

Calculating ROI: Selection System Example

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Organizations that analyze and improve their selection systems can quickly realize a high positive return on investment (ROI). While calculating and ROI can seem daunting, organizations that take the time to lay out their costs of selection will find it easy to estimate the overall value of any proposed improvements. Improvements in selection procedures can incorporate both direct and indirect benefits. Making the system more efficient produces an immediate direct benefit by reducing costs to replace employees. Indirect benefits appear when the system does a better job of choosing the right candidates (i.e., higher validity), thus reducing turnover and improving the quality of hires. In the following discussion, I show how a set of basic improvements can yield a significant ROI over time for a hypothetical selection system.

Selection System Example

Imagine that we are hiring 50 new people due to vacancies in the organization. All cost estimates must consider the fact that you will screen and interview many more candidates than will actually be hired. An organization may need to process 1,000 resumes to find 50 new hires. It might have to interview 100 final candidates to yield the final 50. Replacing lost employees or selecting candidates for new positions can be very costly. Of course the thoroughness of the selection process varies greatly across organizations and positions, but most systems have room for improvement.

TABLE 1 summarizes these hypothetical costs. In one year, the costs of replacing these 50 employees can approach one million dollars (\$932,200)!

Assumptions:

- 50 people lost and replaced each year
- Employee salary of \$60,000 per year
- HR salary of \$20 per hour
- Positions are vacant for an average of 6 weeks

TABLE 1 *Note: All estimates are hypothetical and may not represent costs of an actual selection system*

COSTS	DIRECT COSTS: COSTS ASSOCIATED WITH FILLING OPEN POSITIONS
\$150,000	Advertising, employment agencies, job fairs, and related costs
\$10,000	Screening applicants—includes reviewing resumes, answering questions, providing job information, tracking data, and general correspondence (10 hours for each of the 50 final candidates hired @ \$20 hour for the recruiter)
\$5,000	Selection process-interviews, assessment, testing, etc. (5 hours for each of the 50 final candidates hired @ \$20 per hour for the recruiter)
\$125,000	Relocation costs (average of \$2,500 per new hire, 50 hires)
\$100,000	Travel costs-usually for interviewing purposes (assume 2 candidates were interviewed for each of the 50 new hires at \$1,000 each)
\$100,000	New hire training/orientation costs (assume \$2,000 per new hire, 50 hires)
\$490,000	Subtotal

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INDIRECT COSTS: COSTS ASSOCIATED WITH LOSING EMPLOYEES	
\$1,000	Time spent conducting exit interviews (50 x \$20 per hour)
\$100,000	Severance pay (assume 20 of the 50 lost employees receive severance pay for 4 weeks each; 20 x \$5,000 per month)
\$346,200	Lost productivity from a vacant position (assume each position is left vacant for 6 weeks; 50 x 6 x \$1,154 salary per week)
\$447,200	Subtotal
\$937,200	TOTAL COST

After analyzing the many costs associated with the selection process, we can quickly see how simple improvements can make a large impact.

Direct Cost Reductions: Organizations realize great cost reductions when they reduce the amount of time spent screening resumes and tracking candidates.

- **Screening:** Resume screening systems can prescreen applicants and identify candidates who are most qualified for the job.
- **Testing:** Automated tests can screen out candidates who do not meet minimum requirements for the job.
- **Tracking:** Applicant tracking systems allow users to automate the communication process (e.g., letters of acceptance, scheduling for interviews) and provide a method for candidates to check in and monitor their progress.
- **Selection Methods:** Proven methods such as behavioral interviewing, training and experience evaluations, motivational fit assessments, and ability tests can improve the selection system's ability to identify the best candidates. By putting fewer candidates through the costly last steps of the selection process, organizations can realize significant savings.

Indirect Cost Reductions

- **Reduced Turnover:** Simply by reducing the level of turnover through more rigorous and valid selection methods, organizations reduce the costs of filling vacant positions. When turnover goes down, the organization conducts fewer exit interviews, pays less severance, and experiences fewer days of lost productivity.
- **Quality of Hires:** If the selection system is more rigorous and valid, the organization will hire better quality employees who are more productive. If you assume that employees are valued in terms of their salary, even a small improvement in quality can yield high returns.

Revised Selection System

In the following scenario, imagine that several new improvements have been introduced to help reduce direct and indirect costs.

New Assumptions:

- Total cost of all improvements = \$150,000
- Introduce a resume screening system and an applicant tracking system
- Introduce a more rigorous and valid selection process
- Quality of hires is 10% better than before
- 40 people lost and replaced each year (turnover reduced by 20%)
- Time required to fill a position is 3 weeks (down from 6 weeks)

TABLE 2

COSTS	COSTS ASSOCIATED WITH FILLING OPEN POSITIONS
\$150,000	Advertising, employment agencies, job fairs, and related costs
\$8,000	Screening applicants-includes reviewing resumes, answering questions, providing job information, tracking data, and general correspondence (3 hours for each of the 40 final candidates hired @ \$20 hour for the recruiter)
\$4,000	Selection process-interviews, assessment, testing, etc. (2 hours for each of the 40 final candidates hired @ \$20 per hour for the recruiter)
\$100,000	Relocation costs (average of \$2,500 per new hire, 40 hires)
\$80,000	Travel costs-usually for interviewing purposes (assume 2 candidates were interviewed for each of the 40 new hires at \$1,000 each)
\$80,000	New hire training/orientation costs (assume \$2,000 per new hire, 40 hires)
\$422,000	Subtotal

COSTS	COSTS ASSOCIATED WITH LOSING EMPLOYEES
\$800	Time spent conducting exit interviews (40 x \$20 per hour)
\$80,000	Severance pay (assume 16 of the 40 lost employees receive severance pay for 4 weeks each; 16 x \$5,000 per month)
\$173,100	Lost productivity from a vacant position (assume each position is left vacant for 3 weeks; 50 x 3 x \$1,154 salary per week)
\$253,900	Subtotal
\$675,900	TOTAL COST OF NEW SYSTEM

Our final calculation adds to the benefits of the new system by considering the improved quality of hires. If the organization's new system brings in employees who are 10% better than previous employees, it can claim the improvement as a benefit.

- Value of employee = \$60,000 (based on salary)
- 10% improvement in quality of hire = \$6,000 (\$60,000 x .10)
- 40 new hires = \$240,000 (40 x \$6,000)

The Return on Investment

Implementing these improvements yields a net savings of \$111,300 in the first year alone (\$261,300 savings minus the \$150,000 cost). On top of this savings, we can add the benefits of a better quality of hire (\$240,000). This brings the total benefits (minus costs) to \$351,300. When comparing this to the cost of the improvements, the final ROI is 234% in the first year.

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

$$234\% = \frac{(261,300 + 240,000) - 150,000}{150,000} \times 100$$

In subsequent years, the total savings will be even greater after paying off the initial cost of the improvements. In three years, the net savings (assume we subtract maintenance fees of \$20,000 per year) could reach an ROI of 792%.

Return on investment calculations involve many estimates of value and not everyone is comfortable making these estimations. However, when the organization does decide to outline all steps in the selection process it's easy to see where improvements may provide direct and indirect benefits. Selection procedures and their outcomes are no different from any other organizational system. Calculating ROI is all about putting a value on processes and outputs. Those organizations taking the time to analyze their approaches are in the best position to realize a positive ROI.