat-ming (nominated by a motor vehicle distributor)

Ir Kenny PAK (nominated by the Service Managers Association)

Mr TANG Kwok-fai, Paul (nominated by the Motor Transport Workers General Union)

Mr TONG Kwok-kei (nominated by a motor vehicle distributor)

Mr YAU Kwok-keung (nominated by a motor vehicle distributor)

Mr YEUNG Kin-fai, Frankie (nominated by a motor vehicle Distributor)

Mr KWOK Kai-hing, Daniel (representative of the Executive Director of the Vocational Training Council)

Mr CHIN Chi-pang, Henry (representative of the Director of Environmental Protection)

Mr LI Ying-ming (representative of the Director of Electrical and Mechanical Services)

Mr TSANG Man-wai, David (representative of the Commissioner for Transport)

Mr WU Wai-hung (representative of the Commissioner for Labour)

In-attendance:

Mr LEUNG Tin-yau (representative of the Hong Kong Institute of Vocational Education)

Mr WONG Chun-keung (Centre Manager of the Automobile Industry Training Centre)

Secretary:

Mr FUNG Ming-kong, Steve (Vocational Training Council)

汽車業訓練委員會
委員名單
(截至 2009 年 2 月 16 日)

主席：

李耀培先生 (香港汽車修理同業商會有限公司提名)

委員：

陳仁錠先生 (香港汽車零部件工業協會提名)

鄭中仁先生 (某巴士公司提名)

林慶昌先生 (某汽車分銷商以外的汽車維修機構提名)

梁達明先生 (某汽車分銷商提名)

白正曦先生 (汽車維修管理協會提名)

鄧國輝先生 (汽車交通運輸業總工會提名)

湯國基先生 (某汽車分銷商提名)

邱國強先生 (某汽車分銷商提名)

楊建輝先生 (某汽車分銷商提名)

郭啓興先生 (職業訓練局執行幹事代表)

錢志鵬先生 (環境保護署署長代表)

李英明先生 (機電工程署署長代表)

曾文瑋先生 (運輸署署長代表)

胡偉雄先生 (勞工處處長代表)

列席者：

梁天佑先生 (香港專業教育學院代表)

黃振強先生 (汽車業訓練中心主任)

秘書：

馮明港先生 (職業訓練局)

Terms of Reference

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 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 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 element.
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 on matters pertaining to the development and promotion of vocational education and training in the industry, including employers, employers' associations, trade unions, professional institutions, training and educational institutions and government departments.
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.

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訓練設施以應付人力需求，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）、訓練及發展中心提出建議。
5. 就 IVE、訓練及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. 擬定本業主要職務的工作範圍，界定所需技能、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. 就舉辦本業主要行業的技能比賽提供意見，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. 就推廣訓練委員會的工作，以及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的策略建議。
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。

CONFIDENTIAL WHEN ENTERED WITH DATA	填入數據後即成 機密文件
---	-----------------

VOCATIONAL TRAINING COUNCIL
職業訓練局

THE 2008 MANPOWER SURVEY OF THE AUTOMOBILE INDUSTRY
汽車業二〇〇八年人力調查

QUESTIONNAIRE
調查表

PLEASE READ THE EXPLANATORY NOTES BEFORE COMPLETING THIS QUESTIONNAIRE
填表前，請參閱附註

<u>For Official Use Only:</u> 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
1	0 1	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_	_ _	_ _ _ _ _
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: _____ ADDRESS: _____
機構名稱 地址

TYPE OF PRODUCTS/SERVICE: _____ TOTAL NO. OF PERSONS: _____
產品種類／服務性質 僱員總數

NAME OF PERSON TO CONTACT: _____ POSITION: _____
聯絡人姓名 28 47 職位

TEL. NO.: _____ - _____ FAX NO.: _____
電話 48 55 57 64 圖文傳真

E-MAIL: _____
電郵 65 99

VTC-AU-08

Part I 第一部分

(A) Job 工作		(B) Average Monthly Income 每月平均 收入		(C) No. Employed (excl. trainees) 僱員人數 (受訓者除外)	(D) Forecast of No. Employed 12 Months from Now (excl. trainees) 預計 十二個月後 僱員人數 (受訓者除外)	(E) No. of Vacancies at Date of Survey (excl. trainees) 現有 空缺額 (受訓者 除外)	(F) No. of Trainees at Date of Survey 現有 受訓者 人數	Average Monthly Income 每月平均收入
Title 職稱	Rec. Type	Code No. 編號	Code 編號					Enter in column B employee's average monthly income range according to the following code: 請將僱員每月平均收入幅度 按照下列類別編號填入B欄內：
Please ignore these numbers 請毋須理會欄中 的號碼 →		8 - 10	11	12 - 15	16 - 19	20 - 22	23 - 25	
TECHNOLOGIST LEVEL 技師級								
Mechanical Engineer (Automotive) 汽車機械工程師	2	1 0 1						1 Under \$5,001 以下
Service Manager 維修部經理	2	1 0 2						2 \$5,001 - \$6,000
TECHNICIAN LEVEL 技術員級								
Service Instructor 維修教導員	2	2 0 1						3 \$6,001 - \$8,000
Motor Vehicle Examiner/Tester 汽車檢查員/測試員	2	2 0 2						4 \$8,001 - \$10,000
Service Supervisor 維修監督	2	2 0 3						5 \$10,001 - \$15,000
Service Adviser/Receptionist 維修服務員/款待員	2	2 0 4						6 \$15,001 - \$20,000
Engineering Technician 工程技術員	2	2 0 5						7 \$20,001 - \$25,000
Parts Supervisor 配件監督	2	2 0 6						8 Over \$25,000 以上
CRAFTSMAN LEVEL 技工級								
Vehicle Mechanic 汽車機械工	2	3 0 1						Remarks 備注
Vehicle Electrician 汽車電工	2	3 0 2						
Vehicle Body Repairer 車身修理工	2	3 0 3						
Vehicle Body Builder 車身建造工	2	3 0 4						
Vehicle Painter 汽車噴漆工	2	3 0 5						
Vehicle Air-conditioning Mechanic 汽車冷氣工	2	3 0 6						
Vehicle Upholsterer 車內裝飾工	2	3 0 7						
Machinist 機床工	2	3 0 8						
Industrial Vehicle Mechanic 工業機車技工	2	3 0 9						
UNSKILLED LEVEL 非技術工人級								
General Worker/Cleaner/Greaser 雜工/清潔工/加滑油工	2	4 0 1						
	2							
	2							
	2							

Note 1 If additional lines are necessary, please tick here and enter on supplementary sheet(s).
附註一 如此頁填滿，請先將 (✓) 號填入此 內，然後在附頁繼續填寫。

Note 2 The term 'trainees' includes all trainees receiving any form of training and apprentices under a contract of apprenticeship.
附註二 「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。

to be continued ...
續後頁

Part II 第二部分

1. Professional Qualification 專業資格	For establishments which employ mechanical engineers (automotive). Please indicate how many of them are professional mechanical engineers such as corporate members of the Hong Kong Institution of Engineers, or Institution of Mechanical Engineers, i.e. MHKIE, FHKIE, MIMechE or FIMechE. 僱有汽車機械工程師的機構，請在此處說明具備專業學會正式會員資格(如香港工程師學會或機械工程師學會會員或院士)的工程師人數										
Rec. Type <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; text-align: center;">3 1</div> <div style="border: 1px solid black; padding: 2px 5px; text-align: center;">8 9</div> </div>							For Official Use Only: 此欄毋須填寫 <div style="border: 1px solid black; padding: 2px 5px; text-align: center; width: 20px; margin: 0 auto;">10</div>				
2. Education and Training an Employee Should Have 僱員宜有的教育及訓練											
Technologist 技師			Technician 技術員			Craftsman 技工					
Education 教育	Training Mode 訓練方式	Training Period 訓練時間	Education 教育	Training Mode 訓練方式	Training Period 訓練時間	Education 教育	Training Mode 訓練方式	Training Period 訓練時間			
<input style="width: 20px; height: 20px;" type="text"/> 11	<input style="width: 20px; height: 20px;" type="text"/> 12	<input style="width: 20px; height: 20px;" type="text"/> 13	<input style="width: 20px; height: 20px;" type="text"/> 14	<input style="width: 20px; height: 20px;" type="text"/> 15	<input style="width: 20px; height: 20px;" type="text"/> 16	<input style="width: 20px; height: 20px;" type="text"/> 17	<input style="width: 20px; height: 20px;" type="text"/> 18	<input style="width: 20px; height: 20px;" type="text"/> 19			
Please enter in the above boxes the education and training an employee should have according to the following codes: 請將僱員宜有的教育及訓練按照下列類別編號填入上項的格內：											
<u>Code</u> 編號	<u>Education</u> 教育	<u>Code</u> 編號	<u>Training Mode</u> 訓練方式	<u>Code</u> 編號	<u>Training Period</u> 訓練時間						
1	Degree or equivalent 大學學位或同等學歷	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 高級證書／證書	4	Others 其他	4	1 to less than 2 years 一年至二年以下						
5	Advanced Craft Certificate/Craft Certificate 技工深造證書／技工證書	5		5	6-11 months 六至十一個月						
6	Secondary 5 中五	6		6	Below 6 months 六個月以下						
7	Secondary 3 or below 中三或以下										

The 2008 Manpower Survey of
the Automobile Industry
汽車業 2008 年人力調查

Explanatory Note
附註

1. When filling the questionnaire, please ignore the numbers in the row immediately beneath the headings. They are purely column numbers for data processing.
填寫調查表時，請毋須理會標題下的編號；這些編號是分欄編號，只供資料處理時使用。
2. Before completing the questionnaire, please read carefully the job titles and job descriptions in Appendix C.
填寫調查表前，請先參閱附錄 C 所列的職稱與工作說明。
3. Please complete all columns of the questionnaire from 'A' to 'F' which are applicable and insert a zero (0) for any column not applicable to your establishment.
請填寫‘A’至‘F’各欄，並在不適用於貴機構的各欄內填入(0)符號。
4. Please fill in information as accurate as possible because the information collected from this survey is vital for determining the training needs of the industry in order that the Automobile Training Board can make meaningful recommendations to Government on how to meet these training needs.
請填寫準確資料，因有關資料對於確定本業的訓練需求極為重要，汽車業訓練委員會並會就如何應付訓練需求，向政府提出建議。
5. Job Titles - Column 'A'
職稱 — ‘A’ 欄
 - (a) The job titles and code numbers are pre-printed.
職稱及職務編號已代為印上。
 - (b) Please add in column 'A' any other job titles not mentioned in Appendix C, briefly describe the jobs and indicate their skill levels as well.
如貴機構另有職稱未有載於附錄 C，請一併填入‘A’欄內，並扼要說明其工作性質及技能等級。

- (c) Please classify an employee according to his main duty irrespective of any additional secondary duties he may be required to perform, e.g. a craftsman who works mainly as a vehicle mechanic but is also required to perform the work of a vehicle electrician occasionally should be classified as a vehicle mechanic but not as a vehicle electrician.

請根據僱員的主要職務分類，毋須理會該僱員所兼任的其他職務。例如：一名技工的主要職務為汽車機械工，但有時亦須兼任汽車電工，則應歸類為汽車機械工而非汽車電工。

6. Average Monthly Income - Column 'B'

每月平均收入 — 'B' 欄

Please enter into this column the average monthly income range code for each type of employees. This should include basic wages, overtime pay, cost of living allowance, meal allowance, guaranteed year-end bonus etc., if any. If you have more than one employees doing the same job, please enter the average figure.

請在此欄填入各類僱員每月平均收入幅度的編號，包括底薪、超時工作工資、生活津貼、膳食津貼、固定發放的年終花紅等。若從事同類工作的僱員超過一名，則請填寫月入的平均數字。

7. Number Employed (excluding trainees) - Column 'C'

現有僱員人數（受訓者除外） — 'C' 欄

Please fill in the total number of employees (excluding trainees) employed in your establishment at date of survey.

請將現時的僱員總數（受訓者除外）填入此欄。

8. Forecast of Number Employed 12 Months from Now (excluding trainees) - Column 'D'

預計十二個月後的僱員總數（受訓者除外） — 'D' 欄

The forecast of number employed means the number of employees (excluding trainees) you will be employing 12 months from now.

預計僱員人數，是指貴機構於十二個月後所雇用的人數（受訓者除外）

9. Number of Vacancies at Date of Survey (excluding trainees) - Column 'E'

現有空缺額（受訓者除外） — 'E' 欄

Please fill in the number of existing vacancies.

請填入貴機構現有的空缺額。

'Existing Vacancies' refer to those unfilled, immediately available job openings for which the establishment is actively trying to recruit personnel at date of survey.

「現有空缺額」是指該職位仍然懸空，須立刻填補，而貴機構現正積極招聘人員填補。

10. Number of Trainees at Date of Survey - Column 'F'

現有受訓者人數 — 'F' 欄

Please fill in the total number of employees undergoing training.

請將正在受訓的僱員總數填入此欄。

11. Education and Training an Employee Should Have

僱員宜有的教育及訓練

The purpose of this column is to solicit your view on the education, mode and period of training which an employee (not as a trainee) should have in a particular job (please refer to the codes in the same page of the questionnaire).

此欄旨在調查閣下對各類職務僱員（非受訓者）宜有教育程度、訓練方式及訓練期的意見（請參閱調查表同一頁內的類別編號）。

12. Example

例子

To facilitate proper completion, an example is given below for your reference.

下列例子，可供填寫時參考。

Example 例子

(A) Job 工作		(B) Average Monthly Income 每月平均收入		(C) No. Employed (excl. trainees) 僱員人數 (受訓者除外)	(D) Forecast of No. Employed 12 Months from Now (excl. trainees) 預計十二個月後僱員人數 (受訓者除外)	(E) No. of Vacancies at Date of Survey (excl. trainees) 現有空缺額 (受訓者除外)	(F) No. of Trainees at Date of Survey 現有受訓者人數	Average Monthly Income 每月平均收入
Title 職稱	Rec. Type	Code No. 編號	Code 編號					Enter in column B employee's average monthly income range according to the following code: 請將僱員每月平均收入幅度按照下列類別編號填入B欄內:
Please ignore these numbers 請毋須理會欄中的號碼		8 - 10	11	12 - 15	16 - 19	20 - 22	23 - 25	Monthly Income Range 每月平均收入幅度
TECHNOLOGIST LEVEL 技師級								
Mechanical Engineer (Automotive) 汽車機械工程師	2	1 0 1						1 Under \$5,001 以下
Service Manager 維修部經理	2	1 0 2						2 \$5,001 - \$6,000
TECHNICIAN LEVEL 技術員級								
Service Instructor 維修教導員	2	2 0 1						3 \$6,001 - \$8,000
Motor Vehicle Examiner/Tester 汽車檢查員/測試員	2	2 0 2						4 \$8,001 - \$10,000
Service Supervisor 維修監督	2	2 0 3	6		1		0	5 \$10,001 - \$15,000
Service Adviser/Receptionist 維修服務員/款待員	2	2 0 4						6 \$15,001 - \$20,000
Engineering Technician 工程技術員	2	2 0 5						7 \$20,001 - \$25,000
Parts Supervisor 配件監督	2	2 0 6						8 Over \$25,000 以上
CRAFTSMAN LEVEL 技工級								
Vehicle Mechanic 汽車機械工	2	3 0 1	5		4		5	
Vehicle Electrician 汽車電工	2	3 0 2	5		1		1	0
Vehicle Body Repairer 車身修理工	2	3 0 3						
Vehicle Body Builder 車身建造工	2	3 0 4						
Vehicle Painter 汽車噴漆工	2	3 0 5						
Vehicle Air-conditioning Mechanic 汽車冷氣工	2	3 0 6						
Vehicle Upholsterer 車內裝飾工	2	3 0 7						
Machinist 機床工	2	3 0 8						
Industrial Vehicle Mechanic 工業機車技工	2	3 0 9						
UNSKILLED LEVEL 非技術工人級								
General Worker/Cleaner/Greaser 雜工/清潔工/加滑油工	2	4 0 1	1		1		1	0
	2							
	2							

Note 1 If additional lines are necessary, please tick here and enter on supplementary sheet(s).
附註一 如此頁填滿，請先將(✓)號填入此內，然後在附頁繼續填寫。

Note 2 The term 'trainees' includes all trainees receiving any form of training and apprentices under a contract of apprenticeship.
附註二 「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。

to be continued ...
續後頁

Code No. 編號	Job Title 職稱	Job Description 工作說明
TECHNOLOGIST LEVEL (Continued) 技師級 (續)		
		<p>(v) 進行檢查及測試，評估設備性能以及提供技術方面的意見；</p> <p>(vi) 為大型車隊訂定預防性維修計劃；</p> <p>(vii) 負責管理汽車維修機構內一切工程及有關事宜，包括工作安全及員工健康。</p>
102	<p>Service Manager</p> <p>維修部經理</p>	<p>Manages all commercial and technical activities of an organization engaged in motor vehicle repairs and servicing, including safety and health matters.</p> <p>負責管理汽車維修機構內一切業務及技術方面的工作，包括工作安全及員工健康。</p>
TECHNICIAN LEVEL 技術員級		
201	<p>Service Instructor</p> <p>維修教導員</p>	<p>Instructs apprentices, trainees and other employees in motor vehicle servicing and repairs.</p> <p>教導學徒、受訓者及其他僱員有關汽車維修的知識及技能。</p>
202	<p>Motor Vehicle Examiner/Tester</p> <p>汽車檢查員／測試員</p>	<p>Inspects and tests motor vehicles for their conditions and road-worthiness compliance, including inspection before and after repairs, as well as testing in compliance with legal requirements.</p> <p>檢查及測試汽車的狀況和路面行駛性能，包括維修前或維修後檢查或測試有關車輛是否符合法律的規定。</p>
203	<p>Service Supervisor</p>	<p>Performs supervisory duties contributory to:</p> <p>(i) the planning and allocation of tasks to foremen and other employees,</p> <p>(ii) the inspection, servicing and repairs of motor vehicles, and</p> <p>(iii) the installation and maintenance of workshop equipment.</p>

Code No. 編號	Job Title 職稱	Job Description 工作說明
TECHNICIAN LEVEL (Continued) 技術員級 (續)		
	維修監督	執行下列監督工作，以便協助： (i) 策劃及分配工作予管工及其他僱員； (ii) 檢查與維修汽車； (iii) 安裝與維修工場設備。
204	Services Adviser/ Receptionist 維修服務員／款待員	Records customers' requirements, recommends repairs and servicing, advises and liaises with customers regarding progress of work. 記錄顧客的要求，建議適當的維修服務，並與顧客聯絡，知會有關工作的進展。
205	Engineering Technician 工程技術員	Performs technical tasks contributory to the modification or improvement work on vehicles, the design, installation and maintenance of workshop facilities, and technical support for vehicle servicing, either independently or under the direction of a mechanical engineer (automotive) or a service manager. 獨立或在汽車機械工程師／維修部經理的指導下執行技術職務，以協助進行：汽車的改裝或改良；工場設備的設計、安裝及維修；汽車維修方面的技術支援。
206	Parts Supervisor 配件監督	Engages in identification and control of stock, promotion and effect of the sales of automotive parts and accessories. 負責辨別與管理貨物，推銷、出售汽車零件及附件。
CRAFTSMAN LEVEL 技工級		
301	Vehicle Mechanic 汽車機械工	Services and repairs all types of vehicles. 維修各類型汽車。
302	Vehicle Electrician 汽車電工	Services and repairs electrical and electronic systems and components of motor vehicles. 維修汽車電氣、電子系統和組件。

Code No. 編號	Job Title 職稱	Job Description 工作說明
CRAFTSMAN LEVEL (Continued) 技工級 (續)		
303	Vehicle Body Repairer 車身修理工	Repairs motor vehicle bodies. 修理汽車車身。
304	Vehicle Body Builder 車身建造工	Constructs and converts motor vehicle bodies. 建造與改裝汽車車身。
305	Vehicle Painter 汽車噴漆工	Prepares and paints vehicle bodies. 負責噴漆前的準備工作以及噴塗車身。
306	Vehicle Air-Conditioning Mechanic 汽車冷氣工	Installs, services and repairs vehicle air-conditioners. 安裝與維修汽車冷氣機。
307	Vehicle Upholsterer 車內裝飾工	Provides seats, seat covers, floor covers and interior trim in vehicles. 製造及裝設車椅、車椅面、車地板面及車內一切裝飾。
308	Machinist 機床工	Produces and reconditions vehicle components by the use of common or special purpose machine tools. 使用一般或專門的機床生產與整修汽車零件。
309	Industrial Vehicle Mechanic 工業機車技工	Services and repairs all types of industrial vehicles (e.g. fork lift truck, straddle carrier, shovel loader, etc.). 維修各類型工業機車（例如：叉式鏟車、貨櫃搬機車及鏟斗式裝載車等）。
UNSKILLED LEVEL 非技術工人級		
401	General Worker/ Cleaner/Greaser 雜工／清潔工／ 加滑油工	Performs duties of a general nature not requiring any training or skill, such as cleaning, greasing, lubricating and polishing of motor vehicles after repairs and servicing, and tidying up garage. 擔任不需專門訓練或技能的一般性質工作，例如汽車維修後的清抹、加偈油與滑油，以及車房的清潔工作。

MANPOWER STATISTICS - AUTOMOBILE INDUSTRY (May 2008)
汽車業內的僱員統計數字 (2008 年 5 月)

Job Title 職稱	Number of Workers Employed (Excluding Trainees) 現有僱員人數 (受訓者除外)	Number of Trainees 現有的受 訓者人數	Number of Vacancies at Date of Survey 調查期間 的空缺額	Forecast of Total Workforce by May 2009 估計 2009 年 5 月時的僱員總數
TECHNOLOGIST LEVEL 技師級				
Mechanical Engineer (Automotive) 汽車機械工程師	85	2	1	84
Service Manager 維修部經理	161	0	2	155
Sub-total 分類總數	246	2	3	239
TECHNICIAN LEVEL 技術員級				
Service Instructor 維修教導員	48	1	0	55
Motor Vehicle Examiner/ Tester 汽車檢查員/測試員	325	0	3	328
Service Supervisor 維修監督	614	3	0	612
Service Adviser/ Receptionist 維修服務員/款待員	333	8	1	329
Engineering Technician 工程技術員	363	56	3	364
Parts Supervisor 配件監督	149	0	1	148
Sub-total 分類總數	1 832	68	8	1 836
CRAFTSMAN LEVEL 技工級				
Vehicle Mechanic 汽車機械工	6 150	241	243	6 416
Vehicle Electrician 汽車電工	809	52	7	819
Vehicle Body Repairer 車身修理工	958	40	37	999

Job Title 職稱	Number of Workers Employed (Excluding Trainees) 現有僱員人數 (受訓者除外)	Number of Trainees 現有的受 訓者人數	Number of Vacancies at Date of Survey 調查期間 的空缺額	Forecast of Total Workforce by May 2009 估計 2009 年 5 月時的僱員總數
CRAFTSMAN LEVEL (Continued) 技工級 (續)				
Vehicle Body Builder 車身建造工	217	4	5	226
Vehicle Painter 汽車噴漆工	622	28	64	698
Vehicle Air-Conditioning Mechanic 汽車冷氣工	162	0	12	174
Vehicle Upholsterer 車內裝飾工	73	0	8	81
Machinist 機床工	86	3	0	89
Industrial Vehicle Mechanic 工業機車技工	70	5	1	71
Sub-total 分類總數	9 147	373	377	9 573
UNSKILLED LEVEL 非技術工人級				
General Worker/ Cleaner/Greaser 雜工／清潔工／ 加滑油工	525	0	35	553
Sub-total 分類總數	525	0	35	553
GRAND TOTAL 總數	11 750	443	423	12 201

PREFERRED EDUCATION OF EMPLOYEES

僱員宜有的教育程度

Level 級別	Degree or Equivalent 大學學位	Higher Diploma 高級文憑	Diploma 文憑	Higher Certificate/ Certificate 高級證書／證書	Advanced Craft Certificate/ Craft Certificate 技工深造證書／ 技工證書	Secondary 5 中五	Secondary 3 or Below 中三或以下
Technologist 技師	186	57	-	-	-	-	-
Technician 技術員	72	55	948	696	3	55	-
Craftsman 技工	-	-	-	32	4 080	3 955	1 039
Grand Total 總數	258	112	948	728	4 083	4 010	1 039

PREFERRED TRAINING MODE OF EMPLOYEES

僱員宜有的訓練方式

Level 級別	Graduate Traineeship 工科畢業生訓練	On-the-Job Training 在職訓練	Apprenticeship 學徒訓練
Technologist 技師	107	134	2
Technician 技術員	2	904	923
Craftsman 技工	-	3 539	5 567
Grand Total 總數	109	4 577	6 492

PREFERRED TRAINING PERIOD OF EMPLOYEES

僱員宜有的訓練期

Level 級別	4 Years or Above 四年或以上	3 to Less Than 4 Years 三至四年內	2 to Less Than 3 Years 二至三年內	1 to Less Than 2 Years 一至二年內	6-11 Months 六至十一個月
Technologist 技師	10	12	188	33	0
Technician 技術員	989	795	27	18	0
Craftsman 技工	1 991	6 643	440	12	20
Grand Total 總數	2 990	7 450	655	63	20

DISTRIBUTION OF EMPLOYEES BY TOTAL MONTHLY INCOME RANGE*

根據每月總收入幅度劃分的僱員人數分布情況*

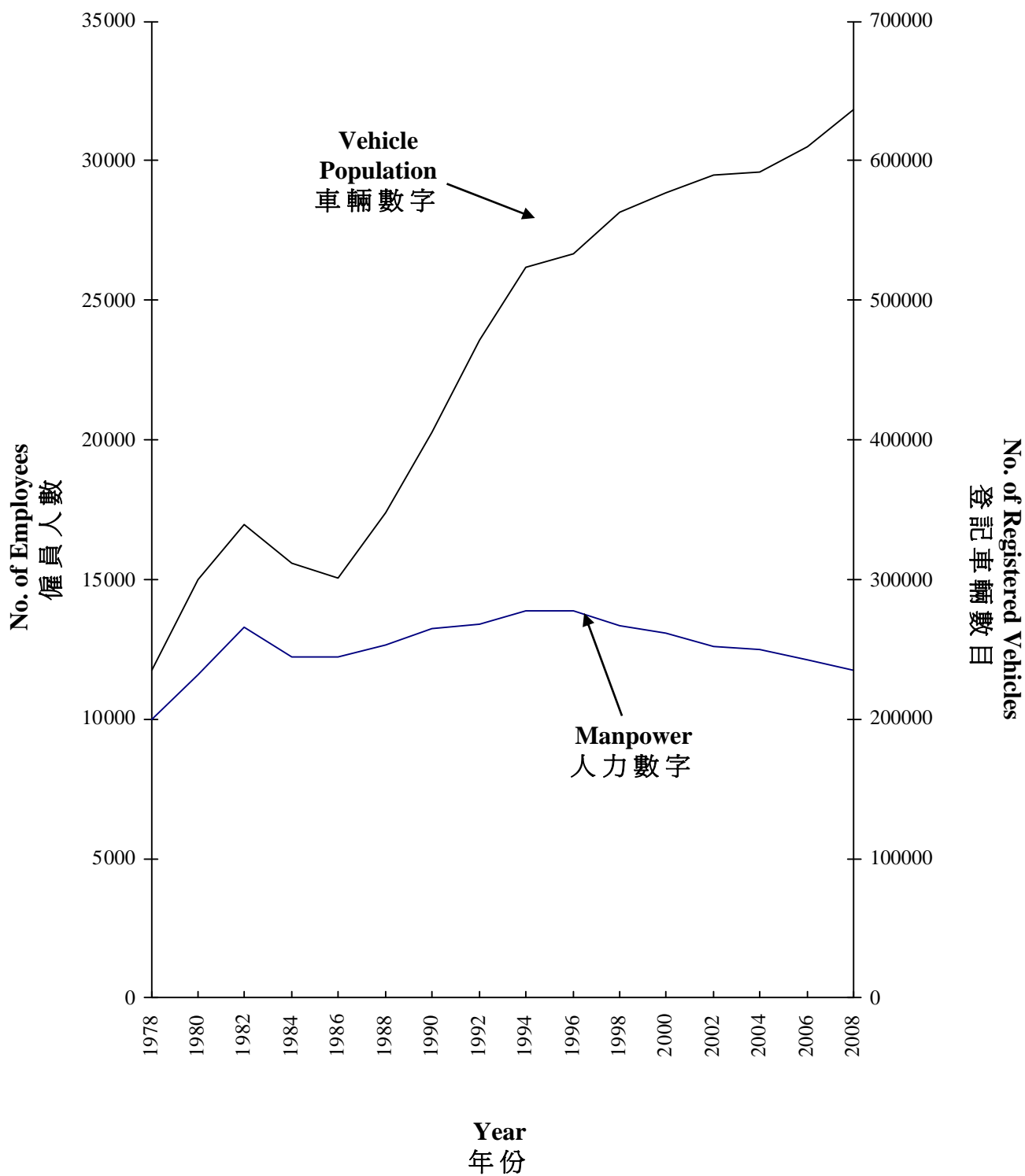
Job Title 職稱	\$5,001 - \$6,000	\$6,001 - \$8,000	\$8,001 - \$10,000	\$10,001 - \$15,000	\$15,001 - \$20,000	\$20,001 - \$25,000	Over \$25,000 以上
TECHNOLOGIST LEVEL 技師級							
Mechanical Engineer (Automotive) 汽車機械工程師	0	0	0	0	7	41	37
Service Manager 維修部經理	0	0	0	1	14	19	111
Sub-total 分類總數	0	0	0	1	21	60	148
TECHNICIAN LEVEL 技術員級							
Service Instructor 維修教導員	0	0	0	0	24	4	18
Motor Vehicle Examiner/ Tester 汽車檢查員／測試員	0	0	0	107	111	107	0
Service Supervisor 維修監督	0	0	0	119	358	106	20
Service Adviser/Receptionist 維修服務員／款待員	0	0	2	183	129	15	1
Engineering Technician 工程技術員	0	0	0	137	114	101	10
Parts Supervisor 配件監督	0	0	2	23	99	23	1
Sub-total 分類總數	0	0	4	569	835	356	50
CRAFTSMAN LEVEL 技工級							
Vehicle Mechanic 汽車機械工	0	0	2 406	3 532	165	0	0
Vehicle Electrician 汽車電工	0	0	445	331	29	0	0
Vehicle Body Repairer 車身修理工	0	0	394	436	121	0	0
Vehicle Body Builder 車身建造工	0	0	30	148	26	0	0
Vehicle Painter 汽車噴漆工	0	0	74	453	86	0	0
Vehicle Air-Conditioning Mechanic 汽車冷氣工	0	0	53	99	8	1	0
Vehicle Upholsterer 車內裝飾工	0	0	22	31	17	0	0
Machinist 機床工	0	0	37	48	1	0	0
Industrial Vehicle Mechanic 工業機車技工	0	0	10	32	6	0	0
Sub-total 分類總數	0	0	3 471	5 110	459	1	0

Job Title 職稱	\$5,001 - \$6,000	\$6,001 - \$8,000	\$8,001 - \$10,000	\$10,001 - \$15,000	\$15,001 - \$20,000	\$20,001 - \$25,000	Over \$25,000 以上
UNSKILLED LEVEL 非技術工人級							
General Worker/ Cleaner Greaser 雜工／清潔工／ 加滑油工	23	173	312	11	0	0	0
Sub-total 分類總數	23	173	312	11	0	0	0
GRAND TOTAL 總數	23	173	3 787	5 691	1 315	417	198

* Total monthly income includes basic wage, overtime pay, cost of living allowance, meal allowance, etc.
每月總收入包括底薪、超時工作津貼、生活津貼及膳食津貼等。

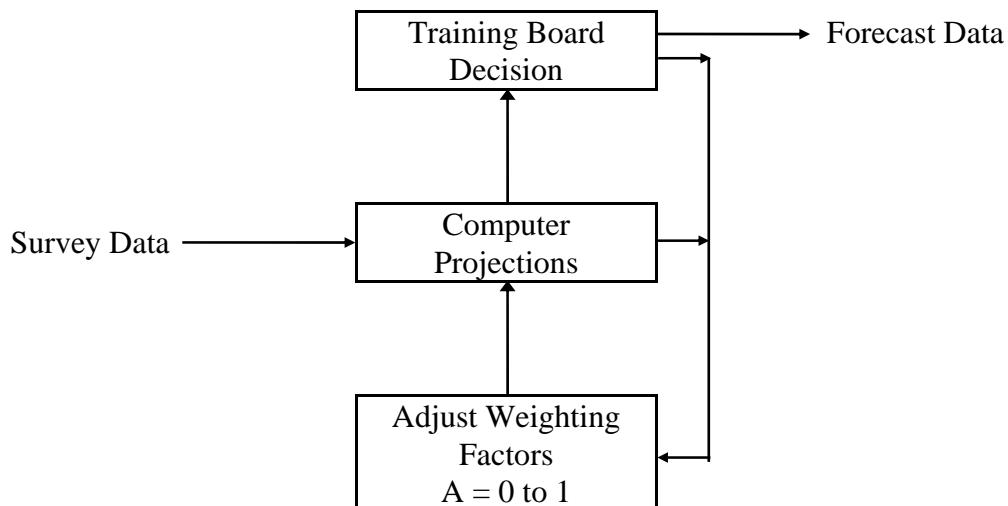
**Total Registered Vehicle Population and
Manpower in the Automobile Industry**

已登記車輛總數
及汽車業人力數字



Manpower Forecasting Method

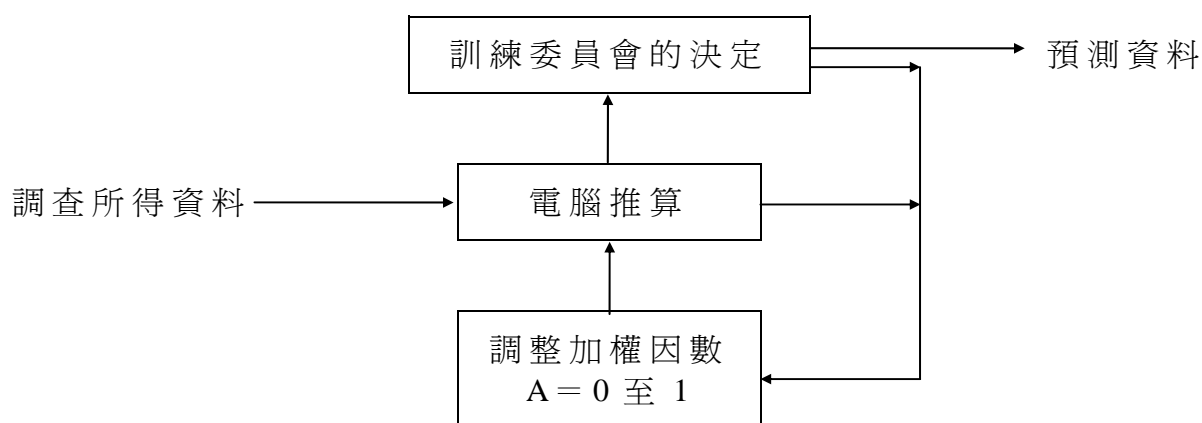
The Vocational Training Council has developed an “adaptive filtering” forecasting method for determining future manpower requirements of the automobile industry. The method is illustrated diagrammatically below:



In this method, past survey data are weighted and the weights used are in geometric series such that heavier weighting is given to the more recent data. Thus, the results of the forecast will be more dependent on the recent and less on past data. The degree of emphasis on the more recent data can be controlled by varying the weighting factors A . A computer is used to track growth rates and to project the survey data into the “future” for a number of values of A , i.e. to produce a number of “possibilities”. The Board may then select the best projection based on those factors which may affect manpower changes such as vehicle population in future years, the possible changes in transport pattern, the recovery of local economy etc. The accuracy of the forecast will be checked against future survey results and errors, if any, will be taken into account in the subsequent forecast.

人力預測法

職業訓練局所制訂的「調節過濾」預測法，可用以確定汽車業未來的人力需求。現將該項辦法以圖解方式說明如下：



該方法將過去調查所得資料權重，而所用加權輕重率乃屬幾何級數，資料愈新，所得的權重亦愈大。因此，推算結果大半基於較新資料，而與以往資料關連較少。新資料的權重程度可由加權因數(A)控制。委員會利用電腦分析增長率，並將調查所得資料以不同數值的加權因數(A)進行預測，即估計若干「可能性」。委員會會考慮下列可能引致人力變動的因素，例如未來汽車的數量、運輸形式的演變、本地經濟復蘇情況等，從而作出適當的預測。預測數字會與調查結果作比較，以了解其準確程度；若有任何差誤，將於下次預測時加以調整。

Recommended Annual Training Requirement
for Workers from 2009 to 2012

2009 年至 2012 年間
平均每年建議培訓的僱員人數

Job Title 職稱	No. of Workers Employed (Excluding Trainees) 現有僱員人數 (受訓者除外)	Annual Training Requirement 每年建議培訓的 僱員人數
TECHNOLOGIST LEVEL 技師級		
Mechanical Engineer (Automotive) 汽車機械工程師	85	2 – 3
Service Manager 維修部經理	161	4 – 5
Sub-total 分類總數	246	6 – 8
TECHNICIAN LEVEL 技術員級		
Service Instructor 維修教導員	48	2 – 2
Motor Vehicle Examiner/Tester 汽車檢查員／測試員	325	11 – 13
Service Supervisor 維修監督	614	20 – 24
Service Adviser/Receptionist 維修服務員／款待員	333	11 – 13
Engineering Technician 工程技術員	363	12 – 14
Parts Supervisor 配件監督	149	5 – 6
Sub-total 分類總數	1 832	59 – 73
CRAFTSMAN LEVEL 技工級		
Vehicle Mechanic 汽車機械工	6 150	247 – 302
Vehicle Electrician 汽車電工	809	33 – 40
Vehicle Body Repairer 車身修理工	958	39 – 47

Job Title 職稱	No. of Workers Employed (Excluding Trainees) 現有僱員人數 (受訓者除外)	Annual Training Requirement 每年建議培訓的 僱員人數
CRAFTSMAN LEVEL (Continued) 技工級 (續)		
Vehicle Body Builder 車身建造工	217	9 – 11
Vehicle Painter 汽車噴漆工	622	25 – 31
Vehicle Air-conditioning Mechanic 汽車冷氣工	162	7 – 8
Vehicle Upholsterer 車內裝飾工	73	3 – 4
Machinist 機床工	86	3 – 4
Industrial Vehicle Mechanic 工業機車技工	70	3 – 3
Sub-total 分類總數	9 147	368 – 450