

Research on Return-on-Investment: Which Models of EAP Are Generating the Most Significant ROI?

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Research studies have shown that employee assistance programs (EAPs) can produce significant returns in a variety of workplace outcomes areas, including: reductions in employee absenteeism, decreases in presenteeism, improvements in productivity, lower employee turnover, decreases in disability claims and reductions in health care claims costs.¹⁻³

This brief will review the methodologies and results of research on the extent of the return-on-investment (ROI) generated by EAPs through these different workplace outcomes. The first section of the brief will review the “classic” ROI studies, conducted primarily in the 1980s and 1990s, that focused almost exclusively on an EAP’s impact on high-risk cases. The second half of the brief will review recent studies utilizing newly-developed approaches to ROI methodology that rely on self-reported outcomes measures, which can be gathered on all EAP clients.

Eight Steps of an ROI Analysis

Eight specific steps are required to perform analyses in both older and newer approaches to ROI:

1. Select a sample of EAP clients for inclusion in the ROI analysis.
2. Collect work performance data on the EAP study group.
3. Determine comparison group or comparison work performance data against which to measure the EAP’s impact.
4. Formulate a cost-savings equation that converts the EAP’s impact into dollars.
5. Measure the EAP’s impact on work performance.
6. Calculate the savings that have accrued, or will accrue, to the organization due to the EAP’s impact.
7. Determine the costs to deliver EAP services to the client sample.
8. Calculate the ROI.

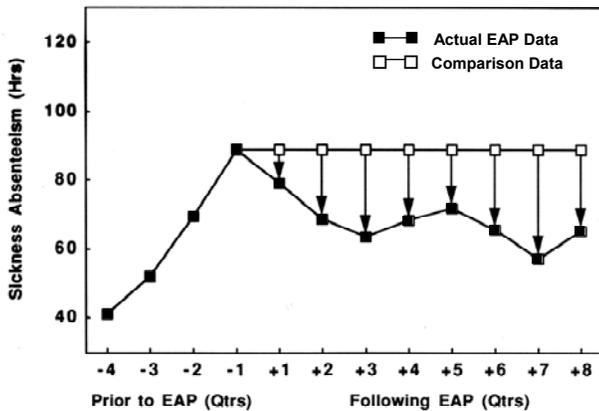
An ROI study conducted by the first author for the EAP at the Los Angeles City Department of Water and Power (DWP) will be described in the first half of this brief to illustrate each of these steps.⁴

Step 1: Select an EAP Client Sample

The initial step in any ROI analysis is to identify a group of EAP clients to include in the study. In most “classic” ROI studies, the EAP client sample has typically included employees with severe behavioral health problems, such as alcohol abuse, drug abuse, depression and other serious mental health disorders, or employees referred to the EAP by supervisors because of workplace problems.⁵⁻¹¹ These types of cases were purposefully selected for the ROI analyses because other research showed that they had significant workplace issues, such as higher absenteeism, excess medical claims costs and lower productivity.¹²⁻¹³

In the DWP study, employee-clients who had more than 96 hours of sickness absenteeism during the 12 months prior to EAP participation

were selected as the study sample, which included 115 employees. These elevated absenteeism levels for the four quarters prior to EAP participation are shown in the figure below.



Step 2: Collect Workplace Outcomes

The second step in an ROI study is to collect work performance data on the EAP study sample. The most frequently-used workplace outcome indicators in the “classic” ROI studies included:

- Sickness absenteeism
- Short-term disability
- Health care claims costs
- Employee turnover costs
- Work-related accidents and injuries
- Worker’s compensation claims
- Personal time off and other types of leave

In the ROI study of DWP’s EAP, sickness absenteeism levels were tracked for two years following initial EAP contact, as shown in the previous figure.

Step 3: Derive Comparison Data

Once an EAP client sample and outcome indicators have been selected, the next step is to identify a comparison group or comparison work performance data against which to measure the EAP’s impact. In health care claims “cost-offset” studies, a natural comparison group is often available, made up of employees who receive treatment for specific types of problems but who do not use the EAP.¹⁴

A comparison group has not been available, however, in many “classic” ROI studies, so an estimation method must be used instead. The estimation is typically based on the answer to this question: What would have happened to these employees, on the workplace outcomes being analyzed, had they not gone to the EAP?

In the DWP study, a matched comparison group was not possible. A projected straight-line of continuing sickness absenteeism equal to the peak absenteeism level in the quarter just prior to EAP participation was used as a comparison. This straight-line comparison is shown in the adjacent figure.

Step 4: Formulate a Cost-Savings Equation

To derive an ROI, changes in workplace outcomes must be converted into dollars. An equation must be created that can monetize the performance indicators, such as absenteeism changes, increases in productivity and so on.

In the DWP ROI analysis, a cost-savings equation was developed with three components. Total cost-savings equals the sum of these three components:

1. Paid Benefits:
 $(\Delta PdSk + 85\% \Delta Dis) \times Compensation$
2. Lost Productivity:
 $(\Delta PdSk + \Delta NoPdSk + \Delta Dis) \times Compensation$
3. Work Team Disruption:
 $(47\% \text{ in Teams} \times 4 \text{ per Team} \times 1 \text{ Lost Hour/Day}) \times \text{Lost Productivity}$

Where:

- $\Delta PdSk$ = Decreases in paid sick leave
- ΔDis = Decreases in paid disability time off, compensated at an average of 85%
- $\Delta NoPdSk$ = Decreases in non-paid sick leave
- Compensation = Average hourly pay plus fringe benefits
- 47% of employees work in 4-person teams

Steps 5 & 6: Measure the EAP’s Impact and Calculate Cost-Savings

The next steps in an ROI analysis are to measure the EAP’s impact on work performance and then to insert these data into the equation to derive total cost-savings.

In the DWP study, decreases in sickness absenteeism (171.7 hours per case), as illustrated in the previous figure by the down arrows, yielded an average cost-savings of \$9,968 per client. The total cost-savings for the entire EAP sample of 115 employees was \$1,146,320.

Steps 7 & 8: Determine EAP Costs and Calculate ROI

The final steps in any ROI analysis are to determine the cost of EAP services for the client sample and then calculate the return-on-investment.

In the study done at the L.A. City Department of Water and Power, the total cost to deliver EAP services to the EAP sample was calculated at \$51,520, based on the average number of hours of services per case (10.6 hours) and the EAP cost per hour (\$42.25/hour). Completing the math yields an ROI for these 115 EAP cases of 22:1. Interestingly, calculating the ROI using only these cases against the annual budget of the entire EAP (\$667,300) still yields an ROI of nearly 2:1, indicating that intervention with these high-risk cases alone more than supports the value of the EAP.

Sample “Classic” ROI Studies

A sample of other “classic” ROI studies and their findings are listed below:

Organization	Reference	ROI
Abbott Laboratories	Dainas & Marks (2000)	2:1
Chevron Corporation	Collins (1998)	14:1
Los Angeles City Department of Water & Power (2nd study)	Amaral & Cross (1989)	10:1
McDonnell Douglas Corporation	Smith & Mahoney (1990)	3:1
Southern California Edison Company	Conlin, Amaral & Harlow (1996)	2:1
U.S. Department of Health & Human Services	Maiden (1988)	7:1
University of Maine	Ahn & Karris (1989)	3:1

What Do “Classic” ROI Studies Tell Us?

The “classic” studies tell us that EAPs can yield a very substantial return-on-investment, at least for certain clients and certain programs. These types of ROI analyses, however, present the following challenges:

- They can be quite complex, often require special expertise, can take a long time to conduct and often yield non-significant results if designed incorrectly.
- Most of the ROI in these studies is generated by EAP clients who have serious behavioral health problems, and these types of severe cases comprise a small percentage of the caseload of today’s EAPs.¹⁵
- Access to the kinds of workplace outcomes tracked in these studies is typically not granted to external EAPs, therefore limiting their ability to conduct an ROI study of their services.

Because of the challenges involved in conducting a traditional ROI analysis, alternative approaches have been sought. A recent approach, based largely on self-report measures, has provided a fruitful alternative.

Health and Productivity Management and Self-Report Measures

Advances in the science of self-report measures of medical and behavioral health risk and work performance are the foundation of the recent movement called Health and Productivity Management (HPM). Accumulated research evidence now shows that the largest dollar losses from employee poor health comes from reduced on-the-job productivity.¹⁶⁻¹⁸ Studies show that over 70% of employer-related total costs from mental health and substance abuse disorders are associated with lost worker productivity. The remaining share of costs are largely attributed to health care claims costs, disability claims and work absence days.¹⁹

Organizations such as the ones listed below are leading the way in educating employers about the link between good employee health and good work performance:

- Institute for Health and Productivity Management
- Integrated Benefits Institute
- National Business Group on Health
- Partnership for Workplace Mental Health

Health and Productivity Questionnaire (HPQ)

One of the recent tools for measuring work productivity outcomes is the Health and Productivity Questionnaire (HPQ). This self-report measure was developed by Harvard University in collaboration with the World Health Organization (WHO).^{18,20} The HPQ measures the impact of chronic illness on presenteeism and absenteeism, which are both outcomes of interest to EAPs. With norms from over 200,000 employees worldwide, the HPQ is considered a reliable and valid measure for use in the workplace.

Despite the strong scientific evidence and the growing employer interest in self-report measures of work productivity such as the HPQ, the majority of employers still don't use such tools. Results of the 2007 Watson Wyatt Canada Staying@Work Survey, found that 76% of participating organizations did not measure costs related to lost productivity due to employee absenteeism and presenteeism, 60% of organizations did not measure productivity at all, and a common definition of "productivity" did not exist.²¹

A Single Item Productivity Measure for Use by EAPs

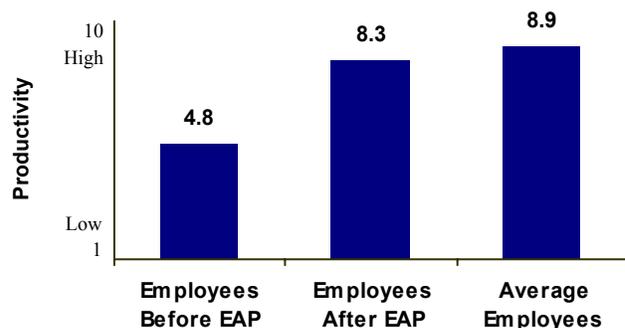
Given that few employers are measuring the productivity of their workers, EAPs must take the initiative to measure it through their own operational practices if they want to show an impact on this outcome and its resulting ROI. One large EAP provider has developed and used a single-item measure for this purpose. This single item is simple to administer and easily understood by upper management and purchasers of EAPs:

"The next question concerns your productivity at work. On a scale of 1 to 10,

where 1 is the least productive you have ever been and 10 is the most productive you have ever been, how would you rate your overall performance on the days you worked during the past 4 weeks?"

Research has found that this single item is significantly correlated with the full seven-item Presenteeism Scale from the HPQ.²² Follow-up studies using this measure have also found that most EAP cases report a low rating when they first contact the program, but the rating rebounds to a higher level after EAP participation. Data from 11,909 cases revealed average ratings of 4.8 prior to the EAP and 8.3 for after EAP use.²³ The after-EAP rating is close to the 8.9 average rating obtained in a national random sample survey of almost 400 other employees of the same population who had access to the EAP but who had not used the service.²² These findings are presented in the figure below:

Comparison of Work Productivity for EAP Cases and Average Employees



Productivity Improvement Found for Many EAP Services and Cases

Results from another research study, using the same single-item measure of productivity and follow-up surveys of over 2,500 cases, found that more than half of the cases had an improvement in their work productivity whether they saw an EAP counselor in person (56%) or talked to an EAP counselor on the telephone (55%).²⁴ Further, a third of the EAP cases who used legal and financial consultants also had an improvement in their work productivity (36%).

An additional study using the same single-item measure found similar levels of change in work productivity for EAP clients with different

clinical issues.²⁵ The initial level of productivity was approximately 5 and the ending level was approximately 8 for all of the following issues: substance abuse, relationship problems, interpersonal problems, mental health, divorce, work problems and physical health problems.

National Normative Data for Work Productivity Outcomes

The combined data from research surveys collected between 1994 and 2003 by the same national EAP provider can provide national norms for change in the single-item measure of work productivity for EAP clients.²⁶ A sample of 26,822 employees who used the EAP for clinical issues had an average before-EAP rating of 4.81 and an average after-EAP rating of 8.25. This is a 42% return in work productivity levels and it occurred for 70% of these types of cases. In addition, a sample of 2,615 employees who used the EAP for consultations on legal, financial and dependent care issues had an average before-EAP rating of 4.72 and an after-EAP rating of 8.59. This is a 45% gain in productivity and it occurred for 47% of these types of cases.

Example of Self-Reported Productivity ROI Calculation

These normative data from past studies can be used to calculate dollar savings in productivity for employees who seek help at an EAP, as shown below:

Assumptions:

- 5% utilization rate in a company with 10,000 employees, yielding 500 EAP cases/year
- 70% of EAP cases with improved productivity
- 43% average potential productivity gain per case with this outcome
- The productivity loss would have continued for (at least) two weeks (80 hours) longer without the EAP's help
- The financial value of lost productivity is two times the hourly compensation rate (\$25/hour), or \$50 per hour
- \$25/employee EAP cost per year in a company with 10,000 employees, yielding an annual cost of \$250,000 invested in the EAP service

Productivity Gain and ROI Calculations:

1. 43% potential gain/case x 80 hours x \$50 gain/hour
= \$1,720 potential gain/case
2. \$1,720 potential gain/case x 500 cases x 70% improved cases
= \$602,000 total gain for improved cases
3. \$602,000 total gain ÷ \$250,000 total EAP cost
= 2.4:1 ROI

Examples of EAP Studies on Productivity-Based ROI

In addition to those studies already reviewed here, a half-dozen other studies done in the past several years have examined the ability of EAPs to have a positive impact on the work productivity of employees who use their services for a variety of issues.²⁷⁻³² These studies have all used self-report assessments of work productivity and have all shown that EAPs can improve work productivity in 30-50% of cases. One study found an ROI of approximately 3:1 based on estimated savings from improvements in work productivity (presenteeism) and absenteeism of workers who had used the EAP.³²

Several conclusions can be drawn from the available studies on productivity-based ROI analyses. The experience of many organizations demonstrates that employee productivity can be measured reliably and quickly with self-report survey measures. Moreover, studies indicate that anywhere from 30% to 70% of employees who use the EAP have a productivity improvement outcome and that this effect is robust across a variety of clinical types, consultation services and demographic characteristics of EAP cases. Also notable is that the productivity outcome effect can be seen quickly after use of the EAP, often in as little as one month. This is in contrast to the outcomes found in "classic" ROI studies, which often require two or more years of follow-up to show positive results. In addition, the dollar value of avoided productivity loss for EAP cases can add up to a large total savings because the effect is found across nearly all EAP cases rather than just the small subset of cases with high severity problems.

Conclusion

ROI analyses can be a valuable method for demonstrating the business value of EAPs. “Classic” approaches focus on high-risk cases and calculate ROI based on decreases in absenteeism, medical claims costs, turnover and other “hard data” gathered from the workplace. Newer approaches rely on self-report measures of productivity and calculate ROI for all employees who seek help through the EAP.

Both “classic” and newer approaches to determining ROI have their place in the EAP toolkit. Which approach is best used by a particular EAP will depend on the types of outcomes or self-report measures available for study, the EAP problem casemix and the availability of resources to conduct the analyses. Regardless of the specific method used to calculate ROI, all approaches have shown that EAPs can produce a significant return-on-investment for their sponsoring organizations.

Resources

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