Grossing-up of Tax-free Salaries

Question

To what extent an income of \$90,000 tax-free should be grossed up.

Workings (a)

Assume Y = total assessable income

(b)

Associated tax element would be : Y - \$90,000

(c)

From Appendix VII, one finds :

(i) tax on total assessable income of \$89,500 is \$1,500

(ii) marginal tax rate on Y - \$89,500 is 15%

(d) It follows from (c) that the associated tax element is also = \$1,500 + 15%(Y - \$89,500)

It follows from (b) and (d) that : (e)

Y - \$90,000 = \$1,500 + 15%(Y - \$89,500)

or Y - \$90,000 = \$1,500 + 0.15Y - \$13,425

or 0.85Y

= \$1,500 - \$13,425 + \$90,000

or 0.85Y

= \$78,075

or Y

= \$91,853

Result

An income of \$90,000 tax-free should be grossed up to \$91,853.

TOWERS, PERRIN, FORSTER AND CROSBY'S REPORT ON THE VALUATION OF FRINGE BENEFITS

STANDING COMMISSION ON CIVIL SERVICE SALARIES AND CONDITIONS OF SERVICE

VALUATION OF FRINGE BENEFITS

March 1986

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STANDING COMMISSION ON CIVIL SERVICE SALARIES AND CONDITIONS OF SERVICE

VALUATION OF FRINGE BENEFITS

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SUMMARY OF PRINCIPAL CONCLUSIONS

An objective of the Standing Commission is to develop its recommendations for civil service pay taking into account total compensation -- pay and benefits -- in the civil service and the private sector.

We have been asked to provide advice on how fringe benefits should be valued for pay level and pay trend surveys. This report presents the method by which this should be done, as well as dealing with certain related issues.

A summary of the report contents is as follows:

A. OVERALL METHOD

Employees in the public and private sectors are entitled to a wide variety of benefits. To ensure that a fair comparison of the value of these benefits is made, a method which values all benefit plans in a consistent manner must be applied. The recommended method, as fully described in Section III, operates as follows:

- 1. The public sector jobs to be included in the pay level survey are specified.
- The public sector benefits provided to employees in these public sector jobs are identified, and the value of those benefits calculated. This determines the value of benefits that are actually provided to the public sector.
- 3. The next step is to calculate what the corresponding benefit value would be if these same public sector employees were given private sector benefits.

(i)

Because the same employees (as in step 2) are used in this calculation, a consistent base for calculating benefit values is established.

4. The results of steps 2 and 3 can then be compared to determine the relative value of public and private sector fringe benefits. When added to the results from the pay level survey, total compensation comparisons can be made.

B. RELATED ITEMS

As well as the overall method for valuing benefits, we were asked to advise on certain specific issues. On these items, our recommendations are as follows:

- 1. Non-pay-related benefits should be included in pay trend surveys (Sections IV and V).
- 2. The impact of taxation on fringe benefit values should be taken into account (Section VI).
- 3. Death and disability benefits should be included in the fringe benefit valuation (Appendix B).
- 4. Overseas Education Allowances should be included in the valuation process in a way that recognizes the special character of this benefit (Appendix C).

The report also provides details on the techniques that should be applied to value retirement benefits (Appendix A), medical and dental benefits (Appendix D) and housing benefits (Appendix E). Data collection is discussed in Section VII.

C. APPLICATION OF THE METHOD

We recommend that for the first fringe benefit valuation, all fringe benefits that can be regarded as entitlements be included. This will explicitly identify the contribution of each benefit to the total pay package. It may then be apparent that some benefits are of so little value that they have no material impact on the results. In these cases, it may be possible to achieve economies in the data gathering and valuation processes by ignoring such benefits in later surveys.

I. INTRODUCTION

An objective of the Standing Commission is to develop its recommendations for civil service pay taking into account total compensation -- pay and benefits -- in the civil service and the private sector.

The Commission recognized that, before pay level surveys could be conducted, a method for quantifying the value of fringe benefits would need to be developed.

The Pay Research Advisory Committee of the Commission developed preliminary views on a method for quantifying the value of fringe benefits. TPF&C has been requested to address the following:

- to advise whether any significant form of fringe benefit provided in the public and private sectors has been omitted from the list developed by the Committee;
- to advise whether any of the general assumptions adopted by the Committee require modification and whether any additional assumptions should be made;
- -- to advise how the following fringe benefits should be valued for pay level and, where appropriate, pay trend surveys. This is to include the way in which any method of valuation could be applied in practice, the way in which data should be collected in both sectors for surveys and the way in which the final value of the various pay packages should be arrived at. The benefits are:
 - (i) Retirement benefits;
 - (ii) Housing benefits;
 - (iii) Medical benefits; and
 - (iv) Dental benefits.

- -- to advise whether non-pay-related fringe benefits should be excluded from pay trend surveys; and
- -- to advise which age and salary cut-off points should be used to value overseas education allowances.

Underlying these specific items, there are really two fundamental issues to consider. These are:

- 1. How can the individual fringe benefits be included in an overall valuation process which assures that each benefit will contribute a fair and consistent value to the total?
- 2. How can the fringe benefit valuation process be designed so that it can be incorporated into a measurement of the total pay package given that the pay level survey has not yet been designed?

To answer these two fundamental questions, it is necessary to establish a framework within which we can deal with the specific items for which a valuation technique is required. In Section III of this report we provide such a framework. It is called the Standard Population Method. Although lengthy, the Section provides a non-technical, simplified description of the Method. The numbers used in the tables and text are illustrative only. They are used only to illustrate the process and no specific conclusions should be drawn from them.

The following is a list of definitions for some of the terms used in the balance of this report:

Capitalization Factor

: A factor used to represent the current value of a series of future payments.

Demographic Characteristics : Quantitative aspects of employee population (age, service, etc.)

Discount Factor

: A factor used to represent the current value of a future payment.

Marginal Tax Rate

: The tax rate applicable to an additional dollar of salary.

Pure Interest

: A rate of return which does not include the effects of inflation and other factors.

"Real" Increase

: An increase over and above that arising from inflation.

Standard Population

: This term is used to describe the composition of a selected group in the public sector broken down by age, service, etc. This population is used as a fixed reference point for calculating the value of any and all benefit entitlements. Since the demographic characteristics of the population are held constant, the resulting ranking of employers' benefit plans reflects only the differing features of the benefit plans.

Standardized Benefit Value : A value which has been determined by consistently applying a standard set of actuarial methods and assumptions to a common employee population (the Standard Population).

Total Compensation

: The sum of cash compensation (i.e. salary) and the value of fringe benefits.