



# GUIDELINE FOR CALCULATING AN HOURLY CHARGE OUT RATE FOR PROFESSIONAL ENGINEERING OR GEOSCIENCE SERVICES PROVIDED BY SOLE PRACTITIONERS

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This Guideline is intended to provide members of APEGBC and especially sole practitioners information on the cost of providing professional services and with a means by which an hourly charge out rate can be determined. Due to the fact that sole practitioners often do not base their compensation on a predetermined annual salary this document provides a basis by which they can calculate an hourly charge out rate. For the purposes of this document a sole practitioner is defined as a member of APEGBC providing professional services through a business entity for which he or she is the sole owner and the only professional employed by the business entity.

There are three steps used in calculating an hourly charge out rate.

Step 1 is used to determine a member's hourly payroll cost either using annual working hours as the basis for calculating this figure or annual billable hours. Example of both calculations are provided under Step 1.

Step 2 then applies a payroll multiplier to the hourly payroll cost to determine a specified hourly charge out rate.

It should be noted that the sample figures and calculations provided are examples only and are not intended to reflect rates charged for any specific engineering or geoscience activity. Also under Exhibit 13 of the 1998 Report on Member's Compensation and Benefits the total annual compensation reported by APEGBC members varied according to the geographic location in British Columbia. Thus an hourly charge out rate appropriate in one area of B.C. may be found to be inappropriate in another location in B.C. even though the same type of professional service was involved.

## **Step 1 Calculation of Hourly Payroll Cost**

Hourly payroll cost =  $\frac{\text{annual salary cost} + \text{fringe benefits cost}}{1950 \text{ hours}}$

a) fringe benefits - for the sole practitioner fringe benefits include annual vacation, statutory holidays, medical and hospitalization insurance, life, dental and other insurance premiums, sick leave provisions and Canada pension and company pension.

The fringe benefit cost is typically 20% to 30% of an individual's salary.

b) annual working hours - annual working hours are defined as the regular working hours per week multiplied by 52.

(i.e. 52 weeks/year x 37.5 hours/week = 1950 hours/year)

Annual billing hours - the estimated annual chargeable hours for which a sole practitioner will be billing clients (i.e. 1950 hours/year x 80% billable = 1560 hours)

c) annual salary - a benchmark annual salary for a sole practitioner can be calculated using the 1998 Report on Member's Compensation and Benefits. For example

from Exhibit 8 of the 1998 Report on Member's Compensation and Benefits the median salary for a professional engineer having an employment rating factor of 449 who graduated in 1982 would be \$73,600. The sole practitioner must evaluate their individual circumstances to determine a representative salary based on their experience and job rating factors using the data contained in the 1998 Report on Members' Compensation and Benefits.

Example (using working hours)      Hourly payroll cost =  $\frac{\$73,600 + 25\%}{1950 \text{ hours}} = \$47.18/\text{hour}$

Example (using billable hours)      Hourly payroll cost =  $\frac{\$73,600 + 25\%}{1560 \text{ hours}} = \$58.97/\text{hour}$

### **Step 2    Determination of Payroll Multipliers**

The Payroll multiplier covers overhead costs and profit and will vary according to conditions affecting efficiency and costs. The factors included in determining an appropriate payroll multiplier are overhead costs and profit and these items are described in detail at the end of this Guideline.

Payroll multiplier can vary from 2.0 to 3.0 or more depending upon various factors.

The applicable payroll multiplier may be at the lower end of the range identified above if the requirement for services is large (in the hundreds of billable hours) and on a continual basis. A payroll multiplier at the higher end of the scale is typically used for projects which are shorter in duration with intermittent demands for time.

Payroll multipliers are based on cost records for projects with varying effort requirements, and represent those fees required to sustain a mature and competent consulting practice capable of providing a high standard of professional service on an ongoing basis. These fees are based on normal conditions in which the overhead cost items described below are borne by the consultant.

As an alternative a sole practitioner may use the annual billable hours in calculating their hourly payroll cost rather than their annual working hours. The payroll multiplier used by the sole practitioners who use their annual billable hours in calculating their hourly charge out rate must reflect the fact that their payroll multiplier no longer cover costs related to non-billable time.

### **Step 3    Calculation of Charge Out Rate**

The determination of a charge out rate is the product of the Hourly Payroll Cost and the Payroll Multiplier.

#### **Example (using working hours):**

Payroll multiplier = 2.5 x hourly payroll cost

Specified Hourly Charge out rate      = 2.5 x \$47.18/hour  
= \$117.94

#### **Example (using billable hours):**

Payroll multiplier = 2.0 x hourly payroll cost  
Specified Hourly charge out rate      = 2.0 x \$58.97/hour = \$117.94

### ***Specified Hourly Rates***

These rates are set on the basis of a stated hourly rate and anticipated adjustments of such rates during the life of a project should be explicitly documented.

### ***Special Expertise***

Fees for senior personnel rendering specialized or expert service such as a concept review or testimony for which they are eminently qualified can be twice the hourly charge out rates.

### ***Overhead Costs***

Costs relating to the general operation and maintenance of a professional practice that are not billable directly to the project include:

#### *Physical Plant*

- office rental and operating costs
- furnishings
- usual tools and equipment (excluding specialized equipment and software covered by negotiated rates)
- telephones, fax, etc
- word processing equipment, copiers, etc

#### *Operating Costs*

- business and professional licences
- professional and general liability insurance
- stationery and office supplies
- technical library and periodicals
- staff recruitment, training and severance
- audit and legal fees
- bad debts and bank financing interest
- administrative salaries (accountants, clerks, receptionists, librarians)
- secretaries whose time is not directly billable to client projects
- non-billable time by professional and technical staff in updating procedures, attending technical seminars, research and development, and other activities not billable to projects
- business development

Overhead costs vary according to the size of operation, location of office and the nature of services provided.

### ***Profit***

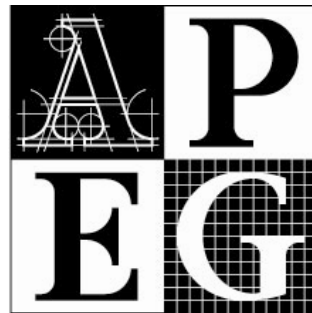
The remaining balance, after direct costs and overhead costs are deducted from total revenue, represents the before-tax, before-dividend and before-bonus profit. The level of profit on a specific project should reflect the consultant=s exposure to risk on the project. **The client should expect competent and efficient services at a fee that provides an appropriate profit to the consultant.**

### ***Risk***

Obligations with legal and financial consequences can arise out of the responsibilities assumed by a professional engineer or geoscientist when providing professional consulting engineering or geoscience services. These responsibilities can result in a professional=s liability to the client or others in respect of a claim, whether in contract, tort or other cause of action in law.

Thus when determining an acceptable fee for the provision of professional services consideration of the potential liabilities associated with the work involved should be taken into account.

For further information on fees please consult the *Fee Guidelines for Engineering Services* endorsed by the Consulting Engineers of B.C. (CEBC) and the Association of Professional Engineers and Geoscientists of B.C. (APEGBC) (1998)



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