Results of the
2015 ERGONOMICS PRACTITIONER ENVIRONMENTAL SCAN SURVEY
Brought to you by the ASSE Ergonomics Practice Specialty
FULL REPORT
“With what level of competency in ergonomics do key resources need to be performing to maximize their impact?”

One of the primary goals of a practice specialty within ASSE is to educate its members. The Board of Certification in Professional Ergonomics (BCPE) has established the core competency for a professional ergonomist, but this standard cannot be applied to the members of the ASSE Ergonomics Practice Specialty (ErgoPS), which is a broader representation of safety professionals. For these practitioners who have some responsibility to manage or address ergonomics concerns within their organizations, the question is what knowledge and skills do they need to be successful in their roles? This question became the impetus for this survey and white paper.

The ErgoPS advisory committee sought to learn about the ergonomics training, skills and needs in the OSH practitioner’s working area. A voluntary survey was administered online and consisted of 14 questions. The survey was open from Oct. 6, 2015, to Nov. 30, 2015, and was promoted through various social media sites, technical working groups and industry conferences. Participation in the survey was open to any interested party who self-identified as a practitioner in the field of ergonomics, whether full or part time.

More than 300 ergonomics practitioners were surveyed to find out such details as:

• Where have you obtained training in ergonomics and does the training meet the marketplace expectations of your role?
• What resources benefit you in the management and implementation of workplace ergonomics programs?
• What are the driving metrics behind your organization’s ergonomics efforts?

Disclaimer: ErgoPS is responsible for the design, conduct and interpretation of the analysis.
Survey Overview

Part 1: Study Demographics

The link to the online survey was distributed to hundreds of OSH professionals within ErgoPS, OSH groups in LinkedIn and OSH contacts across multiple companies throughout North America. Questions 1 through 5 of the survey gathered information on the types of industries, size of organizations, job titles, experience and how much time each person spent focusing on ergonomics in his/her job.

Part 2: Metrics and Drivers

The metrics that a company uses to establish goals and measure success of an ergonomics program provided insight into the information that organizations feel are critical for performance. Questions 6 through 9 of the survey focused on why the survey participants focus on ergonomics within their jobs and locations, and how they measure the success of their work and programs.

Part 3: Ergonomics Competency Expectations

In 1980, Stuart E. Dreyfus and Hubert L. Dreyfus wrote a paper, “A Five-Stage Model of Mental Activities Involved in Directed Skill Acquisition.” This model provided a framework for question 10 of the survey, which asked participants to rank the level of skill/performance they would expect to see in various roles within an organization, with specific reference to their level of development in the area of ergonomics. Roles such as a corporate ergonomist, ergonomics consultant and other positions that had expectations for high performance in ergonomics were not included in this survey. Instead, the survey focused on roles that have responsibilities for ergonomics ranging from the employee to the supervisor to OSH managers and directors.
Part 4: Skill and Knowledge Acquisition

Given the breadth of job roles held by participants of this survey, a key question asked was, “How do these practitioners develop the knowledge and skills to fulfill their roles?” In the fourth part of the survey the focus was on the modes of education used by practitioners to gain ergonomics knowledge and the resources used regularly to support efforts to manage ergonomics concerns. Question 11 was structured to determine how survey participants obtained their initial or continued education in ergonomics. Question 12 focused on how survey participants used available resources to support their efforts; this is a measure of both the behaviors for information collection, as well as an indication of the frequency with which survey participants sought assistance.

Part 5: The Ergonomics Technician

The final section of the survey posed questions to understand whether a market need and value exist for a technician-level certification in ergonomics. Development of core competency in this area could support efforts in the professional development of OSH professionals currently being spearheaded by ASSE and the International Network of Safety and Health Practitioner Organizations. Question 13 was designed to understand the level of expert resources available to someone charged with responsibility for an ergonomics program. Question 14 provided the direct query to summarize the survey, “Is there a perceived personal value to an ergonomics certification for a technical-level practitioner?”
Q1: What is your firm’s primary business / industry type?

Top identified industries represented were:
1. Business and Professional Services—29%
2. Manufacturing—Durable Goods—16%
3. Natural Resources and Mining—14%

Many practitioners included in the Business and Professional Services group identified as working in the field of loss prevention consulting or services.

Other categorization included representation from:
- Wholesale/Distribution
- Healthcare
- Manufacturing—Food and Beverage
The greatest percentage of respondents—29%—reported they work for organizations with 250 or less employees. Where ergonomics was once seen as only on the radar of large organizations, it may be that the bottom-line benefits of good ergonomics are becoming supported by smaller organizations as well. Organizations with more than 25,000 employees were the second-most represented group, with 18% of respondents belonging to a large organization.
Q3: What best describes your role within your organization?

Those who identified as consultants, or a primary on-site but third-party employee, were the largest group—24%.

If staff, the most-reported role that came with addressing ergonomics was a site-level manager of environmental health and safety—13%.

Other members of the ergonomics or safety and health team were represented in the survey and further responses from those who selected “other” included interior designer, furniture representative, educator and ADA coordinator.
Q4: For how long have you been involved in ergonomics at your current level?

38% of respondents reported that they have been in their current position for more than 10 years, while the smallest percentage—only 12%—has been in their current role for less than a year.

Almost one quarter of those surveyed are practicing ergonomics full time or for more than 75% of their week.

Q5: What percent of your week is spent addressing ergonomics issues and tasks?
Q6: What is the primary driver behind your firm’s ergonomics-related efforts?

The safety and health of employees is the primary driver of ergonomics-related efforts for 87.9% of respondents by a large margin.

The small influence of the other drivers within the survey reflects the fact that the safety and injury reduction is the primary expectation of an ergonomics program.

Ergonomists and OSH professionals often identify drivers such as operational efficiency, management commitment and regulatory compliance as metrics of value, but the core driver remains safety and health. Consultants who responded to the survey further added to this point by stating that ergonomics adds further value to the service(s) they provide to their clients by reducing injury-related costs and workers’ compensation claims.
OSHA total recordable incident rates, reports of discomfort/symptoms, workers’ compensation claim frequency and cost, and OSHA lost days/restricted work were the top five metrics used to measure ergonomics program/efforts for 63%, 58%, 51%, 51% and 46% of respondents, respectively. This shows a high level of use of lagging indicators as key metrics.

• 36% incorporated near-miss_HIT reports and 40% used ergonomic task analysis scores as well as behavioral observation points (33%), which shows a growing effort to use leading indicators as metrics.

• 22% of respondents used internal and external benchmarking as measures, which indicates that many companies are interested in gauging performance against equivalent locations and within the industry.

• 3.4% selected “Other” for their program metrics, with most indicating that they are either searching for the metrics that provide the most valuable indication of performance, or they are simply young programs still finding their way.
Q8: What percent of injuries in your firm are estimated to be related to poor ergonomics?

• 28% of respondents reported that 25% to 50% of injuries at their firm were estimated to be related to poor ergonomics. The remainder ranged from 0% to 75%, with 3.8% reporting more than 75% of injuries associated with poor ergonomics.

• 12.8% of respondents reported “Other” and stated that they are unsure or it is difficult to quantify due to serving several clients.
Q9: Who is responsible for your firm’s ergonomics program?  
(Note: Consultants select N/A)

The answers for this question were fairly evenly distributed. This reflects the diversity of the organizations represented in this survey, and the many ways that locations and companies work to manage their ergonomics efforts.

- 19.5% of responses indicated that the program had corporate oversight. This can be contrasted with 17.6% of responses having an ergonomics team. The answers do not provide a view of a “best practice,” but merely show how organizations must manage ergonomics with the resources they have.
Q10: When considering the level of competency needed to address ergonomics concerns, indicate where you believe key resources need to be performing to maximize their success and impact.

There are clear trends in all levels of development. Although there is not 100% agreement across all survey participants, the responses are generally grouped around two bordering levels of skill.

Starting from the left side of the graph, the first three roles would be considered more operational roles within a facility. The expectation here is somewhere between a beginner to competent level of understanding of ergonomics. Moving across the graph to the right, the roles shift toward ergonomics, medical and OSH positions, and the expectation of proficient and expert levels of performance increase.

This information begins to provide a view of the level of knowledge and skill the market would expect in a role at the point of hire (especially for higher-level OSH roles), or the level of development we should aim for to allow these roles to successfully support an ergonomics program.
To further illustrate the delineation of knowledge/skill expectations, the responses were ranked (Novice = 1, Expert = 5), then averaged to show where the results fell within the five-stage model.

This process further illustrates that the three operational roles of employee, supervisor and engineering/maintenance fall within the beginner category of development. These roles are essentially the “doers” on the floor who will expect and need guidance on the rules to follow. The medical, OSH and ergonomics roles fall within the competent level, indicating an expectation of better knowledge, better understanding of context (e.g., recognize hazards on floor) and ability to implement components of the task independently.

Only one role, site-level ergonomics manager, has a strong trend toward expert level, with the average rank breaching the proficient level. This result begins to show a delineation that aligns with the concept of professional versus technician-level roles, and what that expectation may be for ergonomics practitioners.
In general, the graph shows that approximately 20% of practitioners have learned about topics relating to ergonomics at a college or university with the remaining 80% learning from less-formal training sources. These less-formal training sources (70% of the total) include internal training, training by a consultant, online/webinar training and conferences/seminars. Approximately 10% report being self-taught from other sources. The importance of these less-formal sources for developing knowledge in ergonomics is a key outcome here.

While most of the data are evenly distributed across the questions, differences were noted in a few places. For example, more training on identifying ergonomic hazards and controls occurs through internal/company training, while it is more common to learn about MSDs within college/university training.
This figure shows the frequency that each type of resource is used to search for or obtain information to help manage or implement an ergonomics program. Online searches were found to be the most frequently utilized, with daily or weekly searches accounting for nearly 50% of the responses. Internal/company resources are a close second place to the online search in popularity. Textbooks, peer-reviewed journals and consultants were found to be mostly resourced on a rare or monthly basis and, on average, 20% never utilize these resources for information. Journals were used monthly by 30% of survey participants, which is in line with the frequency of their publishing. Textbooks were used at a rare level 46% of the time, indicating the value of having a good resource available when needed.

Associations and networking sites (e.g., LinkedIn) were never used by 25% to 35% of survey participants, and rarely used by 35%. The meaning of these values was not determined by the survey (i.e., “why don’t you use these resources?”), however, the results show that participants prefer methods with more immediate availability such as internal resources and direct web searches.
The results show a varied availability of expert ergonomics resources. Almost one-third of respondents have no such resource available. Of those who responded that an expert resource was available, it was almost evenly split between those who were the organizational resource and those who used a consultant resource. The largest percentage responded that an internal resource was available while more than 11% did not know if a resource was available.
This figure shows that more than 70% of respondents report that a targeted training curriculum and subsequent certification around the core competencies of a technician-level ergonomics practitioner would be of value.

Comments from those who did not find added value included the need to work in international locations and a value-added certification/skill set already obtained.

Comments from those in favor generally focused on a perceived value in a standardized and accepted certification.
To answer key questions as part of the environmental scan of ergonomics practitioners, this survey was designed with five goals in mind.

☑ Goal 1: Obtain a representative sample of industry.

Surveys often set time limits to control the overall process and to allow for planning when to analyze and report the results. With this survey, the goal was participation. As such, the survey was open for an extended period and significant effort was made to market it to key audiences. As a result of the timing and marketing, the survey had more than 300 participants from a wide variety of industries, with a range of roles and experience.

☑ Goal 2: Determine whether ergonomics is a driving factor for companies.

The first driving factor to consider is whether ergonomics-related injuries occur consistently across businesses; 44% of respondents noted that more than 25% of injuries were related to poor ergonomics. Although much emphasis is placed on the use of leading indicators in ergonomics (e.g., operational efficiency), the key drivers for industry still revolve primarily around employee safety and health (88% of responses). The metrics for success were varied, but the dominant items were closely related to injuries: incident rates, workers’ compensation and discomfort.

☑ Goal 3: Gauge the expectations for performance in ergonomics roles.

Competency is a popular term right now, as the OSH community works toward unity in defining the roles of people performing at the professional and technician levels. Ergonomics is a portion of the responsibility for most OSH professionals, but not their full-time focus; 61% spend less than 50% of their time addressing ergonomics. The challenge for these individuals is that they must address a significant driver for their business, but ergonomics is not their primary role and, more importantly, not their primary background. This challenge is further heightened by the expectations of competency within their organizations; for roles that have increased responsibility to focus on ergonomics (i.e., OSH and ergonomics-specific roles), survey responses clearly indicated an expectation of proficiency or expertise.
Goal 4: Determine how ergonomics knowledge is attained in the OSH community.

A wide range of sources for education and knowledge exist for those who need to improve their ergonomics competency. A primary source would be through university or college programs, but this accounted for only approximately 20% of those surveyed. For most of those surveyed (70%), ergonomics education is achieved through continuing education and from less-formal resources (e.g., conferences, webinars, trade publications, websites). These information sources are usually pursued to answer specific questions about ergonomics, with the most commonly used resource being online searches. The challenge with these less-formal sources of information is that the information’s accuracy and validity is unknown. As a result, this approach to knowledge acquisition is that a person often only learns what s/he can find or is given, not necessarily the information that is needed to be successful.

Goal 5: Evaluate the interest in building a pathway to competency in ergonomics.

This final goal is a core outcome to this survey. For approximately 40% of those surveyed, a professional-level ergonomist (e.g., CPE) was not available as a resource, and 27% used some form of external resource to provide subject-matter expertise. Essentially, two-thirds of those surveyed did not have a subject-matter expert in-house to support their ergonomics efforts. This result helps explain how, when asked whether there is interest in a technician-level certification (and accompanying training) in ergonomics, 70% responded yes and 24% responded maybe (depends on what it looks like).
In Summary

This survey helps illustrate key information that must be understood with respect to ergonomics and the OSH community:

1) Improving ergonomics is a key driver for OSH goals.
2) Proficiency in ergonomics is an expected level of performance for OSH and ergonomic-specific roles.
3) Continuing education and less-formal means of education are core methods of building competency in ergonomics for those performing below the professional level in the field.
4) Training and potentially certification in ergonomics at the technician level is of real interest among the survey population.

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