

Gary Housch
Executive Director
Ottawa Professional Fire Fighters Association

June 5, 2016
Project Number: 16-03

Suite 201, 2378 Holly Lane
Ottawa, Ontario
K1V 7P1

Re: Analysis of 2015 OPFFA Data

Mr. Housch,

This letter follows a discussion that was held between Dr. Patrick Boily of Idlewyld Analytics and Consulting Services and yourself. On the basis of those discussions, we are pleased to submit this Letter of Proposal to provide you with assistance and advice regarding the analysis of the 2015 Ottawa Professional Fire Fighters Association (OPFFA) data.

Background

The 2014 OPFFA data was analyzed in a previous project; particular attention was spent to training data, sick leave data, overtime data, and WSIB data (see *Analysis of Ottawa Professional Fire Fighters Association Data*, by S.Hagiwara and P.Boily, 2016).

Objective and Scope

The OPFFA has requested that a similar analysis be conducted using its 2015 data.

Methodology

The tasks to be undertaken for any such analysis are outlined below:

1. *Data cleaning and formatting*: Idlewyld will review documents pertaining to the sick leave and training data, clean-up the dataset (imputation of missing observations, outlier detection, detection of inconsistencies) and put it in format which will be amenable to the eventual analyses. We will consult with OPFFA (and City of Ottawa, where appropriate) stakeholders to ensure the integrity of the data set before starting the analyses.
2. *Analysis of sick leave, overtime, training, and WSIB data*: Idlewyld will conduct analyses along the same line as those of the 2016 report.
3. *Presentation and visualization of analysis results*: Idlewyld will present the results of both of the previous analyses to OPFFA stakeholders in the form of tables, charts and graphics, test statistics, etc. in such a way as to easily visualize and interpret the results.
4. *Documentation of findings*: Idlewyld will create a short report detailing the results obtained above.

Deliverables

The following deliverables will be provided by Idlewyld:

1. The cleaned-up dataset (Task 1);
2. Presentation of the results of the analysis in the form of easy-to-use-and-interpret tables, charts and graphics (Task 3);
3. Model documentation (Task 4).

Schedule and Assumptions

Idlewyld understand that Gary Housch will act as the OPFFA Project Authority and Idlewyld will rely on him for assistance throughout this assignment, in particular to receive, review and approve (or obtain approval of) the deliverables, through email exchange and telephone.

Provided that this Proposal is agreed to by September 1, 2016, we expect this project to be completed by December 20, 2016. Should this agreement not be agreed to by September 1, 2016, the timing of completion of the project could be affected and Idlewyld may not be able to guarantee the availability of its resources.

In estimating our time and resource requirements, we have assumed that the OPFFA Project Authority will identify appropriate OPFFA (and City of Ottawa, where appropriate) contacts, stakeholders and subject matter experts, and that these contacts will provide Idlewyld with the necessary information pertaining to their management systems, database and data, in a timely manner.

The overall project cost and timing is based on the estimated level of effort identified to date for this assignment, and is based on the time and effort required to complete the previous project. Unexpected circumstances may require adjustments to the schedule and/or predicted costs. Should there be a change in scope or level of effort required, costs and/or timelines would be modified accordingly through an amendment to this Letter of Proposal, and subject to your approval.

Should Idlewyld find itself unable to complete a task by the deadline, we will inform OPFFA as soon as possible in order to re-organize the project's priorities. Idlewyld reserves the right to review the use of the analysis results in any external publication to ensure that conclusions are not misrepresented or selectively omitted.

Resources and Costs

Dr. Patrick Boily, Director at Idlewyld will be the Lead Investigator assigned to this project; he will be assisted by Mr. Shintaro Hagiwara, a Senior Analyst at Idlewyld with experience in Data Analysis and with OPFFA datasets.

The previous project took 270 hours to complete: due to our experience with the 2014 data (and assuming that the 2015 data will be available in uniform formats not unlike those of the 2014 data), we estimate that the project will take at most 220 hours to complete.

The Ottawa Professional Fire Fighters Association will, of course, only be charged for the time actually worked on this project, at a rate of 85\$/hour (up to a maximum of \$18,700.00), subject to the 13% Harmonized Sales Tax (HST no: 792216723).

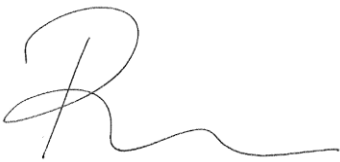
Idlewyld's standard rates do not include an allowance for overtime. Overtime is rarely required, will only be incurred with your prior authorization (in cases where new information is uncovered or OPFFA priorities change), and will be billed at a rate that reflects our incremental costs.

Invoicing

Idlewyld Analytics and Consulting Services operates using a fee-for-service, revenue dependency policy. Professional fees are charged only for time actually spent on the assignment. Travel is undertaken only with your specific pre-authorization and charges are based on rates previously agreed to and billed at cost. Our invoices, which will be sent to you on a quarterly basis, identifies professional fees, travel and other expenses separately. We do not anticipate the necessity of travel for this project.

We look forward to working with you on this project.

Regards,

A handwritten signature in black ink, appearing to be 'P. Boily', with a long horizontal flourish extending to the right.

Patrick Boily, Ph.D.
Director
9553053 Canada Inc.
Idlewyld Analytics and Consulting Services

Email: patrick.boily@idlewyldanalytics.ca
Phone: 819 720-0061
42 chemin Mullen
Wakefield QC, J0X 3G0.