Session No. 569

Advancing Your Career in Safety

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Introduction

Where is my safety career going? What are my options? What am I doing to prepare myself for the next opportunity? Will I be able to compete? Do I have the necessary knowledge and skills? What makes a difference in pay? Do I have a plan or strategy?

A generation ago, most people graduating from college and entering a profession looked for a large company employer and relied on their employer to manage opportunities for advancement. More likely than not, the new employee stayed with the first employer until retirement.

That scenario is not very common today. With companies buying and selling other companies or business units, there are interruptions in careers. The global economy has changed how businesses work. Some have estimated that someone graduating from college today will change careers, not just employers, several times.

Most people in the safety profession enjoy their work. Multiple surveys of safety professionals identify a 90 to 95% job satisfaction level. However, the world of safety practice is changing and one must be prepared for change and be able to adapt to change.

In this session, we want to explore the issue of career progress, how to prepare for opportunities and how to manage change in practice.

What Are Your Goals?

In any profession, one must decide what direction to take. Part of the decision is based on what kind of work you are good at and what kind of work you like. Some prefer technical aspects of their profession. Some are good at projects and like planning, organizing and executing activities. Some prefer routine work and avoid change. Some like interaction and communication with others. Some like to analyze problems and issues and recommend solutions. Some like to teach. Some like to manage, direct and guide others.

Where do you want to go next? Where do you think the best opportunities for advancement and challenge lie for you? One of the first things you need to do is define short term goals and long term goals for yourself. You must consider whether you will have to travel and whether you may need to move or move frequently. Geographic location may be important. You must consider

your family and your life interests outside of work. You may need to consider your options, given that a spouse also wants to advance in a career.

Regardless, you must be prepared for change. Change may be within your control or be defined by others. Being prepared is essential.

What Makes a Difference?

In terms of pay, salary surveys for safety professionals provide some insight into factors affecting pay. For example, the BCSP salary survey in 2000 involved about 5000 respondents. Results identified the relative value of several characteristics based on the range of pay for a specific characteristic. These characteristics are not independent and often several work together to impact pay. Table 1 summarizes the results.

Table 1. Characteristics of Respondents and Pay Range

General Factor	Specific Factor	Range of Annual Pay
Leadership	Number supervised	$40,000
	Job title	$20,000
Certification	CSP only	$20,000
	Dual (with CIH, PE, etc.)	$32,000
Longevity	Years in safety profession	$25,000
	Years CSP held	$20,000
Education	Level of degree	$18,000
	Degree field	$7,000
Job Role	Safety/Health/Environment	$6,000

Based on these data, the characteristic having the greatest impact on pay is whether someone oversees the work of others, particularly professional peers. It involves leading others. There are limited opportunities in school or in a current position to develop leadership skills. A good place to learn such skills is through voluntary service in a professional society and with professional activities, community, church, or other organizations.

Certification in the safety field is important. On average, those holding a quality certification or a professional license earn considerably more than those who do not. With the ongoing convergence of safety, health and environmental practice, holding more than one professional credential can add even more pay on average.

Most of us recognize that experience is an important factor in defining pay. Regardless of how one measures longevity, pay is higher for those who have been in practice longer.

Education is an important determiner of pay. A generation ago, one of every ten people graduating from high school went on to college. Today, about one of every three high school graduates continues their education at the college level. A review of people holding leadership positions in virtually any field will show that an advanced degree is a common characteristic for such positions.

Another characteristic is whether one's job responsibility involves safety only or includes other areas of practice, such as industrial hygiene, environmental, fire protection, ergonomics, etc. The breadth of responsibility alone does not appear to have a large impact on pay.

Where Do Safety Professionals Work?

One would expect that information about what industry groups have the greatest number of safety professionals will identify the greatest opportunity for advancement. The assumption is that churn resulting from retirement and advancement will create the greatest number of job openings.

One might also consider the reverse. If I develop my knowledge of a specific industry and acquire skills for more advanced responsibility, I will be more competitive in an industry that hires fewer safety professionals. While there are fewer job openings, with high qualifications, I am in a position to meet position requirements.

Table 2 identifies where safety professionals work in general. Safety professionals work in a lot of different job settings. Many move from one industry to another. However, knowledge of a particular industry can be an advantage when competing for advancement.

Table 2. Where Safety and Health Professionals Work by Industry

		Percent		
Major Industry	Subgroup	ASSE	BCSP	AIHA
Insurance		12	22	4
Manufacturing and Production		17	19	31
Petrochemical		11	15	---
	Chemicals	6	3.8	
	Petroleum	5	2.9	
	Other		8.3	
Consulting		18	15	25
Government		7	9	6
	Federal		6.5	
	State & local		2.5	
Construction		2	5	4
Utilities and Communications		4	---	---
Educational services		---	3	8
Transportation		5	2	2
Service		8	---	12
Other Industries		26	9	34

If you anticipate becoming a consultant, you must also consider whether you are prepared to operate your own business. Do you have a business plan? What services do you intend to offer? Have you established business management practices and systems? Have you identified key resources for your business, such as computer and communication systems, accounting, legal and other kinds of support?

What is the Competition?

Are you prepared to compete for your next career position? It is important to understand the characteristics of your potential competitors.

Most job ads include minimum education and experience requirements. You will want to know whether you have the education to compete. Table 3 provides some data against which you can measure yourself.

Table 3. Educational Level of Safety and Health Professionals

	Percent		
Level	ASSE	BCSP	AIHA
Less than Bachelors	16	4.9	---
Bachelors degree	53	50	31
Masters degree	29	41	56
Doctoral degree	1	3	8

A review of past ASSE salary surveys identifies a significant growth in education level since 1980. The portion of ASSE membership with a bachelor's degree has held constant during the last 25 years. However, the drop in membership with less than a bachelor's degree is accounted for by the increase among those members with advanced degrees.

If you want to increase your educational level, you can choose to expand your knowledge in general or to strengthen your specific knowledge in an area of safety. Beside degrees, a number of schools now offer graduate certificate programs, which are a sequence of courses. More and more schools offer courses and entire programs online.

You can find out more about academic programs in safety and many related areas at all levels on the academic database found on the BCSP web site (http://www.bcsp.org/bcsp/index.php?option=com_acsearch&task=section&action=view&Itemid=120). The database contains nearly 800 academic programs at accredited U.S. colleges and universities. The database also contains information about online courses and programs.

Experience, reported as time in practice, also helps to understand the competition. Table 4 provides some estimates of experience in safety and health for different organizations.

Table 4. Time in Safety and Health Practice

	Percent		
Years	ASSE	BCSP	AIHA
<5	7	1	7
6-10	17	12	14
11-14	26	23	13
15-19	16	20	21
>20	34	41	46

The majority of safety job ads identify certification as a desired or required qualification. Since certification is voluntary, not everyone chooses to pursue certification. However, holding a quality, recognized certification or holding more than one improves one's ability to compete for those positions where certification is a selection factor. Table 5 provides some data about certifications held.

Table 5. Certifications Held

	Percent	
Certification/license	ASSE	AIHA
No certification	38	22
One certification	39	---
Two certifications	17	---
CSP	36	28
ASP	5	---
ARM	7	---
CIH	6	61
CHMM	5	8
OHST	4	---
CHST	2	---
PE license	4	---

For members of ASSE holding a certification or license, the average person holds 1.4 credentials. For members of AIHA holding certification, the average person holds 1.54 credentials.

What is Changing?

The world is changing faster than ever. Someone has said, "This is the last easy year you will have. Enjoy it!" It seems as though the rate of change increases all the time. It is difficult to keep up.

The safety profession is changing, as well. Below are summaries of just a few of the changes that are going on.

Increased Use of Technology

Technology continues to invade every aspect of life. Everything now runs on computer chips and miniature circuit boards. You can now store 80 gigabytes on an Ipod that barely fills the palm of your hand. Communication systems seem to change every few months and the number of features included in electronic devices and software expands exponentially.

Integrating technology into business practices and safety practice is a constant challenge. The technologies increase the rate of communication, increase the demand to be communicated with, and expand the data to be stored. They affect instrumentation for assessing environmental and other hazards. They add precision to accident data records. They shorten cycle times for decisions and actions.

How one gains access to information continues to change. There are answers to virtually everything on the Internet. However, one must be careful that the answers are correct and accurate.

The challenges that technology brings to the safety profession will continue to expand as just one area of change in practice.

Redistribution of Safety and Health Responsibility

A philosophy of safety that many companies still use is that management will take care of its employees. However, there is a shift to empowering employees and work group leaders who are not safety specialists. Increasing their knowledge of hazard recognition, evaluation and control changes the safety culture and increases buy-in and participation. While it has some risk, safety issues are recognized sooner and solved more quickly by engaging work groups in making their own work safe.

The overall impact is a change in the role of the safety professional and the safety office for a plant, job site or company. There is less time spent on execution and more time spent on planning, managing and evaluation of safety performance and its impact on business performance.

Consolidation of Safety, Health, Environmental and Related Functions

For at least the last two decades, the specialized areas of practice have been on a convergent path. Most employers have combined safety, industrial hygiene, environmental and similar safety related functions into a single unit. For small companies that have only one safety, health and environmental specialist, the convergence is complete. In larger companies, there may still be room for some specialists, but the generalist is more likely to fill the leadership roles. This convergence is worldwide and occurring from every direction where someone has a role in achieving safety. It will continue to converge in the future.

The impact is that those who have the general skills discussed in the next section and also have a broad set of specialized skills in safety, health and environmental subjects are most likely to survive changes in the organization employing them.

Increased Emphasis on Business Systems and Impacting the Business Enterprise

The accountability associated with safety is changing. The entire focus in the past was on trailing indicators, such as accident and incident statistics. Safety and health professionals always had difficulty teaching managers how to become sensitive to such statistics or to position such statistics on the performance score cards of managers. Today there is an emphasis on leading indicators and business metrics. A challenge for the safety profession today is finding ways to impact the metrics of others, rather than requiring others to gain an appreciation for safety metrics. Building the business case for safety is an ongoing challenge, rather than appealing to others simply on humanitarian grounds.

What are the Strategies?

In the book, *The World is Flat*, Thomas Friedman raises several important concepts for employment. We will discuss a few of the concepts.

Instead of a guarantee of being employed, guarantee that you can stay employed. This is a personal responsibility. Be versatile by developing broad skills so you can respond quickly to change.

The author points out that there are two sets of skills: general and specific. Your general skills will help you deal with change and keep you employable. Your specific skills, such as those involved with your current safety position, allow you to perform work in that area of practice. He explains that the old model of employment in which the employer manages your career opportunities limits your flexibility. You need to take charge of your own skill set and pursue opportunities on your own.

Develop cushioning for your career by developing both general skills and specific skills.

When you look at career development, do not limit your view to the specific skills of safety practice. Look to broaden yourself. Give particular attention to the skills that apply to many different positions and job settings. Develop both general and specific skills.

Examples of general skills are knowing how to define a problem, plan a path to a solution, coordinate others in achieving a solution and moving on to a new challenge. Other examples are people skills and being able to make others more productive and effective. Examples may include writing and speaking skills that extent to many different job situations.

Specialized work cannot be outsourced, but only a few people can be specialized. Specialists have deep skills and narrow scope and seldom have value outside of their domain.

Most people see career opportunities in one of two views. One view is continuing to develop the technical knowledge for your specialized area of practice. The author points out that only a few are able to retain work this way. Specialized work that is unique to an employer cannot be outsourced. Specialized work that is narrow in practice, but not unique to a particular employer, can be outsourced. Many companies do not have sufficient demand for the specialized services and contract for it as needed. Those who seek the specialized path should consider offering services as a consultant.

The second view is moving into a leadership or management role. That, too, can be limiting, since most companies try to minimize the levels of management. Many large companies have used technology and information management systems to reduce management layers to well below half of what they used to be.

As a result, the author promotes developing one's general skills to ensure that a valued employee with general skills can adjust to changes in the roles one plays. In safety, one example might be adapting to change for a safety professional as safety is pushed into work groups that identify

safety problems and get them resolved on their own without relying on the safety office in every case.

Be adaptable by developing new knowledge and skills to create new value. Those who have more education are more adaptable in a flat world. Be versatile by gaining new competencies, building relationships and assuming new roles.

The author notes that those with a broad set of knowledge and skills are more likely to find ways to add value to the employer's enterprise. They are less likely to be locked into doing things the same old way. They are more likely to accept change and contribute to change. To be successful today, one must be able to change roles quickly and to contribute to team efforts in a variety of ways.

Allow customers to serve themselves in their own way, at their own pace, in their own time, according to their own tastes.

The major trend of self service in retail and do-it-yourself projects has moved to many other areas, including the workplace. It has moved to safety as well and can contribute to improved safety performance and productivity. Training work group leaders and getting them directly involved in hazard recognition, evaluation and control changes the role of safety professionals. It is a form of self service and self determination in contrast to an approach that only allows others to take care of a work group's needs.

What are the Competencies for Safety?

One of the most comprehensive studies of professional safety practice was conducted by the Board of Certified Safety Professionals in 1999. It involved about 1500 people in practice. In order to achieve accreditation and defend the contents of certification examinations, certification bodies must conduct studies of the practice for which certification is awarded. A new study is underway in 2007.

The BCSP study results outline the knowledge and skills required for practice. The complete results include over 190 knowledge statements and over 140 skill statements. Similar to the concept presented by author Friedman, there are both general knowledge and safety specific knowledge in addition to skills. Tables 6, 7 and 8 provide summaries.

You can use the results to evaluate whether you have the knowledge and skills identified as essential by peers in safety practice. Subject outlines of the knowledge and skills of safety practice can be downloaded from the BCSP web site (www.bcsp.org).

Table 6. General Knowledge for Professional Safety Practice

Subject	Percent of General Knowledge
Knowledge of Training and Education	10
Knowledge of Human and Organizational Behavior	9

Knowledge of Technology	8
Knowledge of Business and Management	8
Knowledge of Communication Methods	8
Knowledge of Mathematics and Science	6
Knowledge of Regulatory Information	5
Knowledge of Security	1

Table 7. Knowledge of Specific Safety, Health and Environmental Subjects

Subject	Percent of Specific SHE Knowledge
Professional Development and Ethics	10
Applied SHE	7
Safety Management	5
Risk Management and Insurance	5
SHE in Design, Controls & Technology	4
Inspections, Investigations and Audits	3
Industrial Hygiene	3
Emergencies and Emergency Responses	3
Environmental	2
Fire Protection	2
Ergonomics	2
General SHE	2

Table 8. Skills for Professional Safety Practice

Subject	Percent of Skills
Verbal Communications	18
Business, Organization and Leadership	12
Computers and Systems	11
Training	11
Interpreting	10
Human Behavior	9
Safety and Health	9
Written Communications	9
Mathematics, Statistics, Analytical, Scientific	7
Ethics	5
Inspection and Investigation	5
Creative	2

How to Manage Your Career Advancement

What can you do to advance your professional safety career? Here is an outline of key steps to take.

Evaluate Yourself

First, evaluate your strengths and weaknesses. Determine if your have the qualifications to compete for the next step in your career.

Compare yourself to the competition. Do you have the education to be competitive? Look at where you fall in the distribution of education listed in Table 3. Look at your level of experience from a longevity perspective. You cannot control that aspect. Look at your experience from a breadth perspective. Have you had experience with a wide range of hazards, controls, safety programs and initiatives, etc.? Have you developed experience in different industrial settings?

Check your knowledge and skills. Use the detailed outline of knowledge and skills defined for the CSP examinations (http://www.bcsp.org/bcsp/images/stories/pdf/blueprints.pdf) to evaluate your own knowledge and skills. Identify areas upon which you can improve.

Have you acquired a quality certification? Decide if pursuing a first, or even a second, credential can open opportunities for you. Determine whether you currently have the qualifications and knowledge to achieve the certification.

Set Your Goals

Determine how you would like to advance your career. Does your current position limit your advancement? If so, what would increase the professional opportunities for you? Would you want to develop specific areas of expertise, such as industrial hygiene, environmental, fire protection, ergonomics, health or physics? Do you want to develop specific areas of expertise within safety or an associated area of practice? Would you want to move to consulting and run your own business? Or is your goal to advance to a management and leadership position? Decide which option(s) you wish to pursue.

Would you be willing to travel? Do you want a position for which travel is limited? What are your family and personal goals? How do they align with your professional goals? Do you want to move to a different location? You may want to accelerate or delay additional opportunities or control how quickly you pursue of them if you wish to position family and personal goals at the top of your list. Those are all choices that one must make. Thinking through your current position and where you want to be in 3, 5 or 10 years will help establish your career direction.

Even those who are well along in their career may want to change directions. For example, you may want to give back to the profession by promoting careers in safety in local schools. There may be an academic program in your area and you may want to teach or contribute there. Even doing guest lecturing or coordinating visits to your office or plant to help students learn about the practical aspects of the safety profession can be rewarding. Consider serving as a mentor for someone who is fairly new to the profession. Discuss career goals and direction with your peers or junior staff and guide them with their own career plans. You may be able to contribute safety expertise through volunteer activities that are rewarding. The volunteer activities may be with a sports or community event, voluntary home construction projects, local government board or commission, emergency response services or other community groups.

Create a Plan

Once you have established career goals, whether in general or specifically, and after you know whether you are prepared to compete for positions that are in line with your career goals, you will need to identify what steps to take to achieve them. Do you need to further your education? Are there programs available to you or are you seeking online resources? Do you want to pursue certification? Which certification is most appropriate? Is the certification accredited? What is required to achieve and maintain it? Will my employer help me with these efforts?

Do I want to develop leadership skills? How can I do that? Where can I volunteer to develop some leadership opportunities?

Do I want to use continuing education to expand my knowledge and skills? Where can I obtain the courses I need to improve? Start with professional society offerings. Consider offerings by NIOSH funded Educational Resource Centers, particularly the ones servicing your geographic area. Take time to shop for options. Then add the most preferred options into your plan.

Prioritize the activities in your plan. You may prioritize the activities individually or in general groups.

Implement Your Plan

Once you have your plan laid out, set a schedule that is reasonable to complete. Stick to your plan, unless you see that your goals and career desires change. Then revise your plan and continue to implement it.

Summary

No matter what level you are at in your career, there are options for advancing your career and making it more rewarding. There are ways to face new challenges that enhance career satisfaction. You will want to establish your goals, identify options for reaching them, understand the competition, recognize what is changing around you, define strategies to make yourself more employable, and develop your personal plan. Then, execution of your plan is up to you.

References

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