

Manpower Projection for the Security Services Industry for 2006 to 2008  
Using the Labour Market Analysis (LMA) Approach

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### Input – Output Model

1. The input-output I/O model has been applied to project manpower requirements of the Security Services Industry since 2003. In the I/O model, an industry is assumed to have fixed production coefficients (i.e. constant return to scale) over the short time span under consideration (say six months to under three years). To generate the employment effect, it is necessary to estimate a set of labour input requirements by determining the ratio of the production (or final demand) to the number of employees. The ratio, called employment coefficient, will represent the number of employees needed to produce a single unit of production.

2. The manpower projection for the Security Services Industry is formulated based on the I/O Model (labor multiplier approach) by deriving the relationship between the production of buildings in the group and the number of workers needed.

3. The stocks of private<sup>1</sup> & public<sup>2</sup> residential flats and non-residential flats<sup>3</sup> are taken to be the production. The forecast production of residential and non-residential flats in 2006 is provided by the Rating and Valuation Department. The forecast production in 2007 and 2008 is projected by the Adaptive Filtering Method. To generate the employment effect, it is assumed that 67.5% and 32.5% of the total manpower are working for residential flats and non-residential flats respectively. (This assumption is based on the distribution of the completion of the types of building in the period from 2000 to 2004). The manpower projections by type of flats and by job level are presented below.

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<sup>1</sup> The stocks of residential flats in the private sector are measured by the number of flats. (Source: Rating & Valuation Department)

<sup>2</sup> The stocks of public residential flats are measured by the number of flats. The stocks comprise:

- (a) Interim housing flats provided by the Housing Authority,
- (b) Public rental flats provided by the Housing Authority and the Housing Society,
- (c) Subsidized sale flats sold under the Tenants Purchase Scheme (TPS),
- (d) Subsidized sale flats under the Home Ownership Scheme (HOS), the Private Sector Participation Scheme (PSPS), the Middle Income Housing Scheme (MIHS), the Buy-or-Rent Option Scheme (BRO), and the Mortgage Subsidy Scheme (MSS) provided by Housing Authority. From Q12002 onwards, parts of the subsidized flats under HOS, PSPS, MIHS can be traded in open market are classified as private residential flats.
- (e) Subsidized flats under the Flat-for Sales Scheme (FFSS) and the Sandwich Class Housing Scheme (SCHS) provided by the Housing Society. From Q12002 onwards, parts of the subsidized flats under FFSS and SCHS can be traded in open market are classified as private residential flats.

(Sources: Hong Kong Housing Authority)

<sup>3</sup> Non-residential flats include private offices, commercial, industrial / offices, flatted factories, specialized factories and storages. Its measure is square m. (Source: Rating & Valuation Department)

### A. Manpower projection at the Managerial / Professional Level

Year	Actual Manpower		Projected Manpower		Total Projected Manpower
	67.5% of manpower for private and public residential flats	32.5% of manpower for non-residential flats	67.5% of manpower for private and public residential flats	32.5% of manpower for non-residential flats	
2005	1 486	715	-	-	-
2006F	-	-	1 502	723	2 225 (1.1%)*
2007F	-	-	1 517	730	2 247 (1%)**
2008F	-	-	1 532	737	2 269 (1%)***

\* as percentage increase / decrease of the projected manpower over the actual manpower in 2005

\*\* as percentage increase / decrease as of the projected manpower over the projection of 2006

\*\*\* as percentage increase / decrease as of the projected manpower over the projection of 2007

### B. Manpower projection at the Supervisory / Technician Level

Year	Actual Manpower		Projected Manpower		Total Projected Manpower
	67.5% of manpower for private and public residential flats	32.5% of manpower for non-residential flats	67.5% of manpower for private and public residential flats	32.5% of manpower for non-residential flats	
2005	8 562	4 122	-	-	-
2006F	-	-	8 656	4 167	12 823 (1.1%)*
2007F	-	-	8 742	4 209	12 951 (1%)**
2008F	-	-	8 829	4 251	13 080 (1%)***

\* as percentage increase / decrease of the projected manpower over the actual manpower in 2005

\*\* as percentage increase / decrease as of the projected manpower over the projection of 2006

\*\*\* as percentage increase / decrease as of the projected manpower over the projection of 2007

## Manpower projection at the Security Guard Level

Year	Actual Manpower		Projected Manpower		Total Projected Manpower
	67.5% of manpower for private and public residential flats	32.5% of manpower for non-residential flats	67.5% of manpower for private and public residential flats	32.5% of manpower for non-residential flats	
2005	57 065	27 476	-	-	-
2006F	-	-	57 693	27 778	85 471 (1.1%)*
2007F	-	-	58 270	28 056	86 326 (1%)**
2008F	-	-	58 853	28 337	87 190 (1%)**

\* as percentage increase / decrease of the projected manpower over the actual manpower in 2005

\*\* as percentage increase / decrease as of the projected manpower over the projection of 2006

\*\*\* as percentage increase / decrease as of the projected manpower over the projection of 2007

4. To obtain the total manpower for the whole Security Services Industry, the remaining sub-sector from supplementary sample is assumed to have the same growth (1%) as the projected manpower for the 3 job levels. The aggregate manpower requirement is the sum the projected manpower for the three job levels and that of the remaining sub-sector.

Year	Actual Manpower	Employers' Forecast (at the time of the survey)	Projected Manpower
2005	99 426	-	-
2006F	-	99 358 (-0.1%)	100 519 (1.1%)*
2007F	-	-	101 524 (1.0%)**
2008F	-	-	102 539 (1.0%)**

\* as percentage increase / decrease of the projected manpower over the actual manpower in 2005

\*\* as percentage increase / decrease as of the projected manpower over the projection of 2006

\*\*\* as percentage increase / decrease as of the projected manpower over the projection of 2007