2016 AUGUST

EHS & Sustainability Career Profiles and Skills for Success

6-10 Years: Advancing Managers

Increasing Responsibility and Specialization

In collaboration with AIHA® *Protecting Worker Health*

National Association for Environmental Management

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.

Sincerely,

Carol Singer Neuvelt
Executive Director
NAEM

Contents

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.

List of Figures

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

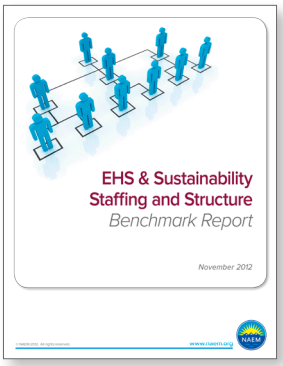
This report will help you broaden your thinking beyond what is happening in your own organization by allowing you to benchmark your own or your team's skills and responsibilities against those of other professionals in the field. Specifically, you can use this report to:

- 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

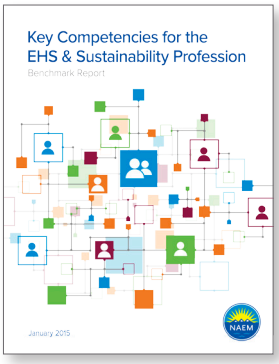
How to Use this Report

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.



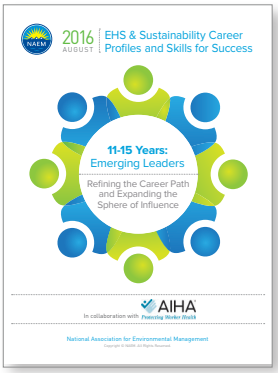
EHS & Sustainability Staffing and Structure is the most in-depth benchmark of the EHS&S function. It is the only benchmark that looks at EHS&S staffing and structure based on industry sector, level of risk and corporate revenue. The report includes the roles and responsibilities of the EHS and sustainability 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 6-10 years is your current career stage, consider buying the 11-15 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

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.

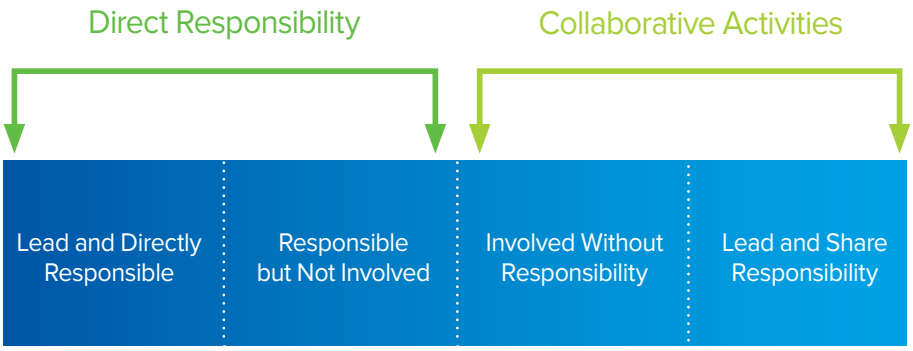
In total, NAEM conducted 15 one-on-one interviews. The participants came from a variety of industries, backgrounds and job titles, with three interviews conducted for each profile segment, based on their years of professional experience.

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




Demographics

Demographics

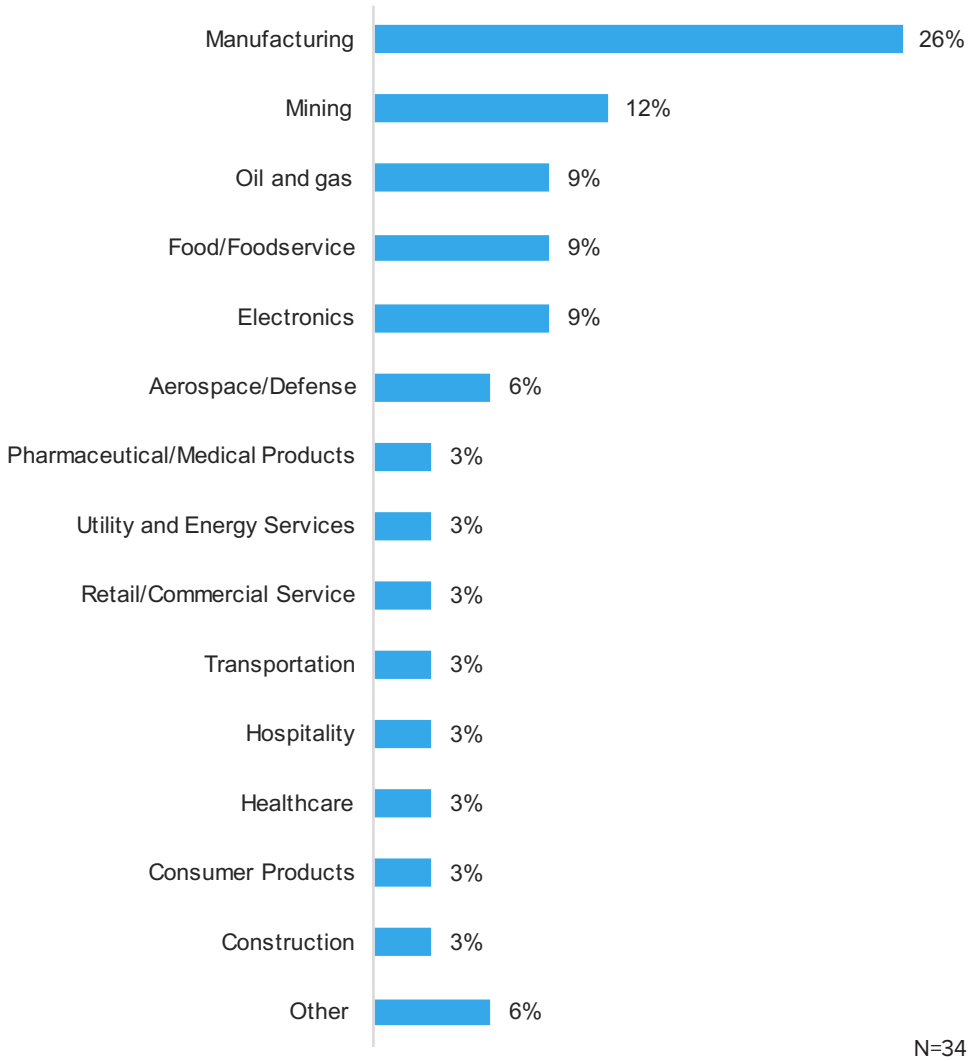
Please note that the company demographics charts have been edited to count each company only once. The individual demographics, account for the full respondent pool for this segment. The following section provides an overview of those survey respondents with 6-10 years of experience. Although the full survey had 498 responses overall, this section reflects the demographics for the 46 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. The base size for the following charts, therefore, were edited to count each company only once.

Industry
Figure 2



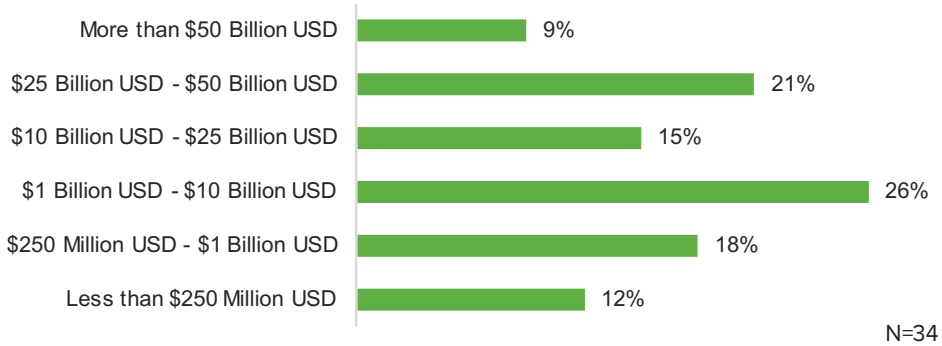
N=34

Demographics

Respondents work for Companies of all Sizes

The annual revenues for the responding companies cover a broad range, from less than $250 million (12%) to more than $50 billion (9%).

Annual Revenue
Figure 3

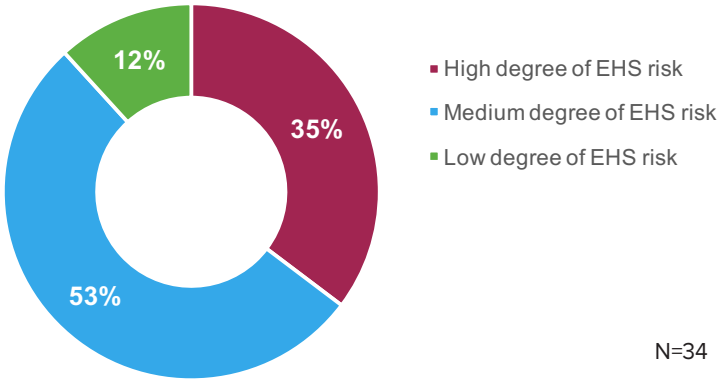


N=34

Half of Respondents Work for Companies with Medium-Risk Operations

When asked to self-assess the level of EHS risk at their companies, more than half of respondents characterized their operations as 'medium risk' (53%). An additional third have operations that fall into the 'high risk' category (35%).

Company Risk
Figure 4

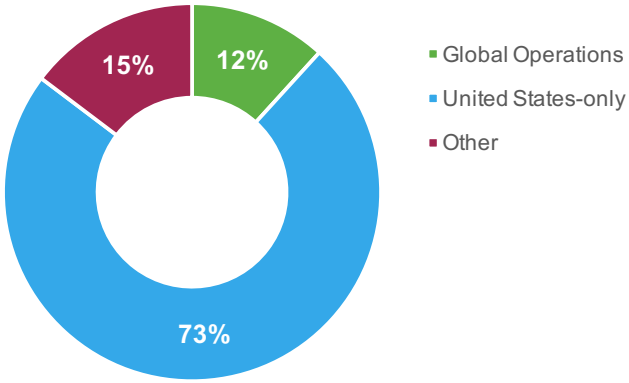


N=34

Respondents in this Segment Mainly Work for Companies with U.S. Presence

Among the full respondent pool, most worked for companies with global operations. Those in this segment, however, primarily work for U.S.-based companies (73%).

Company Operations
Figure 5



N=34

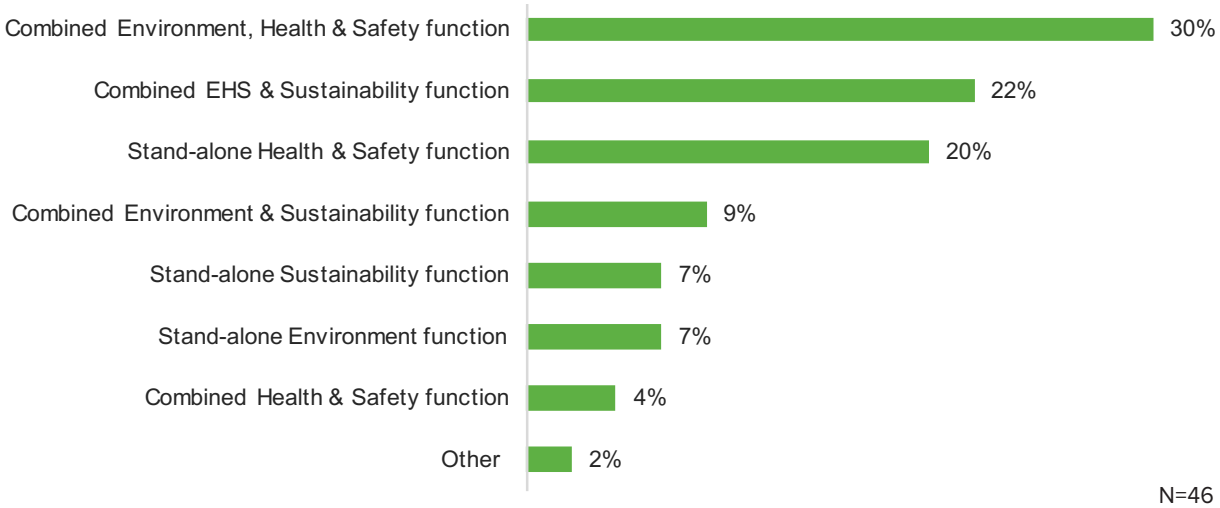
Demographics

Respondent Demographics

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

Consistent with NAEM's 2012 benchmark on EHS & Sustainability staffing and structure, most respondents from all career stages work within a function that combines environment, health and safety (48%). Among all survey respondents accordingly, 36% work within a combined EHS function and an additional 19% work within a function that combines EHS and sustainability.

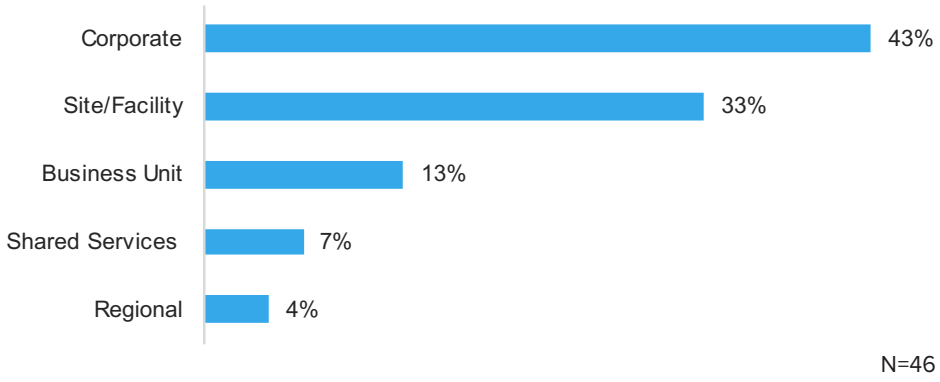
Repondent Function
Figure 6



Respondents Work at all Levels of the Company

Respondents at this level mainly work at the corporate EHS & S function (43%) or the site/facility level (33%).

Where Repondent Sits
Figure 7

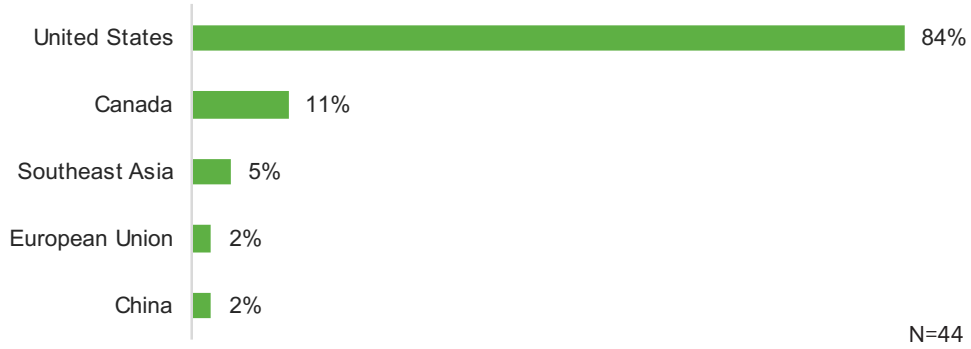


Demographics

Respondents are Primarily U.S. based

The respondents in this segment are primarily based in North America (84%).

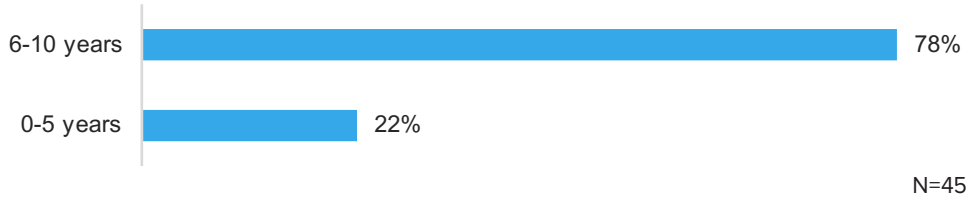
Repondent Geographic Location
Figure 8



Among those with 6-10 years of Professional Experience, the Majority of Respondents Have Exclusively Worked within EHS&S

Given their short overall tenure in EHS&S, it's perhaps not surprising that the majority of those who fall within this segment have gained their experience in EHS&S (78%).

Years in an EHS&S Role
Figure 9

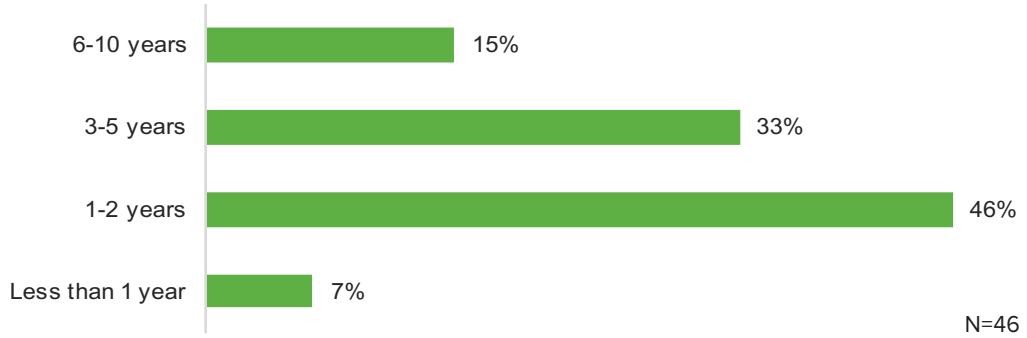


Demographics

Most Respondents in this Segment are Relatively New to their Roles

About half (46%) of those with 6-10 years of work experience have been in their current role for between one and two years. An additional third have three to five years of tenure.

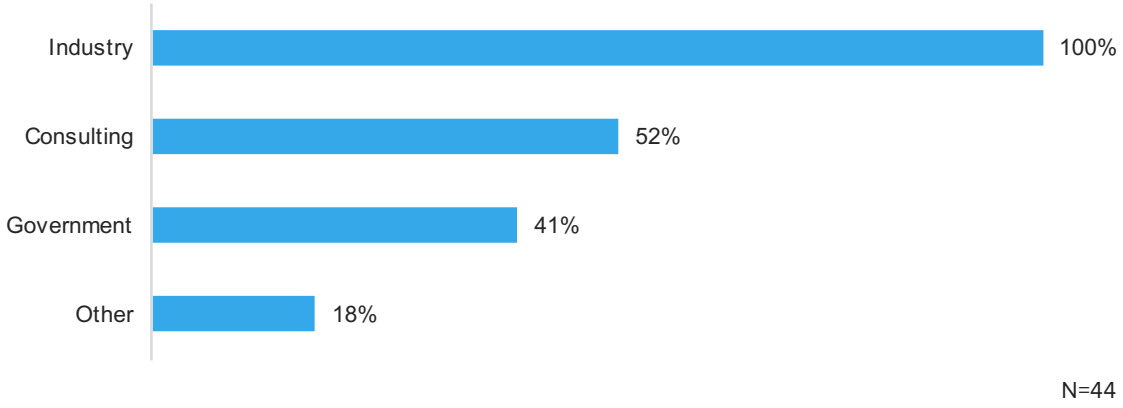
Years in Current Job
Figure 10

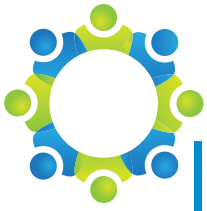


Respondents are Bringing a Variety of Experiences to their In-house Roles

EHS&S professionals often begin their careers in other areas of the field. Within this segment of the respondents, more than half had experience in consulting (52%), while an additional 41 percent had worked within government..

Sector Experience
Figure 11





Introduction

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.

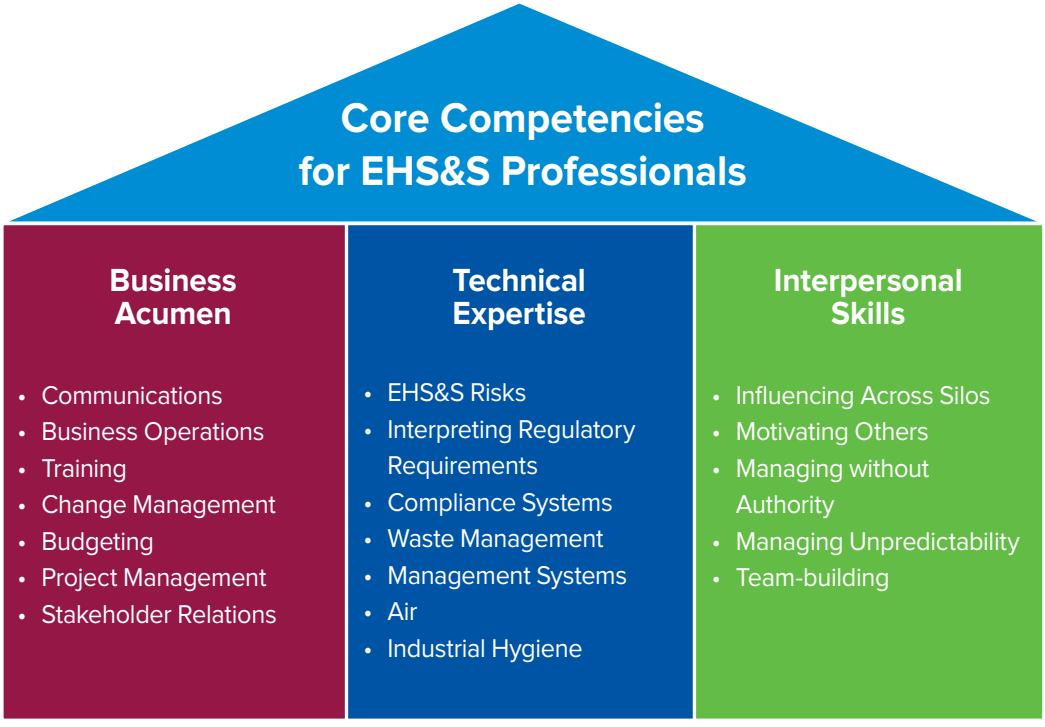
21+ Years: Experienced Decision Makers: Business Strategy and Legacy
At this stage, EHS leaders start to shift their focus to broad questions of business strategy and risk management from an EHS perspective. Those who have achieved these positions of leadership are likely also thinking about organizational 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

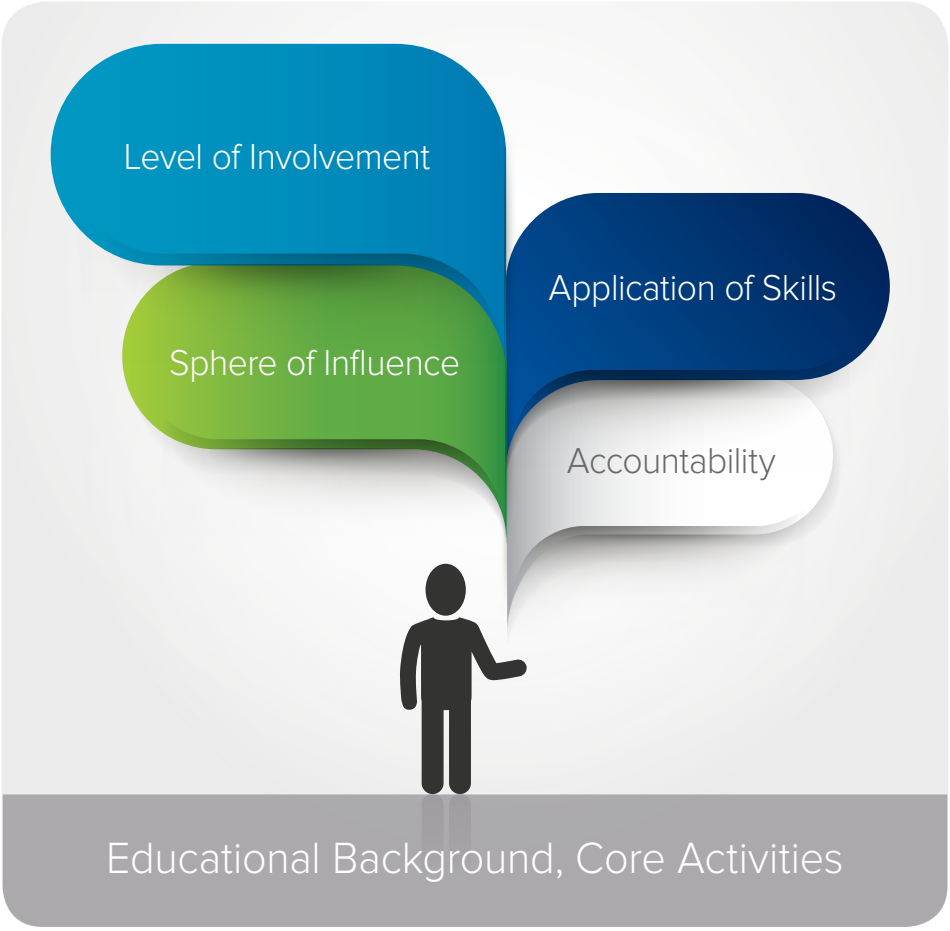


Introduction

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."

Career Stage Profile

6-10 Years: Advancing Managers

Increasing Responsibility and Specialization

Profile: 6-10 Years

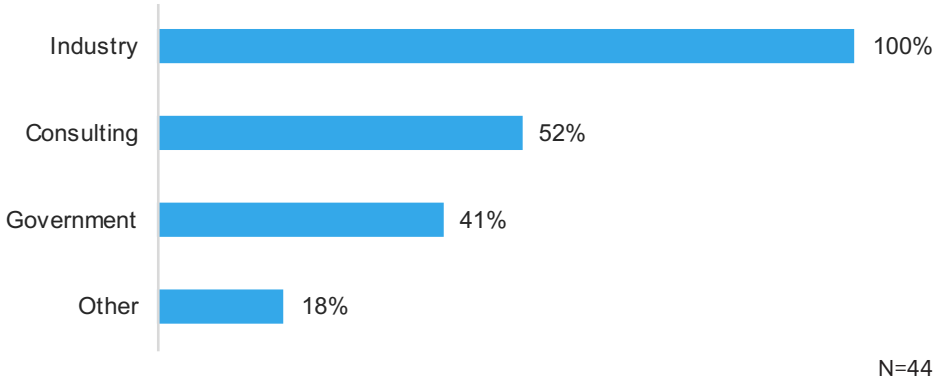
After EHS&S professionals spend their first five years applying their technical education and exploring the profession, they start to mature in a number of ways. The 6-10 year stage is the transition point between having technical skills and applying those skills toward the development of a strategy. This is also the stage at which they are being evaluated for their leadership potential. Those destined for that path start to develop the softer skills they will need to get promoted along the management track. Those who prefer to focus on technical issues, on the other hand, may thwart these opportunities and unwittingly find themselves passed over for promotion. During this period, there's also an increased presence of specialized training, certifications and graduate degrees. In this profile, we'll look at the new skills that professionals at the 6-10 year mark need to have, how their roles are changing, their emerging skill sets and how their career prospects are shaping up.

Path to Their Current Role

Those who have developed their career within a corporate role may have spent their first five years in some combination of a manufacturing location, learning the foundational components of compliance, safety training and process improvement, and supporting facility-level EHS&S programs from a corporate level. Others may have completed a corporate training program targeting high-potential early-career managers. One participant, for example, completed a year-and-a-half-long leadership and technical development program. During the first six months, he worked in the corporate headquarters learning about different processes, before spending a full year working in facilities supporting the EHS&S staff by doing project work and learning about the business operations.

Sector Experience: 6-10 Years

Figure 14



Another advancing manager, who was selected to participate in an EHS&S leadership rotational program, spent six months working on air emissions at a facility, followed by six months at the corporate level managing the environmental management system audit program. The program concluded with a six-month rotation at a business unit working on health and safety programs.

This opportunity was not afforded to all entry-level EHS&S employees at the respondent's company, however. She was re-cruited into the newly developed program after emailing an internal EHS connection to let him know she had recently joined the company. Demonstrating this initiative may have alerted her supervisors that she had some of the interpersonal savvy that would make her well-suited to a leadership development program.

Profile: 6-10 Years

For those who started their career in consulting, the 6-10 year mark seems to be another key transition point for entering the corporate world; according to the data about half of advancing managers have spent some time in consulting (52%). Since consulting firms emphasize technical expertise, the prevalence of consulting experience likely also accounts for why so many professionals at this stage hold a certification. Among the survey respondents, 41 percent have also transitioned from a government role by this stage of their career.

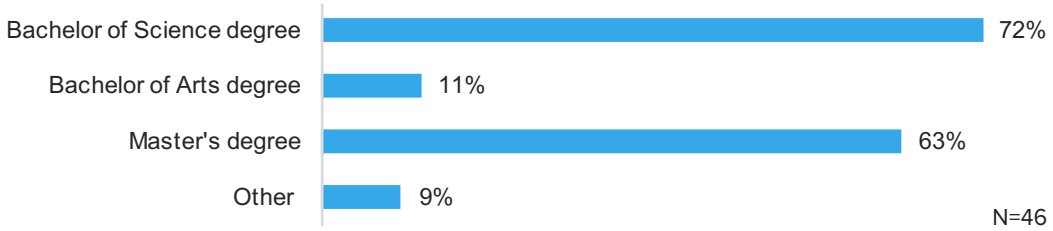
Because the 6-10 year stage is when EHS&S professionals start to decide whether to pursue a management track or a technical one, those who seek advancement may be strategically pursuing certifications, additional education or, in some cases, new jobs to position themselves along the desired path. In the case of one advancing manager, this meant leaving one company to pursue a parallel position on a management track at another.

Honing the Focus through Advanced Education

As EHS&S professionals advance from the 0-5 to 6-10 year stage, there's a marked increase in the percentage with a master's degree. In fact, according to the survey data, these advancing managers are twice as likely (63%) to hold a master's degree than those in the first five years of their career (30%).

Education: 6-10 Years

Figure 15



During a stage when expertise and management skills become more important, the main areas of concentration for those with graduate degrees are in science or engineering areas, most commonly: environmental science (15%), sustainability (11%), occupational health (11%), environmental management (11%), industrial hygiene (9%) and business administration (9%).

Master's Degrees: 6-10 Years

Figure 16

Degree	Percentage
Environmental Science	15%
Environmental Management	11%
Occupational Health	11%
Sustainability	11%
Industrial Hygiene	9%
Business Administration	9%
Public Health	7%
Biology	4%
Industrial Safety	4%
EHS Management	4%
Other	22%

N = 46

Profile: 6-10 Years

It is worth noting that among all respondents who hold a master's degree, the incidence of degrees in sustainability is the highest among those at this level, perhaps because formal academic programs themselves are relatively new. Those holding a master's of business administration also appear here for the first time before dropping off and becoming more prevalent again among those with 16 years of experience or more.

The largest category of master's degrees held by this group, however, falls under "other" (22%), which spans a variety of technically oriented topics, namely: geology, safety sciences, ecology and engineering.

While it's more common for EHS&S professionals to pursue their graduate degree while working full time, completing a graduate degree with an EHS or sustainability focus before starting an EHS&S career may have strong value for accelerating the learning curve for an early-career manager, as described by one interviewee. "One of the benefits for me coming out of the graduate program was that I had studied and gone through pretty much every regulation for EPA and OSHA… That set me apart from some of the other people that were coming… right out of either undergrad or another graduate program," he said.

His program also directly exposed him to sustainability case studies, benchmarking and actual projects that companies had implemented. "I was able to come right in with that background and knowledge and apply what I have learned in academia into industry," he said.

Certifications are More Common, Valuable

The importance of certifications also seems more pronounced at this stage, according to the survey results. Sixty percent of advancing managers have a certification, most commonly: Six Sigma Green Belt, Certified Safety Professional, Certified Industrial Hygienist, Certified Hazardous Materials Manager and Environmental Management System Lead Auditor. The marked increase is likely due to the fact that, similar to a master's program, these certifications require several years to achieve and that many certifications require a minimum of five years of experience before they can be awarded. In addition, companies often encourage or require employees to get a Green Belt certification, while other certifications are voluntary.

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."

The value of these certifications to those at this career stage also likely relates directly to their changing role, which may require them to demonstrate advanced knowledge of the technical aspects of the programs they are managing.

"For me, it was really a way of saying, here's what I'm capable of, here is where my knowledge stands… without having 15 years of experience under my belt," one interview participant said. Similarly, the pursuit of a certification is also most valuable when it is a strategic tool within an EHS&S professional's career development strategy. "If it's something you can leverage, then go after it. But if you're just going to get it for the sake of getting it and you have no idea how you're going to leverage it, I don't know if I would recommend it," one participant said.

"I definitely see it...in order to establish credibility and in order to be seen as a leader on the team," one interviewee said. "You need to be able to talk the talk or you need to be able to be involved in the business beyond your function…I just think that if you're in a business setting, like a Fortune 500 company—I'm not talking about a consulting business, but in a large Fortune 500 company—you need to learn how to round yourself out with other things that you bring to the table, like Six Sigma."

Profile: 6-10 Years

Still, it is how these advancing managers apply their growing expertise that may hold the real value. “I am a Certified Safety Professional and I have certifications in shipping and training and things like that, but the verifications just validate that you know something,” one interview participant said. “It’s the application of those skills and the style in which you apply them [that matters more].”

Articulating a More Specialized Career Path

While the job titles of those at the advancing manager level still reflect a number of specialists, engineers and professionals (Figure 17), the number of respondents with “manager” in their title starts to increase at this stage.

For many at this stage, this increased focus reflects a growing awareness of core strengths and career interests. One interview participant described the transition point this way: “Our company kind of looks at it two ways: Either you’re a manager or an individual contributor. Because I have direct reports, I am in the management track. I do have technical expertise but…based off my track record with my performance reviews and my personal interests for growth—because you get more growth managing other people—when we discussed head count opportunities, I was approached to see if I wanted to manage members of the new team coming in.”

In the case of an interviewee with a strong preference for technical challenges, on the other hand, the opportunity to transition roles held little appeal. “I’ve been offered managerial roles a couple of times but I’ve been nervous about taking [them]. I’m personally more comfortable in technical roles,” he said.

Maintaining a focus on technical areas, though, likely limited his long-term prospects for advancement, he admitted. “There are a number of people I interface with quite regularly that are really strong technical people, but there are not many positions that are purely technical [as you progress].”

Another interview participant decided to leave the company after realizing that the direction of personal career prospects had been determined by others. “In between years five and ten, they make a decision about you,” the interviewee said. “It’s whether you are suited to go on management track or the technical track, and I was weighted for the technical track. You get limited career opportunities there. In the EHS&S arena, there is only so far you can go, and I did not want to stay technical my entire life.”

Profile: 6-10 Years

Increased Management Responsibilities

The broader context of what is taking place in the careers of advancing managers sheds light on their role within their organizations, which is increasingly strategic for those on a management track. In comparing their responsibilities to those with 0-5 years of experience, advancing managers are more focused on information management and key performance indicators (57%) than their counterparts who are earlier in their careers (Figure 18).

Respondent Leads and Shares Responsibility or is Directly Responsible: 6-10 Years

Figure 18

Responsibility	Percentage
Information management	57%
Identifying key performance indicators for EHS	57%
EHS management information systems	54%
Reporting to meet internal and external requirements	54%
Health and safety compliance	54%
Industrial hygiene	54%
Health and safety training	52%
Internal health and safety communications	52%
Setting EHS goals	52%
Auditing	50%

N = 46

These responsibilities may include managing compliance for air quality, water quality, and hazardous waste, as well as for the company's environmental management system. Compared with those just starting out, EHS&S professionals at the 6-10 year level are more likely to be directly responsible for managing the activities they might have once participated in. The emphasis on information management might reflect activities such as responsibility for tracking the shipment of dangerous goods or reducing the impacts of the company's activities in core areas of sustainability. One interviewee described his role the following way: "For our drinking water operations, I have an employee that would go out and take drinking water samples, submit those to the lab. Then I get all the documentation from the lab, create a report and submit that to the state, making sure that we are meeting our regulatory obligations for drinking water."

Profile: 6-10 Years

For some advancing managers, the scope of their role may have expanded, as described by one participant with an international reach. "I do a decent amount of traveling at this point," he said, "reaching out to facilities and putting an intentional emphasis on ensuring that they're compliant with all of the environmental and occupational regulations."

Another core responsibility at this level is health and safety training (52%), which likely relates to internal health and safety communications (52%). One advancing manager described this aspect of her role as follows: "I deal a lot with strategic thinking and communication training…Half of my time is really focused on strategic planning and programs that align to that plan…What are the different elements that will get us to the strategy underneath the program itself? Communications training, how do we integrate it to policies, procedures, etc.?"

Knowledge Areas and Skills

As their roles become more strategic and they acquire more management responsibilities, EHS&S professionals make an important transition from having technical skills and applying those skills to developing a strategy.

Technical Knowledge Areas and Skills

At the 6-10 year point, the importance of understanding environment, health and safety risks increases to 70 percent (Figure 44) versus 55 percent among those with 0-5 years of experience. This will remain constant until the 16-20 year mark, when the importance of this knowledge decreases.

Top Technical Knowledge Areas and Skills: 6-10 Years

Figure 19

Technical Knowledge	Percentage
Environment, health and safety risks	70%
Industrial hygiene	41%
Management systems	35%
Regulatory compliance systems	35%
Ergonomics	26%
Information management	22%
ESG reporting protocols	20%
Behavioral safety	15%
Process safety management	15%
Waste management	15%

N = 46

Technical Skill	Percentage
Interpreting regulatory requirements	53%
Risk assessment	53%
Written communications	49%
Oral communications	42%
Auditing	31%
Interpreting technical concepts into accessible language	31%
Training	27%
Quantitative analysis	24%
Process safety management	16%
Innovation development	13%

N = 45

Profile: 6-10 Years

As noted above, knowledge of management systems and information management are also notably more important compared to those with 0-5 years of experience, likely due to the centrality of these responsibilities to the role of professionals at this stage.

Knowledge of industrial hygiene is also more important for these professions, increasing from 31 percent for those with 0-5 years of experience to 41 percent for advancing managers. "If someone was going to replace me," one interviewee said, "it would be very difficult for them to do it without a lot of technical knowledge on environmental regulations and industrial hygiene."

At the same time, certain knowledge areas start to diminish in importance compared with entry-level professionals. These include: knowledge of chemistry (28% vs. 13%), engineering concepts (24% vs. 9%) and environmental science (21% vs. 9%).

Comparison of Technical Knowledge Areas and Skills at 0-5 Years and 6-10 Years

Figure 20

Technical Knowledge	0-5 Years	6-10 Years
Environment, health and safety risks	55%	70%
Industrial hygiene	31%	41%
Management systems	17%	35%
Regulatory compliance systems	52%	35%
Ergonomics	21%	26%
Information management	14%	22%
ESG reporting protocols	3%	20%
Behavioral safety	24%	15%
Process safety management	21%	15%
Waste management	24%	15%
Chemistry	28%	13%
Climate change	3%	13%
Air	21%	11%
Engineering concepts	24%	9%
Environmental science	21%	9%
Wastewater	17%	9%
	N = 29	N = 46

Technical Skill	0-5 Years	6-10 Years
Interpreting regulatory requirements	59%	53%
Risk assessment	38%	53%
Written communications	38%	49%
Oral communications	34%	42%
Auditing	38%	31%
Interpreting technical concepts into accessible language	24%	31%
Training	41%	27%
Quantitative analysis	34%	24%
Process safety management	21%	16%
Innovation development	21%	13%
	N = 29	N = 45

According to the interviews, though, this technical knowledge is not unimportant; rather, it is the context for how an EHS professional makes decisions by the 6-10 year point. One interview participant explained the way he uses his technical knowledge this way: "I think it's critically important to have a technical background in what I do, because we are dealing with so many chemicals and chemical analysis lab reports that you need to understand what that lab report means. I need to understand the impacts of some of those chemicals… you've got to have the technical grounding to understand what type of issue we really have. Is it a chemical that we have? You've got a spill, a potential release to the environment? Is it something that is going to be highly mobile in soil or is it something that is going to have an affinity for the soil? It's bound up, so you're not going to have much of a spill clean-up because that material is confined to one location."

Profile: 6-10 Years

Another interview participant echoed this idea in describing how her technical foundation serves as the backbone to the programs she manages: "Most days you're just kind of figuring out interesting ways to communicate technical knowledge but then if something happens and that OSHA inspector or MLM inspector shows up at the door…then you need to have it. And if your job interacts and interfaces where there could be a regulatory agency at your door, that's when it comes into play."

Business Knowledge Areas and Skills

While the application of technical skills remains vital to the competency of advancing managers, a greater understanding of business operations is increasingly required for professionals at this stage. "I don't do much technical stuff. I know it and I'll brush off a book, but the technical part is not what continues to sustain you," one interview participant said.

Another interview participant echoed this idea, adding that it is the transition from technician to business leader that holds the key to advancement. "If you just have the technical expertise but you can't communicate that expertise in a meaningful way, it won't get you far," the interviewee said. "You'll just be a really great technical expert, but you have to have the skill set to move from just technical expert into management or executive management."

The research suggests that this holds true among those with a management trajectory, as well as among those with a stronger technical orientation. "If I had to pick one thing that I do better than a lot of other purely technical people that I interact with," said one participant with a technical focus, "it's that I find better ways of translating technical gobbledy-gook into actual language."

The survey results bear this out as well, reflecting that communications (82%) is the most important business knowledge area, according to professionals at this stage. "Communication skills are critical in the role that we play," one interview participant said. "We do a lot of training, and we've got to be able to effectively train our employees to understand what the environmental health and safety risks are."

Top Business Knowledge Areas and Skills: 6-10 Years

Figure 21

Business Knowledge	Percentage
Communications	82%
Business operations	67%
Training	62%
Budgeting	33%
Stakeholder relations	29%
Finance	13%
Marketing	11%

N = 45

Business Skill	Percentage
Program management	64%
Decision making	55%
Project management	50%
Change management	43%
Strategic planning	36%
Timeline management	18%
Policy development	16%

N = 44

Profile: 6-10 Years

Knowledge of stakeholder relations also increases from 17 percent among those with 0-5 years of experience to 29 percent among those with 6-10 years of experience. The growing importance of this knowledge reinforces the portrait of advancing managers who are sharing their knowledge with a broader audience.

Comparison of Top Business Knowledge Areas and Skills at 0-5 Years and 6-10 Years
Figure 22

Business Knowledge	0-5 Years	6-10 Years
Communications	83%	82%
Business operations	70%	67%
Training	83%	62%
Budgeting	37%	33%
Stakeholder relations	17%	29%
Finance	7%	13%
Marketing	10%	11%
	N = 30	N = 45

Business Skill	0-5 Years	6-10 Years
Program management	53%	64%
Decision-making	67%	55%
Project management	50%	50%
Change management	53%	43%
Strategic planning	17%	36%
Timeline management	30%	18%
Policy development	33%	16%
	N = 30	N = 44

On the skills side, program management (64%) and strategic planning (36%) rank highly among advancing managers. Consistent with growing management responsibilities, these skills are more important than they are among entry-level managers with 0-5 years of experience.

While the survey did not specifically ask respondents about problem-solving skills, it did come up in the interviews. One participant described problem solving as a key aspect of decision making. Among survey respondents, 55 percent identified this as a core business skill.

"We get presented with a lot of different issues," he said. "At the same time, we are a business. We are here to produce that widget, whatever it is, and so being able to identify solutions to an issue, I think, is very important. It's my goal to never go back to one of my peers or customers within the organization and tell them, 'No, we can't do this.' I think it's important for EHS&S professionals to go back and say, 'You've come to me with a problem, and here are our options.'"

Interpersonal Skills

Given the greater need to collaborate with other business functions, it is perhaps not surprising that influencing skills rise to the top of the list of important interpersonal skills for professionals at this career stage (Figure 48, 53%).

For advancing managers, this may mean collaborating across silos with facilities managers, members of the engineering group and maintenance leaders. Relationship building is a key skill for career effectiveness, as one interviewee described: "You've got to build relationships with the peers in operations and engineering in order to be successful, because if you don't build those relationships, every time you come around as an EHS professional, they always ask you, 'What did I do wrong?'"

Profile: 6-10 Years

Influencing is also a way for EHS&S professionals to accomplish their goals without direct reports or dedicated EHS&S support. "With our resources to execute what we need to execute, the ability to influence others basically is everything," one interview participant said. "If you can influence somebody that's not directly related to you—doesn't have a title or doesn't report up to you—to spend two hours of their time to complete something for you…it's impossible to do it [the job] without being able to get somebody else to work with you or to do it for you."

Top Interpersonal Skills: 6-10 Years
Figure 23

Interpersonal Skill	Percentage
Influencing across silos	53%
Influencing upward	51%
Managing without authority	51%
Motivating others	51%
Conflict management	33%
Managing unpredictability	27%
Managing others	24%
Team-building	24%
Negotiation	18%

N = 45

Influencing upward is similarly a core aspect for advancing managers (51%) that relies on relationship building and communication skills, as one interviewee explained: "Not only are we communicating to hourly staff technicians, but then we also have to communicate upwards to our leadership and make sure we can give them clear, concise information as to what is the issue that we have. Why are we coming to leadership, and then what is the solution that we believe or what are we recommending that we need to do to stay within our regulatory boundaries or improve our environmental performance?"

Managing without authority (51%) also starts to become an important "soft" skill for advancing managers to do their jobs. One interviewee explained: "I'm leading without a lot of authority, so I've got to get the buy-in from operations folks and the research folks who are off designing products. They are the ones that are truly making the environmental impact," he said. "I've got to get buy-in from them to say, 'This is the goal, this is the metric, this is the regulatory requirement.'"

Getting to the Next Career Stage

As advancing managers look to the future, the importance of those softer skills will only continue to grow, alongside new responsibilities in external sustainability reporting, stakeholder engagement and sustainability strategy. For those with 6-10 years of experience, it's still too soon to say whether that path will remain focused on EHS&S, however. According to the interviews, advancing managers tend to be committed to lifelong learning and curious about new opportunities.

"There are absolutely other aspects within the business that I look to gain experience through," one interviewee said. "I am not saying that I will solely stay in EHS. If there's an opportunity that comes along that will further my growth and give me better understanding of the business so that I can make better business decisions with those environmental and social aspects in mind, I would absolutely take those opportunities."

Profile: 6-10 Years

Another interview participant echoed this idea, saying: "I still like the EHS profession and I can definitely stay in it for a while. There are a lot of opportunities for growth in it, but I wouldn't be opposed if there became an opportunity to do something else in the organization just to see if I like it."

While some of these decisions may be driven by intellectual curiosity, for others, career ambitions may collide with the potential limitations of remaining within an EHS&S-focused role. "This is my biggest dilemma," one interview participant said. "The only next step in our company right now is the director of the role. Even if I were to move vertically, every step limits you to other opportunities… My biggest fear is that I don't want to get pigeon-holed in one field. I still see [EHS] as my bread and butter, but I don't want it to be the only thing that's on the table, either."

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 6-10 Years

Figure 24

Responsibilities

- External sustainability reporting
- Philanthropy
- Stakeholder engagement
- Identifying key performance indicators for EHS
- Industrial hygiene
- Sustainability strategy
- Risk assessment from climate change and natural resource scarcity
- Setting sustainable goals

Knowledge

Technical
- Managing systems
- Toxicology
- Ergonomics
- ESG reporting protocols
- Industrial hygiene

Business
- Business operations
- Finance

Skills

Technical
- Quantitative analysis
- Risk Assessment

Business
- Program management
- Project management

Interpersonal
- Influencing growth

Attributes

- Approachable
- Accountable

Behaviors

- Attention to detail
- Positive attitude

Profile: 6-10 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 11-15 Years

Figure 25

Responsibilities

- Product compliance
- Regulatory tracking
- Environmental compliance
- Product stewardship
- Government affairs and lobbying
- Complaint procedures
- Data center energy efficiency
- Right-to-know
- Supply chain engagement

Knowledge

Technical
- Regulatory compliance systems
- Waste management
- Wastewater
- Behavioral safety

Business
- Budgeting

Skills

Technical
- Interpreting technical concepts into accessible language
- Training
- Innovative development

Business
- Policy development
- Vendor management
- Political savvy

Interpersonal
- Influencing across silos

Attributes

- Objective
- Sense of humor
- Trustworthy
- Compassionate

Behaviors

- Action-oriented
- Business acumen
- Delegates
- Deals well with ambiguity
- Compromises
- Systems thinker

Profile: 6-10 Years

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 6-10 years of experience.

Salary: 6-10 Years

Figure 26

25th Percentile	50th Percentile	75th Percentile	100th Percentile	Average
$70,125	$79,500	$95,625	$120,000	$80,734

N = 32

Bachelor's Degrees: 6-10 Years

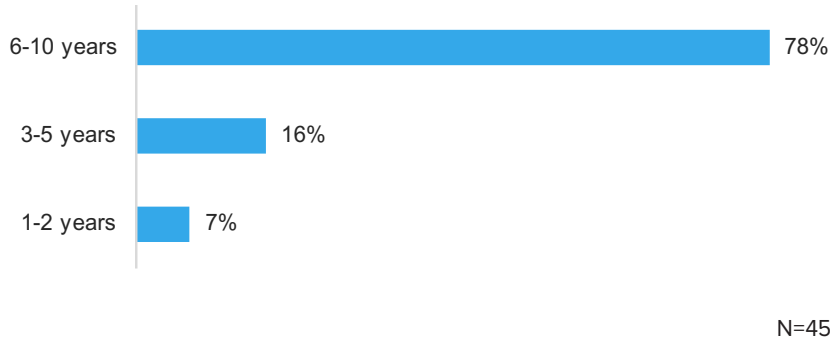
Figure 27

Degree	Percentage
Environmental Science	28%
Biology	24%
Business	11%
Environmental Engineering	7%
Aerospace Engineering	4%
Industrial Hygiene	4%
Other	39%

N = 46

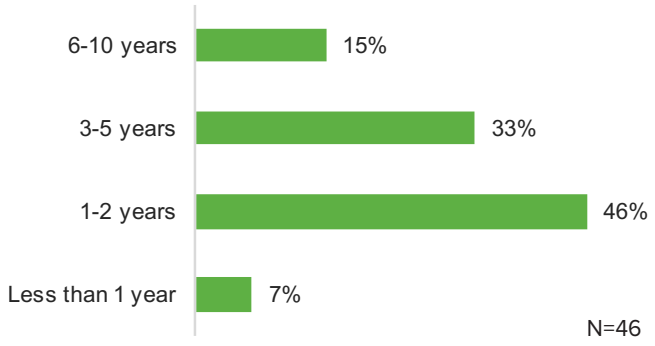
Years in an EHS&S Role: 6-10 Years

Figure 28



Years in Current Job: 6-10 Years

Figure 29



Profile: 6-10 Years

Top Certifications: 6-10 Years

Figure 30

Certification	Percentage
Six Sigma Green Belt	22%
CIH - Certified Industrial Hygienist	13%
CSP - Certified Safety Professional	13%
CHMM - Certified Hazardous Materials Manager	9%
EMS-LA – ISO 14001 Environmental Management Systems Lead Assessor	9%
LEED – Leadership in Energy and Environmental Design	7%
AEP - Associate Environmental Professional	2%
BCEE - Board Certified Environmental Engineer	2%
CEA - Certified Professional Environmental Auditor	2%
CESM - Certified Environmental Systems Manager	2%
CSM – Certified Stormwater Manager	2%
CSM - Certified Safety Manager	2%
RAB – Certified EMS Auditor	2%
Other	7%

N = 46

Most Critical Behaviors and Attributes for Being Effective in Current Role: 6-10 Years

Figure 31

Critical Behavior	Percentage
Attention to detail	53%
Positive attitude	44%
Considers stakeholder interests and concerns	38%
Multi-tasking	36%
Action-oriented	33%
Customer service-oriented	31%
Good listener	24%
Long-term thinker	20%
Systems thinker	20%

N = 45

Critical Attribute	Percentage
Approachable	56%
Accountable	53%
Collaborative	42%
Committed	36%
Ethical	31%
Flexible	31%
Respectful	27%
Creative	20%
Trustworthy	18%

N = 45

Acknowledgements

Acknowledgements

Publisher

The National Association for Environmental Management (NAEM)
1612 K St., NW Suite 1002
Washington, DC 20006
(202) 986-6616
www.naem.org

Advisory Committee

Mark Hause
SHE Manager
DuPont

Bruce Klafter
Vice-President, Corporate Social & Environmental Responsibility
Flex

Alan Leibowitz
Corporate Director, Environment, Safety, Health
Exelis Inc.

Ray Merrell
Environmental Compliance Manager
GAF

Michael Miller
Vice President of Environmental Health and Safety
Dean Foods

Kris Morico
Global Leader of Environmental Programs
General Electric Co.

Alex Pollock
Leader
Equipping You

Kelvin Roth
Director, Corporate Environmental Health & Safety
CF Industries

Additional Thanks to the Following Contributors:

Michael Joseph Bartosiak
POCO Graphite INC. and Entegris company

Kathryn Bauer
DuPont

Ron DiCola
Sanofi Pasteur

Rosemarie Franke
ATCO Electric Distribution

Jacob Felton
Caterpillar Inc.

Stuart Gock
Rockwell Automation

Dodie Gomer
Caterpillar Inc.

James Hannaford
Shell

Alan Herberger
Caterpillar Inc.

Drena Howard
The Estee Lauder Companies, Inc.

Andrew Jarrick
Caterpillar Inc.

Johanna Jobin
Biogen Idec

Scott Lawson
Exelis Inc.

Raymond Lizotte
Schneider Electric

Erik Petrovskis
Meijer, Inc.

Benjamin Puhl
G&K Services

Brad Stevenson
Caterpillar Inc.

Rick Taylor
Parker Hannifin Corp.

Jasper Titus
Kraft Foods

Acknowledgements

Distribution Partners

The American Industrial Hygiene Association

The Conference Board Chief EH&S Officers' Council

The World Environment Center

Analysts

Taylor Gelsinger
Research Analyst, NAEM

Elizabeth Ryan
Director of Communications, NAEM

Report Design

Ellie Diaz
Chaos Studios

Media Inquiries

For more information about this report or to request an interview with an NAEM analyst, please contact NAEM at (202) 986-6616.

www.naem.org