

CHAPTER 4

METHODOLOGY FOR THE PAY LEVEL SURVEY

4.1 INTRODUCTION

4.1.1 Part I of our First Report on the Pay Level Survey (Report No. 16), traces the evolution of the methodology for job evaluation, from Hay's initial proposals, through the views expressed by members of the PLSAC during their first series of meetings, to our eventual recommendations on the approach to be adopted.

4.1.2 The Acting Governor's letter of 14 August 1986, to which we have referred in paragraph 1.9.3, expressed acceptance of the recommended methodology in general, but requested modifications in certain areas. Most of the suggested modifications concerned the treatment of fringe benefits and are dealt with in Chapter 5, but one, a request to include expatriate salaries in total packages for the private sector, bore more relevance to job and pay evaluation and we therefore make reference to this point in paragraphs 4.8.1 to 4.8.4 of this chapter.

4.1.3 The methodology employed by Hay in obtaining the results for their initial report (see paragraph 1.10.1) was based on our recommendations in Report No. 16 and had incorporated the amendments requested by the Acting Governor in his letter. The following paragraphs describe this methodology. For ease of reference, the format used in this Report follows that of Report No. 16.

4.1.4 The survey data for salaries and fringe benefits were collected from the private sector companies and the civil service during the period 1 September to 15 October 1986. The date of the survey was selected as 31 August 1986, and all data collected by Hay were valid as of that date.

4.2 GENERAL DESCRIPTION OF THE METHODOLOGY USED BY HAY

4.2.1 The methodology adopted by Hay, known as the "Hay Guide Chart System", involved the selection of a representative sample of civil service jobs, which was compared with a similarly representative sample of jobs in the surveyed companies. In each job surveyed, certain common factors were evaluated to enable a comparison to be made between the levels of pay and fringe benefits for jobs of

similar Hay points in the public and private sectors. This process is explained in more detail in paragraphs 4.5, 4.6 and 4.7 of this chapter.

4.3 GUIDELINES FOR THE METHODOLOGY FOR THE PAY LEVEL SURVEY

4.3.1 The guidelines which we asked Hay to follow in their work on the Pay Level survey are listed in paragraph 2.2.1. During the first series of PLSAC meetings, these guidelines were discussed and several members expressed their views. As a result, several minor changes were made which are detailed in the paragraphs 4.3.2 to 4.3.7 below.

Inclusion of Public Utility Companies

4.3.2 A broad cross-section of PLSAC members expressed the view that the private sector sample would be more representative of the Hong Kong economy if some public utility companies were included. Such companies had not been included by us in the Pay Level Survey because they generally followed civil service pay trends and we felt that it would be inappropriate to include them in the survey field. After further consideration, however, we reached the conclusion that, although the pay increases awarded to the employees of public utility companies might follow closely those awarded to civil service staff, the levels of pay on which these pay increases were based might be quite different, and we accordingly agreed that two public utility companies should be included in the survey sample.

Division of the Upper Band of the Master Pay Scale (MPS)

4.3.3 The Association of Expatriate Civil Servants pointed out that, as the value of fringe benefits enjoyed by civil servants on pay points MPS 38 - 47 differed markedly from those available to staff on points MPS 48 - 51, the upper band of the Master Pay Scale should be split between MPS 47 and MPS 48. We agreed that this should be so, and pay points MPS 48 - 51 were duly renamed the upper/upper band, whilst MPS 38 - 47 continued to be known as the upper band.

Division of the Lower Pay Band

4.3.4 A similar point was made by the Model Scale 1 Staff Consultative Council, which felt that Model Scale 1 staff should be treated as a separate band in their own right, since there were marked differences between the fringe benefits available to them and those available to staff on MPS 1 - 13, with whom they had previously constituted a single pay band. The Administration offered its support to this suggestion and, after consideration, we felt that such a

split was justified. Model Scale 1 staff thereafter became known in the Pay Level Survey as the Model Scale 1 band and staff on MPS 1 - 13 became known as the lower band.

4.3.5 For the purpose of the Pay Level Survey, therefore, after the divisions in the upper and lower pay bands described in paragraphs 4.3.3 and 4.3.4 above, the eventual number of civil service pay bands totalled five, as follows :

Upper/upper band	:	MPS 48 - 51
Upper band	:	MPS 38 - 47
Middle band	:	MPS 14 - 37
Lower band	:	MPS 1 - 13
Model Scale 1 band	:	Model Scale 1 pay scale

Further Changes in the Survey Field

4.3.6 The survey field underwent a further change when fourteen companies already participating in the pay trend surveys declined to take part in the Pay Level Survey. These companies, therefore, were deleted from the survey field.

4.3.7 Following a decision taken at a meeting of the Pay Trend Survey Committee on 11 August 1986, to include fourteen additional companies in the pay trend survey field, we came to the conclusion that the same fourteen companies should also be invited to participate in the Pay Level Survey. This would ensure maximum similarity between the two survey fields. In the end, nine companies accepted the invitation and the final number of private sector companies which participated in the Pay Level Survey, including the two public utility companies, was fifty-two.

4.4 DATA COLLECTION

4.4.1 Hay began their work by collecting data from the civil service, covering 141 civil service ranks and 405 job holders. These ranks comprised 137,165 officers, or approximately 80% of all staff at the non-Directorate level (para 5.1.4 of Hay's Report at Appendix VIII refers). The sample of jobs was selected, having taken into account suggestions made by PLSAC members, in such a way as to provide adequate coverage of the five civil service pay bands. Jobs performed by Disciplined Services staff were evaluated together with those of other civil servants in the corresponding pay bands. The aim of the survey was to draw a comparison between the pay of each civil service pay band and its private sector counterpart, rather than between the pay for individual grades or ranks in the two sectors. Under the broadbanding system, it was therefore not necessary to take a representative sample of each grade. All that was needed was that the sample should be representative of the civil service as a whole.

4.4.2 The data for the civil service were collected by issuing questionnaires to all the job holders involved in the survey and, when the completed questionnaires had been returned to Hay and studied by them, the information thus obtained was verified and supplemented by personal interviews conducted by Hay consultants with the job holders. Wherever necessary, additional information on job content was sought from departmental management.

4.4.3 To facilitate their selection of a representative sample of private sector jobs, Hay sought information on jobs in each company which would provide a picture of the total pay and fringe benefit levels of those companies. The number and range of positions selected from each company depended on the size and complexity of the organization and were decided with the help of the company management concerned. Hay covered approximately 1,300 individual private sector positions during the course of their work.

4.4.4 The private sector data, like that for the civil service, were obtained through the use of questionnaires and personal interviews with job holders. In addition, company management was consulted on job content and further information was sought from organization charts, published reports and other documentation. The questionnaires used for the private sector were the same as those used for the civil service.

4.4.5 Hay also collected specific information on starting pay and associated fringe benefits for jobs requiring professional qualifications in the private sector.

4.5 JOB EVALUATION

4.5.1 Hay's method of job evaluation entailed the analysis of each of three common factors within each job. These factors were :

- (a) Know-how : The sum total of all capabilities and skills, however acquired, which were necessary for acceptable performance of the job. Three requirements were involved in the accumulation of know-how, as follows :
 - (i) An understanding of practical procedures, specialized techniques and professional knowledge;
 - (ii) The capacity to achieve a diverse range of managerial goals simultaneously. These goals might be operational, technical, supportive or administrative and achieving

them would involve the use of planning, organizational, executive, controlling and evaluative skills; and

- (iii) The ability to work with other people.
- (b) Problem-solving : This factor had two aspects :
- (i) The regulations and procedures governing the approach to be taken when solving problems; and
 - (ii) The challenge presented by the thought processes required.
- (c) Accountability : The answerability for action and for its consequences, which can be measured according to three criteria, in the following order of importance :
- (i) Freedom to act and the extent to which performance of the job was guided or controlled by the system or by other people;
 - (ii) The impact of the job on end results; and
 - (iii) The magnitude of the job with reference to its influence on the total organization. This was usually, but not necessarily, reflected by the annual revenue or expenditure associated with the area in which the job had its primary emphasis.

4.5.2 Hay guide charts were used to assign a number of job points to each of these factors on the basis of the consultant's assessment of its importance to the job concerned. The relationship of the scores for each factor was then studied to ensure that it conformed to an acceptable pattern based on the nature of the job. This final step, termed "profiling", was essential in assessing the accuracy of the evaluation process, because if the relationship between the scores for the three factors was incorrect, then the whole evaluation would be incorrect. The evaluation process, outlined in paragraphs 4.5.3 and 4.5.4, was then followed in order to establish the total number of job points for each job.

4.5.3 The data collected for each civil service job were presented by the consultant involved to a pre-evaluation committee consisting of several consultants. After discussion of the data, members of the committee independently prepared their evaluations of the job, which were then discussed until a consensus was reached and recorded. These preliminary evaluations formed the basis for

the work of the main evaluation committee, which was chaired by the director of Hay International (UK), who was accountable for civil service evaluation and quality control internationally. The other members of this committee included the chairman of the private sector evaluation committee, to ensure consistency of standards between the workings of both committees. Staff of the Pay Survey and Research Unit were present as observers throughout the meetings of the main evaluation committee when civil service jobs were considered.

4.5.4 A similar process was followed for each of the private sector companies and the results of these evaluation sessions were discussed with the company concerned to ensure that all salient information and data had been taken into account.

4.5.5 Hay then correlated the results of this exercise with job scores for other civil service and private sector organizations held in their international database. This ensured that the standard of evaluation was consistent both throughout the study and with international standards. The consultant who led the evaluation committee was required to give an explanation of any areas of doubt to the satisfaction of an experienced correlation committee.

4.6 DATA ANALYSIS

4.6.1 Once the job scores for positions in both the public and private sectors were found to be satisfactory, data analysis followed. Salary data were collected and evaluated and, in accordance with views expressed by PLSAC members, the average* rather than the median# figure was calculated and used for comparison purposes. A further evaluation was carried out in respect of job-related allowances and hours worked in each rank. Fringe benefits were valued in the manner described in Chapter 5.

* Average is defined as the sum of a set of data divided by the number of cases in the set.

Median is defined as the middle of a series of numbers.

4.6.2 Hay analysed pay levels for each civil service pay band and each private sector company. Total evaluation points for each job or group of jobs were plotted against the average pay for the job and scattergrams* were drawn for (a) pay alone, (b) pay plus other cash allowances and (c) pay plus cash allowances plus any fringe benefits to be included in the survey - i.e. total packages. Similar scattergrams were drawn separately for each of the private sector companies to represent accurately its pay level. Using computer analysis, the practice line# of the civil service was then compared with the average line for the private sector in each civil service pay band.

4.7 THE DISCIPLINED SERVICES

4.7.1 Hay used a different approach in assessing the job size and pay of the Disciplined Services because of the special nature of their work. Broadly, the special features of the work of Disciplined Services staff can be categorized in two ways :

- (a) Those elements which can be measured in the evaluation process, such as the need for advanced training in necessary skills or in the use of specialized equipment in the fire services and the police; the need for special training in investigative work in the police and customs service; and the requirement for special skills in dealing with potentially difficult or dangerous situations in the Disciplined Services such as crowd control or handling dangerous criminals; and
- (b) Those elements which cannot be measured in the evaluation process, such as stress, danger, being on constant call and restrictions on personal freedom.

* Scattergram is defined as the distribution of data in raw format obtained by plotting the pay for each job holder in a sample against the relevant job scores.

Practice line is defined as the line of "best fit" or central tendency that represents the relationship between job size and pay, for a set of related positions.

4.7.2 Hay evaluated all Disciplined Services jobs in the same way as for jobs on the Master Pay Scale and Model Scale 1, but they took into account the factors noted in paragraph 4.7.1 (a) in arriving at the Hay point score for each individual job. They then compared the pay of the two Disciplined Services pay scales - i.e. Disciplined Services Pay Scale (Officers) and Disciplined Services Pay Scale (Rank & File) - with the Master Pay Scale at equivalent Hay points, to determine the difference between them. It was found that the pay for Disciplined Services staff was, on average, higher than that for staff on the Master Pay Scale. This difference in pay, which Hay felt might compensate for the second set of special features (see paragraph 4.7.1 (b)), was then deducted from the pay figures for the Disciplined Services, prior to making comparisons with pay for jobs of similar size in the private sector.

4.7.3 In addition, Hay agreed to seek information from the private sector companies on the way in which their employees were compensated for the special factors described in paragraph 4.7.1 (b). This information would then be used to comment, in Hay's final report, on the element paid to the Disciplined Services in recognition of these special factors. In the event, this was found by Hay to be impossible, due to the lack of private sector jobs incorporating such factors.

4.8 THE INCLUSION OF PRIVATE SECTOR EXPATRIATE SALARY DATA

4.8.1 In Report No. 16, we recommended that the valuation of total packages for pay level comparisons should only have regard to local terms of service (paragraph 8.3.5 of Report No. 16 refers).

4.8.2 The Acting Governor's letter of 14 August 1986 drew attention to the Government's policy of treating local and expatriate staff as one homogeneous group for salary purposes - in other words, the salary components of their total packages are identical. In the view of the Acting Governor, therefore, if the Pay Level Survey were to collect data from the private sector in respect of local salaries only, the position would be greatly distorted for the civil service, which would consequently be unable to compete with the private sector for the recruitment and retention of staff.

4.8.3 In our consideration of the Acting Governor's observation, we noted that the proportion of expatriate civil servants at the non-Directorate level becomes significant in

pay bands MPS 38 - 47 and MPS 48 - 51, at 15.8% and 30.9%* respectively. Below MPS 38, on the other hand, the proportion of expatriates in each individual pay band amounts to less than 1%. In the light of this information, we concurred that data on expatriate pay in the private sector for pay levels corresponding to MPS 38 - 51 should be included in the calculation of private sector total packages, on the same basis as private sector local pay. This has accordingly been carried out and the results have been processed using regression analysis#, so as to reflect the proportion of expatriate to local staff in the private sector.

4.8.4 In addition to the Acting Governor's request, we were asked by the Association of Expatriate Civil Servants to collect and publish separate data on expatriate salaries and fringe benefits in the private sector. Although the original methodology excluded the collection and evaluation of salary and fringe benefit data for expatriates, Hay agreed to provide a general indication of the differences in the base salaries of expatriate and local staff in the private sector for the upper/upper and upper band equivalents. They also agreed to provide a full analysis of fringe benefits offered to expatriates in the private sector group of companies. This information is given in Chapter IX of Hay's report at Appendix VIII.

* These figures exclude ICAC officers and those on terminal leave.

Regression analysis is a mathematical process whereby the line of central tendency ("best fit") is determined for a group of related data (e.g. a scattergram).