



2016 EHS & Sustainability Career Profiles and Skills for Success





Letter from Executive Director

On behalf of NAEM, I am pleased to introduce the latest report in NAEM's comprehensive research series on how the EHS&S function is structured from an organizational design perspective.

Using a combination of quantitative data and qualitative insights, this report offers a detailed analysis of the education, skills and knowledge areas that EHS&S professionals need at each stage of their careers. This report also documents the success factors and outside influences that shape career paths, as well as the personal attributes that make EHS&S professionals unique among their peers. The result is a unique portrait of the profession that I believe belongs on the desk of all those responsible for designing and developing the EHS&S function today.

As the leading professional association for corporate EHS&S leaders, NAEM initiated this research to address our members' needs. Our goal was to provide our members with a profile of the professionals they should recruit or develop to build a healthy pipeline for succession. To do so, this report not only documents what EHS&S professionals do, but also how they think, how they behave and how they shape their internal culture to advance their goals.

Because no two companies or EHS&S professionals are the same, we do not make specific recommendations; we do, however, offer you information you can use to benchmark your own career progression or those of the employees on your team. The full report also offers more than 28 charts per profile that you can use to recruit, evaluate and develop your entire EHS&S staff.

I gratefully acknowledge the members of our advisory committee who helped to shape the questionnaire, and thank all those who participated in the research. I would also like to extend a special thanks to the American Industrial Hygiene Association (AIHA) for collaborating with us on the research. The generosity of time and knowledge from everyone involved in this project has helped advance our understanding of the profession and its value to this critical business function.

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Sincerely,

Carol Singer Neuvelt

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Executive Director

NAEM

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About NAEM

The National Association for Environmental Management (NAEM) empowers corporate leaders to advance environmental stewardship, create safe and healthy workplaces, and promote global sustainability. As the largest professional community for EHS and sustainability decision-makers, we provide peer-led educational conferences, benchmarking research and an active network for sharing solutions to today's corporate EHS and sustainability management challenges. Visit NAEM online at www.naem.org.

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How to Use this Report

How to Use this Report -

NAEM's EHS&S Career Profiles and Skills for Success report is designed to be an in-depth guide to those who are interested in advancing their own careers, and an essential resource for EHS&S hiring managers and training leaders. This is the first benchmark that comprehensively documents each step of the career path for corporate EHS&S managers as they rise to leadership positions.

What You'll Find Inside

Divided into five-year increments, this report combines quantitative and qualitative data to shed light on how professionals begin their career, position themselves for succession, and progress from manager, to leader, to decision-maker. It documents the core educational background, knowledge areas, skills and responsibilities for those at each stage of their career. Importantly it also demonstrates the importance of specific leadership attributes and personal behaviors to the success of leaders at all levels. The following is a snapshot of the main content areas included within this report:

- Job Titles
- Salaries
- Job Responsibilities (including Shared vs. 'Owned' Responsibilities)
- Professional Experiences Outside of EHS
- · Degrees and Certifications
- Core Technical and Business Skills
- · Core Technical and Business Knowledge Areas
- Key Leadership Attributes and Behaviors that Drive Success

How to Apply this Knowledge

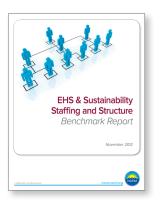
This report will help you broaden your thinking beyond what is happening in your own organization by allowing you to benchmark your own or your team's skills and responsibilities against those of other professionals in the field. Specifically, you can use this report to:

- Write job descriptions
- · Screen applicants for the right mix of skills
- · Establish appropriate job titles
- Define job responsibilities
- Evaluate job performance
- Develop training programs
- Set salaries and pay increases
- Determine whether your EHS&S team members have the appropriate mix of skills and attributes
- · Identify those with the most potential for succession

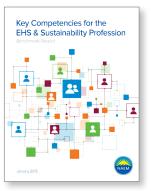
How to Use this Report •

How to Find More Benchmarking on this Topic

NAEM's landmark series on the Management of the EHS&S function is a comprehensive research portfolio on how companies design, budget and staff their EHS&S function. If you are seeking to benchmark how your peers structure their departments, learn what the average headcount is for a company at the same risk level as yours or find out which core competencies most EHS&S professionals share, consider purchasing another publication from this suite today.



EHS & Sustainability Staffing and Structure is the most in-depth benchmark of the EHS&S function. It is the only benchmark that looks at EHS&S staffing and structure based on industry sector, level of risk and corporate revenue. The report includes the roles and responsibilities of the EHS and sustainability function as well as staffing levels, budgets and salaries.



Key Competencies for the EHS & Sustainability Profession was released in 2015 and looks at the skills, attributes and knowledge areas that are necessary to achieve the business objectives of the EHS&S function. Key Competencies provides a detailed portrait of the diverse capabilities of the EHS&S professionals who are leading a broad range of regulatory compliance and sustainability activities for their companies.

Find Out What Comes Next

If 16-20 years is your current career stage, consider buying the 21+ years profile of the EHS Professional, which will show you:



- Skills and competencies that are most important as you move into the next stage of your career
- Themes that characterize the change in responsibility and oversight
- Professional certifications you might consider getting to prepare yourself for leadership
- The level of accountability and authority that those in the next career stage typically have

If you would like to purchase another publication from our Career Profile Series, use the discount code **CAREER** to save 50% off of any other segment in this Portfolio. http://www.naem.org/?survey_2015_careerpr





Methodology-

Survey Definitions

The following is a list of terms used throughout the benchmark study and the definitions associated with them.

EHS: Environment, health and safety

EHS&S: The term that is used to define the EHS and sustainability business function

Function: While many companies may use the term 'function' interchangeably with 'department,' this study defines 'function' as the role or purpose of the respondents themselves. In some companies, for example, the EHS function may reside in multiple departments

Level: The term level is used throughout the report to describe where respondents sit within their organizations. In addition, it is used to help define the extent of responsibility respondents have for activities they are involved in at their current position

Profiles: The five different career stages NAEM has defined, for the purpose of identifying distinct stages of a professional's career

Competencies: The general term which includes skills, knowledge areas, attributes and behaviors that help professionals to do their job

- **Skills:** The abilities of individuals, often gained through training. Within the report they are separated into technical, business and interpersonal spheres
- *Knowledge Areas:* The areas of expertise or specialization that individuals use in their work. They are separated into technical and business areas within the report
- *Attributes:* The qualities that individuals characteristically exhibit, as related to the performance and progression of their EHS&S function
- *Behaviors:* The actions that individuals take or exhibit, as related to the performance and progression of their EHS&S function

Key Responsibility Areas

The following is a list of definitions for the categories of responsibilities most common among EHS and sustainability professionals.

Responsibilities: The activities that may be included in the role of an EHS and sustainability professional

• **Prevention and Disposal:** Knowledge and experience necessary to properly address the management of hazardous materials. This includes materials/emissions control/reduction, waste identification/disposal and emergency response, including remediation of environmental contamination

Methodology.

- **Tracking and Monitoring:** Familiarity with the requirements and techniques needed to quantify potential hazardous releases/exposures. This includes the ability to gather and present accurate data to respond to surveys and reports detailing emissions, use and exposures from products or operations, and the ability to utilize data management tools to their fullest capability
- **Compliance:** Being conversant with all regulations or other requirements applicable to operations or products. Able to apply that knowledge in developing/implementing audits and other compliance activities for operations or other areas of concern. Maintaining awareness and addresses ongoing advances in scientific understanding of workplace hazards and potential regulatory changes
- **Health, Safety and Security:** Broadly capable across several exposure control functions to facilitate development and implementation of training, control and emergency response programs that address applicable physical risks. This includes measurement/control of personnel exposures/risks and protection of company assets
- **Energy Management:** Technical competency in selecting and using equipment and/or procedures to measure, manage and reduce energy use
- **Products and Purchasing:** Being conversant in relevant aspects of product lifecycle requirements. This includes the knowledge needed to reduce environmental impacts of products and supplier operations
- **Reporting, Strategies and Communications:** Being able to understandably communicate environmental program elements to audiences with varying technical understanding and subject matter interest. This includes knowledge of appropriate metrics to both measure and project the impact of operations or products, and the ability to select and use data to develop control and planning strategies
- **Fleet Management and Transportation:** Being conversant with rules and technical aspects of vehicle use. This includes ensuring proper permits and licensing along with emissions reduction planning/implementation

Overview of Methodology

This report is based on quantitative and qualitative research that took place from August 2014 – May 2015. The quantitative survey was fielded to a broad audience of EHS&S professionals through the NAEM membership and network in collaboration with other organizations.

The responses to the survey and interviews were primarily drawn from in-house EHS&S professionals within U.S.-based companies; consultants and service providers were excluded. This report represents the input from 498 respondents who met the eligibility criteria.

Survey Development Process

In the spring of 2014, NAEM established an advisory committee of EHS&S leaders to help the association develop a new survey that reprised core concepts from NAEM's 2012 EHS and Sustainability Staffing and Structure benchmark. The advisory committee was composed of nine senior EHS&S leaders from a variety of industry sectors. Their input helped to define the objectives, guide question development and beta-test the initial draft questionnaire before it was launched to the broader audience of EHS&S professionals within corporations. In addition, the committee provided guidance and recommendations for analysis of the survey response data.



Methodology-

Survey Distribution

The survey was distributed through SurveyMonkey to members of the NAEM network, members of The Conference Board Chief EH&S Officers' Council, members of the World Environment Center and members of the American Industrial Hygiene Association (AIHA). The recipients were also encouraged to share the survey with colleagues in their function to capture input from those at different levels within an EHS organization.

The online survey was fielded by NAEM between August and September of 2014 and re-fielded by NAEM and AIHA between April and May of 2015 to gain a broader depth of respondents.

Collaboration with AIHA

Learning about industrial hygiene competencies and responsibilities adds depth to the NAEM research and better represents the profession, as NAEM members often focus their efforts on environmental and sustainability initiatives. In re-fielding the survey during the spring of 2015, NAEM partnered with the American Industrial Hygiene Association (AIHA) to ensure a better balance of environment, health, safety and sustainability professionals in the survey responses. Similar to NAEM members, the majority of AIHA members who responded to the survey are highly experienced professionals.

Outline of the Quantitative Survey

The online survey consisted of approximately 55 questions; the exact number answered depended upon self-identified responsibilities. The survey was broken into five sections covering:

- · Company Demographics
- Individual Job Responsibilities
- Individual Skills, Knowledge Areas and Attributes
- Educational Background and Professional Experience
- · Salaries and Bonus Potential

The survey asked respondents to indicate their level of involvement in 73 EHS&S activities. These responsibilities evolved from the list included in prior NAEM benchmarking and from suggestions from the advisory committee.

To parse the varying levels of responsibility EHS&S professionals have for each activity, respondents were asked to identify the extent to which the activities fall within their role. The five levels to choose from included:

- I am responsible but not involved with executing this activity
- I lead this activity and I am directly responsible
- I lead this activity but share responsibility with others
- I am involved without responsibility
- N/A

In addition, respondents were asked to self-assess their proficiency in 33 knowledge areas and 30 skills identified to be relevant to the EHS&S function.



Methodology-

Qualitative Interviews

In order to add context and depth to the survey data for this report, a discussion guide and questions were developed in partnership with corporate decision makers to conduct qualitative interviews with in-house EHS&S professionals.

In total, NAEM conducted 15 one-on-one interviews. The participants came from a variety of industries, backgrounds and job titles, with three interviews conducted for each profile segment, based on their years of professional experience.

Analytical Approach

To capture the nuances of each EHS&S manager's role, we asked respondents to indicate their level of involvement with a set of detailed activities. We then categorized their responses in terms of 'responsibility' and 'collaboration'. The rubric for this categorization is reflected below.

Level of Authority for EHS&S Activities Figure 1 Direct Responsibility Collaborative Activities Lead and Directly Responsible but Not Involved Responsibility Responsibility Lead and Share Responsibility



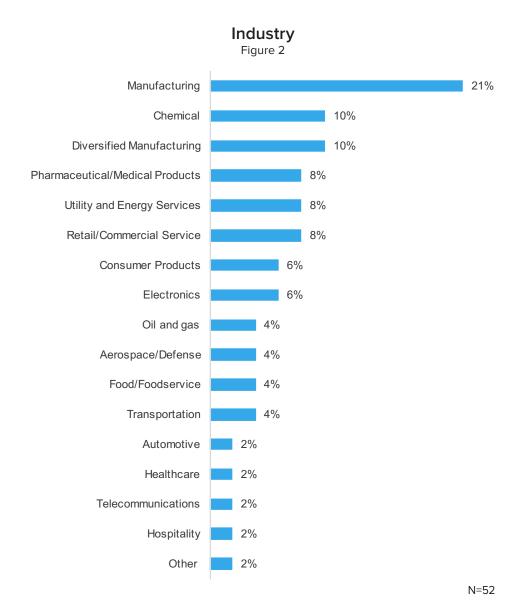
Demographics

The following section provides an overview of those survey respondents with 16-20 years of experience. Although the full survey had 498 responses overall, this section reflects the demographics for the 64 individuals at this career stage. The demographics are provided for both the companies they work for and for the individuals themselves.

Company Demographics

Diverse Representation of Industries

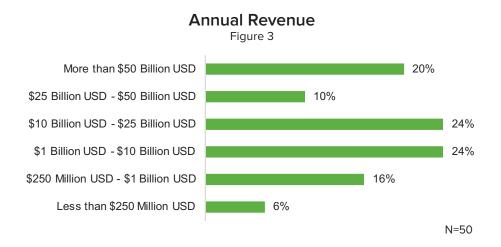
Because the survey audience included responses from more than one employee per company, the below chart has been refined to accurately reflect the range of industries represented among the survey audience. The largest segment of companies represented belongs to the manufacturing sector, with a fairly consistent representation among the other industries.



Demographics •

Respondents work for Companies of all Sizes

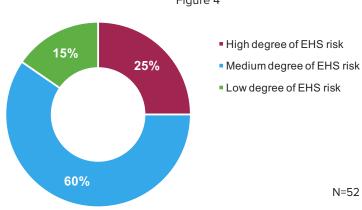
The annual revenues for the responding companies cover a broad range, from those with revenue of less than \$250 million (6%) to those with more than \$50 billion (20%). Most respondents in this segment, however, tend to be concentrated within companies with revenue of between \$1 billion and \$25 billion (48%).



The Majority of Respondents Work for Companies with Medium-Risk Operations

When asked to self-assess the level of EHS risk at their companies, most of the respondents in this segment characterized their operations as 'medium risk' (60%). An additional 25 percent have operations that fall into the 'high risk' category.

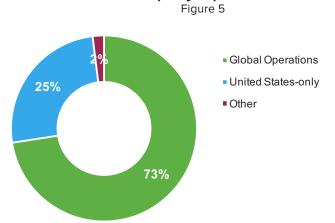
Company Risk Figure 4



Respondents in this Segment Mainly Work for Companies with a Global Presence

Consistent with the demographic composition of the full respondent pool, those in this segment primarily work for companies with global operations (73%).

Company Operations





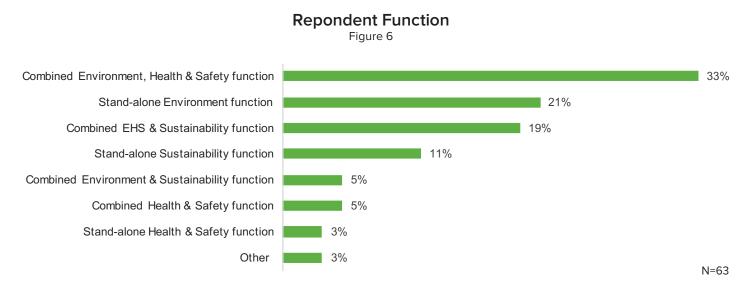


Demographics:

Respondent Demographics

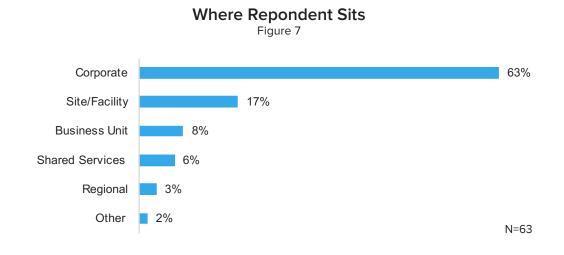
About a Third of Respondents in this Segment Work within a Combined Function

Among survey respondents from all career stages, 36 percent work within a combined EHS function and an additional 19 percent work within a function that combines EHS and sustainability. The 16-20 segment strongly reflects this overall skew, with 33 percent working within a combined EHS function and an additional 19 percent work who within a function that combines EHS with sustainability. There was also a strong representation of stand-alone environmental practitioners in this segment (21%).



Most Respondents in this Segment Work at the Corporate Level

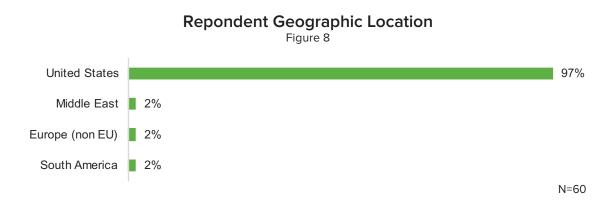
Consistent with their years of EHS&S experience, respondents at this level tend to work at the corporate level of their companies (63%), while 17 percent work at the site or facility level, and 8 percent work at the business unit level.



Demographics

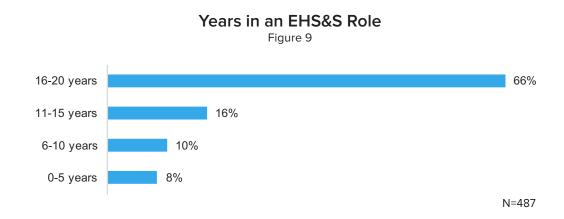
Respondents are primarily U.S-based

The respondents in this segment are primarily based in the United States (97%).



Most Respondents in this Segment Bring Substantial EHS&S Experience to their Role

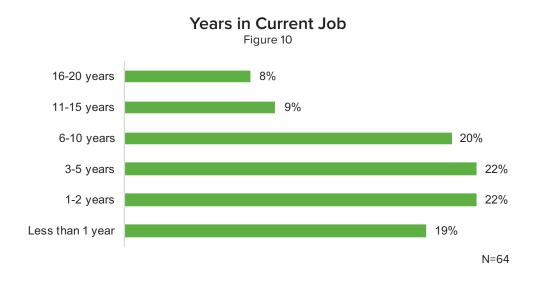
Most of the respondents who fall within this segment have gained their experience in EHS&S (66%), while 16 percent have been in the field for between 11 and 15 years. Of note, 10 percent of those in this segment have been in the field between six and then years and eight percent have been in the field for between zero and five years. In some companies, those on a succession path are required to gain leadership experience in all aspects of the business; this may account for the relatively shallow experience among a small percentage of respondents in this group.



Demographics •

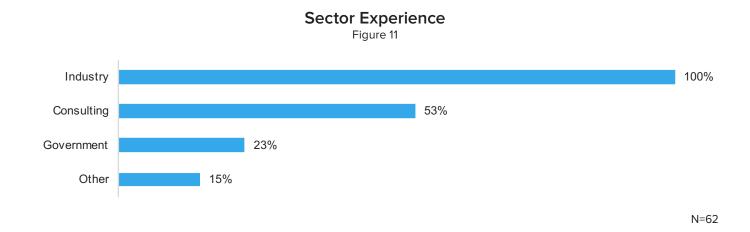
Most Respondents Have Been in their Current Roles for Less than a Decade

At this stage, 63 percent of respondents have been in their role for less than five years; a full 83 percent have been in their roles for less than a decade.



Respondents are Bringing a Variety of Experiences to their In-house Roles

EHS&S professionals often begin their careers in other areas of the field. Within this segment of the respondents, more than half also had experience in consulting (53%), while an additional 23 percent had worked within government.





Introduction:

In documenting the stages of a corporate environment, health and safety, and sustainability (EHS&S) manager's career, the underlying hypothesis was that distinct changes in responsibilities, knowledge areas and skills would emerge based on the numbers of years of a professional's experience. The quantitative analysis revealed, however, that the core competencies remain largely the same over the course of a career. Instead, it is how EHS&S professionals apply those core competencies, demonstrate personal initiative, achieve their level of accountability and expand their sphere of influence that evolve over time.

While EHS professionals' careers do not likely advance in symmetrical phases, an analysis of the data based on years of experience does reveal shifts in respondents' responsibilities, the application of their skills and the focus of their professional development efforts.

The profiles of each career stage featured later in the report will provide a detailed analysis of how and when these subtle shifts take place, highlighting how professionals at each stage arrived at their current position, the defining characteristics of that stage of their career, their current role and responsibilities, the key knowledge areas and skills for their career stage and what awaits them in the next phase. These profiles represent each of five 'stages' of an EHS career, characterized as follows:

0-5 Years: Early Career Professionals: Building Skills and Learning to Lead

At the entry level, EHS professionals are focused on task-based work as they apply their foundational education in science or engineering and explore the opportunities of their new field. In addition to applying their technical knowledge, early professionals communicate their operational goals with coworkers and cooperate in their implementation. Some professionals in this career stage will seek a career boost from a graduate degree or certifications.

6-10 Years: Advancing Managers: Increasing Responsibility and Specialization

With proven experience of delivering and demonstrating basic leadership skills such as effective communications and influencing, EHS professionals start to gain increasing responsibility for program management. This is also a time when they may be completing graduate degrees or achieving a first round of certifications, as they start to specialize in the areas of strongest professional interest to themselves. At the same time, they may seek out mentoring to help them round out their business acumen or gain the executive visibility they will need to continue to advance along a management track.

11-15 Years: Emerging Leaders: Refining the Career Path and Expanding the Sphere of Influence

This career stage is marked by increasing responsibilities and broader involvement in EHS-related activities across the business. It is also a time when a split seems to take place between those with a stronger technical orientation and those who are pegged for succession, who will be presented with new management opportunities. Because there are more competent managers than available leadership positions, those who exhibited weaker leadership attributes or were less directed earlier in their careers may reach a period of 'career doldrums,' finding themselves without sufficient opportunities for advancement.

16-20 Years: Advancing Leaders: Accountability with a Global Reach

Those who have actively invested in their professional growth and demonstrated continued leadership potential throughout their careers may start to gain accountability at this stage of their careers. They might be the head of a functional aspect of EHS (e.g. safety or environmental), or gain authority over the full function itself. In addition to having more direct authority, their role broadens to become increasingly strategic in nature and global in its scope.

21+ Years: Experienced Decision Makers: Business Strategy and Legacy

At this stage, EHS leaders start to shift their focus to broad questions of business strategy and risk management from an EHS perspective. Those who have achieved these positions of leadership are likely also thinking about organizational design and succession planning as they consider how to add value to their companies during their remaining years at the helm.

The research also revealed a number of broad insights that apply to EHS professionals regardless of the career stage:

Successful EHS&S leaders are well-rounded professionals

One of the key findings of *EHS&S Career Profiles* is that it takes more than technical know-how to be a successful EHS&S professional. The most effective EHS&S professionals possess systemic thinking and communications skills to explain technical processes across departments, functions and geographic borders. Additionally, the EHS&S professional's ability to transition from a manager to a leader to a decision maker rests on business acumen, interpersonal skills and the ability to communicate effectively.

Core Competencies Figure 11

Core Competencies for EHS&S Professionals

Business Acumen

- Communications
- Business Operations
- Training
- Change Management
- Budgeting
- Project Management
- Stakeholder Relations

Technical Expertise

- EHS&S Risks
- Interpreting Regulatory Requirements
- Compliance Systems
- Waste Management
- Management Systems
- Air
- Industrial Hygiene

Interpersonal Skills

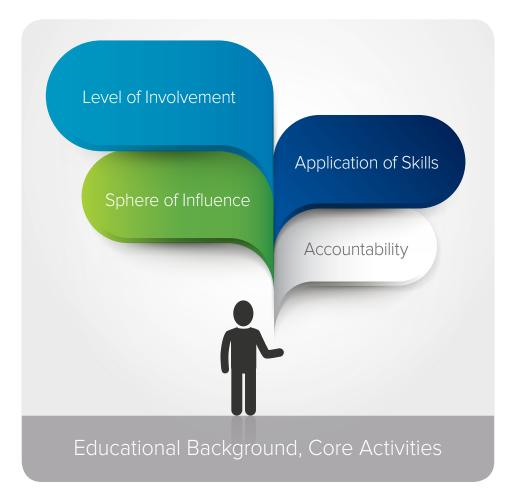
- Influencing Across Silos
- Motivating Others
- Managing without Authority
- Managing Unpredictability
- Team-building

Introduction ·

As EHS&S managers advance, they apply their core competencies in different ways

Technical knowledge, business acumen and interpersonal skills are the three core aspects of an EHS professional's skill set. As they progress through their careers, there are differences in how EHS professionals apply their core competencies to their role, their involvement with activities outside of their core 'function,' their level of accountability for the outcomes and the scope of their sphere of influence.

How Core Competencies are Applied to EHS&S Roles Figure 12



Collaboration is a key aspect of an EHS&S professional's job

As agents of change, EHS professionals are responsible for collaborating across functions to advance their programs. They do so, however, with limited direct authority except at the upper levels of management. Even then, the ability to collaborate, to communicate effectively and to be politically-savvy remain key skills as the sphere of their influence continues to broaden.

Introduction :

Advanced degrees and certifications are valuable for demonstrating expertise or helping EHS professionals round out their skill sets

While most professionals in the field tend to have bachelor's degrees in engineering or the sciences, 51 percent of respondents also hold a master's degree, and another 57 percent have specialized certifications. For some, a certification may pave the pathway for more rapid advancement, as described by one interviewee: "If I wanted to move up quickly in the profession I needed to supplement that because I don't have years of experience - so how do I make myself stand out? How do I prove that I'm more worthy than somebody else? [The certification] was the ticket to it."

EHS managers need to be self-directed

With job descriptions that provide a breadth of latitude, EHS management roles are best-suited to self-starters who can identify opportunities for continuous improvement and drive value through leadership. The initiative and creative problem-solving they bring to their work often means that successful EHS professionals have carved out unique roles for themselves within their organizational structure that would not be easily filled by just any other candidate with a similar skill set.

Leaders tend to have a growth mindset

Regardless of their level within a company, those who expressed an interest in a leadership position also demonstrated a desire to master new skills and actively sought out new opportunities to learn. Indeed, one interview respondent summed up his leadership advice as follows: "Being naturally curious and always being in a learning mode," he said. "I think the biggest thing that prevents a lot of people from progressing in our field is that they think that if they get a certification then it's just stop, or they think that if they get a degree... now they own the world. They get into their role but they just kind of do it fast enough; they don't try to learn further. That's one piece and then the second thing I would say is always trying to push the limits or always trying to kick up the ambition levels."



16-20 Years: Advancing Leaders

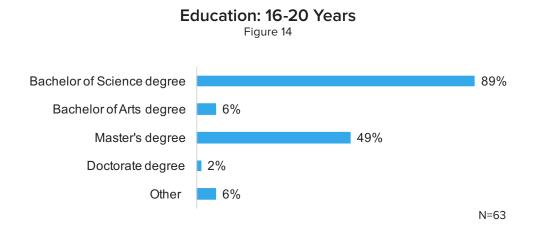
Accountability with a Global Reach

Profile: 16-20 Years

After more than a decade and a half of developing a unique mix of technical expertise, business acumen and leadership attributes, EHS&S professionals on a path for succession likely find themselves rewarded with new levels of authority at this stage. Their new roles may now have a global scope or may be increasingly public-facing, with more responsibility for strategy and engagement. These advancing leaders have come to the point in their career where the combination of education, personal drive and career decisions they made along the way start to pay off. In the below profile, we will explore what this stage of EHS&S leadership looks like and the factors that contributed to their succession.

Path to Their Current Role

Consistent with the typical educational background for an EHS&S professional, those with 16-20 years of experience tend to have a solid foundation in science or engineering, albeit with a few small differences compared with those at other stages of the career. Advancing leaders are more likely than any other group to hold a Bachelor of Science degree (89%).



At this point, the relevance of a master's of business administration may become more useful to the role these advancing leaders are assuming during this stage in their career. "An MBA for me was particularly important because my undergraduate [education] was very much physics, chemistry, biology, all sciences," one interviewee said. "With the MBA, I could look at any of [my company's] financial statements and quickly unwind that financial statement to where the environmental health and safety impacts were. Or better yet, understand how the business was doing as a whole and where the opportunities might be in the environmental health and safety area."

While almost half of survey respondents at this stage hold a master's degree, these advancing leaders are less likely to have pursued this level of education versus others at the advanced manager or emerging leader levels (49%).

Hold a Master's Degree by Years of Experience: 16-20 Years
Figure 15

| Years' Experience | Percentage | N= |
|-------------------|------------|----|
| 16-20 Years | 49% | 64 |
| 11-15 Years | 56% | 57 |
| 6-10 Years | 63% | 46 |
| 0-5 Years | 30% | 30 |



Profile: 16-20 Years

The presence of master's degrees falls off at this point. The qualitative interviews did suggest a few possibilities that might have shaped earlier career decisions among those who reach the advancing leaders level. Of note, many of these professionals faced different corporate priorities and cultural values earlier in their career, which made advanced degrees less important.

Those who have 16-20 years of experience may not have needed, or aspired to, a leadership role in their EHS&S organizations, where advanced degrees may be more prized. Those who work at facilities, for example, might have built their careers by relying on their specialized technical competencies without changing roles. One interview participant who has worked within the same facility for 17 years, for example, went directly from high school to the Navy and went to work for his current company from there. By demonstrating his hands-on technical skills, he was promoted from his role as maintenance technician to maintenance supervisor and then to safety representative, before assuming his current role as the EHS&S coordinator. Despite his lack of formal education in engineering or science, in the case of this interview participant, his military training gave him the ability to "focus and get the job done right." Despite his success, he admitted that his opportunities for further advancement are likely limited unless he leaves his current role or invests in additional training.

Hold a Certification by Years of Experience: 16-20 Years
Figure 16

| Years' Experience | Percentage | N= |
|-------------------|------------|----|
| 16-20 Years | 69% | 64 |
| 11-15 Years | 65% | 57 |
| 6-10 Years | 61% | 46 |
| 0-5 Years | 20% | 30 |

Although many of the commonly held certifications are in technical areas of expertise (e.g., Certified Hazardous Materials Manager, Certified Safety Professional, Certified Industrial Hygienist), the most popular certification among this group is the Six Sigma Green Belt. This likely reflects their leadership positions as well as the actions they took earlier in their careers to ascend to those positions. In addition, most Green Belt certifications are offered internally by companies while other certifications require external effort.

Another important aspect driving the professional development of some advancing leaders may have been influences outside the EHS&S function, such as working in another business function or field. For one interview participant, completing his master's in business administration let him pursue a role as a purchasing manager. "I thought I would try something a little different outside of the EHS role," he said.

Roles and Responsibilities: Accountability with a Global Reach

Moving from the emerging leader to the advancing leader level, respondents' titles evolve to include a mix of Managers, Engineers and Directors (Figure 17). Based on the modifiers used in these titles, it seems the scope of their roles becomes global in nature as well.



While the respondents' titles do not correlate with level of education, certifications held or years in the current position, those with a Director title earn more than their counterparts with commensurate experience; only one respondent with a Director title earned less than \$120,000.

Salary: 16-20 Years
Figure 18

| 25th Percentile | 50th Percentile | 75th Percentile | 100th Percentile | Average |
|-----------------|-----------------|-----------------|------------------|-----------|
| \$94,000 | \$110,000 | \$130,000 | \$215,000 | \$113,743 |
| | | | | N = 49 |

Those at the Director level are likely to have oversight for entire EHS&S organization at a corporate level, perhaps with a management team composed of individual environmental, health, safety and sustainability managers. "I have five staff positions that report to me," one interview participant explained. "Their main responsibilities are to provide technical expertise, supporting mainly our internal operations around the world... where my team takes the lead would be related to operations and our global processes or ensuring that those operations meet air, land and water regulations, wherever they are in the world."

Profile: 16-20 Years •

Additionally, in many companies the Director may in fact be the highest-level EHS&S professional in the company. This was the case for one interviewee, whose role was just two steps removed from the Chief Executive Officer. For this interview participant, his role was primarily a strategic one that combines compliance assurance with integrating sustainability strategy into all aspects of the business operations.

"We have energy managers that have developed a very robust energy management program and we have logistics managers in a supply chain [group] that has implemented clean diesel fleets and work on our logistics to [reduce] overall carbon footprints," he said. "So we have a lot of initiatives across [the company]... but my job is really to integrate and pull all that together."

In terms of individual responsibilities, this same interview participant retained leadership for core aspects of compliance as well. "One of my primary functions is to lead due diligence activities," he said, "and to address legacy remediation [issues]." This is borne out by the survey data, which reflect that regulatory tracking (52%), environmental compliance (47%) and health and safety compliance (41%) are among the top responsibilities for those with 16-20 years of experience.

Respondent Leads and Shares Responsibility or is Directly Responsible: 16-20 Years Figure 19

| Responsibility | Percentage |
|--|------------|
| EHS management information systems | 55% |
| Regulatory tracking | 52% |
| Environmental compliance | 47% |
| Setting EHS goals | 47% |
| Auditing | 45% |
| Reporting to meet internal and external requirements | 45% |
| Right-to-know | 41% |
| Health and safety compliance | 41% |
| Information management | 39% |
| Permitting | 39% |

N = 64

Profile: 16-20 Years

While their top responsibilities look similar to those at other levels of the profession, the key difference is their level of involvement with these core areas. As reflected in Figure 18, advancing leaders are more likely to be responsible for – but not involved with – executing than their peers at the 11-15 year mark. This steady progression from the entry level will likewise continue as EHS&S professionals advance to the upper levels of corporate management.

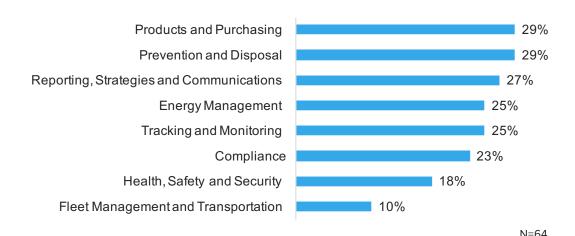
Responsible but Not Involved by Years of Experience Figure 20

| Activity Categories | 0-5 Years | 6-10 Years | 11-15 Years | 16-20 Years |
|--|-----------|------------|-------------|-------------|
| Prevention and Disposal | 3% | 8% | 12% | 15% |
| Tracking and Monitoring | 2% | 3% | 9% | 10% |
| Compliance | 2% | 2% | 7% | 9% |
| Health, Safety and Security | 3% | 4% | 6% | 7% |
| Energy Management | 1% | 0% | 2% | 3% |
| Products and Purchasing | 2% | 0% | 1% | 4% |
| Reporting, Strategies and Communications | 3% | 1% | 2% | 4% |
| Fleet Management and Transportation | 1% | 1% | 1% | 1% |
| N= | 29 | 46 | 57 | 64 |

Correspondingly, advancing leaders start to shed their direct involvement with the broad range of activities that consumed so much of their time in years 11-15. At this stage, they transition to a role of accountability for the outcomes of EHS&S activities, versus execution of those activities.

The two areas where advancing leaders maintain a strong level of involvement without responsibility (Figure 21) are in the sustainability-related areas of products and purchasing (29%) and reporting, strategy and communications (27%).

Involved without Responsibility: 16-20 Years Figure 21





Profile: 16-20 Years

Advancing leaders are more likely to have direct access to the top levels of corporate leadership and be invited to assist with developing strategies that apply across silos in the organization. In the case of one interview participant, his involvement with sustainability includes everything from stakeholder engagement to establishing policies and metrics. "We are developing our own environmental footprint," he said. "The footprint will decide on which strategic areas to work on based on priorities and resources. As we have identified those things to work on that we are developing a sustainability plan for, we will then have a policy which will have the buy-in from top leadership for the company."

The strategic aspect of the role may also involve a forward-looking perspective on compliance that takes into account an understanding of the business as a whole. One interviewee described his changing role this way: "That's where I see my focus shifting," he said. "It's looking inside the organization across functions, looking for that opportunity to expand based on our strengths. Then outside of our four walls, the other piece that I've been increasingly looking at is the advanced planning role. If I were to look at things like the clean power plant or other proposed environmental regulations out there, where would those regulations go, two, five or 10 years out, and how do we strategically develop our professionals or ensure that they are providing the types of reports or the type of information that they're going to need to be able to meet those requirements?"

Knowledge Areas and Skills

Consistent with other career stages, those with 16-20 years of experience have a well-rounded skill set that combines technical expertise, business acumen and interpersonal savvy.

Technical Knowledge Areas and Skills

At a stage of their careers when advancing leaders are increasingly strategic, their foundational knowledge of technical areas remains a differentiator. "I think having the technical knowledge is absolutely critical," one interview participant said. "Some of the feedback I have received from my leadership is that they appreciate the fact that I don't have to ask someone else to answer [questions]... so we can make decisions much more quickly and with a great level of confidence."

According to survey respondents, the top technical knowledge area for advancing leaders is environment, health and safety risks (55%), which closely mirrors respondents' core responsibility for environmental compliance.

Top Technical Knowledge Areas and Skills: 16-20 Years Figure 22

| Technical Knowledge | Percentage | Technical Skill | Percentage |
|--------------------------------------|------------|--|------------|
| Environment, health and safety risks | 55% | Interpreting regulatory requirements | 55% |
| Regulatory compliance systems | 55% | Written communications | 52% |
| Management systems | 41% | Oral communications | 39% |
| Waste management | 30% | Training | 39% |
| Air | 27% | Interpreting technical concepts into accessible language | 36% |
| Industrial hygiene | 23% | Risk assessment | 34% |
| Behavioral safety | 20% | Auditing | 28% |
| Environmental remediation | 19% | Quantitative analysis | 16% |
| Wastewater | 19% | Process safety management | 9% |
| Information management | 17% | Innovation development | 6% |

N = 64

N = 64

Knowledge of management systems (Figure 22, 41%) also ranks highly among this group, for whom it is deemed to be of greater importance than among those of any other career stage.

Knowledge of Management Systems Important by Years of Experience Figure 23

| Technical Knowledge | Percentage | N= |
|---------------------|------------|-----|
| 21+ Years | 36% | 289 |
| 16-20 Years | 41% | 64 |
| 11-15 Years | 25% | 57 |
| 6-10 Years | 35% | 46 |
| 0-5 Years | 17% | 29 |

In a role that places such an emphasis on strategy, one interview participant described how he uses his knowledge of management systems in his day-to-day work. "There are two major programs I have been working on," he said. "The first is the environmental compliance management system. Within that compliance management system there are people who are responsible for it, so I have broken that down into a pretty straightforward process for understanding all of the legal requirements, making sure we have the standard procedures to press those requirements, making sure that we are collecting the metrics and auditing."

Being able to interpret regulatory requirements (55%), along with written communications" (52%), oral communications (39%) and interpreting technical concepts into accessible language (36%) all top the list of key technical skills, according to the survey data (Figure 22). These generally rise to the top for EHS&S professionals at all career stages, which one interview participant explained as follows: "As I view the Environmental Health and Safety perspective [I] ask myself: how would I communicate these issues to those other functions, and where do I know the EHS value in terms of what it can provide to those other functions?"

Business Knowledge Areas and Skills

Survey respondents also identified communications (72%) as the top area of business knowledge.

Top Business Knowledge Areas and Skills: 16-20 Years Figure 24

| Business Knowledge | Percentage |
|-----------------------|------------|
| Communications | 72% |
| Business operations | 61% |
| Training | 52% |
| Budgeting | 39% |
| Stakeholder relations | 30% |
| Finance | 8% |
| Marketing | 5% |

| Business Skill | Percentage |
|--------------------|------------|
| Decision making | 55% |
| Program management | 52% |
| Change management | 41% |
| Project management | 34% |
| Strategic planning | 34% |
| Policy development | 30% |
| Political savvy | 20% |

N = 61 N = 64



Profile: 16-20 Years •

According to one advancing leader, his knowledge of the technical aspects of EHS&S management is only as useful as his ability to relate it to broader business issues and communicate it effectively to internal stakeholders. "The challenge now is: How do I really take the technical expertise that has always come so naturally to me and put that in the backseat of my tool belt and really start looking more at what I've learned about the company? And how do I describe environmental issues with more of a business model mindset, working across functions?"

Another interview participant summed it up simply: "Communication is the biggest part of everything. If you don't communicate well, mistakes are made," he said.

Interpersonal Skills

Perhaps the outgrowth of strong communication skills is the ability to influence across silos, which 72% of survey respondents at this career stage identified as the most important interpersonal skill.

Top Interpersonal Skills: 16-20 Years Figure 25

| Interpersonal Skill | Percentage |
|----------------------------|------------|
| Influencing across silos | 72% |
| Managing without authority | 47% |
| Motivating others | 42% |
| Influencing upwards | 41% |
| Team-building | 34% |
| Managing unpredictability | 33% |
| Conflict management | 17% |
| Managing others | 17% |
| Negotiation | 5% |

N = 64

One interviewee explained the relationship between these two skills in the following way: "You have to learn to deal with people," he said. "There are members in management who you treat one way, there are people on the shop floor who you treat another way. There are your friends who you treat another way. Some people you have to be just formal and straight out with, and other people you can be a little bit more casual and well, sometimes I would say, rough with."

Profile: 16-20 Years

Team-building is also much more important to those at the advancing leader level (34%), compared with 26% among those with 11-15 years of experience, and even compared with those with 21 years of experience or more (29%).

Team-Building Skills Important by Years of Experience Figure 26

| Years' Experience | Percentage | N= |
|-------------------|------------|-----|
| 21+ Years | 29% | 287 |
| 16-20 Years | 34% | 64 |
| 11-15 Years | 26% | 57 |
| 6-10 Years | 24% | 45 |
| 0-5 Years | 27% | 30 |

Coupled with motivating others (42%), the importance of this skill at this stage likely reflects the role of those with 16-20 years of experience as leaders of their teams and influencers across the business.

Getting to the Next Career Stage

Given the seniority and well-rounded skill sets of those at the Director level, the future may bring fewer dramatic changes in how they do their jobs than early career stages did. That said, the data suggest that the importance of a long-term strategic perspective will continue to grow for those who progress along a management track.

Whether the EHS&S professional is on the managerial or technical track, the successful advancing leader will have developed the right balance of subject matter expertise and communication skills. Those with leadership attributes may be given greater opportunities at the Director level or be promoted further into Vice President roles. At that point, they may be tasked with staffing and structuring EHS&S organizations, serving as the public face of the company's EHS&S program or creating a succession plan for the function.

From the perspective of one interview participant at the advancing leader level, future career growth would mean leveraging the perspective he has earned through a succession of EHS&S roles, certifications and advanced degrees to shape board-level discussions about the role of environmental issues in the company's long-term business strategy: "I also see sustainability becoming more of an economic issue," he said. "I see potentially it's a transformation of economics around environmental issues, so I don't know in the next several years if it could be either a more senior EHS or sustainability role or potentially it could be taking what I've learned in this role and taking up to work in business economics or some other corporate functions where sustainability and environmental health and safety are playing an increasing role in terms of business planning going forward."

Profile: 16-20 Years -

The following table summarizes the responsibilities and competencies that are more important to professionals at this level than to others at other stages of their careers.

Important Competencies during 16-20 Years

Figure 27

Responsibilities

- · Air pollution
- · External marketing communications
- · Energy and carbon data management
- · Corporate annual reports

Knowledge

Technical

- Fire protection
- Air
- · Environmental science
- Wastewater
- · Waste management

Business

Budgeting

Skills

Technical

Training

Business

- · Vendor management
- · Policy development

Interpersonal

- · Managing unpredictability
- Influencing across silos

Attributes

- Trustworthy
- Committed
- · Approachable

Behaviors

- · Multi-tasking
- · Long-term thinker

Profile: 16-20 Years

As EHS&S professionals advance, new skills will gain importance. To help provide guidance to those who are seeking advancement, the following chart summarizes the responsibilities and competencies that will be important at the next stage.

Important Competencies for Progressing to 21+ Years

Figure 28

Responsibilities

- · Incident and safety management
- · Health and safety training
- Ergonomics
- Risk assessment from climate change and natural resource scarcity
- · Lab standard compliance
- · Industrial hygiene
- Travel reduction
- · Vehicle emissions reduction

Knowledge

Technical

· Environment, health and safety risks

Business

- Communications
- · Business operations

Skills

Technical

- · Risk assessment
- · Innovation development
- · Oral communications

Business

- · Strategic planning
- · Decision making
- · Change management

Interpersonal

- Negotiation
- · Influencing upward
- · Conflict management
- · Managing others

Attributes

- Ethical
- Accountable
- · Objective
- Respectful
- · Sense of humor

Behaviors

- · Customer service-oriented
- · Business acumen
- · Attention to detail
- · Deals well with ambiguity
- · Action-oriented



Supplemental Information

The full survey included questions on respondents' education, professional background, salary and the behaviors and attributes that are critical to success in their role. Below are supplementary figures for professionals with 16-20 years of experience.

Bachelor's Degrees: 16-20 Years

Figure 29

| Degree | Percentage |
|---------------------------|------------|
| Environmental Science | 24% |
| Biology | 11% |
| Chemical Engineering | 11% |
| Environmental Engineering | 8% |
| Business | 6% |
| Mechanical Engineering | 6% |
| Industrial Engineering | 5% |
| Biochemistry | 3% |
| Geology | 3% |
| Other | 17% |

N = 63

Master's Degrees: 16-20 Years

Figure 30

| Degree | Percentage |
|-------------------------|------------|
| Environmental Science | 13% |
| Industrial Hygiene | 10% |
| Public Health | 10% |
| Business Administration | 8% |
| Engineering | 6% |
| Industrial Safety | 3% |
| Other | 16% |

N = 63

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