



business value

advancement



employees



in business terms

# Business Value Assessment for **Workforce Development Organizations**

HANDBOOK

**Business Value Assessment for  
Workforce Development Organizations**

**HANDBOOK**

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Version 1.0

A Product of the  
**The Aspen Institute**  
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Project

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## PART 2: USING THE EXCEL TOOL

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In this section, we describe the basic components of the Excel Tool, beginning with a **description of each of the pre-set indicators** the Tool is designed to measure and how to include your own **custom measures**. The amount of time you will want to spend reading these sections will depend on your own personal comfort with spreadsheets and outcome measurement. You may feel that some worksheets are self-explanatory, but for others you may want more guidance. We suggest that you use these sections describing the worksheets as a reference to orient you to the Excel Tool in a manner that you might use (or not use) with other software guides.

### Basic Components of the Excel Tool

The Excel Tool is a package of forms and reports that operate in Microsoft Excel. Based on our Learning Group findings, the Excel Tool encompasses the employee and cost information that typical business clients will find meaningful for assessing the business value results of your workforce services. The Excel Tool forms and reports require only a basic familiarity with Excel. The forms in each worksheet are designed to print out in an easy to read format to allow greater versatility in organizing data collection and reviewing results.

The Excel Tool includes a worksheet that offers a brief set of instructions, and is followed by the worksheets and forms described below:

**Worksheet 1: Assessment Details:** Describe details of your business client’s work setting and the workforce program or services on this page. This description of the “context” is important for deciding the appropriate business value assessment design and for interpreting your results.

**Worksheet 2: Excel Tool Setup:** Select whether you will use the Excel Tool for an assessment for one business client or for multiple business clients. You can also select additional results to supplement the Excel Tool pre-set results on this page.

**Worksheet 3: Employee Information list:** This page is where you input the information that is used to calculate the business value results that display on your Report of Results. Depending on which results you choose to assess, you will complete some or all of the columns of data for each employee in your workforce and/or comparison groups.

**Worksheet 4: Business Investment in Workforce Services:** Input the cost information that represents the cash or in-kind contributions your business client made for the workforce services being assessed. This information is used to calculate the “cost-benefit” results displayed on the Report of Results.

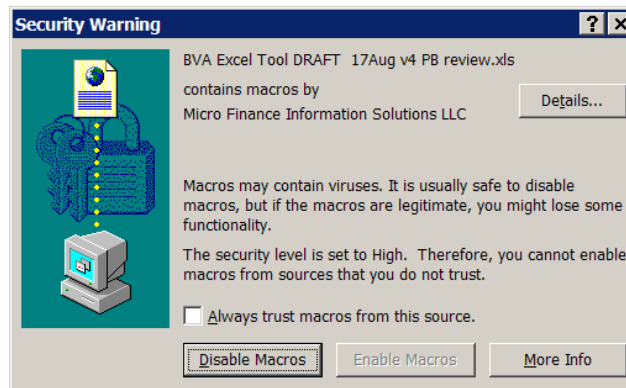
**Worksheet 5: Costs of Turnover Per Employee:** Input the cost information that represents your business client’s costs of turnover and employee replacement. This information is used to calculate the “cost-benefit” results displayed on the Report of Results.

**Worksheet 6: Report:** Your results display on this three-page report.

- Page 1 focuses on results for comparison groups, especially retention, employee quality and advancement, and related turnover cost-benefit results.
- Pages 2 and 3 accommodate before-and-after time comparison results, as well as comparison group results. However, they focus on other types of results – efficiency, quality, employee skills, and related business cost and revenue results.

### Excel macros and security

Your system settings may disable macros necessary for the proper functioning of the automated features in the Excel Tool. You must enable macros in order for all the automated features to work as expected, if this or a similar notice appears when you open the Excel Tool:



1. Exit and then relaunch Excel.
2. On the **Tools** menu, click **Macros** and then **Security**.
3. On the **Security Level** tab, select “Medium.” Each time you open an Excel file with macros, you will be asked if you want to Disable or Enable macros.


The Excel Tool was configured by an authorized software programmer. You can review the security certificate by selecting **Details** from the Security Warning message (shown above).

The following illustration depicts the basic relationships between the Excel Tool worksheets:





Data sources for report pages 2 and 3



**Skills BEFORE the Workforce Services**<sup>3,4</sup>

1 What is the efficiency of these employees, i.e., the ability to meet or exceed expected work output?

a) How much output, on average, does each employee produce? n/a

b) What is the average efficiency rate, per employee? That is, what percent of the expected output does each employee produce? n/a

2 What amount of scrap, or waste, is associated with these employees? And what is the estimated cost of this waste?

a) How much scrap, on average, does each employee produce? 0.0

b) What is the average rate of scrap, per employee? That is, what percent of total output is waste? n/a

c) What are the average company sales (per week, month, etc.)? This figure will be used to calculate the cost of scrap/waste. \_\_\_\_\_ per \_\_\_\_\_

d) What is the estimated cost of these employees' scrap, as a portion of the average company sales (using the amount from item #c above)? n/a

Period BEFORE the Workforce Program								Period AFTER the Workforce Program				
(a) Employee Name or ID	(m) Actual Output	(n) Expected Output	(o) Good Output	(p) Total Hours	(q) Indirect Hours	(r)	(s)	(t) Actual Output	(u) Expected Output	(v) Good Output	(w) Total Hours	(x) Indirect Hours
<b>GROUP TOTALS</b>	0	0	0	0.0	0.0	n/a	n/a	0	0	0	0	0
	0	0	0	0	0	n/a	n/a	0	0	0	0	0

**Business Value Assessment Excel Tool REPORT**

	Employees of Workforce Program	Employees for Comparison
1 What is the <u>efficiency</u> of these employees, i.e., the ability to meet or exceed expected work output?		
a) How much output, on average, does each employee produce?	n/a	n/a
b) What is the average efficiency rate, per employee? That is, what percent of the expected output does each employee produce?	n/a	n/a
2 What amount of scrap, or <u>waste</u> , is associated with these employees? And what is the <u>estimated cost</u> of this waste?		
a) How much scrap, on average, does each employee produce?	0.0	0.0
b) What is the average rate of scrap, per employee? That is, what percent of total output is waste?	n/a	n/a
c) What are the average company sales (per week, month, etc.)? This figure will be used to calculate the cost of scrap/waste.	_____ per _____	
d) What is the estimated cost of these employees' scrap, as a portion of the average company sales (using the amount from item #c above)?	n/a	n/a

## Pre-Set Indicators Included in the Excel Tool

The following describes the pre-set indicators that are included in the Excel Tool and the data that you will need to track these indicators. All employee information listed below must be provided on a per-employee basis for the employees within the workforce group. The Excel Tool accommodates either overall estimates for comparison group information or per-employee data, which can be entered for each individual within the comparison group. If your assessment is based on comparing before-and-after information, you need data for each employee covering both the “before” and “after” time periods.

### Employee retention and turnover cost-benefit results

What are the levels of retention among employees with the workforce program, as compared to other employees (e.g., three months, six months, 12 months and the average months’ tenure)?

**NEED:** Hire dates and termination dates for each employee in workforce program, hire dates and termination dates for each employee in comparison group, OR estimate of comparison group retention rate (for three months, six months, and/or 12 months).

**NOTE:** This indicator is pre-set in the Excel Tool for comparison group design only (not before-and-after comparisons).

How much did the business spend hiring employees with the workforce program, as compared to other employees?

**NEED:** Cost of the workforce services to the business and the cost of losing and replacing an employee.

**NOTE:** The Excel Tool calculates actual costs using worksheets with line item costs, and it accepts total per-employee estimated costs.

Are there higher or lower costs related to turnover among the employees with workforce program, as compared to other employees?

**NEED:** Hire dates and termination dates for each employee and the cost of losing and replacing an employee (per the calculations above).

### Employee quality and advancement

How does the need for corrective action among employees with the workforce program compare to other employees, for example in the number of terminations for cause or in disciplinary actions?<sup>2</sup>

**NEED:** Which employees received disciplinary actions and/or were terminated for cause.

What are the levels of diversity among employees with the workforce program, as compared to other employees?

**NEED:** Minority or diversity status of each.

How does attendance among employees with the workforce program compare to other employees, for example in the number of days unexcused or tardy?

**NEED:** Number of days each employee was absent unexcused and/or were tardy.

How does job advancement among employees with the workforce program compare to employees from other sources, for example in the number of promotions or in salaries?

**NEED:** Which employees received promotions, each employee's starting salary and/or current salary, or salary at termination for each employee.

### **Employee skills and their impact on business costs and revenue**

Are employees with the workforce group more efficient compared to other employees? That is, what is their ability to meet or exceed expected work output in units, tasks completed, and time to complete tasks or produce output after the workforce program compared to before?

**NEED:** The number of units produced or tasks completed by each employee and/or the total number of hours each employee worked.

Do employees with the workforce group have greater accuracy compared to other employees? That is, do they have less scrap, waste, or error, and require less related re-work or repeated task completion after the workforce program compared to before?

**NEED:** The number of bad units produced or unsatisfactory tasks completed by each employee and/or the number of units or tasks by each employee that required re-work or re-doing.

And, does the accuracy of the employees with the workforce group save money or generate revenue, compared to other employees after the workforce program compared to before?

**NEED:** The average company sales value (per week, month, etc.), and employee error data.

Do employees with the workforce group spend less unproductive time compared to other employees after the workforce program compared to before?

**NEED:** The number of hours each employee did not spend directly on productive tasks and the total hours worked by each employee.

And, does the productivity of the employees with the workforce program save money compared to other employees after the workforce program compared to before?

**NEED:** The average rate of pay for these employees and the employee rate of unproductive time.

How much overtime do employees with the workforce program spend compared to other employees after the workforce program compared to before?

**NEED:** The number of hours of overtime worked by each employee.

How many employees with the workforce group successfully achieve a skill assessment milestone compared to other employees, for example, passing a required exam or achieving a certification, after the workforce program compared to before?

**NEED:** Which employees have achieved a skill certificate or passed an exam.

## Worksheet 1: Assessment Details

The **Assessment Details** page requests information that allows you to describe the business client to whom you provided the workforce services, your organization, the details of the workforce program, and the assessment you are conducting. This “record-keeping” information is helpful for both keeping track of assumptions you and your business client made in planning the assessment, as well as sharing the results with others interested in your work and outcomes.

Some of the information you enter in the Assessment Details page (Company, Workforce Program, Occupation and Time Period of Assessment) will be **automatically inserted into the titles** in the other forms.

### Describe your business client(s)

Figure 1 shows the information on the Assessment Details page that relates to your business client or employer-company. If your assessment includes more than one business client, complete the Assessment Details page for the business client you consider “primary” to your workforce program. Provide information about other business clients in the “Company Information” box, as you see fit.

- Company name – Input the “primary” company name here. List the company names of the other business clients on the Excel Tool Setup page.
- Unit/division.
- Contact person.
- Contact information: phone number, fax, e-mail and physical address.
- Company information.

<b>Business:</b>	company name Widget World			
	unit/division			
<b>Primary Contact:</b>	name	phone (incl. ext.)	fax	e-mail
	Adam Reynolds	555-8923		
<b>Business Info:</b>	street	city	state	zip code
	1239 Industrial Blvd	Pittsburgh	PA	15210
automotive parts company; approx. 100 production employees  <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p><b>Company Info:</b></p> <ul style="list-style-type: none"> <li>-Company product(s) or service(s) &amp; annual production</li> <li>-Size of workforce</li> <li>-Unit/division description</li> <li>-Is there dedicated HR and/or Accounting staff?</li> <li>-Other relevant details</li> </ul> </div>				

**Figure 1: Assessment Details page, business client information**

When you select the **Company Information** box, a text box pops up and lists some of the details you should consider in describing your business client's work setting in relation to your workforce program.

**NOTE:** "Instruction pop-up boxes" disappear when you move out of the cell into which you are typing information, and they do not print. If the box obscures the information you are typing, use the mouse to move the box to another spot on-screen.

## Describe your workforce program

There is a similar format into which you should enter information about the workforce organization and program:

- Workforce organization.
- Contact person.
- Contact information: phone number, fax, e-mail and physical address.
- Program name, for services or program being assessed.
- Number of employees trained or served.
- Occupation category(ies) of the employees trained or served.
- Description/details of the workforce program or services being assessed. As in the employer segment, a pop-up box prompts you for certain types of information.

## Worksheet 2: Excel Tool Setup

### Setup the Excel Tool for multiple business clients

The Setup page has several options for setting up the Excel Tool when your workforce business value assessment includes more than one business or when you want to add additional assessment measures to those already pre-set in the Report.

If your assessment includes more than one business client, you must input each business/company name on the Setup page (Figure 2), to be able to input their employee and cost information, as well as to produce a report for them.

- Business 1 is the business whose name you input on the Assessment Details page. This business name is automatically entered in the first row on the Setup page.
- You can add business names to this list on the Setup page at any time. You must input the additional business name, however, before you can add any data about the business to the Excel Tool (e.g., on the Employee Information List).

**Configure For a Multiple-Employer Assessment**

If your assessment includes more than one business, input the additional business names, one per box. The names you input in this list become the "dropdowns" to select by business name, on subsequent pages. See the *Handbook* for detailed instructions.

1	Widget World	<p>The name of the "primary" business from the Assessment Details page, will be automatically displayed here as business name #1.</p> <p>Use the Assessment Details page, if you need to change or remove business name #1.</p>
2	LGH	
3	City of Lancaster	
4	Armstrong	
5		
6		
7		
8		
9		
10		

**Figure 2: Excel Tool Setup for assessments including multiple businesses**

**Select additional and custom measures**

The Excel Tool includes several additional pre-set measures, or you can design your own, to supplement the pre-set measures that already appear on the Report.

You may select up to four additional measures, displayed as Option 1, 2, 3 and 4, depending on the comparison design of your assessment. You may add such indicators to your assessment report at any time; that is, you do not necessarily have to decide to use additional measures when you first begin using the Excel Tool. After you select your additional measure(s), the Excel Tool is modified, equipping you to add data and see your results. See the section on Employee Information for further information on inputting data for custom measures and the Report section for information on how the custom results will be displayed.

**Selecting additional measures for comparison group design**

If you use a group of employees as a comparison to the workforce group, you may select up to four additional measures to display on the Report, as explained below (see also Figure 3).

- For **Option 1** and **Option 2**, the results display on Page 1 of the Report as results 9 and 10.
- For **Option 3** and **Option 4**, the results display on Page 3 of the Report as results 4 and 5. Because you are not using a before-and-after time comparison, disregard Page 2 of the Report.

**Add Indicators to the Report Page**

If you want to supplement the pre-set indicators on the Report page, select them from the drop-down menus below. You may select up to four additional indicators. See the *Handbook* for detailed instructions about selecting indicators for the type of comparison you are using (e.g., before-and-after or comparison group), and about creating custom indicators.

Select the additional indicators you want to appear on page 1 of the Report You must use data of this type, for the indicator(s) you selected:

(p.1) #9

(p. 1) #10

Select the additional indicators you want to appear on pages 2 and 3 of the Report

(p. 2,3) #4  (Y)es or (N)o for each employee

(p. 2,3) #5  Number or amount per employee

**Figure 3: Excel Tool Setup, for additional results**

**Selecting additional results for before-and-after comparison design**

If you are comparing results before and after the workforce program, you may only select up to two additional results to display on the Report, as explained below.

- Disregard Option 1 and **Option 2**, which are for comparison groups only.
- For **Option 3** and **Option 4** the results display on Pages 3 and 4 of the Report, results before the workforce program and after, respectively, as Results 4 and 5.

**Additional results you can select**

Ten additional pre-set results are included in each of the drop-down lists in the Custom Results portion of the Setup page. These additional business value results include the following:

- **Advancement:** Average starting salary, average salary increase or ending salary, or number and percent who received promotions or otherwise advanced;
- **Attendance:** Total and average number of days unexcused or total and average number of times tardy;
- **Corrective Action:** Total and average number of disciplinary actions; and
- **Skills and Efficiency:** Average time per task, unit or job; number and percent who successfully achieved a skill assessment milestone (e.g., passed a required exam or achieved a certification); total and average overtime hours or wages; or total and average tasks, jobs or units that require repair or re-doing.

In addition, you can create your own custom results:

- **“Other result:** Number and percent who your result here.” (This result is for “Y/N” data).

- “**Other result:** Total and average, your result here.” (This result is for numeric data).

If you select either of these two customizable result options from the Setup page, you will be asked to type in some text to describe the result:

- A descriptive label for your result, which will be displayed on the Report in the appropriate row; and
- A one- or two-word label for your data, which will be displayed on the Employee Information form in the appropriate column.

### Worksheet 3: Employee Information List

The **Employee Information** list is the essential form in this package for gathering data that allows you to assess the benefits resulting to your business client from their partnership with you in the workforce development program. By inputting several key pieces of information about each employee who participated in the workforce program and in the comparison group, the Tool calculates and presents the results on the **Report** page.

Entering employee information and then viewing the results is quite straightforward. Identifying the appropriate information to collect and collecting it are the complicated parts of the process. In addition to the planning section of this Handbook, check the On-line Resource Center on our Web site for examples and ideas relating to various types of employee information that can be collected and used in a Business Value Assessment. Please see [www.aspenwsi.org/BVAresources](http://www.aspenwsi.org/BVAresources).

There are three categories of employee information on the Employee Information form, as shown in Figure 4:

- **Basic Employee Information** is used by the Tool to categorize employees. The data fields are “Company,” employee “Name or ID,” “Position,” “Unit/Dept/Supervisor,” and “Group” (connoting whether they are part of the workforce program group or the comparison group).
- **Employee Quality Information** is used by the Tool to calculate retention, turnover and the additional results you select. The data fields are employee “Start Date,” “End Date,” “Involuntary Termination” (e.g., fired for cause), “Minority” status, “Still Employed” or not, “Months Employed,” and data for the specific additional result(s) you selected on the Setup page.
- **Employee Skills and Performance Information** is used by the Tool to calculate production results before and after the workforce program for the workforce program group and a comparison group. The data fields are “Actual,” “Expected” and “Good” production; “Total” and “Indirect” hours; and data for the specific additional result(s) you selected on the Setup page.

The instructions below are detailed, so that you can refer to them as you collect the specific information you need for the results you have chosen to assess.



**IF MULTIPLE EMPLOYERS:** Use the dropdown list to select which employees are counted in the GROUP TOTALS. All employees will still display in the list.

Include All Employers

Employer Business Client Name	(a) Employee Name or ID	(b) Position	(c) Unit/Dept/Supervisor	(d) Group T or C	(e) Start Date	(f) End Date	(g) Invol. Term.	(h) Minority	(i) Still Employed	(j) Months Employed	(k) Salary - starting	(l) Skill assessment
<b>GROUP TOTALS</b>		Employees in Program ('T')		24	n/a	n/a	0	24	16	579	n/a	8
<b>GROUP TOTALS</b>		employees to Compare ('C')		0	n/a	n/a	0	0	0	0	n/a	0
1	Laborers Local 224	XXX-44-8645		T	Oct-02			Y	Y	35		N
2	Laborers Local 224	XXX-64-0776		T	Oct-02	Dec-02		Y		1		N
3	Laborers Local 224	XXX-48-5479		T	Oct-02			Y	Y	35	9	N
4	Laborers Local 224	XXX-62-6926		T	Oct-02	Mar-03		Y		4		N

Employee Skills and Productivity Information

Employer Business Client Name	(a) Employee Name or ID	Period BEFORE the Workforce Program						Period AFTER the Workforce Program							
		(m) Actual Output	(n) Expected Output	(o) Good Output	(p) Total Hours	(q) Indirect Hours	(r) Driver's license	(s) Obtained GED	(t) Actual Output	(u) Expected Output	(v) Good Output	(w) Total Hours	(x) Indirect Hours	(y) Driver's license	(z) Obtained GED
<b>GROUP TOTALS</b>		0	0	0	0.0	0.0	16	14	0	0	0	0	0	22	20
<b>GROUP TOTALS</b>		0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	Laborers Local 224	XXX-44-8645					N	N						Y	N
2	Laborers Local 224	XXX-64-0776					Y	Y						Y	Y
3	Laborers Local 224	XXX-48-5479					N	Y						N	Y
4	Laborers Local 224	XXX-62-6926					Y	N						Y	Y
5	Laborers Local 224	XXX-46-9188					N	N						Y	N
6	Laborers Local 224	XXX-70-8898					Y	N						Y	Y

Figure 4: Portions of the Excel Tool Employee Information form

**(A) Basic employee information**

The first four data columns request identification and tracking information for the workforce or comparison employees. You may choose to exclude some or all of this basic employee information, based on the purposes of your assessment. The only data in the first four columns that is required for other portions of the Excel Tool is the Employer/Company Name.

**Employer/Business Client Name.** Select the company name at which the employee is employed from the drop-down list in the input cell/row (see Figure 5 Item B).

If you do not input an employer or company name for each employee on the list, that row of data will not be included on the Report.

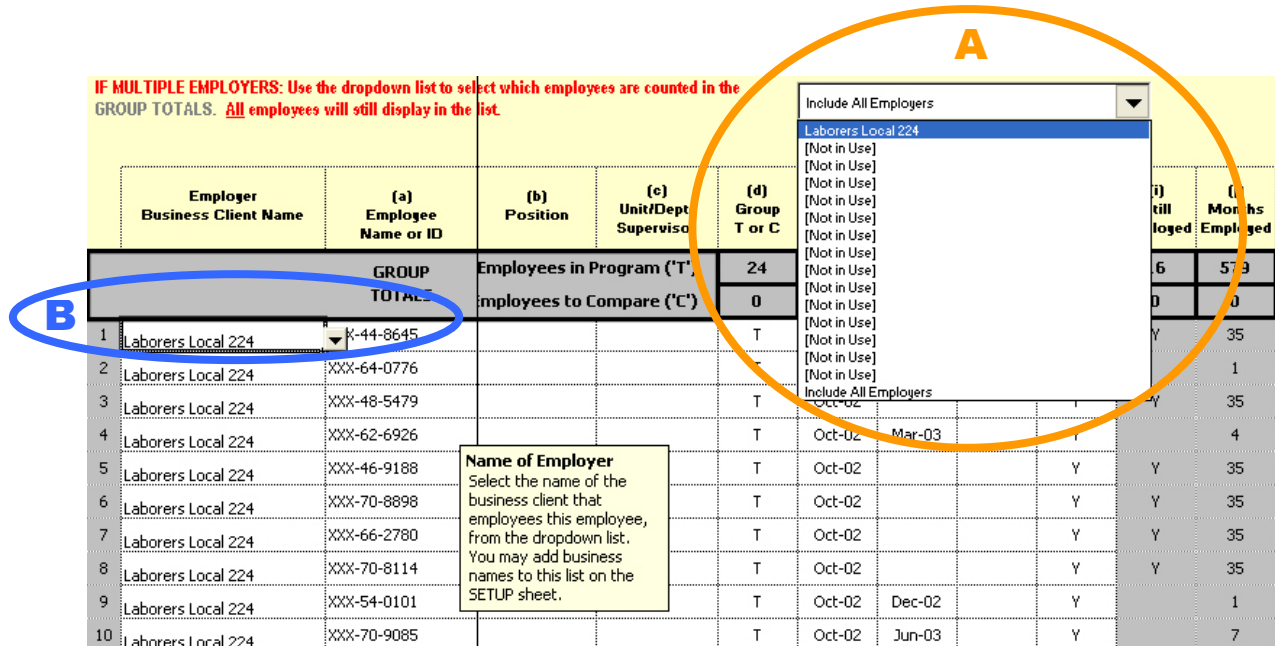
If the data in this field is highlighted in light blue, the employer or company name that you entered is not included on the Excel Tool Setup page. The (exact) employer or company name must be included on the Setup page, or all data and reports related to that employer name will not be calculated.

**Name or ID.** Input the employee name or identification number.

**Position.** Input the employee position or title.

**Unit/Dept/Supervisor.** Input the employee position or title.

**Filtering the Employee Information list by the Employer Name.** If you are conducting an assessment that involves multiple business clients, use the Employer/Business Client name drop-down list in Excel row 3 to select which employee records to display (see Figure 5, item A).



**Figure 5: Business name dropdown lists**

Only the employee records/rows for workers employed at the employer/company you select using this drop-down option will be displayed. However, the data that you input is still present and may be viewed again by selecting “Include All Employers” from the same drop-down list.

## **(B) Employee quality information**

This information is used by the Tool to present retention results and several other results that may be useful for your purposes: rate of involuntary turnover (e.g., termination for cause), diversity rate, and any additional results you select on the Setup page. You may exclude some or all of this employee information, based on the purposes of your assessment, but the Report is affected if some of this information is not completed, as described in the following item-by-item instructions.

**Group (T or C).** Input "T" for employees who participated in the workforce program, i.e., "T" for trained. Input "C" for employees who were not served by the program but are included for comparison to the workforce program employees, i.e., "C" for comparison.

The Tool recognizes capital or lowercase letters t, T, c and C, but gives an error message if you enter any other value.

The Tool does not include in the results any employee with a blank value in the Group column.

**Start Date.** Input the employee's date of hire, i.e., "start date." At a minimum, input the month and four-digit year of hire.

Use four digits for the year (YYYY). If you input two-digit years, Excel defaults to the current year (e.g., interprets 12/04 as 12/2005). The Tool accurately recognizes a variety of date formats using months and 4-digit years (e.g., Dec 2004, 12/1/2004 and 12/2004).

The Tool does not calculate retention results if the Start Date is blank.

**End Date.** Input the date the employee ended his or her employment with the business, i.e., "termination date." At a minimum, input the month and four-digit year of termination. As with the Start Date, use four digits for the year (YYYY).

If the employee is still employed at the business, leave End Date blank.

**Involuntary Termination.** Input "Y" if the employee was fired or terminated for cause. If the employee voluntarily "quit," resigned, or is still employed at the business, input "N" or leave the cell blank.

The Tool recognizes capital and lowercase letters y, Y, n and N, but gives an error message if you enter any other value.

If involuntary termination is not of interest to your assessment, simply do not input this information and the rate of involuntary termination will not be displayed on the Report in Item 7.

**Minority.** Input "Y" if the employee is known to be a member of a minority group important for the business' diversity. If the employee is not a member of a relevant minority group or minority status is unknown, input "N" or leave the cell blank.

The Tool recognizes capital and lowercase letters y, Y, n and N, but gives an error message if you enter any other value.

If the diversity rate is not of interest to your assessment, simply do not input this information and the diversity rate will not be displayed on the Report in Item 8.

**Still Employed.** The Tool automatically determines if the employee is still employed at the business from the value in End Date; therefore, this cell is restricted and you may not input information.

If you do not enter an End Date for the employee, the Tool presents “Y” in Still Employed. If you enter an End Date for the employee, the Tool leaves this cell blank, i.e., the employee is not still working for that employer.

**Months Employed.** The Tool automatically calculates the total months elapsed from the Start Date, i.e., the total months employed at the business.

If you input an End Date for the employee, the Tool calculates the months between the Start Date and End Date. If you did not input an End Date for the employee, the Tool calculates the months between the Start Date and the actual current date.

**Data for Additional Results.** The columns marked (k) and (l) accommodate data for the additional results that you select on the Setup page.

When you select an additional result on the Setup page, columns (k) and/or (l) will be labeled with a “header” for your employee data.

Depending on the additional result that you select, the data input cells will limit your data to either “Y(es)” or “N(o)” data or numeric data that indicates an amount per employee. You can detect the type of data you must input by clicking in the (k) or (l) header row.

## **(C) Employee skills and performance information**

This section of the Employee Information form accommodates data to calculate efficiency results, error or “scrap” results, indirect or non-productive time, and any additional results you select on the Setup page. This information is used by the Tool to present skills and productivity results that are typical for business environments that monitor production or services per unit or per hour.

**“Before” and “After” data.** If you are using a before-and-after comparison design, you must define the time period before and after the workforce program during which you will assess results, so that you can assess the affect of the workforce program after it is completed. See the box in “Planning Your Business Value Assessment” chapter on choosing before and after time periods.

The same five columns that appear under the header “Period BEFORE the Workforce Program” also appear under the header “Period AFTER the Workforce Program.” These columns are explained below only once.

- Use consistent data units. For each of these data fields, you are asked for “totals during the evaluation time period.” You will specify the data in “number of \_\_\_ done” or in hours. If you are inputting data for before and after the workforce program, use the same units in both time periods. For example, do not use hours for the data before the workforce program and minutes for the data after the program.
- Using only one time period for comparison group assessments. If you are using a comparison group, you may want to compare skills and productivity between the two groups, e.g., to assess whether the workforce or comparison group has less error. In that case, it makes most sense for you to put your employee skills and productivity data in the columns under the header “Period AFTER the Workforce Program.”

**Actual Output.** Input the total number of units or parts, the total amount of output, or the total tasks completed by the employee.

Actual Output is used to calculate the employee's efficiency and what proportion of his or her output is "waste," error or scrap. These results are shown as Items 1 and 2 on Pages 2 and 3 of the Report. If you do not input Actual Output, these items will not be calculated on the Report.

**Expected Units.** Input the expected output – that is, the number of units or parts, the amount of output, or the volume of tasks the employee was expected to complete during the evaluation period. The expected output may be the same for each employee in this occupation. If so, input the same value in each employee record.

Expected Output is used to calculate the employee's efficiency, Item 2 on Pages 2 and 3 of the Report. If you do not input Expected Output, this item will not be calculated on the Report.

**Good Output.** Input the total number of good or acceptable units or parts, amount of output, or the tasks completed by the employee.

Good Output is used to calculate what proportion of the employee's output is "waste," error or scrap, Item 1 on Pages 2 and 3 of the Report. If you do not input Good Output, this item will not be calculated on the Report.

**Total Hours.** Input the total number of hours the employee worked during the evaluation time period.

Total Hours is used to calculate indirect time, an indication of the amount of time dedicated to non-productive tasks, shown as Item 3 on Pages 2 and 3 of the Report. If you do not input Total Hours, this item will not be calculated on the Report.

**Indirect Hours.** Input the number of indirect hours, or hours the employee spent on non-productive tasks, during the evaluation time period.

Indirect Hours is used to calculate indirect time, an indication of the amount of time dedicated to non-productive tasks, shown as Item 3 on Pages 2 and 3 of the Report. If you do not input Indirect Hours, this item will not be calculated on the Report.

**Data for Additional Results.** The columns marked (r), (s), (y) and (z) accommodate data for the additional results that you select on the Setup page.

When you select an additional result on the Setup page, columns (r), (s), (y) and/or (z) will be labeled with a "header" for your employee data.

Depending on the additional result that you select, the data input cells will limit your data to either "Y(es)" or "N(o)" data or numeric data that indicates an amount per employee. You can detect what type of data you must input by clicking in the (r), (s), (y) or (z) header row.

## **(D) Group totals**

The Tool automatically calculates a "running total" for each of the data fields. These Group Totals are in the two gray-highlighted rows between the "header" rows and the first employee data input rows (Figure 4, item D). These rows are protected, that is, they contain formulas that you are

restricted from accessing or modifying. You will see the totals for the Workforce Group and the Comparison Group accumulating in these rows as you add data for each employee.

### **How to use the Employee Information form for multiple business clients**

These instructions apply, if your assessment includes more than one business client.

**Use the Setup page first.** You must first add the additional business client/company name on the Excel Tool Setup page. If the (exact) employer or company name is not included on the Setup page, no data or reports related to that employer name will be calculated.

## **Worksheet 4: Business Investment in Workforce Services**

The Excel Tool uses the data entered on the **Business Investment in Workforce Services** form to calculate the retention cost-benefit results on the **Report** form. Consistent with the purpose of “documenting demand-side (business) outcomes,” the Business Investment in Workforce Services form details typical costs businesses spend or incur in hosting workforce development services. You, the workforce service provider or trainer, may cover some or all of the costs. However, **only the actual costs your business client incurs** should be estimated or calculated on this form.

The cost components of the Business Investment in Workforce Services form are quite detailed. This is intended to encourage you and your business client to think about the wide range of possible costs the business pays or contributes for its involvement with the workforce program. The guiding principle in assessing business value, however, is to develop measures that are reasonable and fair, not necessarily to include every possible contingency or cost. Keep in mind the scale of the workforce program and whether it is important to break out costs that do not amount to significant contributions by your business client.

If you do not wish to calculate the item-by-item costs that your business client contributes, you can estimate totals for certain categories of cost on the Business Investment in Workforce Services form or you can input an overall estimate per-employee directly on the Report in lieu of using the Business Investment in Workforce Services form.

This section may be used with either an incumbent worker training intervention or a new hire intervention.

**Provide the information at the correct level of detail.** The various cost categories on the Business Investment in Workforce Services form require information at different levels, e.g., total costs for a group and average costs for one employee. Regardless of the level of detail in each category, the total cost is calculated on a per-employee basis. Review each cost category carefully to understand at what level of detail to provide the costs.

- **Total costs for a workforce group or session:** Development costs, program delivery costs, direct fees, and offsets to costs.
- **Average cost per employee:** Work release costs, direct fees, hiring costs, and offsets to costs.

**Input either item-by-item costs or estimated subtotals.** The Excel Tool accommodates both known item-by-item costs and estimated subtotals for each of the cost categories on the costs forms. Input known item-by-item costs in the right-hand column and estimated subtotals in the left-hand Subtotal column/cell.

There are seven categories on the Business Investment in Workforce Services form:

1. **Number of employees**, which is needed to calculate costs on a per-employee basis.
2. **Direct fees** the business pays for the workforce program.
3. **Program development costs** the business contributes for the creation of the workforce program.
4. **Program delivery costs** the business incurs to implement the workforce program for the session being evaluated.
5. **Work release costs** the business pays to provide employee release for the workforce program.
6. **Hiring costs** for a new employee from the workforce program to prepare the new employee to work productively.
7. **Offsets to costs** the business applies to reduce its net total cost of the workforce program.

Each of these are described in detail below.

### **(1) Number of employees**

If you completed the Employee Information List, the number of employees in the workforce group will **automatically display** in the right-hand cell. If you did not, you must first input the number of employees in the workforce program in the left-hand cell marked "Input Number of Employees," in order for the Excel Tool to calculate a cost per-employee. This section of the Business Investment in Workforce Services accommodates users who do not complete the Employee Information list.

### **(2) Direct fees**

Input the pre-determined or contract fee(s) your business client paid for the workforce program, including:

**Per-employee fees.** The fee paid per-employee, which is multiplied by the number of employees from the workforce program for a total of per-employee fees.

**Group/package fee.** The total fee paid for the workforce program or services.

Add any notes or comments that describe the direct fees, as appropriate, in the "Notes" area.

### **(3) Program development costs**

Estimate your business client's contribution to training needs analysis, identifying program objectives, developing the curriculum, the purchase of equipment or space dedicated to the program, or other "front-end" costs to develop or create the workforce program.

The **Subtotal** sums the item-by-item costs your business client contributed to the original creation of the workforce program. An estimate can be inserted for overall contribution to development in the left column. These are total costs, not costs per-employee.

Add any notes or comments that describe the development costs, as appropriate, in the “Notes” area.

**Development costs are not included in the total** Business Investment in Workforce Services or used to calculate retention cost-benefit results on the Report. Development costs are included on the form for reference. However, they are not included in the calculation of the overall costs for workforce services. Our experience shows that different situations require different amortizations for program development costs.

**To include development costs in the total** Business Investment in Workforce Services, calculate a per-employee development cost and add it to cost per-employee from Item 9 of the Business Investment in Workforce Services form. Input this new figure in the “Estimated Cost per Employee” cell on the Report, for Item 2. This estimated value will replace the value calculated on the Business Investment in Workforce Services form.

#### **(4) Program delivery costs**

Input or estimate the money or in-kind value your business client contributed to program delivery, including: the purchase, rental or cost to use company equipment for this training session; the rental of space or cost to use company space; payment of salary or fees for the instructor; the cost of meals or refreshments; the cost of student texts or materials; organizational or administrative costs or salaries; or other costs related to program delivery.

**If your program is conducted more than once for this business client**, include only the costs your business client contributed for this “session.”

The **Subtotal** is the estimated and/or known item-by-item costs your business client incurred to implement the workforce program. These are total costs, not costs per-employee.

Add any notes or comments that describe the program delivery costs, as appropriate, in the “Notes” area.

#### **(5) Work release costs**

Input or estimate the costs related to releasing an employee from work that were incurred by the business client, including:

**Average wages, paid release.** The wages paid for one employee to attend the workforce program for the number of hours of the program.

**Average overtime wages.** The overtime wages paid for employee(s) to cover the shift(s) not worked by one employee attending the workforce program.

**Average temporary worker wages.** The wages paid to temporary worker(s) to cover the shift(s) not worked by one employee attending the workforce program. Include in the per-employee total any one-time costs associated with using a temporary worker (e.g., placement fee, equipment or uniform, per diem, etc.).



**Value of lost production or business.** The dollar amount of lost production related to the employee's attending the workforce program.

**Other costs for employee release.** Any other costs related to employee work release.

Add any notes or comments that describe the work release costs, as appropriate, in the "Notes" area.

The items will sum in a **Subtotal**. Items a, b and c are per-employee costs, which are multiplied by the number of workforce program employees and added to Items d and e.

Alternatively, you may leave all items blank and enter an overall estimate for this category in the left column.

## **(6) Hiring costs**

Input or estimate the average costs your business client incurs to screen one new employee who is hired through the workforce program and the average costs to prepare them to work productively. Consider only the average per-employee costs that relate to new employees hired through the workforce program.

For example, if the workforce program conducts a pre-employment test, such as a drug screening that the employer does not repeat, then the cost of a drug screening would not be included here. If, in the absence of the workforce program, the employer ordinarily would pay for a drug screening, then that information is recorded in a different part of the workbook (see section on Worksheet 5: Costs of Turnover Per Employee).

**Pre-employment skills/aptitude testing fees.** The cost to administer and score pre-employment test(s) for one employee hired through the workforce program.

**Drug screen/background check fees.** The costs for drug screenings, background checks and any other such pre-employment screenings for one employee hired through the workforce program.

**New employee orientation.** The cost of wages for the new employee to attend a typical or formal orientation, the wages of the manager or HR staff who conduct the orientation, and charges for space or other materials associated with orientation.

**Initial on-the-job training period.** The employee wages paid for the typical number of days during which a new employee hired through the workforce program is considered in-training on-the-job. Also include the wages for supervisors or trainers dedicated to this training.

**Performance differential during orientation period, as portion of employee wages.** The employee wages "lost" due to less-than-expected productivity during the typical number of days a new employee hired through the workforce program is considered in-training on-the-job.

**Other costs.** Any other costs related to screening and providing orientation and on-the-job training to a new employee from the workforce program to prepare them to work productively.

Add any notes or comments that describe these costs, as appropriate, in the "Notes" area.

Items a, b, c, d and e are all per-employee costs, which are multiplied by the number of workforce program employees.

## **(7) Offsets to costs**

Input or estimate the specific tax credits, subsidies, grants, or other income or incentives your business client used to reduce the overall net cost for the workforce program. These costs are subtracted from the total cost your business client pays for the workforce program.

**Tax credits.** The tax credits (e.g., Work Opportunity or Welfare-to-Work Tax Credits) claimed by your business client for employing eligible workers that were hired through the workforce program. Input the average or specific tax credit amount per qualifying employee and the number of qualifying employees hired through the workforce program for which the tax credits were claimed. The Excel Tool multiplies these items for the total amount of tax credit.

**Employment or training subsidies.** Input the average or specific subsidies (e.g., WIA, TANF, or VA subsidies, and/or WIA or TANF ITAs) per qualifying employee, as well as the number of qualifying employees hired through the workforce program for which your business client received these subsidies. The Excel Tool multiplies these items to arrive at the total subsidy received.

**Grant money.** The total grant money your business client applied to the cost of this session of the workforce program (e.g., WIA incumbent or dislocated worker training grant or economic development grant).

**Other offsets.** Input any other offsets your business client applied to the costs of the workforce program. Add any notes or comments that describe these offsets, as appropriate, in the “Notes” area.

## **(8) Total business investment in the workforce program**

The **Total** is the combined estimated and known item-by-item costs your business client applied to the cost of the workforce program. This total includes program delivery costs, work release costs, direct fees, and costs to hire employees from the workforce program, minus the amount of offsets your business client applied to the program.

NOTE: Program development costs are not included in the total costs for the workforce program.

## **(9) Investment per employee by the business for the workforce program**

The cost-per-employee equals Item 8, “Total Business Investment in the Workforce Program,” divided by the number of employees in the workforce program, as shown in Item 1 of this form.

## **Worksheet 5: Costs of Turnover Per Employee Form**

The Excel Tool uses the data entered on the **Costs of Turnover Per Employee** form to calculate the retention cost-benefit results on the **Report** form. As with the **Business Investment in Workforce Services** worksheet, the cost components of the Costs of Turnover Per Employee form are fairly detailed. This is intended to encourage you and your business client to think about the full spectrum of costs the business incurs in hiring new employees or replacing employees who leave the organization. There are opportunities to insert estimates for categories of cost when a less detailed level of analysis seems appropriate.

If you have an overall estimate per-employee that you would prefer to use, you can input this estimated cost on the Report, in lieu of using the Costs to Hire and Replace and Employee form.

**NOTE:** If you are assessing an incumbent worker training program, the Costs of Turnover Per Employee may not be of immediate interest to your business partner, unless one of the objectives of your workforce partnership is to affect retention or turnover.

There are four cost categories on the Costs of Turnover Per Employee form:

1. **Separation costs** the business incurs from losing an employee.
2. **Vacancy costs** the business incurs to cover shifts for one lost employee.
3. **Recruitment/screening costs** the business incurs to recruit and screen an employee.
4. **Orientation costs** the business incurs to orient and train a new employee to work at the expected level of productivity.

Detailed instructions for each category follow.

### **What costs should be reported?**

For the cost categories on this form, provide information based on:

**Per-employee costs.** The “typical” costs associated with losing one employee and hiring a new employee to replace the lost employee. If your business already analyzes this cost, it may also be referred to as an “average cost of turnover” or something similar.

**Relevant occupation or position.** Turnover costs vary at different staff levels; i.e., it may cost more to recruit a top-level manager than an entry-level employee. The information you provide in this form should be based on costs to lose and replace an employee in a same or similar occupation or position as the employees you are assessing in the workforce program.

**Hiring from the typical source(s).** The costs you input on the Costs of Turnover Per Employee form represent the average costs of an employee from any source from which the employees are usually hired, e.g., walk-in applications, temporary services, response to a specific advertisement, or workforce organizations.

**Do not include** costs or payments you make for employees you hire from the workforce program that you are assessing. These costs are represented on the Business Investment in Workforce Services form. Review both costs forms to clearly understand the distinction.

#### **(1) Separation costs**

Input or estimate the costs of losing an employee in this occupation. Consider, for example, separation pay, change in unemployment tax rate, Human Resources administrative costs, the wage costs for an exit interview, and any other relevant separation costs.

Add any notes or comments that describe the separation costs, as appropriate, in the “Notes” area.

## (2) Vacancy costs

Input or estimate the costs of not having one employee in this occupation available to work, i.e., the costs to cover shifts for one lost employee.

**Average number of days to replace an employee in this position.** The Excel Tool will multiply the daily wages and other vacancy costs by the average number of days the position is vacant. If you are using the automated Excel Tool to calculate the costs and do not input an average number of days vacant, the subtotal will only calculate one day.

**Average daily overtime wages for an employee(s) that fills in.** The wages paid to one or more on-staff employees to cover one day's shift for a lost employee.

**Average daily wages for temporary laborers which exceed the average daily wage for this position.** The wages paid to temporary worker(s) to cover one day's shift for a lost employee. Report only those wages that exceed the average wage for the position that is vacant.

**Other costs for vacancy, average per day.** Any other costs related to vacancy.

Add any notes or comments that describe the vacancy costs, as appropriate, in the "Notes" area.

The **Subtotal** is the estimated and/or known item-by-item costs to accommodate the vacancy of one typical employee.

## (3) Recruitment/screening costs

Input or estimate the costs to recruit and screen one new employee for this occupation.

**Advertising costs.** The cost to advertise for one employee.

**Recruiting fees.** The cost to pay for recruiting services for one employee.

**Pre-employment skills/aptitude testing fees.** The cost to administer and score a pre-employment test(s) to recruit one qualified employee. May include the costs for the average number of failed pre-employment tests.

**Drug screening/background check fees.** The costs for the number of drug screenings, background checks, and any other such pre-employment screenings administered to recruit one qualified employee. May include the costs for the average number of failed pre-employment screenings.

**Other recruitment/screening costs.** Any other costs related to recruitment and screening applicants to recruit one qualified employee. Consider, for example, wages for time spent interviewing the average number of applicants required to recruit one qualified candidate, hiring bonuses or incentives, and any other relevant costs.

Add any notes or comments that describe the recruitment and screening costs, as appropriate, in the "Notes" area.

The **Subtotal** is the estimated and/or known item-by-item costs to recruit and screen one typical employee.

#### (4) Orientation costs

Input or estimate the costs to prepare one new employee to work productively in this occupation or position.

**New employee orientation.** The cost of wages for the new employee to attend a typical or formal orientation, the wages of the manager or HR staff who conduct the orientation, and charges for space or other materials associated with orientation.

**Employee literature and forms; company literature.** The cost for providing a new employee with company literature and forms, for example, benefits information and procedures manuals.

**Initial on-the-job training period.** The employee wages paid for the typical number of days during which a new employee is considered in-training on-the-job. Also, estimate the wages for supervisors or trainers dedicated to this training.

**Performance differential during orientation period.** The employee wages “lost” due to less-than-expected productivity during the typical number of days a new employee is considered in-training on-the-job.

**Other costs to process a new employee.** Any other costs related to providing orientation and on-the-job training to a new employee to prepare him or her to work productively.

Add any notes or comments that describe the orientation costs, as appropriate, in the “Notes” area.

The **Subtotal** is the sum of the estimated and/or known item-by-item costs to prepare one typical employee to work productively. If all cells are left blank, an overall estimate of orientation costs can be entered in the left column.

#### (5) Cost to replace one employee in this occupation

The **Total** is the combined estimated and known item-by-item costs to replace one employee in this occupation or position. This total includes separation, vacancy, recruitment/screening and orientation costs.

### Worksheet 6: Report

The Report has three sections and prints out three sheets. The first sheet has the results for retention, turnover, and diversity, and is most relevant for assessments that involve a comparison group. The second sheet looks at skill and performance indicators of interest and assesses these before the workforce service. The third sheet looks at similar measures after the workforce service. The second and third sheets are the main sources of results for before and after assessments. The third sheet, however, can be used for both comparison group and before and after assessments.

In the upper right corner of the Report page is a drop-down menu with the list of employers. Be sure to check that the employer whose results you would like to see is selected.

**Item 1: Number of people included in both Workforce Group and Comparison Group.** This item on the report page shows the number of people who are included in both the workforce group and the comparison group, if applicable. It is a good idea to check and make sure that number corresponds to the number of people for whom you intended to enter data for this employer.

## Explanation of the retention results

The Excel Tool Report estimates the difference in retention performance between a workforce group and a comparison group. If cost information is also entered, the Tool will also calculate “cost-benefit” results on the Report. Cost data can be entered on the **Costs of Turnover Per Employee** page and the **Business Investment in Workforce Services** page or directly on the report page as estimates in designated cells. The notation “n/a” will display for any result that can not calculate because data are missing (e.g., you did not input any comparison employees on the Employee Information list). Below we review each item in this section.

**Item 2: Per employee investment business has made in hiring from workforce program.** This item shows the per employee investment the business has made in hiring from the workforce program. This information is drawn from the Business Investment in Workforce Services worksheet in the workbook. Alternatively, you can enter an estimate of this cost in the green dotted box in the far right column. If you enter an estimate in that box, you will see the number displayed in the left column with a notation after the number to remind you that it is an estimate.

**Item 3: Business’ per employee turnover cost.** This item shows the business’ per employee turnover cost for employees who have the same or comparable positions as those employees who received services from the workforce program. This figure can be calculated using the Cost to Replace and Hire worksheet, or an estimate that the employer typically uses can be inserted in the far right column. It is important to remember that the figure used here should be specific to the level of worker being considered as part of the assessment. For example, many nursing homes will estimate a much higher per-employee turnover cost for Registered Nurses (RNs) than they will for Certified Nursing Assistants (CNAs). Significantly over- or under-estimating turnover costs will give an erroneous result when considering the monetary benefits of the workforce program.

**Item 3a** shows the per employee investment the business has made in hiring workers from sources other than the workforce program. This information is drawn from the Cost of Turnover Per Employee worksheet in the workbook. Again, if you would like to enter an estimate instead of calculating on the sheet, you may do so in the box to the far right. As above, many businesses have a rule-of-thumb number that they use as their hiring cost, but care should be taken that the estimate pertains to the level of employee under consideration.

### **Item 4: How much did your business client “spend” hiring each group of employees?**

This item provides a comparison of the total “cost” for each group of employees. This cost calculation is based on the hiring costs for each group (Item 2 for the workforce group and Item 3a for the comparison group) and is simply the result of the number of employees in the group multiplied by the relevant per-employee hiring cost.

**Item 5: Which group represents higher turnover costs?** Once each new employee is hired – whether they are with the workforce program or are hired from other sources – we assume that it costs your business client the same amount to replace him or her and hire a new employee if they terminate employment.

Therefore, cost-benefit Items 5b and 5d are calculated using the Costs of Turnover Per Employee, or “turnover costs” per employee. The cost per employee is multiplied by the number of employees

who left during the time period referenced for a total cost in each of the workforce and comparison groups:

**5b** number of employees who left within three months from hire multiplied by the turnover cost per employee.

**5d** number of employees who left within six or 12 months from hire multiplied by the turnover cost per employee (simply click the button for six months or 12 months to see the result that is of interest).

In 5e and 5f, we take a slightly different approach to looking at the same issue. We consider how well the hiring investment for the workforce group and the control group compare by viewing that investment in light of retention results. In 5e, we see how many of the originally hired employees are still working for the company and then calculate 5f:

**5f** employees still employed at the time of the report divided by total cost of hiring all employees within that cohort (Item 5e divided by Item 4).

**Considerations for the Excel Tool employee retention results**

**How the Excel Tool accommodates “estimated” retention rates.** It is not always feasible for your business clients to provide you with an actual comparison group of employees with which to compare retention rates. The Excel Tool accommodates this circumstance by allowing you to input “estimated” retention rates on the Report for your comparison.

IF MULTIPLE EMPLOYERS: The Report form accepts estimated costs and rates for only one business at a time. (1) Use Copy Report for a separate Report; then (2) input estimates for the

	Copy Report	Employee of Workforce Program	Employee of Comparison
5 Which group represents higher turnover, and turnover costs? The calculations for 5b, 5d and 5f require a turnover cost figure in Item #3 above.			
a) How many employees from each group remain 3 months after hire?	19 (79%)	0 (62% <i>est.</i> )	Est. average rate 62%
b) What is the cost of turnover for employees who were gone within 3 months of hiring (using the cost figure from #3 above)?	n/a	n/a	
c) How many employees from each group remain 6 months after hire?	17 (71%)	n/a (54% <i>est.</i> )	Est. average rate 54%
d) What is the cost of turnover for employees who were gone within 6 months of hiring (using the cost figure from #3 above)?	n/a	n/a	
e) How many employees from each group are still employed (at the time this report was prepared)?	16 (67%)	0 n/a	Est. average
f) What is the average cost for each employee who is still employed? (If no employees remain, this is the total amount spent on hiring for the group.)	\$0	\$0	

**Figure 6: Retention results on the Excel Tool Report**

Figure 6 highlights several aspects of retention results and the Excel Tool Report page.

**Where to input estimated values.** In this example, the business client has provided estimates of his or her usual retention rates for three-month and six-month retention, and these figures are entered in the cells to the right marked “Est. average rate” (Figure 6, item A). When a value is entered in the cells for estimated values, this value is transferred to the column for “Employees for Comparison” and is followed by a notation “(est.)”

**Three-month, six-month or 12-month retention results.** The Excel Tool Report is pre-set to present three-month retention rates from the Employee Information records. We found that this

period corresponds to many companies' probation periods, and that, for a number of employers, employment beyond 30 days is a good indicator that a new hire was adequately prepared for the job. You can also review both six-month and 12-month retention using the Report, Item 5c on Page 1. However, you can only print either six- or 12-month retention using the “toggle” button in Item 5c as shown in Figure 6, item C. That is, you can not print six- and 12-month retention results simultaneously.

### **Explanation of the employee quality and advancement results**

As noted above, for many employers, retention is a good proxy to indicate the general quality of employees. However, the Excel Tool Report includes several options in addition to retention that may be of interest in assessing general employee quality. These include attendance, disciplinary actions and advancement.

**Item 7** on Page 1 of the Report is “involuntary turnover,” or the number of terminations for cause. This result will automatically be included on the report page.

Other items relating to general employee quality and advancement can be selected when entering information on the Setup page. Options for these additional results are described in the section on Worksheet 2 that describes Additional and Custom measures.

### **Explanation of the Excel Tool employee skills results**

Employee skills results, and how they show up in business costs and revenues, are presented on Pages 2 and 3 of the Excel Tool Report.

- If you are using a **before-and-after comparison design**, you will use both Page 2 and Page 3 of the Report for “before” and “after” employee skills results, respectively.
- If you are using a **comparison group design only**, you will likely use only Page 3 of the report for employee skills results, i.e., you are comparing the results “after,” or as a result of, the workforce program.

The type of output or tasks that you can assess using the Excel Tool must have one or more of these elements:

- The output or task can be counted.
- A predefined level of output or number of tasks to complete that is expected for each worker, job or position within a set amount of time.
- A pre-defined standard of quality that defines the output or task as “acceptable” or not.

**Item 1: What is the efficiency of the employees?** Efficiency relates to the employees' ability to meet or exceed expected output, in units or tasks completed, in a given time period. Efficiency can also be thought of in terms of “goal completion” or “using capacity.”

**1a** average amount of output/units or tasks completed.

**1b** average percent that the actual output/units or tasks completed represents as a proportion of the expected output or tasks completion.



4/5 From the Setup page, you can select additional results to assess employee efficiency.

If you select “Average time per task, unit or job” to assess employee skill results, you would look for decreases in the average time per task or unit over time, or better rates among workforce group employees than comparison employees.

**Item 2. What amount of scrap or waste is associated with the employees?**

**Accuracy** relates to how much of the employees’ work meets expected quality standards. The inverse of accuracy is **error**. Error, otherwise known as “scrap” or “waste,” is the result that the Excel Tool calculates at the group level.

2a average amount of scrap, waste output/units, or “unacceptable” tasks completed.

2b average percent that scrap, waste output/units, or “unacceptable” tasks completed represents from the employees’ total output.

4/5 From the Setup page, you can select an additional result to assess employee error (i.e., accuracy).

If you select “Total, and average, tasks, jobs or units that require repair or re-doing,” (and it represents a different measure of accuracy than scrap or waste that is considered “unrecoverable loss” for your work context), you should consider carefully how changes in this outcome should be interpreted.

**Item 3. What amount of these employees’ time is not spent directly on productive tasks?**

**Direct time**, as it is referred to in manufacturing, relates to how much of the employees’ time is spent directly on productive tasks. The inverse of direct time is **indirect time**. Otherwise known as “non-productive time,” indirect time is calculated at the group level in the Excel Tool.

3a average number of indirect time, in hours.

2b average percent that the indirect hours represent as a proportion of total hours worked.

**Items 4 and 5. Additional employee skills results.** From the Setup page, there is one additional pre-set result that may be appropriate for assessing your workforce program’s effect on employee skills: “Number and percent who successfully achieved a skill assessment milestone (e.g., passed a required exam or achieved a certification).”

**Explanation of the employee skills estimated cost-benefit results**

The Excel Tool Report has several “monetized” results which allow you and your business client to estimate the value of change in waste product, the value of change in efficiency, and the value of change in non-productive time, over time or comparing the workforce group employees to other employees.

The cost-benefit items 2d and 3d on Pages 2 and 3 of the Excel Tool Report use estimated “monetizers” that, once input, are applied to each of the employee skills results.

The notation “n/a” will display for any result that cannot calculate because data are missing (e.g., you did not input any comparison employees on the Employee Information list).

**2d. What is the estimated cost of the waste?** The “cost of waste” (also known as the cost from errors made or unacceptable work) is an amount of company sales or revenue that is either unrecoverable or is revenue foregone because waste is an accepted part of the work environment.

In order to estimate the “cost of waste,” your business client must provide his or her sales or revenue, for a set period of time (e.g., per week, month or year). You will input this value in Item 1c. This value is then multiplied by the error or scrap rate for an estimated dollar value for the “cost of waste.”

**3d. What is the estimated cost of non-productive time?** The “cost of non-productive time” (also known as indirect time) are the labor costs lost to non-productive time. In order to estimate the “cost of non-productive time,” your business client must estimate the average hourly rate of pay for the typical employee in the occupation(s) included in the assessment. You will input this value in Item 3c. This value is then multiplied by the average hours of indirect time for an estimated dollar value for the “cost of non-productive time.”

## Share Your Excel Tool Results with Us

These Excel Tool results are a first-of-its-kind attempt to help workforce programs see what dollar value their programs represent for their business clients. We will update the toolkit and the On-line Resource Center as we receive feedback from practitioners like you about the ways your business clients try to estimate the dollar value of your workforce services. Contact us with questions and suggestions using our on-line feedback form at [www.aspenwsi.org/BVAmail.asp](http://www.aspenwsi.org/BVAmail.asp)

Thanks you!