Monitoring and Controlling the Total Cost of Ownership of Decision Meetings

Developed by Paul Collins

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Research of project reviews & survey results at the University of Arizona in 2001 revealed meetings dominate workers' and managers' time, yet are considered costly, unproductive & dissatisfying. Research studies have shown that meetings are essential and that the number of meetings and their duration continues to increase. Studies of managers and knowledge workers reveal they spend between 25%-80% of their time in meetings, suggesting meetings are an essential part of their work life. Estimates of meeting expenses range from $30 million to over $100 million per year that translate into losses between $54 million and $3.7 billion annually! Managers’ self estimates of meeting productivity across different functional areas range from 33%-47%.

In terms of an organization’s effective use of resources, this is NOT a pretty picture.

The purpose of this spreadsheet application is to help professionals, who are engaged in collective decision making, understand the costs of getting collaborative group decision meetings. This will, in turn, help individuals, teams and organizations develop benchmarks and metrics for decisions and for meeting processes, as they:

- become aware of the huge costs that can be incurred in decision meetings
- quantify and understand the costs associated with decision meetings
- recognize that decision meetings are processes that are composed of activities, tasks, steps, etc.
- begin to understand the cost components of decision meetings that can be controlled, managed and optimized
- understand the process components of decision meetings that can be managed, improved and optimized and how they affect the cost component
- support changes in organizational behaviors and attitudes towards meetings that drive the preparation for, structuring in and conducting of meetings

This author promotes the use of group facilitation techniques, interpersonal style diagnostics, facilitated thinking environments and web-based technologies in order to re-engineer meeting processes and to “rehabilitate” the notion that meetings are:

- A place where minutes are taken and hours are wasted.
- A place where good ideas go to die.

Future versions of this model will allow for data import and export that can drive the more accurate calculation of default values.

**Conventions – Cell Colors:**

- **Dark Green Cells:** contain Primary User Input Fields
- **Light Green Cells:** contain Secondary User Input Fields
- **NOTE:** All non-green cells are protected
- **Light Yellow Cells:** contain Parameter Headers
- **Pale Blue Cells:** contain Section Headers
- **White Cells:** contain Derived Values & Metrics
NOTE 1: If you are using the .xls version of the model, you will need to enable macros when you open the spreadsheet. If you are using the compiled version (.exe), the macros are self-contained within the .exe file so you will not have to deal with enabling macros. However, you must have Microsoft Excel in order to run this compiled version.

NOTE 2: This model uses MS-Visual Basic code in order to perform many of its functions. The model maintains historical data each time a change is made. On the Decision-Cost-Calculations worksheet, the current Total Cost is displayed in cell N35 and the previous historical Total Costs appear above in cells N3:N34. Each time there is a change in the model that causes the Decision-Cost-Calculations worksheet to re-calculate, the Total Cost history is rolled up one cell and the current Total Cost is displayed in Cell N35.

NOTE 3: In addition, a hidden history Data worksheet maintains historical data on the following information: Travel Expenses, Administrative Hours, Participant Hours, Cost Per Hour, Cost Per Participant, Tangible Expenses, Intangible Expenses, External Expenses, Total Expenses, Costs Removed, Cumulative Costs Removed.

Navigating the Worksheets using Tabs and Easy Access Buttons

From any Worksheet:
- To jump to another Worksheet, click the Tab (screen bottom) of the desired Worksheet
- Most Worksheets have Easy Access Buttons that allow you to jump to another worksheet or to execute a task. The purpose and use of these Buttons should be self-evident.

From the Decision-Cost-Calculations Worksheet:
- To reload the Start-Up Questions Form click the Start-Up Button
- To clear the running summary of previous historical Total Decision Costs from Cells N3:N34 on the Decision-Cost-Calculations worksheet, click the Clear Totals Button
- To clear the previous historical data from Cells A3:H34 of the hidden Data Worksheet, click the Clear History Button
- To jump to the Project-Parameters Worksheet, click the Project-Parameters Button
- To reset the original default values of the Multiplier Switches and Load Factors, click the Reset Multipliers Button.
- To restore the original default values of the Custom Rates in Column C, click the Reset Defaults Button
- To jump to the Edit Defaults Worksheet in order to edit the default values of the Multiplier Switches and Load Factors, Custom Rates, and Cost Descriptions, click the Edit Defaults Button. The cells that may be changed are green and unprotected.

From the Project-Parameters Worksheet:
- To jump to the Decision-Cost-Calculations Worksheet, click the Decision-Cost-Calculations Button
- To reload the Start-Up Questions Form click the Start-Up Button
- To jump to the Resource-Parameters Worksheet in order to edit the original default values of the Default Rates in Column B, click the Resource-Parameters Button. The cells that may be changed are green and unprotected.
- To jump to the Salary-Grades Worksheet in order to edit the original default values of the Salary Grades, click the Salary-Grades Button. The cells that may be changed are green and unprotected.
• To clear the running summary of previous historical Total Decision Costs from Cells N3:N34 on the Decision-Cost-Calculation worksheet, click the Clear Totals Button.

• To clear the previous historical data from Cells A3:H34 of the hidden Data Worksheet, click the Clear History Button.

• To reset the original default values of the Multiplier Switches and Load Factors, click the Reset Multipliers Button.

• To restore the original default values of the Custom Rates in Column C, click the Reset Defaults Button.

• To jump to the Edit Defaults Worksheet in order to edit the default values of the Multiplier Switches and Load Factors, Custom Rates, and Cost Descriptions, click the Edit Defaults Button. The cells that may be changed are green and unprotected.
Start-Up Questions Form

Purpose: Simple interface to populate data into the Project-Parameters Worksheet

Getting Started
In order to get you started quickly, the Decision Cost Analysis application presents you with a simple Start-Up Questions Form to capture basic start-up information about the project you are about to model. NOTE: As we learn more about users’ preferences and needs in setting up a project, we will add additional parameters and update logic to this form.

Your entries to these fields will (1) populate appropriate cells in various worksheets in the Project-Parameters Worksheet; (2) force the entire model to re-calculate the results of those changes, and (3) take you to the Decision-Cost-Calculations Worksheet.

You may adjust any parameters in unprotected cells (dark or light green colors) on the Decision-Cost-Calculations Worksheet, on the Project-Parameters Worksheet as needed and on other Worksheets as needed.

Entries to this form are reflected in the Graphs Worksheet which displays a graphic history of changes to many aspects of the model. Help and background information is available on the Assumptions-Help Worksheet. Once you’ve started a project, save it using a unique and descriptive file name.
Field 1 – Project Description:

Enter a descriptive title for this project.
- Enter the Project Description or press ENTER or TAB to proceed to the next field
- TAB will bypass this field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to the fields updated will be recorded

Field 2 – Project Budget:

Enter a budget amount for this project.
- If you enter an amount greater than zero, this will be saved as the Project Budget.
- If you enter zero, the model will assume that there is no Project Budget.
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

Field 3 – # of Meeting Days:

Enter the number of meeting days for this project.
- If you enter an amount greater than zero, this will be saved as the Number of Meeting Days.
- Amounts less than one and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

Salary Grades – Participant Weekly Rate for Salary Grades [1-n]:

Each row displays the average Weekly Salary Rates for up to twenty (20) Salary Grades for meeting participants and administrators. Default values are the fifteen (15) salary grades from the U.S. Office of Personnel Management Salary Table 2010-DCB - January 2010. The Salary Grade Table should be customized for your organization.

Participant Count – Number of Participants for Salary Grades [1-n]:

- If you enter an amount greater than zero, this will be saved as the number of meeting participants for that Weekly Salary Rate.
- Amounts less than one and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

Administrator Count – Number of administrators for Salary Grades [1-n]:

- If you enter an amount greater than zero, this will be saved as the number of administrators for that Weekly Salary Rate.
- Amounts less than one and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded
Administrative Parameters:

Pre-Meeting Hours:
- Enter the number of hours administrators will spend on the project performing pre-meeting tasks, such as planning, scheduling, re-scheduling, etc.
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

# Administrators:
- Enter the number of administrators who will perform pre-meeting tasks
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

In-Meeting Hours:
- Enter the number of hours administrators will spend performing in-meeting tasks, such as recording session documentation, executing administrative tasks, etc.
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

# Administrators:
- Enter the number of administrators who will perform in-meeting tasks
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

Post-Meeting Hours:
- Enter the number of hours administrators will spend performing post-meeting tasks, such as transcribing and distributing session documentation, etc.
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

# Administrators:
- Enter the number of administrators who will perform post-meeting tasks
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded
Default Rate:

- Enter the average daily rate for administrators in case that figure cannot be derived from the Administrator Count and the Salary Grade Table
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

Other Cost Parameters:

Conference Center Load Factor:

- Enter one (1) if the meeting will be conducted in an external conference center or meeting facility for which there is a charge
- Enter zero (0) if there is no conference center or meeting facility charge or if the meeting will be a web-based meeting and not require a physical meeting facility
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

Participant Meals Load Factor:

- Enter one (1) if the meals will be provided for all participants
- Enter zero (0) if meals are not provided
- If meals will be provided for some of the participants, enter that percentage of participants (e.g. if meals will be provided for half of the participants, enter .5
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded

Participant Travel Load Factor:

- Enter one (1) if all participants will have to travel to the meeting facility
- Enter zero (0) if no participants will have to travel to the meeting facility
- If travel will be necessary for some of the participants, enter that percentage of participants (e.g. if half of the participants must travel, enter .5
- Amounts less than zero and non-numeric values are not permitted
- TAB will bypass this field
- SHIFT-TAB will take you back to the previous field
- If you click CANCEL, all preliminary fields will be skipped.
- If you click UPDATE, only changes to this and previous fields will be recorded
### Decision-Cost-Calculations Worksheet

**Purpose:** Provide for customized calculation of Total Decision Cost governed by project control parameters in the Project-Parameters Worksheet and for the display of Standard Meeting Metrics and well as ROI Metrics, Productivity Improvement Metrics and Revenue Increase/Cost Removal Metrics.

On this worksheet, you may use the Load Factor Multiplier (a weighting factor) to adjust the calculation of any line item cost in the model. Various uses of the Load Factor Multiplier and specific uses of other multipliers are described later in this section.

You may adjust any parameters (dark or light green colored cells) on the Decision-Cost-Calculations Worksheet as needed.

- When Cell B1 equals “x” (default), the model performs its cost calculations based on the Default Costs in Column B. Default Costs are derived from the Project-Parameters Worksheet and may be changed by adjusting the appropriate cells in the Project-Parameters Worksheet.
- When Cell B1 equals “c” (customized), the model performs its cost calculations based on Customized Costs in Column C. Customized Costs may be changed by entering data in the appropriate rows of Column C.

Changes to this worksheet are reflected in the Graphs Worksheet which displays a graphic history of changes to many aspects of the model. Help and background information is available on the Assumptions-Help Worksheet. Once you've started a project, save the model using a unique and descriptive file name.
• **Custom Parameters (upper right)** – all values derived from Project-Parameters Worksheet
  o  # Meeting Days (derived) - number of days scheduled for the meeting
  o  # Participants (derived) - number of participants required for the meeting
  o  # Administrators - (derived) number of administrators required to support the meeting

• **Decision Metrics (Productivity Measures)**
  o  **Total Decision Cost** – (derived) - the sum of Tangible, Intangible & External Costs
  o  **Cost per Participant** – (derived) - the Total Decision Cost / Number of Participants
  o  **Cost per Hour** – (derived) - the Total Decision Cost / (Number of Meeting Days * 8 Hours per Day)
  o  **Total Participant / Administrator Hours** – (derived)
    •  the product of: # of Participants * Number of Meeting Days * 8 Hours per Day,
    •  the sum of: hours required for Administrators to perform their Pre-Meeting, In-Meeting and Post-Meeting Tasks
  o  **Budget** (if entered on Project-Parameters Worksheet) – amount budgeted for this project
  o  **Over / Under Budget** (if Budget amount is entered on Project-Parameters Worksheet) – dollar amount the Total Decision Cost is over or under the budgeted amount
  o  **Travel Cost** – Dollar amount of Tangible Travel Expenses (cells H6:H8 of Decision-Cost-Calculation Worksheet)
  o  **Travel % of Total / Budget** – percentage of Tangible Travel Cost (cells H6:H8 of Decision-Cost-Calculation Worksheet) to Total Decision Cost and the percentage of Travel Cost to Budget (if Budget amount is entered on Project-Parameters Worksheet)

The way you use the Metrics below depends on your type of organization and whether you are delivering a product or service and how you view the process of product/service delivery cost recovery/removal, productivity improvement, etc.

• **Return on Investment Metrics**
  o  **Expected Benefit** – (displayed) – the dollar value of the expected benefit to be gained by this the decision
  o  **Decision Investment (Total Decision Cost)** – (derived) - the sum of Tangible, Intangible & External Costs
  o  **Expected ROI** - (derived) the Return on Investment (Rate of Return) of the decision to the organization per the formula \(\frac{\text{Expected Benefit} - \text{Decision Investment}}{\text{Total Decision Cost}}\)

• **Productivity Improvement Metrics**
  o  **Expected Benefit (Units)** – (displayed) – the number of production units of the expected benefit to be gained by this the decision
  o  **Expected Unit Cost** – (displayed) - the cost (or equivalent) of a single unit of the production units above
  o  **Expected Benefit** – (derived) - the cost of a single unit (above) times the number of production units above
  o  **Decision Investment (Total Decision Cost)** – (derived) - the sum of Tangible, Intangible & External Costs
  o  **Expected ROI** - (derived) the Return on Investment (Rate of Return) of the decision to the organization per the formula \(\frac{\text{Expected Benefit} - \text{Decision Investment}}{\text{Total Decision Cost}}\)

• **Revenue Increase or Cost Removal Metrics**
  o  **Decision Investment (Total Decision Cost)** – (derived) - the sum of Tangible, Intangible & External Costs
  o  **Recovery Rate** – (displayed) the rate of needed to recover the cost of the decision. For businesses, this would be the Gross Margin typically generated by the organization’s activities. This will be used to calculate the Recovery Cost as a way of expressing what results (increased costs or decreased expenses) an organization needs to generate in order to cover the cost of making that decision plus the organization's recovery rate.
Recovery Cost – (derived) - the dollar amount representing the results (increased costs or decreased expenses) an organization needs to generate in order to cover the cost of making that decision plus the organization’s typical gross margin – derived as the Decision Investment / (1 – Recovery Rate)

Recovery Unit Cost – (displayed) the cost (or equivalent) of a single unit of the organization’s activity that used to calculate the # of Units needed to equal the results (increased costs or decreased expenses) an organization needs to generate in order to cover the cost of making that decision plus the organization’s typical Recovery Rate.

Demand Units – (derived) the # of Units needed to equal the results (increased costs or decreased expenses) an organization needs to generate in order to cover the cost of making that decision plus the organization’s typical Recovery Rate – derived as the Recovery Cost / Recovery Unit Cost.

- Rate Selector
  - Column B1 – when B1 equals “x” the Default Values in Column B (loaded from the Project-Parameters Worksheet) are used to calculate the decision cost. The values in Column B are derived from column B1 in the Project-Parameters Worksheet.
  - When column B1 is set to “c” (for Custom Rate), then Column C1 is set to “x” and the Custom Rate values in Column C are used to calculate the decision cost. For Custom Rate, all rates (Light Green cells) may be entered by the user.

- Base Rates (Columns B, C)
  - The Default Rates in Column B are set in the Project-Parameters Worksheet (Columns B or C) and these columns are protected and are derived from column B of the Project-Parameters Worksheet. Because they are derived, they may not be edited in the Decision-Cost-Calculations worksheet.
  - The Custom Rates (Light Green cells) may be entered by the user.

- Column Multipliers (Columns D, E, F)
  - Participant Multiplier – (user entered) - When this multiplier is activated (set to “y”), that row’s Base Rate is multiplied by the Number of Participants
  - Day Multiplier - (user entered) - When this is activated (set to “y”), that row’s Base Rate is multiplied by the Number of Meeting Days
  - Administrator Multiplier - (user entered) - When this is activated (set to “y”), that row’s Base Rate is multiplied by the Number of Administrators. System default is 1 Administrator for every 5 meeting participants.

- Load Factor (Column G)
  - Load Factor (user entered) - this is a weighting factor that defaults to one (1) for Tangible and Intangible Costs and to 0 (zero) for External Costs. The Load Factor may be decreased or increased (fractionally) or zeroed, in order to decrease or increase or zero the load of a particular item on the total cost. Example: If only half of the Participants were traveling, then the load factor for all expenses related to travel would be changed from “1” to “.5”.

- Extended Rate
  - The Base Rate (derived) of each line item (either Column B or Column C) is multiplied by all activated Column Multipliers (D, E, F that are set equal to “y”) and then by the Load Factor (Column G)
- **Tangible Costs [controllable] (rows 4-12)**
  - These are controllable costs that are easily derived from invoices or time allocations and receipts and are grouped into eight (8) categories with an additional 9th category for Miscellaneous/Materials.
  - The Base Rate of each line item (either Column B or Column C) will be multiplied by all activated Column Multipliers (D, E, F set equal to “y”) and then by the Load Factor (Column G).
  - The values for Default Rates for rows 4-8 (Column B) are derived from the External Resource Cost Worksheet rows 7-11 (Column B) respectively.
  - The values for Default Rates for rows 9-11 (Column B) are derived from the Project Parameters Worksheet – Loaded Average Daily Administrator Rate.
  - For Miscellaneous/Materials, the line item rate may be manually entered.
  - For Custom Rates in (Column C), all line item rates including Miscellaneous/Materials may be manually entered.
  - The Load Factors for these items default to 1, excepting Miscellaneous, which defaults to 0.

- **Intangible Costs [high risk] (rows 14-22)**
  - These are costs that are not easily derived from documentation and are grouped into seven (7) different categories with an additional 8th category for Miscellaneous/Materials.
  - **Budgetary Assumptions**
    - For each Participant where travel is involved:
      1) Travel Time and Delays - Assuming each Participant has a 1/2 day travel delay each way - which is the equivalent of one (1) full day delay.
      2) For each Participant, assuming roughly a 1:1 ratio for each meeting day for:
        3) Work Deferred While at Meetings
        4) Misdirection / Unprepared Participants / Wrong Participants
        5) Unfocused, Unclear Objectives / Ad Hoc Decisions
        6) Unsettled Organizational / Political Issues
        7) Missed Opportunities / Restarts / Delays / Cancellations
  - The Base Rate of each line item (either Column B or Column C) is multiplied by all activated Column Multipliers (D, E, F set equal to “y”) and then by the Load Factor (Column G).
  - The Base Rates for Default Rates (Column B) come from the Project-Parameters Worksheet and the External Cost Worksheet.
  - For the Custom Rate (Column C), the Miscellaneous, line item rates may be manually entered.
  - The Load Factors for these items default to 1, excepting Miscellaneous, which defaults to 0.

- **External Costs [controllable] (rows 26-38)**
  - These are controllable costs that will add value to a meeting process by increasing the meeting's productivity or providing specialized knowledge or expertise or by reducing some of the Tangible and/or Intangible costs and are grouped into eleven (11) different categories with an additional 12th category for Miscellaneous/Materials.
  - The Base Rate of each line item (either Column B or Column C) is multiplied by all activated Column Multipliers (Columns D, E, F set equal to “y”) and then by the Load Factor (Column G).
  - The base rates for Default Rates (Column B) are derived from the External Resources Worksheet (Column B).
  - For the Custom Rate (Column C), all line item rates may be manually entered.
  - Base Rates in the External Resources Worksheet are based on the author's experience and on surveys of industry standard costs.
  - The default Unit Costs for Teleconferencing ($0.14 per min), Standard Video Conferencing ($0.25 per min), Web Conferencing ($0.25 per min), Audience Response System ($8 per day) and Telepresence Video Conferencing ($1.12 per day) will probably decrease as the number of participants and the number of days is scaled up. The scale-up cost is not addressed in this model as its calculation is more complex.
The default Unit Costs for e-Collaboration ($30/day) will probably decrease as the number of participants and the number of days is scaled up. The scale-up cost is not addressed in this model as its calculation is more complex.

All of these default unit costs may be adjusted in the Project-Parameters Worksheet.

The Load Factors for these items defaults to 0

- **Miscellaneous Costs**
  - All Miscellaneous Costs (Tangible, Intangible, and External Resource) default to zero (0).
  - Any Miscellaneous Costs entered in the Project-Parameters Worksheet will be loaded into the corresponding cell in Column B of the Decision Cost Worksheet.
  - When a cost amount is entered, that amount is multiplied by the # Participants Multiplier (Column D), # Days Multiplier (Column E), # of Administrators Multiplier (Column F) where those respective Column Multipliers are activated (set to “y”). The net result is then multiplied by the Load Factor (Column G).

- **Project Description** (derived)
  - Description of the Decision Cost Analysis project – entered in the Project-Parameters Worksheet

**Easy Access Buttons**

**Start-Up Button** – Jumps to the Start-Up Questions Screen

**Clear Totals Button** – Clears the Column of Previous Total Decision Costs (Column N)

**Clear History Button** – Clears the History of Decision Costs – Resets Graphs

**Project Parameters Button** – Jumps to the Project Parameters Worksheet

**Reset Multipliers Button** – Restores the Participant, Daily and Administrator Multipliers (y or blank) and Load Factors (1 or 0) to their initial values

**Reset Defaults Button** – Restores Default Values of the Custom Rates in Column C to their initial states

**Edit Defaults Button** – Jumps to section of Project Parameters Worksheet where user may change the initial values for the Participant, Daily and Administrator Multipliers, Load Factors and Custom Rates for Column C
**Project-Parameters Worksheet**

**Purpose:** Provide for the entry and adjustment and derivation of project control parameters including:

- Number of Participants & Administrators
- Average and Loaded Average Participant and Administrator Costs
- # of Meeting Days
- Overhead Load Factor (Above Base Salary) for Employee Benefits, etc. (Default 20%)
- Project Budget (optional)
- Project Description
- Pre-Meeting, In-Meeting and Post-Meeting Hours and Counts for Administrators

This worksheet also provides buttons for easy access to other worksheets. You may adjust most of the data entered in the Start-Up Questions Form.

You may adjust any parameters (dark or light green colored cells) on the Project-Parameters Worksheet as needed.

Changes to this worksheet are reflected in the Graphs Worksheet which displays a graphic history of changes to many aspects of the model. Help and background information is available on the Assumptions-Help Worksheet. Once you’ve started a project, save it using a unique and descriptive file name.
• **Basic Control Parameters (upper right)**
  - # Meeting Days (user entered) - number of days scheduled for the meeting
  - % Overhead Load Factor – (user entered) – the percent overhead applied to employees for benefits, workers comp, etc. (default = 20%)
  - # Participants (derived) - number of participants required for the meeting, the sum of entries in Participant Count in the Participant Salary Grade columns
  - Loaded Average Daily Participant Rate (derived) – the average Daily Participant Rate times the Overhead Load Factor (default = 20%)
  - # Administrators - (derived) - number of administrators required for the meeting, the sum of entries in Administrator Count in the Administrator Salary Grade columns
  - Default Administrator Daily Rate (optional, user entered) – the rate to use if no Administrator counts are entered in the Administrator Salary Grade columns
  - Loaded Average Daily Administrator Rate (derived) – the average Daily Administrator Rate times the Overhead Load Factor (default = 20%)

• **Budget Parameters (middle right)**
  - Project Budget (optional) – amount budgeted for this project
  - Over / Under Budget (if Budget amount is entered on Project-Parameters Worksheet) – dollar amount the Total Decision Cost is over or under the budgeted amount
  - Travel $ – Dollar amount of Tangible Travel Expenses (cells H6:H8 of Decision-Cost-Calculations Worksheet)
  - Travel % of Total – percentage of Tangible Travel Expenses (cells H6:H8 of Decision-Cost-Calculations Worksheet) to Total Decision Cost
  - Travel % of Budget – percentage of Tangible Travel Expenses (cells H6:H8 of Decision-Cost-Calculations Worksheet) to Budget (if Budget amount is entered on Project-Parameters Worksheet)

• **Administrative Functions (bottom right)**
  - Pre-Meeting Hours:
    - Enter the number of hours administrators will spend on the project performing pre-meeting tasks, such as planning, scheduling, re-scheduling, etc.
  - # Administrators:
    - Enter the number of administrators who will perform pre-meeting tasks
  - In-Meeting Hours:
    - Enter the number of hours administrators will spend performing in-meeting tasks, such as recording session documentation, executing administrative tasks, etc.
  - # Administrators:
    - Enter the number of administrators who will perform in-meeting tasks
  - Post-Meeting Hours:
    - Enter the number of hours administrators will spend performing post-meeting tasks, such as transcribing and distributing session documentation, etc.
  - # Administrators:
    - Enter the number of administrators who will perform post-meeting tasks
Participant Salary Rates (left)
- Daily Rate – Grades 1-n – derived from Participant Salary Rate Table for each Grade
- Participant Count – (user entered) – the number of Participants at a specific Salary Grade
- Extended Rate - (derived) – the Participant Count times the Daily Rate for that Salary Grade
- Average Participant Rate – (derived) – the sum of all Extended Rates divided by the total number of Participants

Administrator Salary Rates (left)
- Daily Rate – Grades 1-n – derived from Administrator Salary Rate Table for each Grade
- Administrator Count – (user entered) – the number of Administrators at a specific Salary Grade
- Extended Rate - (derived) – the Administrator Count times the Daily Rate for that Salary Grade
- Average Administrator Rate – (derived) – the sum of all Extended Rates divided by the total number of Administrators

Easy Access Buttons

Decision Cost Calculations Button – Jumps to the Decision Cost Calculations Worksheet
Start-Up Button – Jumps to the Start-Up Questions Screen
Resource Parameters Button – Jumps to the Resource Parameters Worksheet
Salary Grades Button – Jumps to the Salary Grades Worksheet
Clear Totals Button – Clears the Column of Previous Total Decision Costs (Column N)
Clear History Button – Clears the History of Decision Costs – Resets Graphs
Reset Multipliers Button – Restores the Participant, Daily and Administrator Multipliers (y or blank) and Load Factors (1 or 0) to their initial values
Reset Defaults Button – Restores Default Values of the Custom Rates in Column C to their initial states
Edit Defaults Button – Jumps to section of Project Parameters Worksheet where user may change the initial values for the Participant, Daily and Administrator Multipliers, Load Factors and Custom Rates for Column C
Project-Parameters – Edit Defaults Worksheet

Purpose: Provide for the entry and adjustment of default project control parameters including:
- Custom Default Rates for Column C
- Column Multipliers for Columns D, E, F
- Load Factor for Column G
- Cost Descriptions for Column A

This worksheet also provides buttons for easy access to other worksheets.

You may adjust any parameters (dark or light green colored cells) on the Project-Parameters – Edit Defaults Worksheet as needed.

Help and background information is available on the Assumptions-Help Worksheet. Once you’ve started a project, save it using a unique and descriptive file name.
Custom Default Rates for Column C
- If you plan to use Custom Rates to calculate Total Decision Cost and you wish to modify the Default rates that are copied to Column C of the Decision Cost Calculations Worksheet by the “Reset Defaults” Easy Access Button, then modify these values on this screen.
- After modifying these values, the next time you click the “Reset Defaults” button, these modified values will be copied to Column C

Column Multipliers for Columns D, E, F
- Participant Multiplier – (for Column D) - When this multiplier is activated (set to “y”), that row’s Base Rate will be multiplied by the Number of Participants
- Day Multiplier - (for Column E) - When this multiplier is activated (set to “y”), that row’s Base Rate will be multiplied by the Number of Meeting Days
- Administrator Multiplier - (for Column F) - When this multiplier is activated (set to “y”), that row’s Base Rate will be multiplied by the Number of Administrators, derived from calculations in the Project Parameters Worksheet. Note that Administrative functions (pre-meeting, in-meeting and post-meeting are currently restricted to Rows 9-11)
- After modifying these values, the next time you click the “Reset Multipliers” button, these modified values will be copied to Columns D, E, F in the Project Parameters Worksheet.

Load Factor for Column G
- Load Factor (for Column G) – Values entered on this screen will become the Default Values for the Load Factors in Column G of the Decision Cost Calculations Worksheet. This is a weighting factor that defaults to one (1) for Tangible and Intangible Costs and to 0 (zero) for External Costs. The Load Factor may be decreased or increased (fractionally) or zeroed, in order to decrease or increase or zero the load of a particular item on the total cost. Example: If only half of the Participants were traveling, then the load factor for all expenses related to travel would be changed from “1” to “.5”.
- After modifying these values, the next time you click the “Reset Multipliers” button, these modified values will be copied to Column G in the Project Parameters Worksheet.

Cost Descriptions for Column A
- Values entered on this screen will become the Default Values for the Cost Descriptions in Column G of the Decision Cost Calculations Worksheet.
- After modifying these values on this screen, these modified values will immediately appear in Column A of the Project Parameters Worksheet and in Column A of corresponding rows in the Project Parameters – Edit Defaults Worksheet.

Easy Access Buttons

Project Parameters Button – Jumps to the Project Parameters Worksheet

Decision Cost Calculations Button – Jumps to the Decision Cost Calculations Worksheet
External Resource Costs Worksheet

Purpose: Provide for the entry and adjustment and derivation Daily Rates for the following:

- Meeting Facility / Conference Center
- Meals / Gratuities
- Travel
- Local Transportation
- Lodging
- Subject Matter Expert / Methodologist / Consultant
- Neutral 3rd Party Facilitation
- Meeting/Event Planner
- Audio/Visual
- Teleconferencing
- Standard Video Conferencing
- Telepresence Video Conferencing
- Web Conferencing (WebEx, etc.)
- Web Conferencing Pre Pay (WebEx, etc.)
- Web Collaboration Tools (WIQ, etc.)
- Audience Response/Keypad Polling (Option Finder, etc.)

These Default Rates entered here immediately appear in Column B of the Decision Cost Calculations Worksheet. This worksheet also provides buttons for easy access to other worksheets.

You may adjust any parameters (dark or light green cells) on the Project-Parameters Worksheet as needed. Help and background information is available on the Assumptions-Help Worksheet. Once you’ve started a project, save it using a unique and descriptive file name.
Meeting Facility / Conference Center Rate – Defaults to $175 per person per day

Meals / Gratuities Rate – Defaults to $100 per person per day

Travel Rate – Defaults to $600 per person per day

Local Transportation Rate – Defaults to $60 per person per day

Lodging Rate – Defaults to $175 per person per day

Subject Matter Expert / Methodologist / Consultant Rate – Defaults to $3000 per day

Neutral 3rd Party Facilitation Rate – Defaults to $2000 per day

Meeting/Event Planner Rate – Defaults to $400 per day

Audio Visual Rate – Defaults to $300 per day

Teleconferencing Rate – an industry standard cost per seat, per minute (default = $0.14 per minute) – calculates to $67 per person per day

Standard Video Conferencing Rate – an industry standard cost per seat, per minute (default = $0.25 per minute) – calculates to $120 per person per day

Telepresence Video Conferencing Rate – an industry standard cost per seat, per day (default = $1.12 per minute) – calculates to $538 per person per day

Web Conferencing Rate – an industry standard cost per seat, per minute (default = $0.25 per minute) – calculates to $120 per person per day

e-Collaboration Rate – an industry standard cost per seat, per day (default = $30.00 per day) – calculates to $30 per person per day

Audience Response System Rate – an industry standard cost per seat, per day (default = $8.00 per day) – calculates to $8 per person per day

Easy Access Buttons

Project Parameters Button – Jumps to the Project Parameters Worksheet

Decision Cost Calculations Button – Jumps to the Decision Cost Calculations Worksheet
Salary Grade Tables Worksheet

Purpose: Provide for the entry and adjustment and derivation of Weekly Salary Rates for up to twenty (20) Salary Grades for meeting participants and administrators. Default values are the fifteen (15) salary grades from the U.S. Office of Personnel Management Salary Table 2010-DCB - January 2010. The Salary Grade Table should be customized for your organization.

- Enter the Salary Grade title or equivalent name
- Enter the Highest and Lowest Step titles (or equivalent names) for each Salary Grade (or equivalent name)
- Enter the Highest and Lowest Step values within each Salary Grade and the model calculates the Average Annual, Monthly, Weekly, Daily and Hourly Rates for that Grade.

Each row displays the average Weekly Salary Rates for up to twenty (20) Salary Grades for meeting participants and administrators.

This worksheet also provides buttons for easy access to other worksheets.

You may adjust any parameters (dark or light green colored cells) on the Salary Grades Worksheet as needed.

Changes to this worksheet are reflected in the Graphs Worksheet which displays a graphic history of changes to many aspects of the model. Help and background information is available on the Assumptions-Help Worksheet. Once you've started a project, save it using a unique and descriptive file name.
- **Salary Grade (title)** – If your organization uses a term equivalent to Grade, enter that term in the title (light green cell) otherwise no action is needed

- **Salary Grade Lowest Step (title)** – If your organization uses a term equivalent to Step 1 for the lowest Step within a Grade, enter that term in the title (light green cell) otherwise no action is needed

- **Salary Grade Highest Step (title)** – If your organization uses a term equivalent to Step 10 for the lowest Step within a Grade, enter that term in the title (light green cell) otherwise no action is needed

- **Salary Grade Lowest Step (values 1-n)** – enter the value (dark green cells) of the Salary for the lowest Step within a Grade for each Grade that is relevant for your organization. Delete any values for Grades that are not used by your organization.

- **Salary Grade Highest Step (values 1-n)** – enter the value (dark green cells) of the Salary for the highest Step within a Grade for each Grade that is relevant for your organization. Delete any values for Grades that are not used by your organization.

- All other titles and values in this table are calculated based on the values entered into the light and dark green cells.

- Default values are the fifteen (15) salary grades from the U.S. Office of Personnel Management Salary Table 2010-DCB - January 2010. The Salary Grade Table should be customized for your organization.

**Easy Access Buttons**

- **Project Parameters Button** – Jumps to the Project Parameters Worksheet

- **Decision Cost Calculations Button** – Jumps to the Decision Cost Calculations Worksheet
Graphs Worksheet

**Purpose:** Provides for a graphical view of changes made of a model's costs.

Upper-Left Quadrant: **Comparative Costs: Total Costs to Cumulative Costs Removed:** This graph plots the Total Cost Removed against the Total Decision Cost. The model reflects a “Sweet Spot” when the line of increasing costs removed intersects the line of decreasing total costs.

Lower-Left Quadrant: **Expense Categories: Tangible vs Intangible to External Resources:** This graph plots all costs against each other as costs are added to or removed from the model.

Upper Right-Quadrant: **Comparative Costs: Per Participant to Per Hour:** This graph plots the Total Cost per Participant against the Total Cost per Hour for the project.

Upper Left-Quadrant: **Comparative Hours: Participant to Administrative:** This graph plots the Total Participant Hours against the Total Administrative Hours for the project.

This worksheet reflects changes (graphically) that are made to other worksheets in the model. Help and background information is available on the Assumptions-Help Worksheet. Once you've started a project, save it using a unique and descriptive file name.
Metrics Worksheet

**Purpose:** Provide for a display of Total Costs, Decision Metrics and for the calculation of other Metrics as currently designed, including as ROI Metrics, Productivity Improvement Metrics and Revenue Increase/Cost Removal Metrics.

On this worksheet, you may view the current state of the model’s calculations and modify the Metrics Parameters in order to perform the various ROI Calculations.

- **Custom Parameters (upper left)** – all values derived from Project-Parameters Worksheet
  - # Meeting Days (derived) - number of days scheduled for the meeting
  - # Participants (derived) - number of participants required for the meeting
  - # Administrators - (derived) number of administrators required to support the participants

- **Decision Costs (middle left)**
  - Tangible Costs – (derived) – the sum of all Tangible Costs
  - Intangible Costs – (derived) – the sum of all Intangible Costs
  - External Resource Costs – (derived) – the sum of all External Resource Costs
  - Total Decision Cost – (derived) - the sum of Tangible, Intangible & External Costs
• **Decision Metrics (middle left) (Productivity Measures)**
  - **Total Decision Cost** – (derived) - the sum of Tangible, Intangible & External Costs
  - **Cost per Participant** – (derived) - the Total Decision Cost / Number of Participants
  - **Cost per Hour** – (derived) - the Total Decision Cost / (Number of Meeting Days * 8 Hours per Day)
  - **Total Participant / Administrator Hours** – (derived)
    - the product of: # of Participants * Number of Meeting Days * Hours per Day,
    - the sum of: (for Each Administrator Activity (# of Administrators Required (derived) * 8 Hours per Day * 5 Days per Week * Load Factor for That Activity))
  - **Budget** (if entered on Project-Parameters Worksheet) – amount budgeted for this project
  - **Over / Under Budget** (if Budget amount is entered on Project-Parameters Worksheet) – dollar amount the Total Decision Cost is over or under the budgeted amount
  - **Travel $** – Dollar amount of Tangible Travel Expenses (cells H6:H8 of Decision-Cost-Calculations Worksheet)
  - **Travel % of Total / Budget** – percentage of Tangible Travel Expenses (cells H6:H8 of Decision-Cost-Calculations Worksheet) to Total Decision Cost and percentage to Budget (if Budget amount is entered on Project-Parameters Worksheet)

The way you use the Metrics below depends on your type of organization and whether you are delivering a product or service and how you view the process of product/service delivery cost recovery/removal, productivity improvement, etc.

• **Return on Investment Metrics (upper right)**
  - **Expected Benefit** – (user entered) – the dollar value of the expected benefit to be gained by this the decision
  - **Decision Investment (Total Decision Cost)** – (derived) - the sum of Tangible, Intangible & External Costs
  - **Expected ROI** - (derived) the Return on Investment (Rate of Return) of the decision to the organization per the formula (Expected Benefit - Decision Investment) / Total Decision Cost

• **Productivity Improvement Metrics (upper right)**
  - **Expected Benefit (Units)** – (user entered) – the number of production units of the expected benefit to be gained by this the decision
  - **Expected Unit Cost** – (user entered) - the cost (or equivalent) of a single unit of the production units above
  - **Expected Benefit** – (derived) - the cost of a single unit (above) times the number of production units above
  - **Decision Investment (Total Decision Cost)** – (derived) - the sum of Tangible, Intangible & External Costs
  - **Expected ROI** - (derived) the Return on Investment (Rate of Return) of the decision to the organization per the formula (Expected Benefit – Decision Investment) / Total Decision Cost

• **Revenue Increase or Cost Removal Metrics (middle right)**
  - **Decision Investment (Total Decision Cost)** – (derived) - the sum of Tangible, Intangible & External Costs
  - **Recovery Rate** – (user entered) the rate of needed to recover the cost of the decision. For businesses, this would be the Gross Margin typically generated by the organization’s activities. This will be used to calculate the Recovery Cost as a way of expressing what results (increased costs or decreased expenses) an organization needs to generate in order to cover the cost of making that decision plus the organization's recovery rate.
  - **Recovery Cost** – (derived) - the dollar amount representing the results (increased costs or decreased expenses) an organization needs to generate in order to cover the cost of making that decision plus the organization’s typical gross margin – derived as the Decision Investment / (1 – Recovery Rate)
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**Metrics Worksheet**

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- **Recovery Unit Cost** – (user entered) the cost (or equivalent) of a single unit of the organization’s activity that used to calculate the # of Units needed to equal the results (increased costs or decreased expenses) an organization needs to generate in order to cover the cost of making that decision plus the organization’s typical Recovery Rate.

- **Demand Units** – (derived) the # of Units needed to equal the results (increased costs or decreased expenses) an organization needs to generate in order to cover the cost of making that decision plus the organization’s typical Recovery Rate – derived as the Recovery Cost / Recovery Unit Cost.

**Easy Access Buttons**

**Decision Cost Calculations Button** – Jumps to the Decision Cost Calculations Worksheet