

For discussion on
16 February 2012

Legislative Council Panel on Manpower

Manpower Projection to 2018

Introduction

This paper presents the preliminary key findings of the Manpower Projection to 2018 (MP2018) and the preliminary observations of the bureaux and departments (b/ds) concerned on the findings.

Background

2. The Government conducts Manpower Projection (MP) from time to time. The projection findings offer useful reference on the broad trends in the future manpower supply and requirement of our economy at the macro level, as well as the potential manpower balance at different education levels, providing pointers for b/ds and other stakeholders in conducting further studies and policy formulation.

3. In 2010, the Government embarked on the current round of MP, with 2010 as the base year and a projection horizon up to 2018, viz. MP2018. The MP comprises three major components, namely the manpower requirement projection (MRP), the manpower supply projection (MSP) and the manpower resource balance (MRB). While MRP is analysed by economic sector, occupation group and education attainment, MSP is analysed by age group, sex and education attainment. By comparing MRP with MSP, we can derive MRB by education attainment. In addition, scenario studies have been conducted to assess the effect of economic fluctuations and cycles on the projections. The preliminary key findings of MP2018 are now available.

Deployment of MP Findings

4. MP projections are made on the basis of certain assumptions on, for example, the general direction in the provision of education and development of various economic sectors. As with any similar statistical exercises, the findings are subject to projection errors. Also, as the statutory minimum wage (SMW) had not been implemented when we collected input data and relevant information through various statistical surveys in 2010-11 for the purpose of

MP2018, no meaningful analysis of the impact of SMW can be conducted at this stage.

5. While MRP covers an analysis by economic sector, MSP does not, as it is not possible to identify in the manpower supply projection the sector in which a person will take up a job after completing his/her relevant education. Hence, MP2018 cannot analyse if there will be any deficit or surplus in the manpower of specific industries. Nonetheless, MP2018 equips b/ds overseeing the respective industries with a useful planning tool to facilitate them in the consideration of the need for further studies in this respect in conjunction with the sector-specific data they possess, as well as the formulation of appropriate measures to provide for sufficient human resources for various industries.

Major Findings of MP2018 and Preliminary Observations

Manpower Supply

6. The local manpower supply¹ in Hong Kong is projected to increase at an average annual rate of 0.6% from 3.42 million in 2010 to 3.58 million in 2018. It is anticipated that the local female manpower supply will grow faster relative to its male counterparts, expanding at an average annual rate of 1.5% from 1.48 million in 2010 to 1.67 million in 2018. Its share in the overall local manpower supply is expected to grow from 43.3% to 46.7% during the same period.

7. In terms of education attainment, the local manpower supply at all education levels, except the relatively lower academic categories of *lower secondary and below* and *upper secondary*, is expected to increase during the period from 2010 to 2018. The manpower supply with *postgraduate* qualification is projected to see the highest growth at an average annual rate of 7.1% from 155 300 in 2010 to 267 900 in 2018. During the same period, the manpower supply at the education level of *lower secondary and below* is expected to shrink at an average annual rate of -3.0% from 1 017 300 to 795 200, while that of *upper secondary* is projected to decrease at an average annual rate of -0.1% from 1 314 900 to 1 303 800.

Manpower Requirement

8. The total manpower requirements² were 3.28 million in 2010 and are projected to increase at an average annual rate of 1.1% to 3.60 million in 2018.

¹ It does not include foreign domestic helpers.

² It does not include foreign domestic helpers.

The three economic sectors anticipated to grow the fastest in terms of manpower requirements during the period from 2010 to 2018 are *Financial services* (at an average annual rate of 2.5%), *Construction* (1.9%) and *Information and communications* (1.9%). The sectors projected to diminish in employment size during the same period include *Manufacturing* (at an average annual rate of -3.1%) and *Agriculture, fishing and quarrying* (-2.6%). The detailed findings are set out in **Figure 1**.

Figure 1 : Projected Manpower Requirements by Economic Sector in 2018

Economic sector	Projected manpower requirement in 2018		Projected change from 2010 to 2018	Projected average annual change from 2010 to 2018
	Number	% share	Number	%
Agriculture, fishing and quarrying	3 000	0.1	- 700	- 2.6
Manufacturing	94 100	2.6	- 27 000	- 3.1
Electricity, gas, water, and waste management	17 100	0.5	+ 1 900	+ 1.5
Construction	315 200	8.8	+ 44 100	+ 1.9
Import, export, wholesale and retail trades	921 800	25.6	+ 47 700	+ 0.7
Accommodation and food services	295 300	8.2	+ 29 900	+ 1.3
Transportation, storage, postal and courier services	345 800	9.6	+ 24 500	+ 0.9
Information and communications	108 100	3.0	+ 15 200	+ 1.9
Financial services	253 100	7.0	+ 46 200	+ 2.5
Real estate	135 100	3.8	+ 16 100	+ 1.6
Professional and business services	370 100	10.3	+ 41 200	+ 1.5
Social and personal services	737 600	20.5	+ 72 700	+ 1.3
Total	3 596 400	100.0	+ 311 800	+ 1.1

9. The manpower requirements of the four pillar industries are projected to increase at an average annual rate that ranges from 0.3% to 2.9% during the period from 2010 to 2018. Taken together, the manpower requirement of four industries is projected to grow at 1.4% annually on average. The detailed projections are summarised in **Figure 2**.

Figure 2 : Projected Manpower Requirements of the Four Pillar Industries in 2018

Four Pillar industries	Projected manpower requirement in 2018	Projected change from 2010 to 2018	Projected average annual change from 2010 to 2018
	Number	Number	%
Financial services	253 100	+ 46 200	+ 2.5
Trading and logistics	781 700	+ 21 100	+ 0.3
Professional services*	347 400	+ 58 700	+ 2.3
Tourism	247 400	+ 49 900	+ 2.9

* The “Professional services” sector in Manpower Projection covers “Professional services” and “Human health activities”, but excludes “Other producer services”.

10. The manpower requirements of the six industries are expected to grow at an average annual rate that ranges from 1.6% to 4.5% during the period from 2009 to 2015³. Taken altogether, the manpower requirement of the six industries is expected to grow at 2.8% a year on average, which will be higher than that of the economy as a whole (the average annual growth rate for the whole economy from 2010 to 2018 is projected to be 1.1%). The detailed projections are summarised in **Figure 3**.

³ We have adopted 2009 as the base year for the projections in respect of the six industries as the actual manpower figures for 2010 were not available when the projections were compiled. Owing to the short historical manpower data series for the six industries, statistically reliable projections can only be made up to 2015.

Figure 3 : Projected Manpower Requirements of the Six Industries in 2015

Six industries	Projected manpower requirement in 2015	Projected change from 2009 to 2015	Projected average annual change (2009-2015)
	Number	Number	%
Education services	80 600	+ 18 400	+ 4.4
Medical services	86 000	+ 14 000	+ 3.0
Testing and certification services	14 500	+ 1 800	+ 2.3
Environmental industries	41 700	+ 9 300	+ 4.3
Innovation and technology	35 800	+ 8 300	+ 4.5
Cultural and creative industries	207 100	+ 18 800	+ 1.6

11. Analysed by broad occupation category, the proportions of “Managers and administrators”, “Professionals”, “Associate professionals”, as well as “Service workers and shop sales workers” in the projected manpower requirements will generally increase along with a shifting of manpower requirements towards higher-skilled, more-educated and service-oriented workers, whereas the proportions of those lower in the occupational hierarchy such as “Clerks”, “Craft and related workers”, “Drivers, plant and machinery operators, and assemblers”, and workers in “Elementary occupations” will remain steady or decrease. The demand for workers in various occupation categories, except “Agricultural and fishery workers” and workers in “Elementary occupations”, is projected to grow at different annual average rates ranging from 0.1% (Clerks) to 2.9% (Professionals).

12. As regards education attainment, it is projected that the manpower requirements for workers with higher education attainment will increase and those at lower education levels will shrink. In particular, the manpower requirements for workers with *postgraduate, first degree or sub-degree* qualifications are expected to have average annual growth rates ranging from 3.7% to 5.5%, while the manpower requirement for those with education at *lower secondary and below* is anticipated to decline significantly at an average annual rate of -2.7%.

Manpower Resource Balance

13. We have derived MRB in 2018 by comparing the findings of MSP with MRP. However, it should be stressed that in a society that embraces lifelong learning, it is common for people to acquire higher qualifications than those requested by individual jobs (for instance, an employee at a job requiring first degree qualification may acquire a post-graduate qualification to facilitate career advancement). In addition, very often there exists some degree of substitutability between workers with different education qualifications. Thus, for a more meaningful picture we should assess MRB by broad education category, namely, (a) *lower secondary and below*; (b) education levels between *lower secondary and first degree* (i.e. *upper secondary, craft, technician and sub-degree*); and (c) *first degree and above*, as set out in **Figure 4**. It is projected that there will be a small manpower surplus of about 8 500 at the education level of *lower secondary and below*, a manpower shortfall of -22 000 at various education levels between *lower secondary and first degree*, and a more or less balanced manpower at *first degree and above* with a slight manpower shortfall of -500. The total local manpower supply is projected to fall short of total manpower requirements marginally.

Figure 4 : Projected MRB by Broad Education Level in 2018

Education level	(I) Projected manpower supply in 2018	(II) Projected manpower requirement in 2018	(III) = (I) – (II) Projected manpower resource balance in 2018 (surplus (+)/ shortfall (-))
Lower secondary and below	795 200	786 700	+ 8 500
Upper secondary, Craft, Technician and Sub-degree	1 732 700	1 754 600	- 22 000
First degree and above	1 054 600	1 055 000	- 500
Total	3 582 400	3 596 400	- 14 000

Preliminary Observations

14. The overall manpower supply is estimated to be 14 000 people short of the overall manpower requirement⁴ in 2018. One of the main reasons for the projected overall manpower shortfall is the slow growth in manpower supply, which is expected to increase only at 0.6% annually on average, vis-à-vis the 1.1% growth rate for manpower requirements. The slow growth in manpower supply is mainly attributable to our ageing population. As the portion of retirees in the population increases with an ageing population, and as the retirees leave the labour force, the growth in manpower supply will be hindered. Ageing population is one of the key population policy issues on which the Government has been focusing its efforts. Among others, the Government has put in place various talent admission schemes to attract talents, streamlined the application procedures for employment visas and introduced relaxed measures to attract non-local students to work in Hong Kong after their graduation.

15. The higher growths in the projected manpower requirements of the four pillar industries and the six industries are in line with Hong Kong's transformation into a knowledge-based economy. These industries generally require the better qualified occupations of "*Managers and administrators*", as well as "*Professionals*". Besides implementing measures to facilitate the sustainable growth of the industries, the relevant b/ds overseeing the development of the respective industries will continue to keep under review the sectoral manpower requirement and supply in consultation with the respective industrial bodies and education institutions as necessary, with a view to providing sufficient manpower. Various b/ds have worked very closely with the industry practitioners concerned in taking forward some of the related initiatives. For instance, the Advisory Committee on Human Resources Development in the Financial Services Sector, which comprises members from the public, academic and private sectors, will continue to assist in examining ways to further enhance the quality and quantity of our financial talents. As regards *Medical services*, on top of regular sectoral manpower requirement assessment, a high-level steering committee will also conduct a strategic review on healthcare manpower planning and professional development. The steering committee will look into, inter alia, the supply of and demand for healthcare professionals and come up with recommendations on how to cope with the anticipated demand and strengthen the related training as warranted.

⁴ In case of a closed domestic labour market where there is no importation of labour, manpower requirement should eventually be constrained by manpower supply. If manpower supply is unable to meet manpower needs, job vacancies will not be filled, especially in those segments with larger manpower shortfalls. Such imbalance in manpower will likely be addressed by the wage mechanism and labour mobility across sectors. For instance, wages will go up generally in case of manpower shortfall and manpower requirements will reduce.

16. The findings of MSP (which assesses the future manpower supply by education level in 2018) and MRB (which presents possible manpower imbalances at various education levels in 2018) serve to illustrate a broad pattern of the manpower situation in 2018 for general reference at the macro level. In a society that embraces lifelong learning and provides multiple and flexible pathways for our young people to advance, it is increasingly common for people to pursue higher academic qualifications for personal interest in addition to career considerations. The projections generally reflect this trend.

17. The more or less balanced manpower resources at the education levels at and above *first degree* have reflected the effectiveness of the Government initiatives in increasing access to post-secondary education for our youths and promoting lifelong learning. On the other hand, it is projected that there will be an overall manpower shortfall of -22 000 at the various education levels between *lower secondary* and *first degree*. This projected manpower shortfall, primarily at the *upper secondary* level, is mainly due to the retirement of post-war baby boomers during the projection period, who will not be replaced sufficiently by new entrants to the workforce given the low birth rates and abundant progression pathways available to the youth in Hong Kong. The projected shortfall at the *upper secondary* level can be partly addressed by the replenishing youth with higher qualifications who can better carry out the jobs with enhanced productivity and more sophisticated skills (for instance, *technician* and *sub-degree*), as employers take this opportunity to enhance their competitiveness for Hong Kong to further transform itself into a knowledge-based economy. Stakeholders may also consider the needs for strengthening training and employment support services with a view to enhancing related manpower mobility.

18. As regards the small surplus in the manpower at the education level of *lower secondary and below* in 2018, the Employees Retraining Board (ERB), for example, will continue to provide training and retraining courses, as well as related placement support, to our elementary workers with a view to improving their competitiveness and employability in meeting the challenges of economic restructuring. In particular, since July 2009, ERB has offered the “Skills Upgrading Scheme Plus” (SUS Plus), taking over from the former “Skills Upgrading Scheme”. SUS Plus aims to enhance the industry-specific knowledge and skills of in-service workers. It also welcomes trainees who seek for a change in career. Furthermore, the Qualifications Framework (QF), which provides a seven-level hierarchy of qualifications and competency standards for individual industries, was launched in 2008 to provide the infrastructure for helping workers improve their qualifications through lifelong learning. With the infrastructure in place, we will aim to further diversify our training services by, for instance, providing more QF-recognised placement-tied

and skills upgrading courses for low-skilled workers in order to upgrade their employability, which may also in part help address the projected manpower shortfall at the education levels between *lower secondary* and *first degree*.

Advice Sought

19. Members are invited to note the preliminary key findings of MP2018 and the preliminary policy observations.

Labour and Welfare Bureau
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