



Best Practices

Ergonomics Investment Making the Case in Any Economy

By Swati Deshkar

Retaining a budget for ergonomics can be a challenge in any economic climate. While safety management professionals understand the consequences of neglecting ergonomics (e.g., increased workers' compensation costs, lost productivity due to fatigue and injury, absenteeism,) those consequences may not be as obvious to executive management. Several best practices can be utilized to demonstrate the economic value of ergonomics as a cost-saving, productivity-enhancing tool that contributes significantly to a company's bottom line.

Sell the Value of the Investment

In theory, most executives understand the need for ergonomics. They have likely heard the well-publicized and startling costs of musculoskeletal disorders (MSDs), including tendonitis, carpal tunnel syndrome (CTS) and back pain. American businesses pay \$61.2 billion annually just to cover the lost productivity costs associated with these ailments. But, to many executives that number is just too large and far removed to apply to their own companies. To enlighten executive management, SH&E professionals must demonstrate, in concrete financial terms, how ergonomics affect the company's bottom line. To do so, compile data regarding the company's expenditures on workplace injuries. Highlight both the costs of the numerous lagging indicators of risk, including workers' compensation claims, lost workdays, salary to temporary workers covering shifts and increased insurance premiums, as well as the costs of the leading indicators of risks, such as incidences of discomfort and first-aid cases. Collecting this initial data will take some research. The richest sources of information are the OSHA 300, 300A and 301 forms. The law dictates that companies use these forms to list all employee-reported discomfort, injuries and illnesses. An on-site SH&E professional or occupational health nurse will also have a record of first-aid requests that may show patterns of pain and fatigue within a department or by employee. For example, an employee in the stockroom may come in repeatedly for ibuprofen to alleviate backaches. Such requests, over time, could be an indicator of presenteeism, the workplace phenomenon of employees coming to work but being too distracted by pain or discomfort to be productive.

Workers' compensation claims are also critical data points in building a case for ergonomic investment. Calculating the indemnity costs is especially important for measurement. For example, the average employee suffering from MSD pain misses 6 weeks of work a year. Compiling the average salary of an employee, the lost workdays, and the training and pay of temporary replacement workers will demonstrate to an executive how compensation costs can nearly double while employees are healing versus the cost of implementing ergonomic solutions. The human resources department is another rich source of data because its personnel track absenteeism across the company. High levels of absenteeism within certain departments may provide clues or early indicators of work-related discomfort. Additionally, other employees in the department might pick up the slack for their injured and absent coworkers, exposing themselves to the risk of work-related pain or cumulative trauma disorders. All of these data add up to money and productivity lost as a result, and the impact on the bottom line will make a strong case for ergonomics to help win management support. Communicate, also, that safety and health is one way in which ergonomics impact a company's bottom line. Ergonomics, as a discipline, is also applied to the optimization of human performance in the workplace. A comprehensive account of ergonomic investments must include where ergonomics have saved money on the process level as well. For example, if a safety

manager considered ergonomics in choosing equipment that enhanced an employee's performance of a task, that process modification would save time and improve that employee's productivity. These savings can be quantified with a spreadsheet comparing output before and after the equipment was installed. Comparing these numerous risk-related costs to the modest expenditures in ergonomics, including evaluations, training and purchases of optimal office equipment, will illustrate the economic benefit of ergonomics in terms that an executive can understand. Proving that ergonomics is a critical tool for savings down the line will win the investment and the integration of ergonomics into the executive's long-term strategy.

Prioritize the Investments

When money is tight, a safety manager must pinpoint where ergonomic intervention is most critical so s/he can maintain a streamlined budget and justify continued funding. The focus of the interventions should be on the highest risk employees with the most costly injuries. CTS is one of the most frequent targets of ergonomic intervention. Its well-documented costs make it an excellent case study for a chief financial officer or other executive who is not yet convinced of the value of ergonomics. The direct costs of a single CTS injury, including wages, medication and hospital bills can add up to \$12,000, according to the Bureau of Labor Statistics. With surgery, the cost leaps to \$35,000. Yet the costs do not stop there. The indirect costs, which can be two to four times higher than direct costs, are harder to quantify. They include wages and training for temporary workers, lost productivity and stress. All told, with surgery, CTS could cost a company \$175,000 per case. The annual average cost, as estimated by OSHA, to fix a problem job is about \$250. This relatively modest investment could not only prevent CTS, but also would enhance employee performance. Money saved by avoiding injury, and money made by improving productivity is quite persuasive to executive management, especially when compared to the potential expenditure of such a costly injury.

Invest a Little, Longer

Ergonomics should be thought of as an ongoing process, not as a one-time, intensive intervention. It is a system that requires relatively minimal, but continual investment. When a company has an ergonomic practice engrained into its operations, it is integrated into every new product or routine and optimizes benefit for the company. Yet, smaller companies often call in an ergonomist only when injury rates are too high to ignore. After completing an initial assessment, the ergonomist usually isolates which equipment and practices put employees at risk and explains to the staff how to avoid future injuries. The consultant then recommends the corrective actions and advises the company to support the ergonomics continuum, either through in-house support, periodic consultations or web-based tools. However, many companies fail to acknowledge the concept of ongoing investment, either because of lack of awareness or because of the perceived cost of implementation. In such cases, the companies end up repeating expenditures for the same ergonomic intervention and training. At this point companies will recognize that, despite spending money up front, not following through with continuous check-ins will result in starting over year after year. Why do intensive, one-time ergonomic interventions often fail? On the days or weeks they occur, some employees may not be in the office. Or, if they are, they may not happen to feel pain at the time of the intervention and may not think the information is relevant to them. As time passes, trauma and stress accumulate and personal risks multiply. Couple that with an aging workforce and the injuries start to accumulate. To be effective, ergonomics must be integrated into employees' daily routines. These practices could include stretching, taking breaks, being mindful of discomfort levels and postures, and setting up workstations properly. Integration reminders can take the form of a personal intervention, such as sending an e-mail or a follow-up visit from an ergonomic evaluator, or an automated form such as break reminder software.

Invest in Employee-Led Initiatives

While a top-down, process-based approach to ergonomics is critical to its financial justification and survival, being accompanied by a bottom-up approach is as critical to its success. Effective safety managers who value the power of a peer-led model will ensure that employees understand and take responsibility for adopting best ergonomic practices for themselves. This bottom-up approach saves time. Investing in employee-led initiatives empowers the employees to manage their own risks with knowledge and skills for staying healthy, and the awareness for addressing discomfort sooner. Ongoing investment can be leveraged for this initiative by using tools that will assist with employee engagement and safety management, such as break reminder software or risk assessment software, or with simpler solutions such as displaying posters that illustrate proper stretches. In summary, encour-

aging employees to feel responsible for their own well-being increases employee morale, which leads to more effective ergonomic initiatives. When employees know what to do to keep themselves healthy and they understand what actions to take when they develop discomfort, numerous potential injuries that might have developed will be nonexistent. Additionally, employees will feel fully informed of the relevance and benefits of ergonomics, and will embrace the ability to improve their own comfort levels and performance.

Measure the Return on Investment

The best way to prove the success of ergonomic investments and to justify continued investment is to actively monitor the costs and benefits of interventions. Such monitoring quantifies and isolates the return on investment through decreased costs over time. Once the processes and initiatives are in place, the costs that were highlighted as having potential to be reduced must be measured, monitored, tracked and analyzed to illustrate that they have decreased. Use the OSHA forms and other resources noted to collect and analyze these data, or perform your own data collection and analysis over time through ergonomic risk management software. This collected information will be crucial for ensuring the continued funding and success of the ergonomic processes, as it enables executive management to see concrete returns on investment. If \$250,000 is approved for ergonomics, it is expected to see more than that amount in decreased costs as a direct result of ergonomics. It is this decrease in costs that will prove the economic value of ergonomics.

Conclusion

Remember, nothing is more compelling to executive management than numbers. Committing to tracking and measuring injury and discomfort data will provide evidence of the success or failure of ergonomic investments in a language management will understand. There is no greater justification of future investment than evidence of past success. Creating a system that collects, monitors and analyzes the constant flow of information not only will provide the numbers to support continued investment, but it will also allow those involved to identify and correct flaws and hone the efforts to enable increased effectiveness year after year. Take this opportunity to prove that ergonomics investments are critical to the bottom line and to the efficiency and competitiveness of the company as a whole. Input and intervention can ensure that a company's most valuable assets (its employees) are healthy, present and productive in this highly competitive business environment.

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