

A GUIDE TO USING THE ROI CALCULATOR



COST OF A HIRE



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Manufacturers are realizing that past practices to fill production positions are no longer successful. The use of agencies to identify pools of candidates from which to select the best temporary to permanent workers is not providing the numbers or quality of potential new hires. Large manufacturers are becoming proactive in addressing these challenges. Small and mid-sized companies are also beginning to realize they too have to take more deliberate actions. Manufacturers have to become part of the workforce solution and all must participate if manufacturing middle skill needs are to be met.

Over the past six years, the Manufacturing Institute has worked with corporate, non-profit, and educational partners to identify industry-endorsed, vendor-neutral certifications that would validate skills needed to perform key positions in manufacturing companies.

These certifications are recognized by many employers, delivered by education institutions, and embedded in career pathways that lead to the development of a highly skilled manufacturing workforce. In spite of these initiatives, there still remains questions as to the widespread use and value of these certifications in the selection,

retention, and promotion process.

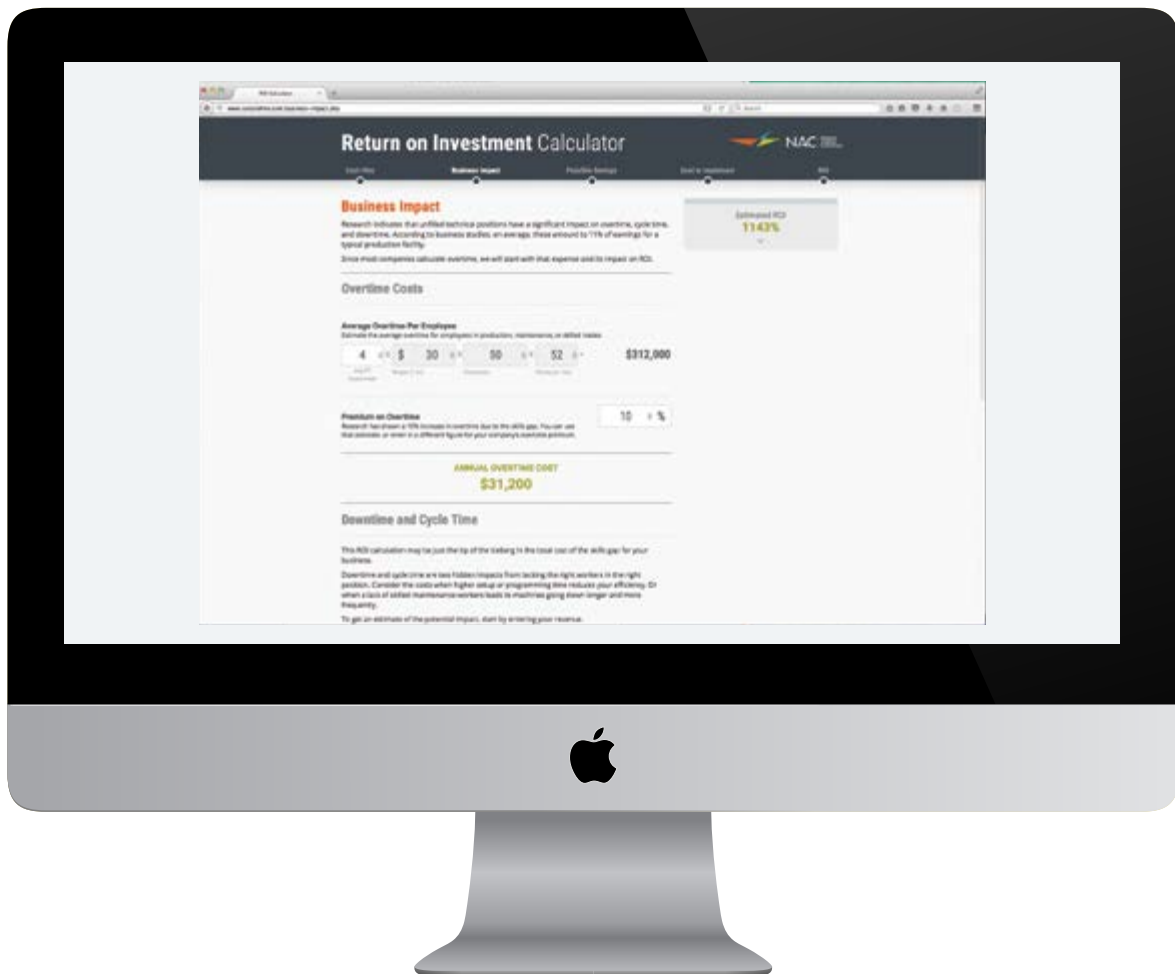
A major strategy is helping companies clearly understand and identify the factors that impact their talent development plans. Solutions have been suggested in a number of reports such as those referenced above. A key component is the impact and ROI that can be realized when employers actively participate in developing the solutions.

The ROI Calculator, “The Cost of A Hire,” is one way for companies to assess the value and impact of early involvement in talent development activities. Developed by the National Association of Manufacturers’

Manufacturing Institute with a number of partners, this tool helps companies identify the hiring costs for skilled production workers and how certificated individuals can reduce these costs. A copy of the ROI Calculator can be found at www.costofahire.com.

Following is a Guide to the ROI Calculator and the metrics to be considered when

assessing the value of employer involvement in regional workforce development activities. This information will be helpful to employers, educators, economic development professionals, and the Manufacturing Extension Partnerships that regularly assess the economic impact and ROI for manufacturing related interventions and activities.



Guide to Using the Return on Investment Calculator

The calculator is designed in such a way that the user is guided through the tasks and corresponding computations to arrive at five key metrics that represent costs and value impacted by employee selection practices.

The Calculator is divided into five sections: Cost of an Open Position, Business Impact, Possible Savings, Costs to Implement and ROI. The data gathered at each step provide insight into the sometimes hidden costs of skill gaps and the

benefit of implementing a strategy that will result in a pool of qualified candidates to fill the vacancies. Since you may need to gather information from colleagues in other departments in your organization you may not be able to complete the calculator in one sitting. It is recommended that you begin going through the calculator, and save your responses if you need to gather additional data from another department.

The Cost of an Open Position

Section One:

This first section of the calculator is designed to set the stage in your hiring process by inserting some basic company information: Number of Technical Employees; Number of Hires per 12 Month Period; and Average Wage of Open Positions.

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Section Two: Recruiting and Hiring Costs

Some reports suggest that the average U.S. company spends \$3,500 per new hire in advertising costs and human resources staff. This section helps you to begin assessing your costs in these tasks.

Advertising: Determine approximate costs incurred using a variety of sources i.e. print, online job boards, etc. then insert number of vacancies for which advertising is used. If you have multiple

openings for one position and you regularly use these sources on numerous occasions, insert the number of times you run the ads or post the job. For example, you have 5 openings for Mechanical Technician that you are trying to fill now, so it would be “1” vacancy times the amount you have calculated for the job postings. If you have 5 openings throughout the year and each time you follow this process then it would be :

$$5 * \$3500$$

NOTE: When inserting dollar amounts in the tool do not use commas or decimals. Only insert the numbers.

Internal meetings to screen and select candidates:

(Number of candidates typically interviewed) * (How long x how many interviewees) * (Fully loaded wages of interviewees)

Insert the figures based on your experience and

process. Small and mid-sized companies may have fewer candidates to review at any one time. Due to current demand, some companies may have an ongoing or rolling application process. They may begin with an initial screening and the interview process typically involves 3 individuals, primarily supervisors and takes no more than 1.5 hour total with the candidates talking with the supervisors individually for about 20-30 minutes.

Internal meetings to select new employee:
(Number of meetings) * (length) * (participants) * (wages)

These meetings for production positions often can be less formal. The interviewers may either informally compare notes and make a recommendation or communicate via email. The time involved might be a total of an hour or an hour and a half.

Pre-Employment Candidate Testing: Costs related to specific testing costs i.e. an agency conducting testing or purchasing tests or costs of background or drug tests would be included here. If no costs, insert zero.

Other Internal HR costs: The time frame and hourly rate for these tasks should be included. Typically these tasks are completed by an HR Recruiter or HR support staff. Typically this would include the completion of required forms such as for the background check.

The total company recruiting and hiring costs are then divided by the number of hires resulting through this process to arrive at the Cost Per Hire.

Staffing Firm/Placement Costs: For many companies this can be a significant cost. You should be able to get figures from your HR Manager or Finance Department to insert if your company uses these services. If not, insert zero.

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Section 3: On the Job Training Costs

These costs represent the specific activities related to onboarding a new employee and supporting them until they are productive and able to work independently.

Employee OJT Costs: This number should represent the total number of hours allocated for OJT for new employees. If the amount varies due to skills of individuals and assignments, insert an average number into the box. The hourly rate should represent a fully loaded wage that would include benefits. Information for these two metrics might need to be collected from supervisors and finance personnel.

Supervisor OJT Costs: This number should represent the time the supervisor spends working directly in training with and supervising the new hire until the individual is able to work independently. The wages should represent the fully loaded hourly wage of the supervisor. If these amounts range based on the department and category, insert an average amount.

Cost of Training Equipment, etc.: This category may not be applicable in each company. The supervisor should know if there are costs incurred as part of the training/OJT process.

TOTAL COST PER HIRE

This figure should be an accurate representation of costs the company incurs from initial recruitment until full productivity.

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Business Impact

This section represents the direct costs on your business resulting from new hires.

Section One: Overtime Costs

Average Overtime Per Employee: These costs will vary based on the structure of the OJT process and the staffing available for the OJT. It is assumed that there will be as much as a 10% increase in overtime paid to hourly staff as a result of no skilled workers being available or new employees unable to be productive quickly upon employment. Insert the average number of hours x the full hourly rate x the number of employees impacted by the skills gap.

Premium Overtime: The suggested 10% is based on recent research. Your figure may be similar or less depending on your practices.

Section Two: Downtime and Cycle Time:

This figure will be computed based on your annual revenue and data from research conducted on manufacturing facilities throughout the country. Once you enter your Annual Revenue, the calculator will compute sample Downtime and Increase in Cycle Time costs.

The projections of downtime and cycle time impact are explained based on research data.

Note: These costs are not included in the overall ROI calculations but should be taken into account when considering the potential financial impact of the lack of skilled workers.



Possible Savings

Here is where the previous data is translated into quantifiable impacts on your business. Many employers have reported that hiring a better qualified individual leads to improved retention and promotion and a corresponding reduction in turnover. Often companies experience 30-40% turnover during the first 3-6 months when hiring less skilled individuals. Depending on the hiring practices and the size of the company, impact could be measured after six months, however, for most companies it is at least a year of the new practice before significant changes can be noted. Companies have experienced measurable changes in the following metrics that significantly impact the bottom line.

Section One: Cost Savings Resulting from Reduction in Turnover

1. Reduction in Employee Turnover:

Companies hiring skilled, certificated individuals have indicated as much as 50% improvement in retention. For purposes of this process, respondents are asked to select a percent reduction they anticipate based on access to an improved, skilled candidate pool.

2. Reduction in hiring costs: It is assumed that there will be a corresponding reduction in hiring costs due to improved retention. The number of times new candidates are recruited and screened will be reduced. The percentage entered above is applied to the hiring costs computed in the previous section.

3. Reduction in OJT Training Costs: The formula assumes that there will also be a corresponding reduction in OJT Training costs. Since some of the OJT is specific training related to the unique machines and processes of the companies it may be that the reduction is not exactly as computed here. However, employers agree that the costs could be reduced to some extent and that a potentially faster time to independent work could be realized if the candidates were work ready and knowledgeable about the basic production processes. It has been noted by companies working with their education partners that the new hires are easier to train



than someone with no training and in many cases they learn faster, have greater commitment to the job and are better prepared for promotion and increased responsibility.

4. Total Savings due to reduced turnover:

This amount reflects the percentage entered above with the figures applied from the previous sections. Although it may not be totally accurate if you are just beginning to use an education partner and certifications, this figure will give you a sense of what you might expect following implementation of a certification program.

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Section Two: Cost Savings Resulting from an Education Partnership

This section looks more closely at specific costs savings that could be realized if an education partner is engaged from the beginning of the process. Through this engagement, the employer clearly identifies the skills needed for the position and the school works with key employer representatives to ensure that the program content results in the knowledge and skills needed to do the job. Models of this practice exist around the country and participating employers are reporting measurable impact and significant costs savings on a number of metrics such as those listed below.

1. Reduction in Recruiting Expenses: As noted in the previous section, based on your work with the education partner and your realistic expectations for an improved candidate pool, you are asked to insert a percentage. Companies have experienced a range of 30-70% through this process. The ROI tool suggests 50%. You can use that for these purposes or enter another percentage based on your past experiences.

Based on the percentage entered here, the figures computed in previous exercises are applied in the following categories to assess reduction in overall recruiting costs:

- Reduction in Recruitment Advertising
- Reduction in interviews required
- Reduction in Internal meetings required
- Reduction in Pre-Employment Testing
- Reduction in Candidate Screening

2. Reduction in Staffing Firm/Placement

Costs: Based on your current practice and outcomes, you may decide to totally forgo the use of a placement agency or significantly reduce the use. The projected reduction percentage should be entered here

3. Reduction in OJT Cost Per Employee: As noted above, the OJT reduction will vary based on a number of factors unique to each individual company. For purposes of this tool, you are asked to assume that there will be some reduction and enter that percentage in the box. A 33% reduction can be used as a sample until you are able to accurately gauge the impact on your company. That figure is then applied to the following categories to assess potential costs savings.

- Savings due to reduction in employee OJT time
- Savings due to reduction in supervisory OJT time

4. Reduction in Overtime Cost: This amount is computed based on the percentage entered above and data entered earlier in this process. Employers should recognize that this may be an estimate initially. Actual figures will be more easily determined once the practice is in place and the outcome data gathered based on new hires using the new process and supervisor reports.

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Costs to Implement: Company Investments in Industry Certifications and Workforce Partnerships

Section One: Project Planning Activities:

In order for this model to be effective, companies must commit to participation of key individuals working with their education partners. Significant input is required initially to ensure that the desired learning outcomes are clearly identified and the training program is designed to result in those outcomes. It is possible that more than one individual may be involved in this process.

Activities may include input into the curriculum of the program, designing an internship program and potentially assistance in initial recruitment and onboarding planning. A one-time investment, it will pay off for the duration of the program.

In this section, it is recommended that you total the number of planning hours represented by all involved individuals and use an average fully loaded hourly rate to arrive at a projected planning cost.

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Section Two: Project Management

Once the program is underway, employer engagement is key to ongoing success. The figures entered here should reflect the projected ongoing engagement while the program is being implemented. Depending on the length of the program and number of students, it could range from 50-150 hours and could involve more than one person.

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Section Three: Workforce Supervision

This category recognizes the additional effort required to maintain the education partnership throughout the program from development to recruitment to delivery to placement. This person will be the primary contact with the students during internship/OJT experience to ensure that the job supervisor is providing the necessary support and guidance that will lead to candidate success in the job and that the progress is communicated back to the education partner. This intermediary role will vary based on the length of the internship/OJT experience and the number of candidates in the program. It is suggested that the range could be anywhere from 3 to 10 or 15 hours per week.

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Section Four: Miscellaneous Costs

This figure represents any other costs identified by the company that will be incurred during this process. It could be payroll costs in addition to the typical employee costs or equipment or employee travel to the educational site for meetings and classroom presentations.

Calculating Total Return on Investment (ROI)

This section represents a summary of the data and projections entered throughout this tool. It takes into account the investments made by the company compared to the potential cost savings in recruitment, employment, and retention.

The numbers are displayed based on the figures entered. It is possible to go back through the tool and change some of the figures to see the bottom line impact of changes in any of the metrics.

Summary

This tool offers an excellent way to help companies measure and quantify the value of hiring a skilled associate. It also can be a valuable tool to help educators explain the value to their company partners.

The metrics provide insights into factors that can impact a company's bottom line and productivity.

The outcome of the process can help the HR staff and Supervisors document the value to the company for engaging with education partners to create a pool of skilled certified candidates. It can also help the education partners better understand the importance of working with employer partners at the beginning of a project to ensure that the content and outcomes meet their needs and provide career opportunities for the students.

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