



Measuring Business Impact:
A Workforce Development
Practitioner's Guide

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Measuring Business Impact: A Workforce Development Practitioner's Guide

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Introduction

Sector-based workforce development programs target particular industry sectors to develop a deep understanding of industry dynamics and businesses' workforce needs to craft solutions tailored to that industry.¹ At the same time, these efforts are designed to support workers in improving their skills and work opportunities.²

Practitioners in workforce development have a long history and considerable experience related to the measurement of individual skill improvement and job placement or increases in earnings. However, our experience in Massachusetts has demonstrated that there is limited experience and capacity to engage with businesses and measure the benefit of workforce development interventions to businesses. This publication is intended to address this gap.

This guide describes key steps necessary for measuring business impact and provides examples from sector-based and other workforce development projects in Massachusetts. While much of the experience upon which this guide is based is derived from sector-based projects that involved partnerships of multiple organizations, the process described applies equally to situations involving a single business.

Some of the steps necessary for measuring business impact are also essential to identifying business need and developing training projects in the design phase. This guide is therefore intended for workforce development practitioners engaged in project planning or implementation, whether they work within or outside of the business involved, as well as for independent evaluators of workforce development projects. The target audience includes staff of workforce investment boards, career centers, training providers, educational institutions, and businesses interested in exploring the business impact of training or other types of workforce development interventions. In addition to building the capacity of workforce development practitioners, we hope that this guide will support businesses that seek to integrate business impact evaluation into their ongoing training and quality improvement processes.

OUR EXPERIENCE

As a funder and administrator of sector-based workforce development initiatives in Massachusetts for more than ten years, Commonwealth Corporation has acquired knowledge and experience in supporting program managers as they seek to understand the impact of their workforce development efforts on individuals and businesses. In particular, Commonwealth Corporation research and evaluation staff worked with 31 projects through

1 "What is a Sector Strategy?" Workforce Strategies Initiative: <http://www.aspenwsi.org/WSISector-strategy.asp> (Accessed January 26, 2011).

2 Ibid.



the Workforce Competitiveness Trust Fund (WCTF)³ between 2007 and 2011 to help project leaders carry out their own business impact analysis and to observe the process in order to better inform others in the field of workforce development. WCTF projects were implemented in a range of industry sectors, including healthcare, hospitality, manufacturing, financial services, education, skilled trades, and renewable energy. To deepen our understanding of the process of measuring business impact, Commonwealth Corporation staff conducted case studies in three manufacturing firms. (These case studies are outlined in Table 1 later in this section.) This guide represents our commitment to share what we have learned in our work and contribute to a growing field of research and practice related to working with businesses to elucidate the benefits they experience from participation in workforce development initiatives. Our work has built on the efforts of others interested in this area of program evaluation, including Donald Kirkpatrick; Jack Phillips; the Aspen Institute; Skills for Work, U.K.; and Public/Private Ventures, all of whom continue to contribute to our understanding and insights related to business impact. This publication expands on Commonwealth Corporation’s earlier publication, *Business Impact Primer: Speaking the Language of Employers*, by providing more in-depth guidance on how projects can assess the business impact of their efforts.

WHAT IS BUSINESS IMPACT?

“Business impact” represents a broad set of results likely to occur in business because of a training program. These results range from qualitative differences in the attitude of workers (e.g., they are more confident) to measurable improvements in quality and productivity that can be translated into monetary impact, thus allowing calculation of a “return on investment” (ROI).⁴ While ROI measures may provide convincing evidence of the results of workforce development investments, the capacity of many businesses and workforce development intermediaries to carry out ROI analyses is often quite limited. Moreover, a training program may result in changes that have an important impact on how workers perform their jobs but which may not be apparent in changes to a company’s “bottom line.” Commonwealth Corporation’s approach to measuring business impact aims beyond simply telling good stories about the benefits of training to more systematically examining the changes in worker performance that result from training and how these changes contribute to improvements in the operation of the business(es) involved.

Assessing business impact is one aspect of the evaluation of training programs. One of the most well-known frameworks for evaluating training was developed by Donald Kirkpatrick and is referred to as the “Kirkpatrick model.” This model identifies four different levels of evaluation:⁵

3 Learn more about the WCTF at: <http://www.commcorp.org/areas/int.cfm?ID=12&sub=166>

4 A Return on Investment analysis involves a comparison of program costs and monetary benefits of a program. The basic formula for ROI is: $ROI (\%) = \frac{(\text{Program Benefits} - \text{Program Costs}) \times 100}{\text{Program Costs}}$

5 Donald L. Kirkpatrick, *Evaluating Training Programs: The Four Levels*. San Francisco, CA: Berrett-Koehler Publishers, 1994, pp. 21-26.



Reaction – measures customer satisfaction, or how people who participate in a program react to it.

Learning – measures the extent to which participants change attitudes, improve knowledge, and/or increase skills as a result of attending a program.

Behavior – measures the extent to which change in behavior occurs as a result of participation in a training program. Such change is supported by a climate in which supervisors encourage participants to learn and apply their learning on the job.

Results – measures the results that occur because participants attended a program (e.g., increased production, improved quality, decreased costs, improved workplace safety, and increased profits). These results constitute what we refer to as “business impact” and may include ROI analyses (although Kirkpatrick acknowledged the difficulty of assigning monetary value to all forms of training and their results).

Jack Phillips expanded on Kirkpatrick’s levels by deepening the understanding of ROI as well as intangible measures, or those potential non-monetary benefits that may be experienced as a result of training.

Levels 1 and 2 relate to the individual recipients of training – their reaction to the training and their skill gains resulting from the training. The individuals’ application of the learned skills in the workplace is measured in level 3 and the business impact or effect on key business indicators is measured in level 4. Where feasible, business impact may be converted to dollars and cents and compared to the cost of the training or workforce development initiative in a benefit to cost ratio or a ROI analysis.

This guide focuses on levels 3 and 4 as we recognize that not all situations permit an ROI analysis. For project leaders who feel they have the capacity to pursue an ROI investigation we offer a list of resources to help with the process in the **Additional Supports** section of this guide.

WHY IS MEASURING BUSINESS IMPACT IMPORTANT?

Measuring the impact of a workforce development program for the businesses involved requires time, interest, and effort, but the process offers an opportunity to demonstrate the value of training and encourage businesses to become involved in and provide support for future training efforts. For example, WCTF projects reported reductions in employee turnover, decreased hiring costs, improvements in productivity and safety, and job creation and retention as demonstration of the business impact of their projects.⁶ Providing evidence of business impact demonstrates to a broad set of stakeholders how public and private sector investments in workforce development can contribute to both individual

⁶ See *Measuring Business Impact: Lessons Learned from Workforce Development in Massachusetts*. Commonwealth Corporation, September 2011. Available at www.commcorp.org

advancement and the strength and competitiveness of businesses. Finally, the process of measuring business impact itself builds the capacity of workforce development practitioners, businesses, and educational institutions to more systematically align training design and business goals.

CHALLENGES TO MEASURING BUSINESS IMPACT

If measuring business impact is so important, why hasn't it been standard practice in workforce development? One reason is the historical emphasis placed on assessing individual outcomes (e.g., job placements, wage gains, promotions) as the primary measure of success for workforce development projects. Another is that measuring business impact requires serious engagement with business leaders and managers to understand the goals for training, workplace context, and appropriate measures for assessing impact; yet, workforce development professionals vary in their comfort level in pursuing such engagement. A third reason is that there is no simple one-size-fits-all set of measures and approaches that can be used across industries and organizational contexts. Measuring business impact requires a context-specific analysis of workplace needs and identification of appropriate measures. All of this requires *time* on the part of both workforce development professionals and businesses. With so many other priorities competing for the attention of workforce development staff and businesses, measuring business impact has often been left unaddressed. In fact, a survey by the American Society for Training and Development (ASTD) determined that only about 37% of businesses conduct an evaluation of business results at (Kirkpatrick's) level 4, even though 75% of business respondents said that evaluation of business impact or business results was of "high value" or "very high value."⁷ An additional challenge to measuring business impact is the fact that many businesses do not manage with the kind of data needed for such an analysis, so the data are not always readily available to those interested in understanding the impact of training.

HOW IS BUSINESS IMPACT MEASURED?

While measuring business impact must be carried out in a way that makes sense for the specific circumstances of a project or business, a uniform process can be applied across contexts and industries. In our work with workforce development projects, Commonwealth Corporation has identified five key steps in measuring business impact:

1. Defining the Problem and the Training Solution
2. Identifying Business Impact Indicators
3. Gathering the Data
4. Analyzing the Data
5. Sharing and Using the Results of Your Analysis.

⁷ American Society for Training and Development (ASTD), "2010 State of the Industry Report." Alexandria, VA.



In the sections that follow, we offer a description of each step, suggestions and tools to support the process at each step, and relevant examples to demonstrate business impact measurement in practice.

OVERVIEW OF CASE STUDIES

In Table 1, we offer an overview of three case studies conducted by Commonwealth Corporation staff in manufacturing firms. These examples highlight key elements in the business impact measurement process, including the business “problem” to be solved at each company, the training solution applied to the problem, key business impact indicators, and results.

Table 1 Overview of Commonwealth Corporation Case Studies on Measuring Business Impact

Company	Sources of Information	Business Problem	Training Solution	Business Impact Indicator	Business Impact Results
Manufacturer A: Manufacturer of precision machined components for the aerospace, communications, medical, military and other commercial markets	COO HR Director Manufacturing Superintendent Quality Manager Several machinists and machine operators	The company relied on too few highly skilled employees to produce and inspect machined components. The company needed to reduce production and inspection errors due to misinterpretation of blueprint specifications and production validation.	Geometric Dimensioning & Tolerancing Blueprint Reading	Error rates in product documentation and production	The company experienced a dramatic (61%) reduction in production and inspection error rates.

Company	Sources of Information	Business Problem	Training Solution	Business Impact Indicator	Business Impact Results
Manufacturer B: Manufacturer of precision turbine engine components (including engine casing and engine propeller shafts) for both military and commercial applications	General Manager Operations Manager Manager of Quality Several employees including machinists, quality technicians, and engineers	The company manufactures complex and expensive components for military applications, in which even slight defects can lead to catastrophic failure. The company had to: 1) reduce production costs by reducing total production hours and 2) reduce its defect rate due to mishandling of manufactured components.	Green Belt and Geometric Dimensioning & Tolerancing	Production time and defect rate for precision turbine engine components	Improvements in production performance led to a 40% reduction in total hours to produce a core product. Defects due to mishandling were also reduced.

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Company	Sources of Information	Business Problem	Training Solution	Business Impact Indicator	Business Impact Results
Manufacturer C: Specializes in the design, development, and manufacture of naval warfare intelligence and defense systems, primarily for submarines	Quality Manager Training Specialist Several Corporate Reports	The company is one of many divisions of a major global defense contractor. Many of its defense systems are manufactured at its campus in Massachusetts. Under pressure from both US and international customers, the company must continuously improve its manufacturing systems performance.	Green Belt Continuous Improvement Training	Production cost	Tracking data collected monthly suggests total cost savings in excess of \$3 million.





Defining the Problem and the Training Solution

What problem is the business trying to solve through training?
How is the training expected to solve that problem?

Defining the “problem” that a workforce development project is expected to address is the first step in measuring business impact. You must understand what the project sought to accomplish in order to determine the degree to which it was successful. The aim of this step is therefore to build an understanding of the business problem to be addressed through the project and the expectations for training or other interventions to address that problem. As Kirkpatrick suggests, analyzing the business impact of a project is essentially an effort to demonstrate a project’s “return on expectations.”⁸

The business problem to be addressed through training may often be defined in terms of the following:

1. A workforce issue, such as a set of skills, competencies, or credentials that are missing among current workers, or costs related to high turnover of skilled workers; or
2. An aspect of operations that could be improved — such as productivity, safety, quality of product or service, customer satisfaction, or market share.

Identifying the problem to be solved through a workforce development project should be undertaken jointly with business leaders as part of the process of designing the project. Too often, however, the notion of measuring business impact is left out of the early stages of planning a project. The people who take on assessing the business impact of a project may not have been involved in the original design process. If you find yourself in such a situation, you may need to do a little “homework” to catch up and fully understand the goals of the business(es) involved in order to determine how to assess business impact. You can use this opportunity to develop a deeper understanding of what drives the business and how workforce development can contribute to achievement of business goals. This understanding will help to foster a relationship with the business that can support project implementation and evaluation for the current project and also support the development of training in anticipation of future needs.⁹

BUILDING AN UNDERSTANDING OF THE “PROBLEM”

By first engaging business representatives in a conversation about broad questions about the business and business drivers, you are likely to develop a deeper understanding of the context of the workforce development challenges faced by the business. You can then move to the more specific question of what management expects to achieve through the

⁸ Kirkpatrick, 1994.

⁹ For more on developing employer relationships, see Commonwealth Corporation’s *Business Impact Primer* listed in the Additional Supports section of this guide.

workforce development intervention or training and develop an understanding of how training is expected to provide a solution to the problem faced by the business. This understanding might apply to the business as a whole, or to a specific unit that will be affected most directly by the training. To begin, you will likely want to meet in person with one or more members of the management team.



In unionized workplaces it is important to involve union representatives from the beginning: in helping to define the problem to be addressed, designing and implementing training solutions, overseeing program operation, and conducting evaluation. You might consider setting up a labor-management committee to support your business impact analysis.

You may find that your initial business contacts are not always in the best position to answer some of your questions. Remember that a business is not a “single” entity. Depending on their roles and positions in a company, individuals will have different perspectives and thus varying ability to answer your questions. An important challenge initially will be to engage with multiple individuals within the business to develop a good understanding of the firm’s workforce needs and challenges to define the problem. Use your initial contact to get introductions to appropriate staff as necessary.

THE TRAINING SOLUTION

As you gather information to understand the business problem, you will also want to learn about the training solution that has been proposed or designed to address that problem. In particular, you should be sure to obtain several pieces of information on the training, including learning objectives, nature, and duration of the training, as well as information on any other services that might accompany training.

See the **Take It To Go** list of suggested questions below as a starting place to use in your conversation with your business partners to learn about the business problem and the training solution. We offer some additional resources to support this process in the **Additional Supports** section at the end of this guide.



TAKE IT TO GO

Use this list of possible questions to launch a conversation to help you understand a business problem and how it is to be addressed through training.

Understanding the Business Problem and Training Solution

LEARN ABOUT THE BUSINESS

- What is the firm most known for in the industry?
- Who are the firm's key customers?
- What are current customers' expectations for the firm's performance?
- How have these expectations changed, if at all, over the recent past?
- What parts of the business are growing and/or what parts of the business are likely to grow over the next few years?
- What are the technologies (process or product) driving change in the industry?
- What will be essential to the firm's success over the next three to five years?
- What are the firm's key workforce challenges today? How are they expected to change in the next few years?
- What are the firm's goals for participating in this training project?
- How do you anticipate that training will help the firm meet those goals?

LEARN ABOUT THE TRAINING

- What are the learning objectives or expected outcomes for the training? How do these relate to the business problem the training is designed to address?
- Who is providing the training?
- Who is receiving the training?
- When is training provided? How long will it last?
- Are the supervisors of the participants aware of the training and its objectives?
- How and when are participants expected to be able to apply their training to their work?
- What, if any, other services are being provided in addition to training that might have an impact on the business problem?

FROM PROBLEM TO MEASURABLE OBJECTIVES

Once you understand the nature of the business problem to be addressed, you can translate the problem into measurable objectives for which you can determine appropriate indicators in **Step 2**. Often the relationship will be straightforward – in order for the business problem to be solved selected staff will have to be trained, which will result in different behavior with measurable impact. For instance, improved skills may lead to fewer safety and quality issues that contribute to higher costs and reduced revenues. Table 2 provides examples from Commonwealth Corporation-funded workforce development projects of types of training and related business objectives in a range of industry sectors.

As you develop your objectives, keep in mind the business problem and the training solution to ensure that there is appropriate alignment among all three elements. Review this information with business leaders to be certain that everyone is in agreement.

Table 2 Examples of Business Objectives to be Addressed Through Training

Sector	Business Objectives	Types of Training Offered
Early Childhood Education	<ul style="list-style-type: none"> increase the number of staff who have post-secondary degrees and credentials to be in compliance with new state regulations improve the quality of care provided to children in order to maintain business competitiveness 	<ul style="list-style-type: none"> college preparation classes courses to complete Child Development Associate (CDA) certificate and/or associate’s degree in early childhood education
Financial Services	<ul style="list-style-type: none"> improve the preparedness and increase the tenure of new hires 	<ul style="list-style-type: none"> work readiness orientation to financial services sector
Healthcare	<ul style="list-style-type: none"> fill staff vacancies and reduce recruitment, hiring, and orientation costs improve client satisfaction 	<ul style="list-style-type: none"> associate’s degree programs leading to certification as respiratory therapists, medical lab technicians coursework to complete nursing certifications as CNA, LPN, RN to BSN training in working with dementia patients
Hospitality	<ul style="list-style-type: none"> reduce turnover costs improve the productivity of workers in areas such as safety and customer service 	<ul style="list-style-type: none"> English for Speakers of Other Languages (ESOL) food safety/Training for Intervention Procedures (TIPS) banquet serving
Human Services	<ul style="list-style-type: none"> improve the preparedness of entry level new hires reduce staff turnover 	<ul style="list-style-type: none"> training includes: disability issues, ethics, human rights, community skills standards, first aid, CPR continuing education opportunities (e.g., Medical Coding and Billing Specialist Certificate; Medical Interpreting; Pharmacy Technician Certificate; Certified Nursing Assistant credential)
Manufacturing	<ul style="list-style-type: none"> improve worker productivity and performance to maintain and improve business competitiveness 	<ul style="list-style-type: none"> precision machining geometric dimensioning and tolerancing
Transportation	<ul style="list-style-type: none"> reduce traffic violations/infractions 	<ul style="list-style-type: none"> English for Speakers of Other Languages (ESOL)

WORKING WITH MULTIPLE BUSINESSES IN A PARTNERSHIP OR CONSORTIUM

When multiple businesses are engaged in a workforce development project, the “problem” to be addressed through training must be defined at the individual business level in order to design, develop and deliver appropriate training, identify meaningful measures of impact and identify relevant data. It is possible, and even likely, that different businesses may be trying to address slightly different problems. You will therefore need to set up conversations with individual businesses to discern common business goals that can help shape the process of measuring business impact and ensure that it is meaningful for all the businesses involved.

To the extent possible, conversations to understand the business problem should take place separately at each business, face-to-face. The time spent in such conversations will not only help to set a direction for the measurement of business impact; it can also enhance your understanding of individual organizational needs within a partnership and strengthen both the project’s relationships with business partners and the plan for training design and delivery.

“It is so important to get buy-in from the employers you’re working with through initial, individual face-to-face meetings. You can help them understand the value of this process and make it clear that even though there will be work involved, at the end they’ll get something useful out of it.”

One of the key components to a successful measurement of business impact is having employer input right from the beginning. You really want to develop a multi-level relationship with the employers, including the top level, hiring managers, and supervisors, so that everyone is on the same page and they can all provide input on what matters to them and suggest ways to make the process easier.”

— WCTF Project Coordinator

Keep in mind that in order to measure the business impact of a sector project, you may not need or want to include every business partner. If, for example, a substantial share of employees at several businesses participate in training, while at one business, only a handful of employees participate, you may decide to focus on the businesses with larger concentrations of workers being trained for business impact measurement and analysis. When deciding which businesses to involve, your decision should ultimately come down to feasibility – that is, the time and resources that you have to devote in working with multiple businesses, their interest and willingness to work with you, and the likelihood that you will be able to gather sufficient information to make some statement about the extent to which a project has had an impact for the businesses involved.



THINGS TO REMEMBER

DEFINING THE PROBLEM

- Begin discussions of business impact during the training project design phase.
- Become familiar with the business(es) to understand leaders' concerns and goals for participation in the workforce development project.
- Set up in-person meetings with management at each business to understand the context and clarify the business problem to be solved.
- Remember: You needn't be an industry expert; just ask and learn!
- Translate the problem or problems into one or more measurable objectives.
- Gather information on the training that is supposed to address the business problem.
- Confirm that the training, the problem, and the measurable objectives are aligned.
- Review your understanding of the business problem, the training solution, and business objectives with business leaders to ensure agreement before moving on to Step 2.

WORKING WITH MULTIPLE BUSINESSES IN A PARTNERSHIP

- Meet with individual businesses face-to-face.
- Learn about individual and common business problems to be addressed through training.
- Consider the concentration of workers trained at each business to determine where impact is most likely to be easily measurable.
- Determine the most feasible business partners to participate in your business impact analysis.





Identifying Business Impact Indicators

Once the problem to be solved is identified, how will you know you've solved it?

Once you have identified the business problem to be addressed by a workforce development project, the next step is to determine what “success” will look like: What kinds of changes would you expect to see at the business and how could you tell if those changes have taken place? In order to determine if change has taken place, you need to work with staff of the business to identify how you can observe and measure that change. The “gauges” that you establish can be read at the beginning of the project and at any point midway and at the end of the project to assess progress.

SELECTING APPROPRIATE INDICATORS

In selecting business impact indicators, it is important to consider their relevance to training. The assessment should focus on those indicators that are most likely to be affected. The indicators you select will depend on the context of your project - the type of work that participants do, the type of training, and the feasibility of collecting data. In some cases, there are clear connections between training and organizational impact, while in others, your best option is to focus on the application of new skills and behaviors in the workplace that results from training.

Measuring business impact can be approached through the simple model displayed in Figure 1. Our model assumes that training takes place and leads to participants acquiring new skills and knowledge. Participants then apply these new skills and knowledge to their work, and products/services and work processes are thereby improved. If these improvements are sufficiently widespread and significant, the overall organization — or a unit, department, or team within it — experiences a benefit. In approaching the measurement of business impact, you want to go as far along this line of logic as is practical for your project. In some cases, the training could be tied to an organizational impact, whereas in other cases, business impact indicators might be most valid at the point of changes in work processes. In some instances, you may need to stop at the point of assessing the impact of training on the application of new skills.

Figure 1 Business Impact Model



The selection of indicators for your project may also depend on the concentration of training participants working at any one business. For instance, a hospitality project that offers training in English language and customer service skills to 50 participants spread out over 12 hotels may want to focus its business impact measures on the application of new knowledge, skills, and behaviors in the workplace, since it would be difficult to find an overall organizational benefit in these hotels when only small proportions of their staff are trained. In contrast, a project that trains 150 workers in lean manufacturing in a 300-person firm might be able to look not only at skills application but also at changes in work systems and resulting financial and other benefits to the firm. Let a combination of your project goals (business problem) and your context be your guide in determining appropriate indicators.

As you select indicators for your project, you should focus on those that are both **meaningful** and **feasible**. As you consider different indicators for your business impact analysis, you will want to take note of the following:

- Whether the indicator relates to the training closely enough to be impacted by it;
- How strongly the indicator could be affected by factors outside your project; and
- The availability of data on your indicator to be obtained with a reasonable amount of effort and in a time frame that meets your project and stakeholder needs.

For example, let's say a hotel manager is interested in improving customer service to attract more patrons. To improve customer service, the hotel manager offers English classes and customer service training to a small number of employees. What would be an appropriate measure to assess the success of the training intervention?

While it might be tempting to monitor the number of hotel patrons over time for this analysis, that indicator may be affected by a number of external factors, such as local

competition, state of the economy, physical condition of the hotel, and other factors that are unrelated to the effectiveness of the training. More suitable business impact indicators might therefore be customer satisfaction, as measured by customer surveys or customer testimonials or complaints, as well as application of specific skills and behavior measured by supervisor surveys.

Choosing appropriate indicators to assess the impact of training may not always be immediately obvious, particularly if you are unfamiliar with the workplace context overall, or with a particular department in the organization. To aid in the selection of suitable indicators, you will need to understand the logical connection between training, how people work or are expected to work after the training, and the larger work systems or operations of the workplace. To develop this understanding, you should:

- ✓ Visit the workplace/department to observe the context in which people will be applying skills and understand how that application will impact work systems.
- ✓ Talk with staff at different levels of the organization to gain insight into the relationship between training and the work environment. Such staff can include:
 - Leadership
 - Training/human resources
 - Finance or quality staff
 - Operating staff
 - Supervisors of training participants
 - Training participants

EXPLORING EXISTING DATA AS A SOURCE OF BUSINESS IMPACT INDICATORS

Seeing the workplace and talking with staff there can also help you identify the types of data that the business is already using to assess performance and productivity. Such data might include those collected to monitor production or service delivery, or to manage employees. Most businesses collect data such as turnover, retention, and absences. In addition, depending upon the nature of their work, businesses may have data on sales, production, service delivery, and safety. These metrics can provide a ready source of data and serve as the basis for your business impact analysis.

The following manufacturing case study (outlined in Table 1) describes an instance where discussions with staff uncovered a key source of information for use in the business impact analysis. After initial conversations with the chief operating officer, the Commonwealth Corporation staff evaluator spoke with the operations manager to better understand what data were both relevant and available to understand the impact of the training. In this case, the business impact analysis focused on the documentation for parts produced, since this was an activity to which participants could directly apply their new skills and results could be observed and measured. (See the Case Study for more on this example.)





Manufacturing Case Study: Error Rates in Product Documentation

With just over one hundred employees, a manufacturing firm participating in an industry-sector program in Massachusetts put nearly its entire workforce through a training program intended to increase the general level of manufacturing knowledge. In order to assess the business impact of the training, the evaluator worked with the company's staff to determine where they might find – and measure – a change in business operations that would have resulted from the training. Through discussions with different levels of management staff, the evaluator discovered the documentation furnished by the company for every part it produces and settled on this information as the source of a measure of business impact.

At the company every part produced carries a "history card" with vital data about the dimensions and other characteristics of the part. The production and quality managers took samples of these history cards and found that before the Geometric Dimensioning & Tolerance (GD&T) training there was a 71% error rate of the "True Position" (allowable deviations from perfect) calculations recorded by the machine operators. Errors in these calculations resulted in redundant inspection operations to ensure proper reporting on the part history cards. Products and parts had to be over-inspected to ensure that customers did not receive any that did not conform to specifications. After the GD&T training took place, True Position calculations improved significantly, reducing the operator error rate to 9% from the pre-training error rate of 71%. Practically speaking, this reduction in errors meant that customers did not receive parts or components that were out of compliance, a situation which had been occurring prior to the training. Overall inspection costs were also reduced with the increased accuracy of production and documentation. The combination of greater awareness and higher skills across the workforce and evidence of this improved performance gave the company's senior managers the confidence to pursue an AS9100 certification, which the company successfully achieved in June 2009, thereby positioning their firm to compete in a broader and more profitable aerospace market.

Keep in mind that you will likely need to reach out to staff beyond your initial contact at a business to understand what data are already available and how you might go about getting alternate or additional data for your needs. In undertaking case studies like the one described above, the Commonwealth Corporation evaluator relied on a range of information sources to determine data available for measuring business impact:

- Chief Operating Officer (COO)
- Human Resources Director
- Manufacturing Superintendent
- General Manager
- Operations Manager
- Quality Manager
- Training Specialist
- Employees including machinists, quality technicians, and engineers
- Corporate reports

As part of your investigation to prepare for measuring business impact, reach out to multiple levels of staff at the business to support identification of indicators and collection of data. This may require:

- ✓ Obtaining appropriate introductions through your primary contact or the business representative;
- ✓ Scheduling meetings with senior or management staff ahead of time to get their agreement before reaching out to various staff members;
- ✓ Being persistent in trying to reach the person with the data you need.

If you select an indicator already used by the business, seek examples of data from the past as a point of comparison and as a way to validate the relevance of this indicator to your business impact inquiry. If the business does not collect any data relevant to the impact of training, you need to determine what data you will need and how you might get it. Gauge the relevance and value of any indicators you choose by considering how they would change if the training were effectively utilized by staff.

To help guide you in working with your business partners to identify suitable indicators for your project, we offer a set of questions in the following **Take It To Go** worksheet. We encourage you to adapt and add to these questions to fit your situation.





TAKE IT TO GO

As you work with your business partners to determine indicators for your project, review these questions.

Questions for Selecting Business Impact Indicators

- What new skills and knowledge will people gain through training?
 - How do you expect people to work/act differently as a result of their training? How will they apply what they have learned?
 - How and where might we see evidence of any changes in behavior or work processes that result from people applying their new skills and knowledge?
 - What indicators of organizational performance does the business already use that are likely to be affected by training?
 - How frequently are data available or gathered for these indicators? Would the timing be appropriate for determining the effect of the training? (If the effect is likely to be very small, a quarterly or annual measure may not be very appropriate.)
- * Take it to the next level:
Can the performance of training participants be compared with that of any other groups on staff who are similar but did not get the training?

Add your own questions here

COMMONLY USED INDICATORS

In workforce development, business impact indicators often fall into two general categories: workforce stabilization measures, such as reduced turnover, and competitiveness/performance/productivity measures, such as quality, efficiency, safety, and productivity. See Table 3 for some common examples of indicators in both categories.

Table 3
Common Business
Impact Indicators

Workforce-related Indicators	Competitiveness/Performance/Productivity Indicators
<ul style="list-style-type: none"> • Vacancy rates for hard-to-fill positions • Recruitment costs • Retention of new hires • Orientation time for new employees • Turnover of staff • Absenteeism <p><i>Note: these can be applied organization-wide or within specific units of an organization.</i></p>	<p>Productivity/Performance</p> <ul style="list-style-type: none"> • Ability to perform new tasks • Attainment of individual or business-wide certifications • Sales or production per person • Documentation of products/processes/events <p>Quality</p> <ul style="list-style-type: none"> • Customer/client/patient satisfaction • Customer testimonials or complaints • Supervisor/peer satisfaction • Scrap/error/defect rate as % of total production • Application of writing skills <p>Efficiency</p> <ul style="list-style-type: none"> • Order/request processing time • Number of steps in production or service delivery • Number of “transaction counts” • Days/hours/minutes/seconds of production per unit produced • “Rework” or the reprocessing of tasks • Machine set-up/run times <p>Safety or Compliance</p> <ul style="list-style-type: none"> • Safety violations • Worker’s compensation filings

Adapted from Massachusetts Performance Accountability Round Table, November 2006.

WHEN RESULTS AREN'T EASILY QUANTIFIED

Some potential results of training do not convert easily to numbers, including dollar values, but may still be important in assessing the value of training to a business. Labeled by Phillips

“Be satisfied with evidence if proof is not possible.”

— Donald Kirkpatrick

and others as “intangible benefits” to training, these results may pertain to individual worker behavior, as well as work systems. Examples of intangible benefits include:¹⁰

- Improved work climate
- Increased organizational commitment
- Improved teamwork
- Increased innovation
- Improved cooperation/reduced conflict
- Reduced employee stress
- Increased job satisfaction
- Improved communication
- Improved labor/management relations
- Improved customer service

Ideally, indicators of such benefits may be included as part of a business impact analysis in addition to more easily quantified results. If so, plan to gather evidence beyond anecdotal reports of changes in intangible indicators, such as through surveys of supervisors and training participants.

Combining Multiple Types of Indicators in Workplace ESOL

A workplace education project provides an example of how to gather evidence of changes in “intangible” and other types of indicators. In the project, a food manufacturer in Massachusetts partnered with an adult basic education provider to offer English for speakers of other languages (ESOL) classes to a small group of its employees. Through ESOL classes, business managers sought to improve worker productivity, workplace safety, and customer satisfaction, as well as communication between supervisors and employees and among employees of different ethnic and linguistic backgrounds.

In order to assess the business impact of their project, the project coordinator worked with staff of the business to create a survey to determine employees’ improvement in five key areas:

1. Expressing ideas and asking questions in English
2. Correctly identifying ingredients, tools, equipment used regularly
3. Using safety gear (gloves, goggles) as instructed
4. Using correct procedures to request time off /call in sick
5. Identifying problem areas (safety hazards, wrong ingredients)

The survey asked supervisors to rate individual employees on each area, from “greatly improved” to “not at all improved” and to provide any additional comments on the extent to which the training had affected how participating employees worked in their jobs.

¹⁰ Jack J. Phillips and Ron Drew Stone, *How to Measure Training Results: A Practical Guide to Tracking the Six Key Indicators*. New York: McGraw Hill, 2002.

Note: While this workplace education project chose to use this type of survey to gather data on individual workers, this approach could also be used to assess the performance of a cohort of participants, which might be useful in unionized workplace, situations where workers operate in teams, or other instances where participant confidentiality may be more of a concern.

Table 4 provides actual examples of business impact indicators for different industrial sectors used by projects funded under the Workforce Competitiveness Trust Fund. These measures reflect the range of indicators that can be observed to measure the business impact of training, including intangible indicators as well as more easily quantified measures.

KEEP IT SIMPLE

While you and the business managers you are working with may have multiple objectives for conducting training, do not feel compelled to conduct a business impact analysis for every objective. It is better to limit the number of indicators examined, collect sound data, and be able to show how those indicators changed as a result of training, rather than be overwhelmed chasing too many kinds of data. Our experience suggests that sticking with two to four indicators is a good range.

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CREATING A PLAN FOR YOUR INDICATORS

The process of selecting business impact indicators is often an iterative one. You must balance the items in which you are interested with the availability of data, the relevance of data to training, and the feasibility of obtaining data in a reasonable manner and timeframe. Use the questions provided in the **Take It To Go** earlier in this section to guide your conversations with business staff. Document and summarize the results of your conversations in the **Indicator Plan**, and get ready to move on to data gathering!

Table 4 Sample Business Impact Indicators from Massachusetts Workforce Development Projects

Industry Sector	Sample Business Impact Indicators
Manufacturing	<ul style="list-style-type: none"> • new employee recruitment and screening costs • employee retention • new employee over-the-shoulder training time • safe use of equipment • positive attitude, motivation, and work habits • accurate interpretation of blueprints, operation sheets • performing progressive machining and assembly operations to specified tolerance • understanding of manufacturing processes and sequence of machining operations • scrap rate • set up/run times • error rate • market share
Healthcare	<ul style="list-style-type: none"> • vacancy rates • retention rates for new hires • orientation time • annual overtime costs • staff diversity/bilingualism • patient satisfaction on unit of participants • pre-service skill levels
Construction/Renewable Energy	<ul style="list-style-type: none"> • demand for green products and services • sales derived from green products and services • employee turnover rates • new jobs created
Education	<ul style="list-style-type: none"> • absenteeism • turnover • recruitment/screening costs • costs of temporary staffing agencies • program quality • staff qualifications allow maintenance of accreditation status • participant ability to perform new tasks
Hospitality	<ul style="list-style-type: none"> • customer satisfaction • communication between participant and peers/supervisors
Trades	<ul style="list-style-type: none"> • retention • quality of job applicants
Financial Services	<ul style="list-style-type: none"> • retention • diversity of new hires • training costs for new hires



TAKE IT TO GO

Use this plan to summarize your discussions and decisions on business impact indicators.

Measuring Business Impact - Indicator Plan*

1. What is the overall business problem/issue that your project seeks to address?
2. How does the design of your project relate to this issue?
3. How will you know if your project is successful in addressing this problem/issue?
What types of changes do you hope to see as a result of the training?
4. What can you look at to measure/document the extent to which the desired changes have occurred? Are any relevant data already collected by the business?
5. How could you gather data on business impact results? Here are some possible examples:
 - document review
 - review data from business database
 - survey participants
 - survey supervisors
 - survey management staff
 - other: _____
6. What would be your sources of information?
 - paper files
 - business data/database
 - other: _____
 - which department(s)? _____
7. How feasible is it to obtain the type of data you'll need to measure business impact?
 - That's easy. The data are readily available and I can access them.
 - I think I could access the data but I would need to work out a few issues.
 - We'll never get that information!
8. How often are these data available?
 - updated information is provided as requested
 - quarterly
 - annually
 - other
9. To what might you want to compare any observed changes?
 - situation prior to training (pre-/post- comparison)
 - a group of comparable workers
 - an industry standard or comparable measure

*This tool is available electronically at: <http://www.commcorp.org/resources/detail.cfm?ID=872>

Keeping your answers to these questions in mind, list your key business objectives and their related (relevant and feasible) indicators below. This list will serve as the basis for your data collection plan.

Business Objective	Indicator	Business Contact



THINGS TO REMEMBER

IDENTIFYING BUSINESS IMPACT INDICATORS

- Work with business managers and other staff to understand the work context and identify meaningful indicators of business impact.
- In selecting indicators, choose those that relate to aspects of participants' work and other work processes that are most likely to be affected by the training.
- Determine what data already exist for measuring business impact. If existing measures are not relevant, determine new measures for which you can collect data.
- Keep in mind that you will want to provide evidence for any indicators that you choose to pursue – whether they are easily quantified or not.
- You need not choose a long list of indicators. Stick to the 2-4 that are most relevant and for which gathering data will be most feasible.

FINAL CHECK — REVIEW YOUR INDICATORS

- Does the indicator relate to the training to be impacted by it?
- Might the indicator be too strongly affected by factors outside your project?
- Can data on your indicators be obtained with a reasonable amount of effort and in a time frame that meets your project and stakeholder needs?



Gathering the Data

How will you gather information to document changes that have taken place as a result of your project?

Once you have selected business impact indicators that are important to assessing the business impact of your project, you will need to develop a data collection plan. Whether you pursue indicators for which data are already collected by the business or will need to establish a means of acquiring data, you will need to work with managers or other staff at the business to determine where the data can be obtained, by whom, and how often.

ESTABLISHING KEY PARAMETERS FOR DATA COLLECTION

To begin your efforts at collecting business impact data, you will want to establish some key parameters and set up a plan to meet your data collection and reporting needs:

Timing. In the context of your program and the type and duration of training offered, what are appropriate times for the collection of business impact data? What is a reasonable length of time after training has taken place to begin collecting post-program data? (Some evaluators suggest a minimum of 3-4 months and even up to a year to give sufficient time for the application of newly learned skills. You will need to determine what makes sense in your context.) What reporting requirements do you need to fulfill and how will your data collection plan support you in doing so? How often does the business collect data on the relevant measures – daily, weekly, monthly, quarterly, or annually?

Data Sources. What data already exist within the business (e.g., human resources or production data)? What data will you need to acquire through other means (e.g., surveys, focus groups, interviews)? What tools (e.g., surveys, interview protocols) will be required to do so?

Comparisons. What kinds of comparisons will you use to show changes in your business impact indicators? Will you use a comparison group (e.g., new hires trained in your project vs. those who were not; or one department vs. another that was not trained)? Or will you use a pre-/post-program comparison? Depending on your choice, you will need to set up a plan for collecting data on non-program participants or for collecting baseline data as a starting point from which to show progress.

Baseline Data. It is important to gather baseline data at the very beginning of the project to provide a starting point of comparison before any training has taken place. (Keep in mind that setting up systems to collect baseline data in the workplace can prepare staff for subsequent data collection activities.) When would baseline data need to be collected to represent a true “pre-training” situation for your project? Which data are most appropriate as a baseline: data gathered on individuals prior to participation in training, or data on teams or departments that plan to send employees to training?

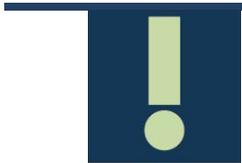
Roles and Responsibilities. Determine who will be responsible for collecting data at designated times. Who will have access to data, both inside and outside the business, for the purpose of analysis and reporting so that privacy of individuals and confidentiality of business data are both maintained? Will you need to get the cooperation of different staff in your effort to obtain data directly, such as through surveys, focus groups, interviews, or review of documents? Once data are collected, who will be responsible for compiling and summarizing them?

Understanding the Context of Your Work. You may want to include in your plan some steps or activities for exploring the context in which the program took place in order to surface any other factors that may have contributed to your business impact results. (See more on this issue in **Step 4: Analyzing Data.**)

REVIEW AND REVISE

Setting up data collection presents a good opportunity to review the feasibility of the indicators that you selected in **Step 2: Identifying Business Impact Indicators**. You may find that gathering data in a reasonable, timely way for some indicators proves impossible. This is the time to make any adjustments to your list of business impact indicators and alter your data collection plans accordingly.

A WORD ABOUT CONFIDENTIALITY



TIP

Some of the information required for your business impact analysis may be considered sensitive. Businesses may be reluctant to share it, or if they share it with you, they will not be comfortable with others seeing their data. Sometimes the information is covered by state or federal laws that limit sharing it. In some instances, if the data analysis is to be conducted by someone outside the business, appropriate non-disclosure agreements will have to be put in place. It is important, therefore, to establish parameters around the type of data to be shared, who will have access to it, and the others with whom the data will be shared.

In some cases, you can set up a plan whereby the business will collect data and report the level of change experienced. For example, in one project, a business manager did not feel comfortable disclosing safety infraction numbers to a project coordinator who was employed by an outside organization. Since improvements in safety were a desired result of the training program, the coordinator asked the business to agree to report the change in safety infraction rates (e.g., a 20% reduction), without disclosing the actual starting and ending rates.

In addition to agreements around the data collected, you will want to review with business managers any concerns over reporting of findings, since they may wish their business to remain anonymous in any report that is sent beyond the business or project. For example, the business managers may prefer that reports only describe changes that occurred without baseline and post-program figures. At other times business managers may be able and willing to report data to a project coordinator employed outside the business, but may require a non-disclosure or other kind of agreement to be in place to prevent data from being shared with competitors.

In addition, it is important to clarify the boundaries of information reported on individuals. Typically, classroom performance remains confidential and is only reported by instructors in aggregate. The important thing to keep in mind is that skill assessments for program evaluation purposes are not to be included in individual performance evaluations.

In unionized workplaces, it is very important to be sure to review confidentiality parameters and the planned contents of surveys or other data collection and analysis plans with union representatives or appropriate personnel, in order to be sure that these boundaries, and any pre-existing agreements, are respected and maintained. The bottom line is:

Be sure to address the issue of confidentiality in your planning work with business managers (and union representatives, if relevant), and revisit the issue after you have obtained and analyzed data and before you report or share any findings.

OTHER THINGS TO KEEP IN MIND FOR DATA COLLECTION

✓ *Provide Information, Engage Staff, and Obtain Consent and Authorization*

It is important that prior to any data collection all concerned are provided an overview of the project and its goals and the reason for data collection if they are not already aware of it. In the case of individuals – training participants – this may also require getting formal acknowledgement of disclosure of information from the individuals and their consent for collection of data. Sometimes formal permission from senior staff or management may also be required.

✓ *Send Reminders for Ongoing Data Collection*

For your data collection needs, you may decide that data are to be gathered periodically, such as quarterly or annually. In such a case you may want to set up a system of prompts to ensure that the data gathered by others are provided to you at scheduled times.

“Almost on a quarterly basis, the partnering employers were asked to submit a progress report on business impact. This kept them aware of exactly what we were looking for and it helped them to see the actual impact these trainings were having on their businesses. They could see in a report just how the trainings correlated to the goals that they set out to accomplish with the (training) project.

By surveying supervisors, management staff, and human resources personnel, we were able to gather the data to report out on business impact. A copy of the (data collection) plan was sent via email to the employers at each time of request so that they knew what information was needed from them. Any questions or concerns that arose were addressed, and everyone knew what was expected.”

— *WCTF Workforce Development Project Coordinator*

✓ *Maintain Attention After Training*

In order to determine the effect of training, you may decide to delay data collection in order to give workers the opportunity to use and demonstrate their newly learned skills and capabilities. Maintaining staff’s attention to support data collection long after training can be challenging. It is important to continue to keep managers and other staff engaged and to plan ahead regarding whom to contact and when they should be approached to obtain data.

✓ *Use Meetings to Support Data Collection*

Take advantage of any individual business staff meetings, or any meetings of business consortia, that might provide an opportunity to share information on data collection schedules and activities and to remind staff of their responsibilities. Once you have results to share, these meetings can also offer venues to inform others about your findings.



✓ *Review Data Gathered*

Review the data received for completeness. If you have any questions it is important to seek clarification as quickly as possible after receiving the data. Involve staff of the business in these discussions as appropriate.

PUT YOUR PLAN IN WRITING

Outlining your data collection strategy will require some time and careful planning. Develop a written plan for collecting your data and share it with all relevant partners to clarify and ensure agreement on roles and expectations. See the following **Take It To Go** for a suggested framework for organizing your plan.





MEASURING BUSINESS IMPACT: DATA COLLECTION PLAN

Business Objective	Indicator	Data Source / Methods	Timing	Staff Responsible	Notes/Issues to Consider

APPROACHES TO GATHERING DATA WHEN SOURCES DON'T EXIST

In many instances, businesses will not have a consistent set of data readily available for measuring business impact. Often this is the case in small businesses that do not collect a lot of data. Below are two examples of ways in which projects have approached the need to obtain data to demonstrate business impact.



Development of a Survey for Manufacturing Supervisors

The Western Massachusetts Precision Manufacturing Training Program involved a partnership of 20 small to medium-sized manufacturing firms, most of which did not gather any of the sort of data required to measure the business impact of training. As a result, the project coordinator had to develop a means of gathering information to measure the business impact of the project.

To begin, the coordinator reviewed the goals for the project, which included: 1) building a new pipeline of quality entry-level machine operators, and 2) increasing the skills of current manufacturing workers to allow them to do their current jobs differently and do more advanced work, the need for which was spurred by company investments in new technology. Drawing on his understanding of business needs and training objectives, the coordinator used the Kirkpatrick levels of evaluation (reaction, learning, behavior, and results – referred to in the **Introduction** to this guide) to outline a set of business impact objectives corresponding to each of the goals of his project. These objectives ranged from the demonstration of new skills acquired through training to organizational impacts that resulted from training.

To collect data, the coordinator then developed two surveys, each focused on the objectives related to one of the project goals. (One of these surveys is provided in the Sample Business Impact Surveys section of this guide.) In the survey he asked respondents to indicate the level of impact in each objective area (from minimum to significant), the percentage improvement resulting from training, and the source of information on these changes (e.g., supervisor comments, supervisor report, weekly production report, or daily production sheet). He then sent hard copies of the survey with cover letter and self-return envelopes to his contacts at participating businesses. He also sent an email and followed up with an electronic survey to allow people completing surveys a choice in responding (though most preferred the paper version). In many cases, the survey found its way from an initial contact with a manager to the shop floor, where it was completed by appropriate individuals such as supervisors.

Attaching a Dollar Value to Hiring and Orientation in Healthcare

In another project in Massachusetts that prepared employees for healthcare technician positions through an associate's degree program, project partners were interested in comparing the costs associated with hiring and orienting a new technician through the project with similar costs for "outside hires." The focus of their analysis was a single department in a hospital. While some data were available for these indicators for the

hospital as a whole, the project staff wanted data specific to the relevant department. In order to determine the costs associated with hiring and orientation, the project coordinator worked with hospital staff to first list the different processes involved in hiring and orientation and then determine the costs associated with each of these processes and related activities. An important step was determining who was directly or indirectly involved in each process. Then, based on the staff's level, hours and rates were determined for each person and used to calculate costs.

Table 5 shows how the project coordinator organized data on regular, or outside hires, and provides some preliminary data. (Hourly rates have been omitted to protect organizational information.) A similar table of data for project participant hires will be compiled to allow comparisons. These comparison data were not yet available at the time this guide was published.



Table 5 Breakdown of Costs Associated with Hiring and Orientation Activities

Activity Category	Additional Information	Associated Costs	Time (hours)	Dollars
Advertisement	Monster, newspapers, in-house printing	Flat fee \$8-900/Year cost for technician listing (1-3/yr)	TBD	TBD
Hiring Activities	Interview with Human Resources	Human Resources Director __ hours @ \$ ____	Column data omitted for confidentiality	\$164.00
	Interview with Department Director	Director __ hours @ \$ ____		\$82.00
	Orientation to facility	Human Resources /Department/Other Staff: __ hours @ \$ ____		\$82.00
	Background check and other checks	Human Resources Administrative staff __ hours @ \$ ____		\$415.00
Orientation Activities	4-6 weeks orientation	Department Director __ hours @ \$ ____		\$246.00
		Preceptor __ hours @ \$ ____		\$7,920.00
		Human Resources __ hours @ \$ ____		\$41.00
		Other Staff __ hours @ \$ ____		\$33.00
		New Technician __ hours @ \$ ____		\$5,280.00
	Credentialing	Director of Nursing / Department Director __ hours @ \$ ____		\$492.00
Total			252	\$14,681.00

USING SURVEYS

Different organizations have different cultures that are important to consider when establishing plans to obtain data. For instance, if you decide to use a survey, there are essentially three choices for conducting it – a telephone survey, a paper survey, or an electronic survey using tools such as Survey Monkey.TM It is important to talk to the business or department manager to make the decision about which form would be best. You will want to consider your audience and their comfort level with different forms of a survey: Keep in mind any means necessary to protect the anonymity of responses to encourage more candid responses. (Similarly, if you want to conduct interviews or focus groups, you will need to determine appropriate timing, format, and facilitation to fit with the business culture and norms.)

✓ *Obtain Contact Information*

As you prepare to implement your survey, it may be useful to gather names and contact information (addresses, email addresses) of the staff to be surveyed during the early stages of the project. This is particularly important if you are employed outside the business. Once the training has been completed, a fair bit of persistence may be necessary to obtain data and/or responses to surveys. Having contact information can support you in this process. Obtaining contact information can help you in planning at the outset of your project and set staff expectations about participation in future data gathering activities.

✓ *Draft and Test Your Survey*

Developing a survey can be a bit daunting if you have never created one before. It can be helpful to use or modify an existing survey after obtaining any necessary authorizations, and if feasible, consult colleagues who may have more experience in administering surveys. (You may even decide to hire someone else with relevant skills to develop the survey for you.) It is very important to review surveys with business representatives and to test the survey before use to ensure that survey questions are appropriately worded. See Table 6 for tips on creating surveys and promoting a good response rate.

✓ *Optional: Explore Factors Related to Results*

You may want to include in your survey a question that asks if any other factors contributed to the changes observed after training, or to what extent respondents feel the training itself contributed to those changes occurring. See more on this topic in **Step 4: Analyzing the Data**.



Table 6 Suggestions for Survey Development

Tips for Writing Surveys	Suggestions for Improving Survey Response Rates
<ul style="list-style-type: none"> • Keep the survey simple and brief (requiring no more than 20 minutes). • Review your survey questions: <ul style="list-style-type: none"> - Do they relate to the business impact indicator(s) of interest? - Are questions worded in language that is appropriate for those who will complete the survey? - Are questions worded in a way so respondents understand what is being asked? - Is the language simple, direct, and familiar to respondents? - Can questions be shortened without any loss of meaning? - Does each question have a single focus (and not try to get at more than one element at a time)? - Do the response categories (i.e., items to check) relate clearly to the question? - Are respondents likely to interpret a question the same way (or could the question have multiple meanings that will muddy responses)? - Could a question be deemed objectionable or inappropriate for any reason? • Avoid using negatives (“no” or “not”) in your questions to avoid confusion. • Make clear the time frame to which your survey applies (if relevant). • Include a brief introduction that explains the purpose of your survey, the anonymity of responses, and the process and deadline for submitting a completed response. <p>Adapted from the <i>Business Value Assessment for Workforce Development Organizations Handbook</i> (available at: http://www.aspenwsi.org/wsiwork-bvtool.asp) and <i>Program Evaluation: Principles and Practices A Northwest Health Foundation Handbook</i> (available at: http://nwhf.org/images/files/NWHF_Program_Eval_Handbook.pdf)</p>	<ul style="list-style-type: none"> • Offer appropriate formats for your survey – via email, an online survey, or with a self-addressed, stamped envelope. • Provide advance communication about the process. • Clearly communicate the reason for the survey. • Explain how data will be used. • Estimate the time needed to complete the survey. • Make responses anonymous. • Enlist the help of managers and supervisors in distributing the survey and encouraging responses. • Use one or two follow-up reminders. • Consider incentives for responding. • If you do not work within the business, try to locate an “advocate” within the business who can follow up to make sure staff have received and are completing surveys. • Share a summary of results with respondents. <p>• Adapted from <i>How to Measure Training Results</i>, by Jack J. Phillips and Ron Drew Stone, McGraw-Hill, 2002.</p>

THINGS TO REMEMBER

GATHERING THE DATA

- Establish and follow agreements for the confidentiality of data.
- Establish timelines for data collection and reporting.
- Clarify roles and responsibilities for data collection.
Determine roles for analyzing data once they are received.
- Write up a data collection plan and share it with your business impact measurement partners.
- Provide information, engage staff, and obtain consent and authorization to access data.
- Set up reminder systems for supporting data collection over time.
- Gather contact information for relevant staff to support data collection.
- Learn about the workplace culture to inform your process for using surveys or other forms of data collection.
- Develop surveys as needed and review their contents with key business staff.
- Do a test run of your survey before fully launching it.
- Don't be afraid to ask for data.
Ask again for data if you do not get any the first time.
Ask yet again if you do not get sufficient data the second time.
- Review data collected for completeness as soon as possible after you receive it.
Follow up on cases of incomplete or unclear data.





Analyzing the Data

Once you collect all of your data, what should you do with it? What do the data tell you about the business impact of the program?

The essential aim of analyzing business impact data is to help you and other stakeholders understand:

- What the data say about the results of the training;
- The extent to which these results match with business objectives; and
- Any lessons that might be drawn from the observed results.

While an individual may be responsible for compiling and organizing the data collected for your business impact analysis, to best make sense of it, you will want to engage other stakeholders in analyzing and interpreting the data. It is particularly important to involve business or department managers as much as possible in this process. You may also wish to include staff who have been involved in the data collection or supervisory staff who worked with training participants, since they may be able to offer useful insights regarding the data.

If you are conducting a business impact analysis for more than one business, you will want to consider the most appropriate means of involving business managers (keeping in mind any previously established confidentiality agreements). If your project involves only two or three businesses, you may want to look at the results together as a group. If your analysis involves a large number of businesses, you may wish to develop your own interpretation of findings for review and reaction by others at a larger group meeting. Do what is most feasible for you, your partners, and their preferences and availability.

To help in this step of business impact measurement, we offer a set of questions to use in analyzing your data in the **Take It To Go** worksheet later in this section.

RELATE YOUR RESULTS TO OTHER ELEMENTS OF EVALUATION

As you analyze your business impact data, you may find it useful to consider your results in relation to the findings of any additional evaluation (formal or informal) conducted on the training. Such evaluation might pertain to the levels described in the introduction to this guide: 1) reaction to training, 2) skill acquisition, and 3) skill application (if not included in the data you are collecting). (See the **Introduction** for an explanation of these levels.)

We recognize that not all organizations that undertake business impact measurement have the resources and/or capacity to launch a full multi-level evaluation of their training program. We do suggest, however, that there may be additional pieces of information that can illuminate your business impact results and offer deeper insight into your program and its impact. Information corresponding to these levels can allow you to answer questions such as these:

- Was the training well designed and delivered?
- Did the participants learn new skills?

- Did participants apply their newly learned skills?

Although no formal evaluation may have been conducted on these areas, you might still be able to uncover some information related to these questions. For instance, working with your training provider, you might be able to garner some useful additional insights. You may find that an instructor gathered participant feedback during or at the end of training. Or you may be able to access information on skill acquisition if it was measured by a test or demonstration of competencies as part of the training. Your aim in looking into these areas is not to single out any individual's reactions or performance but to look for patterns that might relate to your findings.

Let's consider a few potential scenarios:

Scenario 1. You find the business impact you were hoping for. When you talk to others involved in the project, you learn that the instructor got rave reviews in participant surveys, all participants scored well on assessments used by the instructor, and management sent a strong message to front-line supervisors to encourage participants to apply their new skills and knowledge gained from training. This additional information helps support your conclusion that the program worked as planned to achieve desired results.

Scenario 2. You find no discernible business impact in your data. You contact the training provider and find out that the instructor got good reviews in a participant feedback survey—people really enjoyed the training. When you talk with supervisors at the workplace, however, you find out that participants were not able to apply their skills because work systems had not changed to allow them to do so. So, even though it seems that training was well delivered, the inability of participants to apply their new skills at work may have been one reason for the lack of business impact.

Scenario 3. You find a positive business impact in your data. When you seek additional information on the program, you find that participants were unhappy with the instructor and felt they lacked sufficient hands-on practice of new skills, and that supervisors saw no evidence of participants being able to do anything more than they could prior to the training. This new information suggests that the business impact you observed may be due to something unrelated to training. (See more on Other Factors below.)

Many more scenarios are theoretically possible, but the point we want to make here is that by gathering additional information on reaction to training, skill acquisition, and skill application, you can better understand what happened in your program and whether the business impact can be associated with the training.

OTHER FACTORS THAT MIGHT AFFECT YOUR RESULTS

Another way to provide context for your business impact results is to consider what might be going on in the business around the training that could affect its results. Training programs are implemented in dynamic business environments, where change and other efforts to improve organizational performance may occur at the same time as your project.

Consequently, you – or your stakeholders — may wonder: How do we know whether the changes we found resulted from the training and not other factors?

Short of conducting a statistical analysis to isolate the effects of training, one approach offered by Jack Phillips can address this issue. Phillips suggests first identifying all the key factors that might have contributed to change. The perspectives of a number of stakeholders can provide insight to identify those factors, including middle or top management, supervisors, clients, and training participants themselves. As Phillips points out, it is not a problem to identify other contributing factors to improved performance; instead, drawing attention to these other factors increases the accuracy and credibility of your process and reporting of results.

While Phillips proposes several means of isolating the effects of training, including randomized assignment to control groups and statistical trend line projections, the simplest and most widely applicable way to try to determine the degree to which a training program is responsible for observed changes is to seek estimates of impact from managers, supervisors, and participants themselves. Phillips offers a set of questions to be asked once the results are identified. These are included in the following **Take It To Go** worksheet.

WHAT WENT WRONG?

Even after considering your results in context, you may find that results do not show any benefit of the training to the business. If this is the case, consider the following:

The nature of the training. Was the training aimed directly at addressing the problem that was identified at the beginning of the project?

The indicators used in your analysis. Were the selected indicators appropriate for the problem and business objectives to be addressed through training?

The number of people trained. If the indicators were for a team, or a department, were enough workers being trained to affect the selected indicators or was the effect of the training significant enough to be measured by the indicators? For instance if only 10 employees were being trained of a total of 100 employees in a department, the changes may not be significant enough to be captured at the department level.

In order to answer the above questions you will have to talk to those involved in training design and those at the business who are familiar with the role and the jobs of the training participants. The information and insights obtained from these individuals as well as the trainees and instructors will help determine how directly the training addressed the problem identified in Step 1 and how appropriate the indicators were in measuring the effect of the training. When you prepare your report of your findings, you will want to note how these issues pertain to your situation. If you have the opportunity to repeat a business impact analysis for your program at a later point in time, you will want to integrate any changes that answers to these questions suggest.



TAKE IT TO GO

Your process for analyzing your data may vary based on your situation. We offer these questions as one possible approach to looking at your data:

Questions to Guide Analysis of Your Data

- If you used one survey or other instrument to collect data on multiple indicators, separate data for each indicator.
- For each indicator, review the results: what do the data tell you? (e.g., What did survey responses look like? What figures were available for your indicators?)
- What kinds of changes do the data reveal? Be sure to make comparisons to your baseline data. (e.g., Are people working differently? Is there a cost savings?)
- How significant is the change(s) observed or documented?
- Could the change be due to other factors in the business or in the industry?
- What (if anything) do you know about participants' reaction to the training and their skill acquisition that might help you understand and interpret your results?
- To what extent do the changes observed meet the project's business objectives?
- What do these results suggest (if anything) with respect to possible modifications to the project (or a subsequent version of it) in the future? What would have to change to make your desired results more likely?
- What additional lessons can be drawn from these results?
- What would a friendly critic say about the data and your analysis of it?

Add your own questions here:

Attributing Success to the Training

These questions can be included in a survey or serve as the basis for a focus group or other discussion of the documented results of training.

- What percent of this improvement can be attributed to the application of skills/techniques/knowledge gained in the training program?
- What is the basis for your estimation?
- How confident are you in your estimate?
- What other factors contributed to the improvements in performance/results noted?
- Can anyone else on staff provide an estimate of the effect of training on observed results?¹¹

¹¹ Jack J. Phillips and Ron Drew Stone, *How to Measure Training Results: A Practical Guide to Tracking the Six Key Indicators*. New York: McGraw Hill, 2002.



Examining Results in a Healthcare Project

A healthcare sector-based project in Massachusetts trained employees to prepare them to move into advanced positions. The project was created to respond to the need to staff particular labs within three hospitals. All three facilities were facing high lab technologist vacancies. Compounding the problem, current staff were aging and preparing for retirement. By staffing the labs with certified lab technologists, the hospitals hoped to reduce vacancy rates, overtime expenses, and orientation time for new hires for these positions.

In order to determine if the project was successful in achieving desired results the project manager used data already collected by the three hospitals over the three-year term of the grant. The project manager collected baseline data in 2008 and then collected data again for fiscal years 2010 and 2011. Pre- and post-training results are presented in **Table 7**.

Table 7
Healthcare
Business Impact
Summary

Objective and Relevant Measures	Facility 1	Facility 2	Facility 3
Reduction in Vacancy Rates			
Baseline Vacancy Rate FY08 (pre-training)	9%	13%	13%
Vacancy Rate FY11 (post-training)	5%	0%	2%
Reduction in Overtime			
Baseline Overtime FY08 (pre-training)	\$588,555	\$21,319	\$283,334
Overtime FY11 (post-training)	\$548,000	\$16,441	\$194,678
Observed reduction	\$40,555 (7%)	\$4,878 (23%)	\$88,656 (31%)
Reduction in Orientation for Newly Hired Technologists			
Baseline Orientation Time FY08 (pre-training)	6-8 months	6 months	6 months
Orientation FY11 (post-training)	6-8 months	6 months	6 months

In analyzing their business impact data, the project staff observed several positive results. For example, 15 (of 25) project participants had been promoted to lab technologist positions, a result that benefited both the individuals and institutions involved. Each of the three participating hospitals experienced a decrease in vacancy rates over the three-year grant period, with Facility 2 having reduced vacancies to zero. In addition, the project staff observed decreases in overtime costs, although the size of those reductions in actual dollars and as a proportion of baseline costs varied across facilities. Staff noted that the full impact of reductions in overtime costs might not be revealed by these data, since the newly hired technologists were only in those positions for four months of the last fiscal year observed. Data for the subsequent year might therefore show an additional benefit of the project in the area of overtime. In reflecting on these findings, the project staff noted that, while the project was not likely the only factor affecting the vacancy and overtime results, it was a significant factor in bringing about these changes.

During the period studied, the project did not show a reduction in orientation time for newly hired technologists. At the time of reporting their results to Commonwealth Corporation, the program had not determined a possible reason for this finding. Our experience suggests that this lack of change in orientation time might indicate the need for better alignment between training and the skills needed by newly hired technicians. From a measurement perspective, the time increment used to assess the effect of training on orientation might need to be altered to better capture any changes. For example if the orientation time were measured in weeks, rather than as a block of 6-8 months, then a reduction in the number of weeks of orientation required for newly hired project participants could be discerned and even translated into staff time and salary, thereby allowing an assessment of any monetary benefits associated with a reduction in orientation time.

While not originally included as an indicator of business impact, participating hospital managers also noted the benefit of having had the opportunity to experiment with a new approach to staffing for a high-demand field that will likely continue to see open positions in the future due to retirements.

The healthcare example described here demonstrates that while a project may have multiple business objectives, the extent to which they are achieved may vary. In some cases, objectives may not be met at all. Analysis of business impact data is surely enhanced by discussions with business or department managers and other stakeholders. This analysis provides an opportunity for examining the dynamics that surround the operation of a training project and may thus influence its results. These conversations can also provide an opportunity to consider the means and timing used for measuring results and how the approach used might affect your findings.



THINGS TO REMEMBER

ANALYZING DATA

- Determine when and how to involve stakeholders in analyzing the data. Review data together or prepare preliminary results for review and discussion, as appropriate for you and your partners.
- In analyzing your data, focus on one measure at a time. Look at what the data say before you reach any conclusion.
- Examine your results in the larger context of the program. Contact trainers and supervisors to find out about participants':
 - reaction to training
 - skill acquisition through training
 - application of new skills and knowledge after training.
- Working with department managers or other knowledgeable staff, explore other factors that might have affected your results. Ask staff to estimate the degree to which your program is responsible for the changes observed and documented in your data.
- If you didn't find a business impact, review the:
 - nature of the training
 - indicators used in your analysis
 - number of people trained.
- If you didn't find the changes you had hoped for, don't despair. Work with your business and training partners to draw any useful lessons for future program design and evaluation.



What can you do
with your findings?

Sharing and Using the Results of Your Analysis

Your journey of measuring the business impact of your training project is nearly over. You are now ready to tell the world what you have learned. In presenting your results, you will want to:

1. Explain what the training project set out to achieve,
2. Briefly describe the process you used to measure the business impact of the project,
3. Summarize your data to indicate the extent to which the project met its business objectives,
4. Note any unanticipated benefits of the project, and
5. Describe any new insights or ideas for future workforce development efforts that you gained through the process of measuring business impact.

When sharing your results with stakeholders and other interested parties, it is important to provide some context for your findings to increase the relevance and credibility of your message. For instance, you may wish to relate your findings to other initiatives being undertaken within stakeholder organizations, noting ways in which the project might have supported other initiatives or contributed to organizational learning that can be applied in other areas. You will also likely want to relate your business impact results to the external context. Consider labor market conditions, businesses' competitive environment, and other dynamics that might relate in some way to your analysis and results.

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DETERMINING THE AUDIENCE FOR YOUR RESULTS

You should give some thought to the potential audience for your results. Before sharing your work with a broader audience, it is important to first review the results with your immediate project partners — business managers, training institutions, community-based organizations, union partners (if applicable), and any other organizations involved. Reviewing your findings with this group will ensure that you identify any additional factors potentially affecting the results and can address any other related concerns. This audience might be able to offer useful perspectives to further elucidate what you found. Your project partners can also help to identify additional individuals and organizations that should learn about your results. For instance, beyond your project, you may want to share your results with workforce development boards, industry associations, advocacy organizations, funders, and legislators, who may be interested in your results to help inform future policy decisions. Work with your partners to develop a list of recipients of your results. (See **Table 8** for suggestions on the audiences for your results.) Make a plan for distributing your results, keeping in mind any events or other opportunities that would help to disseminate your findings.

Table 8
Possible Audiences for Business Impact Results

Business Stakeholders	Other Project Partners	Community Stakeholders
<ul style="list-style-type: none"> • Business leadership (CEO, managers) • Union leadership • Human resources staff • Supervisors • Training participants 	<ul style="list-style-type: none"> • Training institutions • Workforce development entities (e.g., Workforce Investment Boards, Career Centers) • Community-based organizations 	<ul style="list-style-type: none"> • Industry associations • Advocacy groups • Research institutions • Foundations • Local press



Review and respect your confidentiality agreements. When in doubt, share a draft of your report with the parties concerned to get their explicit approval before releasing the information to others.

PRESENTING YOUR RESULTS

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As you prepare to communicate the results of your business impact analysis within and beyond your project, you should consider the most appropriate means of conveying this information. You may choose (or even be required) to prepare a written report that describes your findings. You may decide that developing a presentation will provide an effective means for transmitting your message, or you may wish to do both a presentation and a report. Let your obligations, opportunities for sharing, and available resources be your guide in determining how best to convey your findings. For whatever form of communication you choose, consider your audience and the answers to the following questions:

- What might your audience be most interested in knowing?
- What context will they need to understand your findings?
- What level of detail will be most appropriate for different audiences?

POSSIBLE USES FOR BUSINESS IMPACT RESULTS

Once you have analyzed your data and drawn some conclusions from your results, there are a number of ways you and your project stakeholders can use your findings. Business impact results can:

- Provide project stakeholders with additional information on the operation and impact of a project beyond typical participant enrollment and outcome data;
- Provide useful feedback to trainers and other project staff on the effectiveness and value of training;



- Support a process of continuous improvement for the organizations involved;
- Suggest ways to support implementing change in individual businesses and industry sectors; and
- Offer useful insights into industry sectors that can help to inform economic, workforce development, and education policies and funding.



The Business Impact of an Early Childhood Education Project

A recent workforce development project in Massachusetts set out to provide training and education opportunities to early childhood and out-of-school-time educators to increase their skills and thereby raise the quality of local early education programs. The project, which was led by the local Workforce Investment Board (WIB), involved a partnership of multiple early childhood education provider businesses, four-year colleges, community colleges, and other area training providers. The project was implemented in the context of an increasingly competitive business environment and changing state policies that have increased the educational requirements for early childhood educators. Through their participation, businesses hoped to increase the numbers of teachers engaging in credentialing and/or higher education opportunities. In addition, with more qualified staff they hoped to improve the services they offer and better position themselves to access funding, as well as other opportunities to increase quality and teacher compensation.

The business objectives of the project included:

- Reduce employee turnover;
- Improve participant communication with supervisors and other team members;
- Improve employee attitude, motivation, and work habits;
- Increase participant understanding and application of principles of child development; and
- Increase the likelihood of meeting accreditation and /or state funding requirements.

The project coordinator, based at the local workforce board, led the business impact analysis for the project. She conducted a survey and reported results halfway through the three-year project and repeated the process again near the end of the project. The analysis indicated reduction in turnover; improvements in participants' understanding and application of principles of child development; improvements in attitude, motivation and work habits; and an increased likelihood of meeting state requirements as staff acquired credentials.

The project coordinator used multiple means to convey both interim and final results. She offered presentations to her project team and prepared written interim and final reports, which were shared among the project partners, as well as with the project funder and participants. In addition, final results were shared with state officials, advocacy organizations, and other entities interested in the field of early childhood education.

The results of the project's business impact analysis were used in multiple ways. The participating businesses found value in the ability to quantify skill sets and improvements in their services. The information provided through the analysis contributed to the businesses' own strategic planning processes and provided employees an awareness of themselves beyond individuals, as a collective group of professionals advancing in their field. As results were communicated to employees, individuals who hadn't been previously involved became interested in pursuing training.

The participating educational institutions used results to gain better insight into the extent to which businesses value the training they provide. In addition, the analysis provided some data on the number of early childhood education businesses and employees who might participate in future training. This information raised the profile of the early childhood education sector as a viable market for future training services.

Finally, the final report of the business impact of the project was shared with advocacy organizations and state officials working on early childhood education policy issues. The information provided in the report offered insights into what is needed in the field to support educators and promote quality services. The ability to influence policy through the results of the business impact analysis reinforced the value to businesses — which had previously viewed each other primarily as competitors — of coming together as one voice to help stakeholders better understand and support their industry sector.

A FINAL WORD

Congratulations on your achievement in measuring the business impact of your workforce development project! Know that your work in determining the extent to which the project successfully addressed its business objectives is important in several ways. At the project level, your work provides an important opportunity to communicate and share learning about the project's results among those most closely involved in the project. In addition, your results can help a broader set of stakeholders understand the degree to which the investment of public or private funds in the project has been worthwhile. Finally, your work contributes to the field of workforce development by enhancing our understanding of the ways in which projects can successfully support and strengthen the businesses involved.



THINGSTO REMEMBER

SHARING AND USING THE RESULTS OF YOUR ANALYSIS

- Review results with those closely associated with your workforce development project
- (e.g., business staff, training and other service providers) before sharing them more broadly.
- Determine other appropriate audiences for your results.
- Work with your partners to develop a list of recipients of your results and set up a plan for their distribution.
- Review and respect confidentiality agreements when sharing your results.
- Consider appropriate formats and levels of detail for different audiences.
- In reporting the results of your analysis, explain what the project set out to achieve, the extent to which business objectives were met, and any additional insights gained in the process.
- Provide a context for your findings to enhance their meaning and relevance for stakeholder audiences. Relate findings to organizational and external environments.





Additional Supports for Measuring Business Impact

This final section of the guide offers some resources and sample surveys that you can use in carrying out a business impact analysis.

RESOURCES

Training, Evaluation and Business Impact Measurement

Evaluating Training Programs: The Four Levels by Donald L. Kirkpatrick. Berrett-Koehler Publishers, 1994.

Implementing the Four Levels: A Practical Guide for Effective Evaluation of Training Programs by Donald L. Kirkpatrick and James D. Kirkpatrick. Berrett-Koehler Publishers, 2007.

How to Measure Training Results: A Practical Guide to Tracking the Six Key Indicators by Jack J. Phillips and Ron Drew Stone. McGraw Hill, 2002.

Handbook of Training Evaluation and Measurement Methods, 3rd edition, by Jack J. Phillips. Gulf Publishing Company, 1997.

Business Impact Primer: Speaking the Language of Employers. Commonwealth Corporation, 2007.

Business Value Assessment - Toolkit Materials. A product of the Workforce Strategies Initiative at the Aspen Institute

<http://www.aspenwsi.org/wsiwork-bvatool.asp>

Return on Investment

The ROI Field Book: Strategies for Implementing ROI in HR and Training by Patricia Pulliam Phillips, Jack J. Phillips, Ron Drew Stone, and Holly Burkett. Elsevier, 2007.

The Value of Learning: How Organizations Capture Value and ROI and Translate them into Support, Improvement and Funds by Patricia Pulliam Phillips and Jack J. Phillips. Pfeiffer, 2007.

Business Problem Definition

Building Effective Employer Relations. Aspen Institute, 2004.

<http://www.aspenwsi.org/publications/04-062.pdf>

By Design: Engaging Employers in Workforce Development by Carol Clymer. Public/Private Ventures, 2003.

http://www.ppv.org/ppv/publications/assets/151_publication.pdf

“Training Needs Assessment,” U.S. Office of Personnel Management

<http://www.opm.gov/hrd/lead/TrainingNeedsAssessment.asp>

SAMPLE BUSINESS IMPACT SURVEYS

1. *Precision Manufacturing Training Project (PMTP) New Pipeline Employee Supervisor Survey*
Developed by David Cruise, Regional Employment Board Hampden County

2. *Customer Service Success Supervisor Survey*
Developed by Dr. Judith Nast, North Shore Community College

3. *Extended Care Career Ladder Initiative (ECCLI) Supervisor Survey*
Developed by Katherine Shields, Commonwealth Corporation

These and other surveys can be downloaded from the Commonwealth Corporation website:
www.commcorp.org



Precision Manufacturing Training Project (PMTT) New Pipeline Employee Supervisor Survey

Company: _____ Contact Person: _____ New Employees: _____

Using a **Business Impact Rating** from 1-5 (1= Significant Impact to 5= Minimum Impact), please rate the skills competencies (**Objective No. 1-6**) of your new employees who completed the Precision Manufacturing Training Project (PMTT) training program funded by the WCTF, the business impact (**Objective No. 7-9**), and value added (**Objective No. 10-12**) to your manufacturing and business operations of this workforce development initiative. Also, please indicate the **Difference (Indicate %)** in each **Business Impact Objective** between hiring a new employee who completed

a PMTT program in comparison to hiring a new employee without such training, and with similar work experience. Please use a separate sheet to **Comment on Numbers 10-12.**

Please select **one or more** of the **Sources** that are the basis for your rating for **each** Business Impact Objective. **1. = Supervisors Comments (SC) 2. = Supervisors Report (SR) 3. = Weekly Production Report (WP) 4. = Daily Production Sheet (DP).**

Business Impact Objective	Business Impact Rating	Difference	Sources
	Sig. ←————→ Min.	___ % Variation	SC SR WP DP
Demonstrates Safe Use of Equipment, Controls, and Tooling	1 2 3 4 5	___ % Variation	1 2 3 4
Demonstrates Positive Attitude, Motivation, Attendance, and Work Habits	1 2 3 4 5	___ % Variation	1 2 3 4
Correctly Interprets Blueprints, Operation Sheets, and Verbal Orders	1 2 3 4 5	___ % Variation	1 2 3 4
Understands Manufacturing Processes and Sequence of Machining Operations	1 2 3 4 5	___ % Variation	1 2 3 4

Business Impact Objective (continued)	Business Impact Rating	Difference	Sources			
	Sig. ← → Min.	___ % Variation	SC	SR	WP	DP
Performs Progressive Machining and Assembly Operations on Standard Parts and Equipment to Specified Tolerances	1 2 3 4 5	___ % Variation	1	2	3	4
Performs First Piece Inspection and Makes Changes to Produce Acceptable Quality Parts	1 2 3 4 5	___ % Variation	1	2	3	4
Program Reduced New Employee Over-the-Shoulder Training Time	1 2 3 4 5	___ % Variation	1	2	3	4
Program Reduced New Employee Recruitment and Screening Costs	1 2 3 4 5	___ % Variation	1	2	3	4
Program Increased New Employee Retention	1 2 3 4 5	___ % Variation	1	2	3	4
Increased Staffing Levels Have Improved our Ability to Quote on New Work	1 2 3 4 5	Comment	Comment			
Increased Staffing Levels Have Enhanced our Ability to Perform New Value-Added Work	1 2 3 4 5	Comment	Comment			
Increased Staffing Levels Have Helped Improve our Profit Margins	1 2 3 4 5	Comment	Comment			

Additional Supports for Measuring Business Impact

1. Please describe any changes that have occurred in your manufacturing operations as a result of your company's participation in this new pipeline workforce development training initiative.

2. Please identify any industry aligned technical areas that you would like to see emphasized more in the training curriculum that would increase the new pipeline employee's skills competencies, and add value to your manufacturing operations.

Customer Service Success Supervisor Survey

As a supervisor of an attendee of the Customer Service Success training program, we are asking for your assistance in providing feedback on how effectively your employee applied the content following the training. Your feedback will help us continue the ongoing effort toward improvement in the learning and development needs of the employees of _____. Thank you in advance for your participation.

Participant Name _____ **Department** _____
 Date of Class (circle one) February 2, 9 & 25 March 16, 23 & 30

BEFORE						AFTER				
Learning Objectives										
VERY INEFFECTIVE	INEFFECTIVE	UNCERTAIN	EFFECTIVE	VERY EFFECTIVE		VERY INEFFECTIVE	INEFFECTIVE	UNCERTAIN	EFFECTIVE	VERY EFFECTIVE
					Rate your employee’s effectiveness in each area <i>before</i> and <i>after</i> attending the Customer Service Success program.					
1	2	3	4	5	Define (employer) customer expectations.	1	2	3	4	5
1	2	3	4	5	Demonstrate the Erickson Way values when interacting with customers.	1	2	3	4	5
1	2	3	4	5	Demonstrate effective tone, rate, and volume of voice when interacting with customers.	1	2	3	4	5
1	2	3	4	5	Use words that customers understand.	1	2	3	4	5
1	2	3	4	5	Use non-verbal communication (eye contact, posture, facial expressions) effectively so customers feel comfortable and respected.	1	2	3	4	5
1	2	3	4	5	Demonstrate appropriate skills and knowledge when interacting with a customer. (proficiency)	1	2	3	4	5
1	2	3	4	5	Employ a dialogue that ensures understanding of a customer’s needs. (understanding)	1	2	3	4	5
1	2	3	4	5	Respond quickly to a customer’s needs. (responsiveness)	1	2	3	4	5
1	2	3	4	5	Follow-up and follow-through with a customer after the conclusion of the initial interaction (reliability).	1	2	3	4	5

1. Which content areas from the training did your employee find the most helpful when returning to his or her customer service role?
2. Please use the space below for suggestions to the Customer Service Success Training that will make it more applicable to the role of your employee.

Extended Care Career Ladder Initiative (ECCLI) Supervisor Survey



Extended Care Career Ladder Initiative (ECCLI) Supervisor Survey

1. About how many of the frontline nursing staff you oversee have completed ECCLI training? # _____
 Mark the answer that best shows your reaction to the statements below, referring to the staff indicated above.

2. I would recommend this kind of training for my staff in the future.					
6	5	4	3	2	1
Agree very strongly	Agree strongly	Agree	Disagree	Disagree strongly	Disagree very strongly
3. The trainings have helped the majority of the participating staff to provide better care for residents.					
6	5	4	3	2	1
Agree very strongly	Agree strongly	Agree	Disagree	Disagree strongly	Disagree very strongly
4. The trained staff members have enough opportunities to apply their new skills on the job.					
6	5	4	3	2	1
Agree very strongly	Agree strongly	Agree	Disagree	Disagree strongly	Disagree very strongly
 <p>Why not? What would help to increase these opportunities?</p>					



5. Think about what your nursing staff knew when they first started the training, compared to now. Based on your observations, how much have the majority of staff learned from the training about...

	Learned a lot	Learned a fair amount	Learned some	Learned a little	Did not learn anything new
How to give care to residents/clients	1	2	3	4	5
Talking with residents/clients	1	2	3	4	5
Working with other staff	1	2	3	4	5
Helping make decisions about resident/client care	1	2	3	4	5
Keeping accurate documentation of resident/client care	1	2	3	4	5

6. Please give one example of how one employee has changed his/her work behavior as a result of the ECCLI program, if any. (You do not need to name the individual.)

7. Do you have any comments or suggestions for the ECCLI program?

Thank you for your time!

