

Measuring the ROI in Technology-Enabled Learning

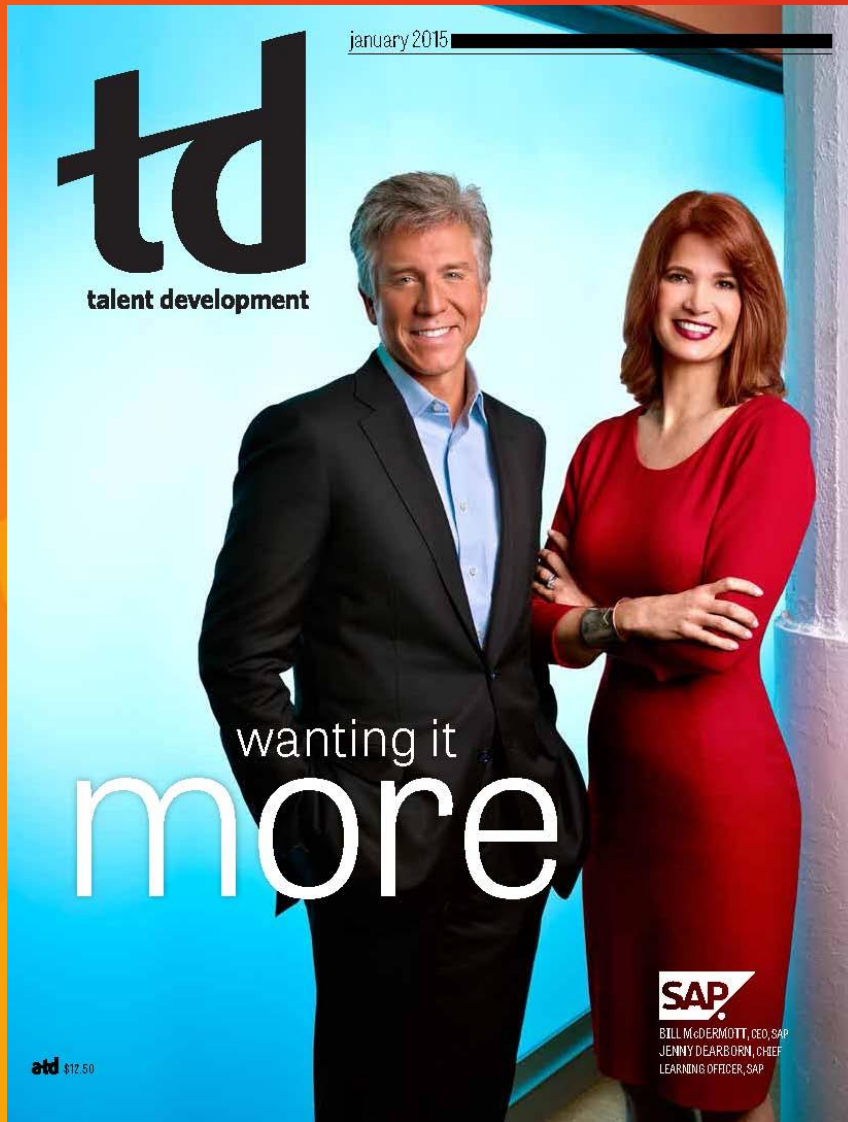
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TD magazine



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TD magazine

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Patti Phillips, President and CEO ROI Institute

Dr. Patti Phillips is president and CEO of the ROI Institute, Inc., the leading source of ROI competency building, implementation support, networking, and research. A renowned expert in measurement and evaluation, she helps organizations implement the ROI Methodology in over 60 countries. She serves as Principal Research Fellow for The Conference Board's Human Capital Analytics Practice and serves as faculty on the UN System Staff College in Turin, Italy.

She, along with her husband Jack Phillips, contributes to a variety of journals and has authored a number of books on the subject of accountability, analytics, and ROI.

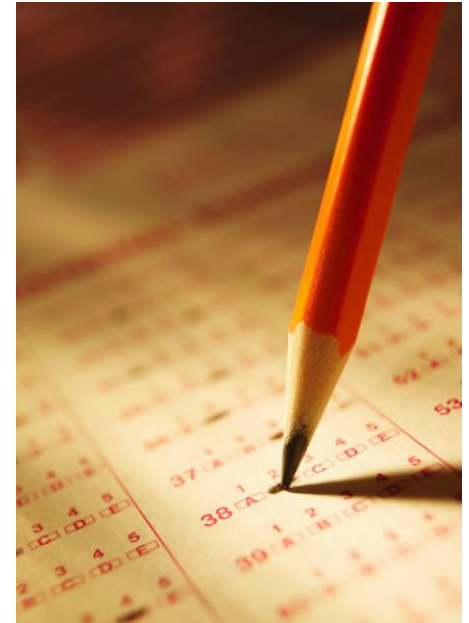
Measuring the ROI in Technology-Enabled Learning






January 20, 2015

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Objectives

- Identify the steps in the ROI Methodology
- Determine which programs to evaluate to ROI
- Identify actions they can take to move forward with ROI



Levels of Evaluation	Measurement Focus	Typical Measures
0. Inputs and Indicators	The input into the project in terms of scope, volume, efficiencies, costs	Participants, Hours, Costs, Timing
 1. Reaction & Perceived Value	Reaction to the project or program, including the perceived value	Relevance, Importance, Usefulness, Appropriateness, Intent to use, Motivation to take action
 2. Learning & Confidence	Learning to use the content and materials, including the confidence to use what was learned	Skills, Knowledge, Capacity, Competencies, Confidence, Contacts
 3. Application & Implementation	Use of content and materials in the work environment, including progress with actual items and implementation	Extent of use, Task completion, Frequency of use, Actions completed, Success with use, Barriers to use, Enablers to use
 4. Impact and Consequences	The consequences of the use of the content and materials expressed as business impact measures	Productivity, Revenue, Quality, Time, Efficiency, Customer Satisfaction, Employee Engagement
 5. ROI	Comparison of monetary benefits from program to program costs	Benefit-Cost Ratio (BCR), ROI%, Payback Period

The ROI calculation is simple.

$$\text{BCR} = \frac{\text{Program Benefits}}{\text{Program Costs}}$$

$$\text{ROI} = \frac{\text{Net Program Benefits}}{\text{Program Costs}} \times 100$$

Try it!

$$\text{BCR} = \frac{\$750,000}{\$425,000}$$

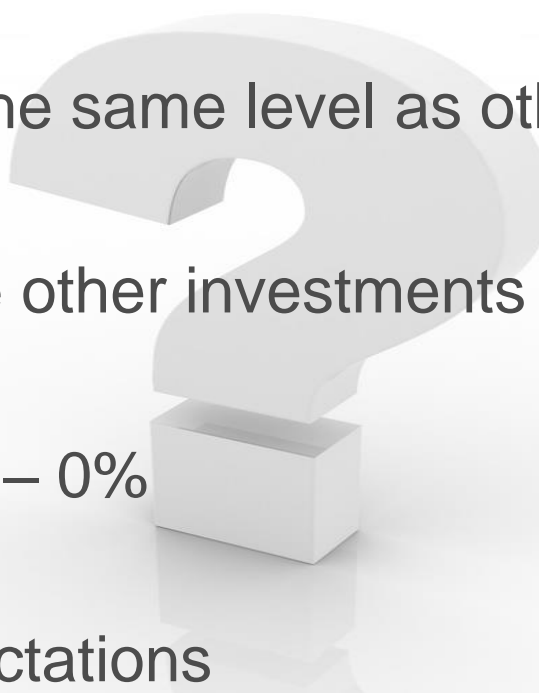
$$\text{ROI} = \frac{\$750,000 - \$425,000}{\$425,000} \times 100$$

The ROI Calculation

$$\text{BCR} = \frac{\$750,000}{\$425,000} = 1.76:1$$

$$\text{ROI} = \frac{\$750,000 - \$425,000}{\$425,000} \times 100 = 76\%$$

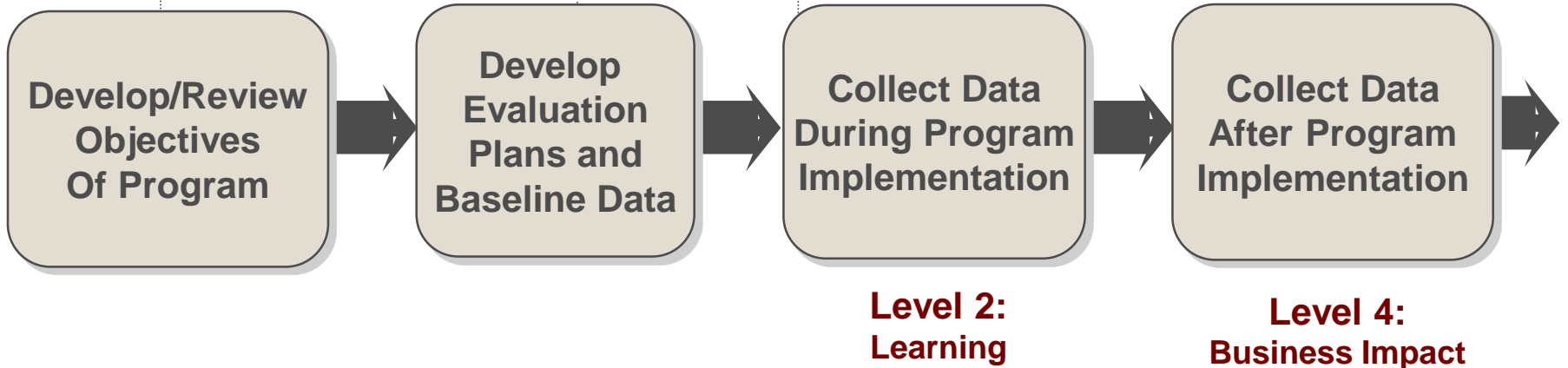
What Makes a Good ROI?

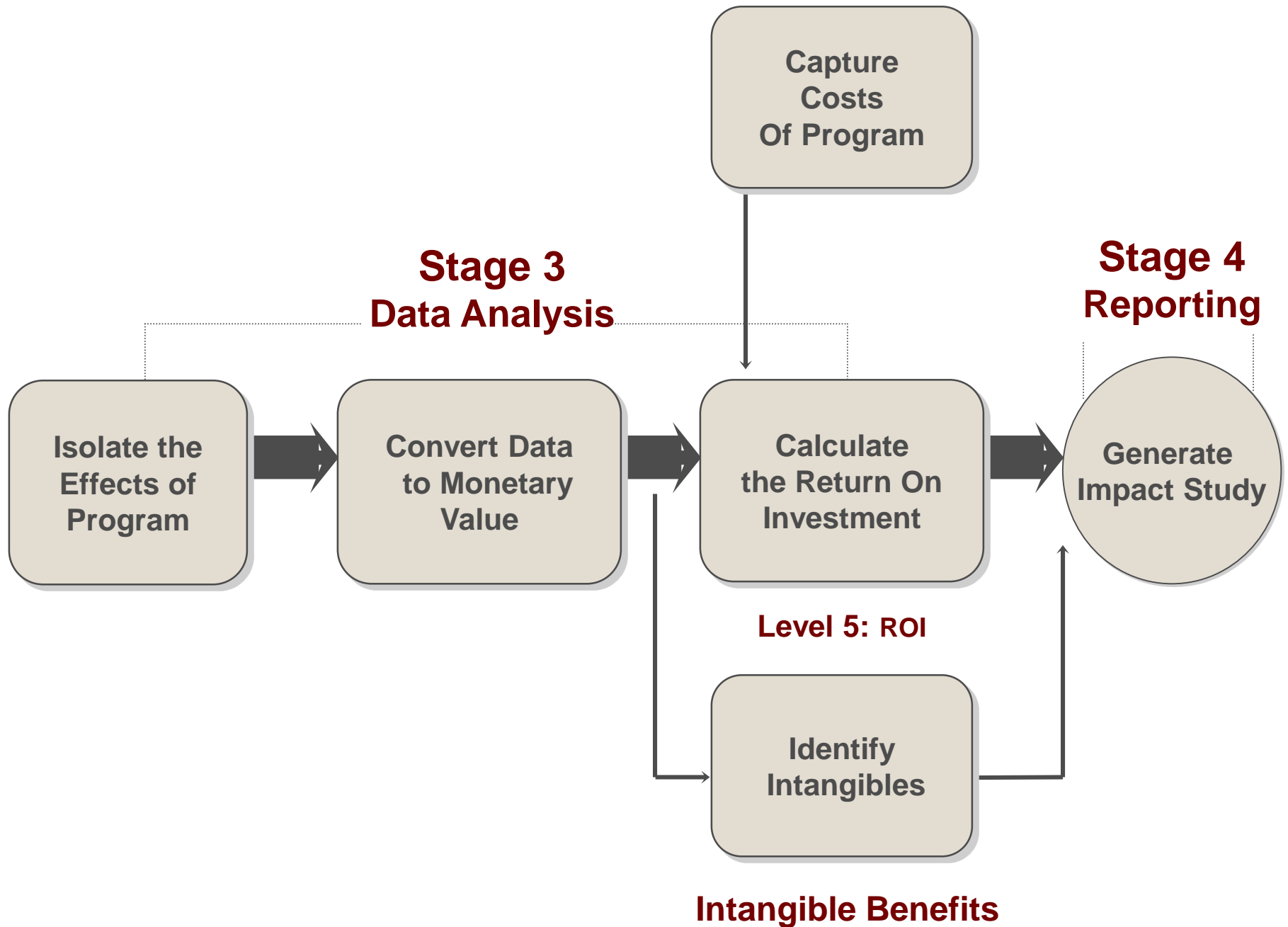
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1. Set the value at the same level as other investments – 15%
 2. Set slightly above other investments – 25%
 3. Set at breakeven – 0%
 4. Set at client expectations
- ➔ **What value would be appropriate?**
What is an acceptable ROI in your organization?

ROI Methodology

Stage 1 Evaluation Planning

Stage 2 Data Collection





Operating Standards

1. Report the complete story
2. Conserve resources
3. Use the most credible sources
4. Choose the most conservative alternatives
5. Isolate the effects of the program
6. No data no improvement
7. Adjust estimates for error
8. Throw out the extreme and unsupported
9. Use first year benefits for short-term programs
10. Include fully-loaded costs
11. Report intangible benefits
12. Communicate results to all stakeholders



Inputs



Reaction



Learning



Application



Isolate the Effects of the Program



Impact



ROI



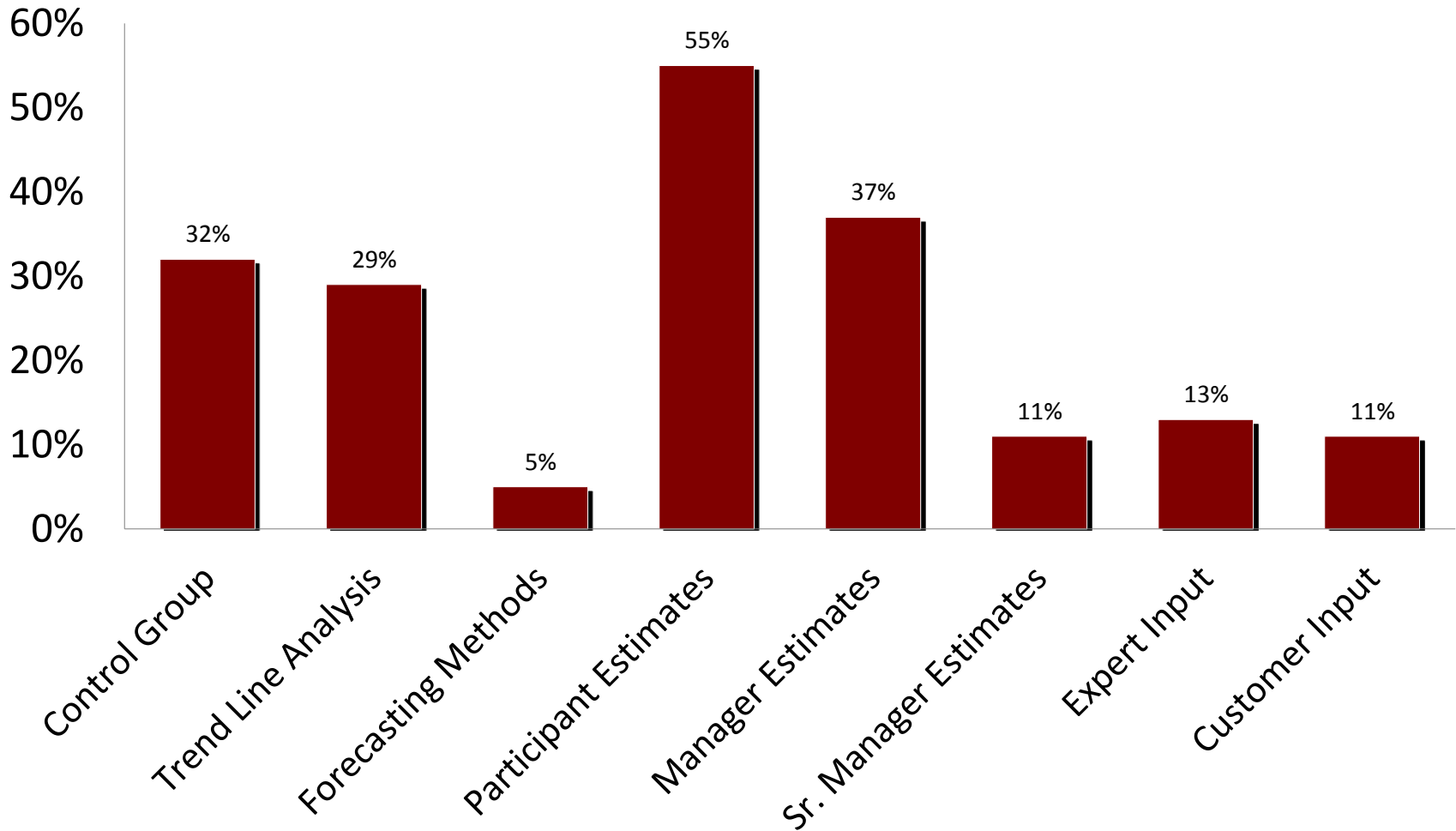
Intangible Benefits

Method	Level 1	Level 2	Level 3	Level 4
Surveys	✓	✓	✓	
Questionnaires	✓	✓	✓	✓
Observation		✓	✓	
Interviews	✓	✓	✓	
Focus Groups	✓	✓	✓	
Tests/Quizzes		✓		
Demonstrations		✓		
Simulations		✓		
Action Planning/Improvement Plans			✓	✓
Performance Contracting			✓	✓
Performance Monitoring				✓

Isolating the Effects of the Program

Frequency of Methods Used

* Survey of Users, N = 235



Classic Control Group Design

What is the difference in the change in performance?

Experimental Group

Pre Measure → Program → Post Measure

Control Group

Pre Measure → Post Measure

Post-Program Only Design

What is the difference?

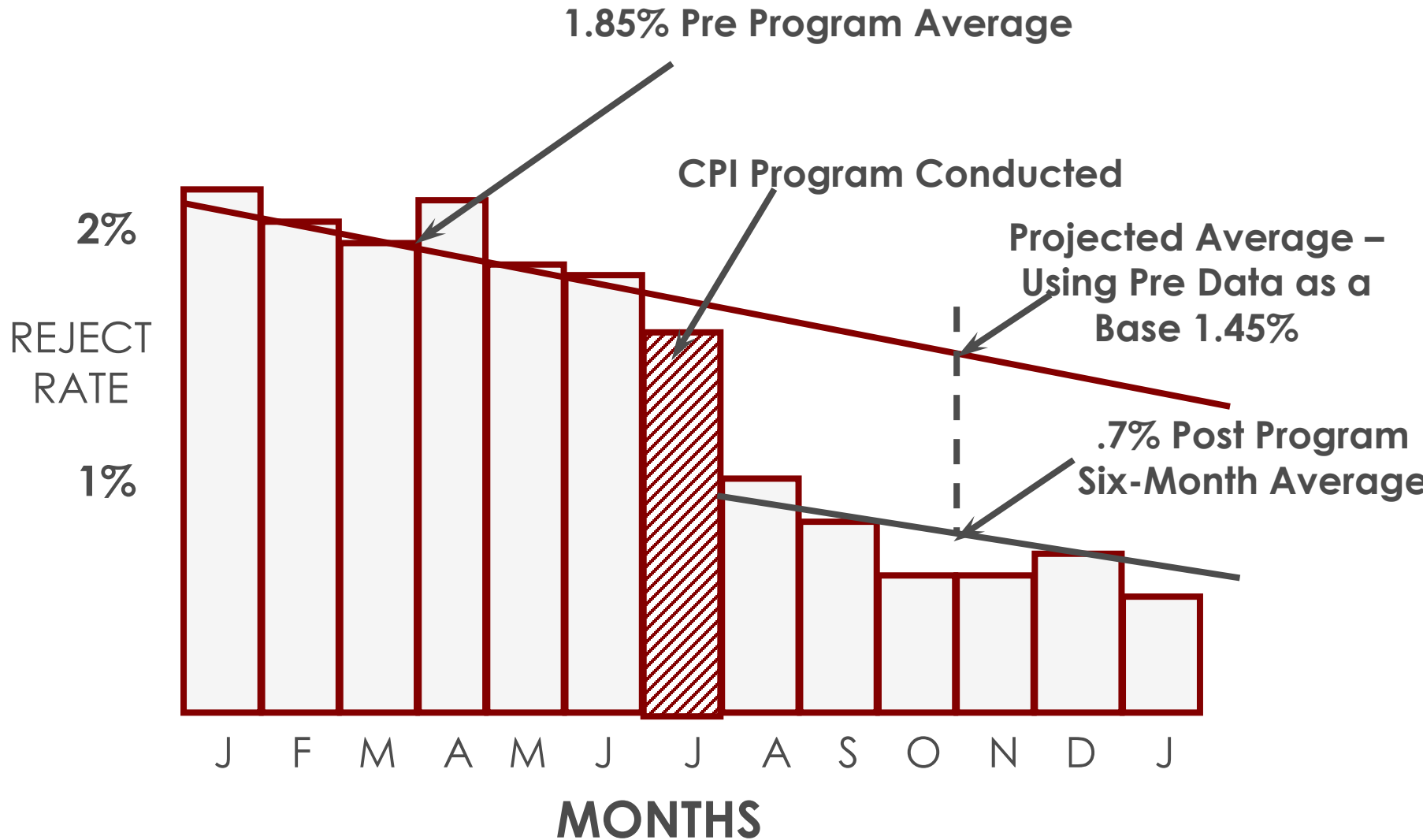
Experimental Group

Program → Post Measure

Control Group

→ Post Measure

Example of Trend Line Analysis



Example of Estimation

Average monthly decrease in safety incidents: 20 (fact)

Contributing Factors	Consensus Impact (%)	Average Confidence (%)
Safety training	32%	83%
Equipment changes	41%	87%
Field mentoring	14%	62%
Performance management	11%	75%
Other _____	2%	91%
	100%	

Influence	Fact	% Contrib.	Est. Impact	Confidence	Adjusted Impact
Safety Training	20	32%	6.4	83%	5.3

Fact: 20 Safety Incidents

% Contribution: 32%

Est. Impact: 6.4

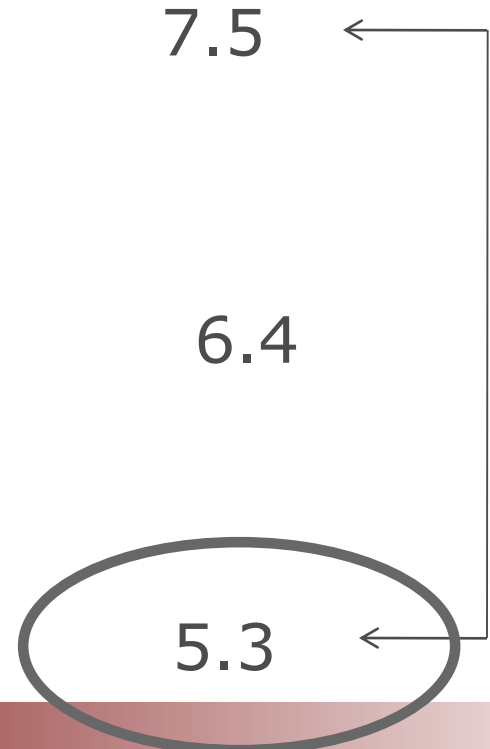
Uncertainty 17%

Margin of Error: +/- 1.09

7.5

6.4

5.3



- Converting output to contribution – standard value
- Converting the cost of quality – standard value
- Converting employee's time – standard value
- Using historical costs
- Using internal and external experts
- Using data from external databases
- Linking with other measures
- Using participants' estimates
- Using supervisors' and managers' estimates
- Using staff estimates

5 Steps to Convert Impact to Money

Step 1: Focus on a unit of measure



Step 2: Determine the value (V) of each unit



Step 3: Calculate the change in performance (ΔP)



Step 4: Determine the annual amount of the change ($A\Delta P$)



Step 5: Calculate the total annual value of the improvement ($A\Delta P \times V$)

Example Using Standard Values

Step 1: One sale

Step 2: $V = 30\%$ profit margin

Step 3: $\Delta P = \$20,000$ revenue per month

Step 4: Annual $\Delta P =$

Step 5: $A\Delta P \times V =$

Example Using Standard Values

Step 1: One sale

Step 2: $V = 30\%$ profit margin

Step 3: $\Delta P = \$20,000$ revenue per month

Step 4: Annual $\Delta P = \$20,000 \times 12 =$
 $\$240,000$

Step 5: $A\Delta P \times V = \$240,000 \times .30 =$
 $\$72,000$

Example Using Internal Experts

Step 1: One complaint

Step 2: $V = \$6,500$ (from Director of nursing and HR Experts)

Step 3: $\Delta P =$ average of 3 out of 11 complaints prevented per month

Step 4: Annual $\Delta P =$

Step 5: $A\Delta P \times V =$

Example Using Internal Experts

Step 1: One complaint

Step 2: $V = \$6,500$ (from Director of nursing and HR Experts)

Step 3: $\Delta P =$ average of 3 out of 11 complaints prevented per month

Step 4: Annual $\Delta P = 3 \times 12 = 36$

Step 5: $A\Delta P \times V = 36 \times \$6,500 = \$234,000$

Fully-Loaded Costs

- ✓ Assessment Costs (prorated)
- ✓ Development Costs (prorated)
- ✓ Acquisition Costs (prorated)
- ✓ Program Materials*
- ✓ Instructor/Facilitator Costs
- ✓ Facilities Costs*
- ✓ Hardware/Software
- ✓ Travel/Lodging/Meals*
- ✓ Participants Salaries and Benefits
- ✓ Maintenance and Monitoring
- ✓ Administrative/Overhead Costs
- ✓ Evaluation Costs

- Adaptability
- Awards
- Brand awareness
- Career minded
- Caring
- Collaboration
- Communication
- Conflicts
- Cooperation
- Corporate social responsibility
- Creativity
- Culture
- Customer complaints
- Customer response time
- Customer satisfaction
- Decisiveness

- Employee complaints
- Engagement
- Execution
- Image
- Innovation
- Job satisfaction
- Leadership
- Networking
- Organizational climate
- Organizational commitment
- Partnering
- Reputation
- Resilience
- Stress
- Talent
- Teamwork

Next Steps

Assess your readiness for ROI

Identify stakeholders and their data needs

Determine the purpose of your evaluation practice

Identify programs suitable for ROI

Develop capability in the ROI Methodology

ROI CERTIFICATION - US

FEBRUARY 9-13
Atlanta, GA
Hosted by
SunTrust

MARCH 9-13
Santa Clara, CA
Hosted by
Qualcomm

APRIL 6-10
Chicago, IL
Hosted by ACCO

APRIL 27-MAY 1
San Antonio, TX
Hosted by USAA

MAY 4-8
Dallas, TX
Hosted by
True Solutions

MAY 11-15
San Diego, CA
Hosted by
Scripps Health
Care

MAY 18-22
Orlando, FL
Hosted by
Market Traders
Institute

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Newport Beach,
CA
Hosted by DPR

AUGUST 10-14
Atlanta, GA
Hosted by UPS

OCTOBER 5-9
Albuquerque, NM
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Entereza

OCTOBER 19-23
Blairsville, GA
Hosted by ROI
Institute

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CRAVING MORE INFORMATION?

CASE STUDIES
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Bonus *TD* webcast on leadership development

March 24, 2pm EST