



Targeting the Job Market

ACS CAREER
SERVICES

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The American Chemical Society (ACS) Department of Career Services (DCS) offers career assistance and information about employment issues to chemistry professionals. This booklet was written for the chemist at any career stage. The previous edition of the booklet (published in 1995) was written by Corinne Marasco; this edition was revised and updated by Edward Kostiner, an ACS career consultant. Robert Rich and Elaine Diggs of the DCS Office of Professional Services reviewed the manuscript for completeness and accuracy. DCS is grateful to the current and former writers and reviewers for their time and effort spent in developing this guide.

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February 2000*

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PREFACE

An effective job search is made up of many components. Early on, you must identify the market you want to access and plan a campaign to effectively reach that market.

This publication helps you assess your values, describes the changing trends in the employment market for chemical scientists, shows you how to find the hidden job market through networking and cold calling, gives tips on locating companies and specific segments of the job market, and provides helpful career-related URLs that you can use in your job search. (Other necessary components of the job search, such as identifying your skills and accomplishments, creating a winning résumé, and acing a job interview, are covered in two complimentary publications available to American Chemical Society members through the Department of Career Services: *Tips on Résumé Preparation* and *The Interview Handbook*.)

Whether you are searching for a new job or are happily employed, be sure to read Chapter 6. It contains suggestions for maximizing your abilities so you stay marketable in the current and future job markets.

Conducting an effective job search can be challenging and rewarding if you use the right approach. Just as using the right instruments makes conducting experiments easier and gives more accurate results, you can obtain better, more positive results from your job search by using the right tools. Your success in the job market depends on not only your technical skills but also your ability to complete four important tasks: organize your search, target the market, keep your skills current, and take advantage of the services offered by the American Chemical Society (ACS) Department of Career Services (DCS).

Organize a Quality Job Search

Sending out résumés and cover letters at random does not increase your chances of landing an interview. The better you know yourself—your skills, abilities, values, and needs—the more prepared you will be to sell yourself to your ideal employer. The best way to maximize your chance of obtaining an interview that will help you achieve your goal (i.e., getting a job that you feel good about) is to target the employers that meet both your professional criteria and your personal needs.

Target the Market

To find a position that suits you, follow the steps outlined in this book:

- **Study trends.** Where are the areas of technological growth and decline? What are some recent organizational trends? What do salaries look like? What regions of the country are “hot spots” for employment in the chemical profession?
- **Do your homework.** Conduct library research to uncover information about companies by searching the published job market and identifying leads in the unpublished job market. Incorporate the Internet into your job search.
- **Develop your professional network.** Cultivate as many professional contacts as you can. Remember the three objectives of networking: information, ideas, and introductions.

Keep Yourself Up-to-Date

Keep a chronicle of your accomplishments and new skills gained throughout the year, and reassess your values and update your résumé annually. Pick one day that you'll remember, such as Labor Day or the anniversary of your hire date. Touch base with your networking contacts. And because job security is only as good as your ability to find another job, stay marketable by enhancing your career-related skills.

Take Advantage of ACS Career Services

The DCS offers a wide range of career-related programs, publications, and services that are available to all members. The department's career consultants can assist you with all aspects of your job search, including targeting the market. See Appendix A for information about available services and how to contact the DCS.

Getting To Know Yourself: Values Assessment



Why should you think about your personal values when contemplating a professional position? Because most of your waking hours are spent at work, it is very important that your personal values and job responsibilities are compatible. When your personal and professional values are contradictory, you may find yourself in an uncomfortable situation.

One of the deciding factors in whether you get the job is your “fit” into the corporate culture, that is, whether your values and those of the company match. Every organization has a culture that reflects the ideas and strategies that are used to manage it. Corporate culture emanates from the values and beliefs held by key management personnel at a particular point in time. Technical competence is still important; without it, you could not carry out your job responsibilities effectively. However, it is not the only factor on which a hiring decision is based. Your behavior on the job, which directly relates to your overall job performance, is also considered. Your beliefs and values play an important role in your behavior. Unfortunately, many of us overlook the importance of “values matching” as related to career success.

Identify Your Values

Values are important because they help us to establish career objectives, develop and choose alternatives, evaluate our choices, and implement the decisions we make. As our lives change, so too will our priorities—but the values probably will not change. To avoid potential conflict, you should take the time to identify your dominant personal values and the needs they represent.

How do you know whether a company shares your values? Think about what is important to you, personally and professionally, in a position and in an employer. Ask yourself,

- Do I want to work a 60-hour week or work a 9-to-5 job?
- Am I willing to travel or relocate?
- Do I work best with a manager who supervises me closely or with one who gives me an assignment and lets me run with it?
- Is it important to me that the company provide a relatively long tenure or rapid advancement?

Formulate some specific questions that you can ask a potential employer, such as,

- What is the level of turnover in the organization?
- What kinds of opportunities are there to develop new ideas?
- How much travel is required?
- Is there a management track and a technical track?
- Are there opportunities for teamwork as well as solo projects?

The better you know yourself—your skills, abilities, and values—the better prepared you will be to sell yourself to your ideal employer and to determine whether you really want the job.

Next, consider the five major values that influence the decisions we make in our careers: advancement, autonomy, balance, challenge, and security. If you identify which of the most common values are important to you as an employee, you will find it easier to choose an employer whose values match your own.

Advancement

Individuals who want advancement seek recognition or promotions for their talents and accomplishments on the job. Even though they often want monetary rewards, a simple “thank you” for a job well done, a laudatory article in the in-house newsletter, or a new job title are also welcome. Such recognition may lead to advancement. Most employees hope their careers will provide opportunities for upward mobility or developmental growth, but the person driven by the need for advancement feels this drive more profoundly. If such individuals do not develop and advance in their careers, they will move to another organization where they can.

Autonomy

Autonomous individuals have a strong need to do things their own way, at their own pace, and in line with their own standards. These individuals may find organizational life too restrictive and may prefer a work environment that offers a great deal of freedom, such as consulting or teaching.

Balance

Individuals who desire balance seek equilibrium in all aspects of their lives. They do not want to have to choose among family considerations, career objectives, and self-development goals. Their lifestyles will influence decisions regarding issues such as relocation, family needs, work hours, and employee benefits.

Challenge

Individuals who thrive on challenge have a competitive nature, which drives them to overcome difficult obstacles and solve difficult problems. It is not unusual for such individuals to consider salary, job titles, and work area as secondary to the challenge of the task at hand.

Security

Security-driven individuals need stability and will seek an employer with a reputation for not reducing its workforce. They might look for jobs with tenure and benefits, such as those in government. These individuals tend to be stable, reliable workers who will not challenge or buck the system.

Chemistry Jobs in the 21st Century: The Changed World of Employment

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The concept of a job emerged from a need to package work done in the growing factories and bureaucracies of the industrialized world. In the past, an offer of employment was based on the long-term needs of an organization, and acceptance of employment signified a lifetime commitment; mutual loyalty was implicit in the agreement. Pay increases came over time, and businesses were run like families. Job security was more or less guaranteed.

Today, long-term employment security is, for many workers, a thing of the past. Roughly one-third of American industrial firms now outsource at least half of their manufacturing and support. Offers of employment are based on current business needs; therefore, acceptance of employment must be based on the short-term needs of the individual. Employment and pay increases are based on performance and reflect business need, fit, and contribution. Given all of these factors, job security can be described as residing in the individual's skills and abilities, not in a specific position. Therefore, job security should now be defined as the ability to find another job.

To understand the employment arena of chemical scientists, you must first understand the major factors that influence (and are expected to continue to influence) the chemical industry. As a chemist, you must be aware of how these factors will affect the progression of your career.

Factors That Affect the Job Market

Market Trends

An awareness of market trends is important when conducting a job search, for many reasons. First, you must be able to measure your marketability against the present market so you can determine which areas of the job market you should focus on to make the most of your skills and abilities. Second, you must constantly

be aware of emerging or growing technologies relevant to your fields of interest. Finally, you must be able to market your abilities and be flexible enough to match the needs of the market.

Organizational Trends

In response to the current economic climate and increased global competition, many companies have initiated several organizational changes. These changes may include reducing the size of the workforce; “flattening” management; refocusing on core businesses by selling off unprofitable or peripheral operations; focusing on reducing costs; increasing outsourcing of R&D and other services; and increasing emphasis on customer service, quality, and continuous improvement in response to increasing domestic and international competition.

Chemical companies have been experiencing increased competition from abroad, which has led many to compete overseas themselves. Sales have been increasing outside the United States, and production has also started moving abroad. Heavy industry and commodity chemicals have been moving outside the United States to take advantage of cheaper labor costs, reduced regulation, and proximity to foreign customer bases, all of which further lowers the domestic job base.

The pharmaceutical and personal care industries have weathered the slowdown much better than bulk chemicals and petroleum. However, increased merger activity among pharmaceutical companies and increased reliance on managed care are forcing many companies to downsize and cut costs. Small chemical companies are doing well, because niche industries and small businesses are less apt to be affected by macroeconomic swings than are large corporations.

Government regulations also affect the trajectory of technology, business, and job growth. Although regulation can have a negative impact in certain sectors, it can increase business opportunities in others. For example, new environmental regulations can lead to the development of new products and services, but the costs of compliance may increase for many firms.

Over the next few years, R&D funding is expected to remain flat or increase only slightly in the chemical industry because of competition and an emphasis on cost reduction. Companies are establishing more joint partnerships with customers, competitors, universities, and national laboratories to reduce R&D costs. Basic research for its own sake is not emphasized; rather, the focus is on applied research to generate products that can be brought to market quickly.

All of these trends converge to affect hiring and staffing. Whereas the staffs of small companies may increase, those of large chemical companies probably will experience little or no growth over the next few years. Companies with flat or decreased staffing hire only to replace resigning or retiring employees or to obtain a different skill mix. Finally, corporate restructuring continues, and in many cases, the hiring of contract and temporary workers has increased.

Overall, the funding of R&D is changing to reflect an increased business focus. Chemical professionals must deal with advanced technologies in many fields, and they must be able to communicate with scientists and engineers in other disciplines. The chemical industry faces strong international competition and a globalization of manufacturing. Production is emphasized, and in general, product life cycles are shortened. These changes mean that work must be accomplished more efficiently and with greater quality, because there is a smaller margin for error.

Current Trends

In 1998, the DCS published a detailed report based on a survey of senior management in industry, government, and academe entitled *Current Trends in Chemical Technology, Business, and Employment*. The issues addressed in the study included areas of growth and decline, shifts in R&D funding, economic factors, and federal policies affecting the chemical industry. It also estimated supply of and demand for chemical professionals, focusing on hiring trends and degrees granted in the chemical sciences. The information in this section and the next section is taken from this report.

Where Will Chemists Find Work?

Increased demand for new consumer goods such as pharmaceuticals, personal care products, rubber and miscellaneous plastics, and specialty chemicals is expected to create jobs in these industrial segments. In essence, the effect will counterbalance the slower growth and loss of jobs predicted in the chemical industry that traditionally has employed chemists (e.g., industrial chemicals).

The Bureau of Labor Statistics (BLS) projects average employment growth for chemical professionals and technicians overall because of the growth of scientific and medical R&D and the production of technical products. As always, job opportunities will be best for individuals who have training or experience in using equipment currently used in industrial and government laboratories.

The BLS projects job losses for scientists in areas that have been considered to make up the traditional chemical industry: petroleum, heavy chemicals, plastic and synthetic materials, agricultural chemicals, and paints and allied products. Chemists who understand the need to be flexible and are open to applying their skills in related areas should note that the vast majority of new jobs in chemistry will be in pharmaceuticals; biotechnology; and areas such as toxicology, specialty chemicals, law, and public relations in the industry. Service industries, including consulting and independent research and testing services, are predicted to experience large growth. Marketing and sales also will be strong areas within the chemical industry, and the demand for information specialists will increase significantly.

Both the BLS and ACS surveys identify several industries with growth potential. They include pharmaceuticals and biotechnology, medical services, the personal care industry, computers, chips and software, agricultural and food processing, the aircraft and automotive industries, communications (in all media), financial and other consulting services, and law. Keep in mind that while job opportunities are shrinking in what we classically call the chemical industry, significant numbers of chemical professionals (at all degree levels) are being hired in other industries.

Current Trends indicates that growth can be expected in drug discovery, biotechnology, combinatorial and computational chemistry, materials design, catalysis, food technology, information technology, and fine and specialty chemicals. These new areas of growth illustrate how opportunities and different segments can change rather rapidly over time.

Salaries

The 1999 ACS Salary Survey indicates that median incomes increased between 1998 and 1999 for most chemists and chemical engineers who were employed full time. However, the rate of increase in median salary for chemists varied by the highest degree obtained. The overall median salary for chemists was \$68,000, an increase of 4.6% over the 1998 median of \$65,000. By degree, salaries increased 1.7% to \$50,500 for chemists who held a bachelor's degree, 5.7% to \$61,000 for chemists who held a master's degree, and 4.1% to \$76,000 for chemists who held a doctorate degree. Generally, industrial chemists reported larger gains than chemists did with other employers such as academe or government.

The factors that tend to influence salaries the most are the highest degree obtained, type of employer, and length of experience. The data show that chemists who have a doctoral degree on average earn 50% more than those with a bachelor's degree. The potential earnings are greater for master's chemists than for bachelor's chemists but are not as great as those for doctoral chemists. In 1998, the average starting salaries for inexperienced chemists in industry were \$29,500 for new bachelor's graduates, \$38,500 for master's graduates, and \$59,700 for doctoral graduates. More experienced bachelor's chemists could command up to \$80,000 in unusual cases, and experienced doctoral chemists had the potential to earn well over \$100,000.

Industrial chemists generally earn more than those working in academe or government, and salaries are higher overall in certain industries such as petroleum, electronics, and pharmaceuticals. In general, large organizations pay more than small organizations, and as expected, area of specialty affects salary. For example, pharmaceutical chemists have significantly higher salaries than other chemists because of a supply–demand imbalance.

Another factor that influences nonacademic salaries is years of experience. For a given individual, a salary rises fairly steadily for about 20–25 years after graduation and then plateaus. The number of subordinates supervised also affects salaries, and in general, salaries increase with an increase in supervisory responsibilities.

ACS salary surveys also have found that certain geographic regions of the United States offer stronger employment opportunities for chemical professionals than others, and regions change periodically. The current “hot spots” are the East North Central (such as Ohio and Illinois), the mid-Atlantic states, the South Atlantic, and the Pacific coast. Furthermore, small and start-up companies seem to be doing significantly more hiring than large, established firms.

Desirable Skills and Traits

It is important to know not only where the opportunities lie in terms of industries and the fields and kinds of companies that are hiring but also which abilities employers are looking for, so that you can correct any weaknesses and market your strengths. *Current Trends* recommends that the successful job seeker cultivate not only a mastery of chemistry but also

- a breadth of knowledge of science,
- communication skills,
- problem-solving ability,
- computer literacy,
- flexibility and versatility,
- some practical experience,
- a business orientation, and
- interpersonal and leadership skills.

In 1993, the National Academy of Sciences issued a report entitled *Reshaping the Graduate Education of Scientists and Engineers*, which stated that employers favor potential employees who can

- collaborate across disciplines, work comfortably in various settings, and learn in fields beyond their specialty;
- adapt quickly under changing conditions;
- work well in teams and demonstrate leadership ability; and
- work with people whose languages and cultures are different from their own.

Looking Ahead

The employment outlook is generally brighter now than it has been at any time in the past 10 years. The current job market and the less stable future job base require chemists to be flexible and creative in seeking jobs, and to focus on acquiring and maintaining career management skills. Remember that true job security rests in your abilities, not in any specific position or employer.

Doing Your Homework: Locating the Job You Want

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Access to the open job market is straightforward, but it may be limited in value. As expected, newspaper and magazine advertisements (such as those found in *Chemical & Engineering News*), employment clearinghouses at ACS national and regional meetings, employment agencies, and campus interviews make up the bulk of the open market. But remember, your greatest competition is in the open market.

The skills that you have developed to search the scientific literature can be applied to locating companies. A good first step is to go to the library and introduce yourself to the reference librarian, who will be a valuable resource in your job search. Consult several reference sources for information about employers and jobs; librarians can help you find them. This information will help you write your résumé and prepare for interviews. Classified ads in newspapers and scientific journals can help you identify leads in the unpublished job market.

In this chapter, you will learn how to locate large and small companies as well as academic, nonprofit, and government jobs. In Chapter 4, you will learn how to use the Internet to locate companies and expedite job searching.

Large Companies

By necessity, large companies have greater visibility and are easier to research. Many maintain extensive Web sites where information about their products, services, plants, and laboratories is posted. More and more companies (especially large ones) also are using their corporate Web pages to advertise job openings. Even though these postings technically are a subset of the open job market, many job seekers are not aware of them. Positions in larger industrial organizations usually are advertised extensively, not only in magazines such as *Chemical & Engineering News* but also in national newspapers such as *The Wall Street Journal*.

Certain publications profile corporations, including financial directories such as *Standard & Poor's Register of Corporations, Directors, and Executives*; *Dun and Bradstreet's*; and *Value Line*. The *Directory of American Research and Technology*, the *Thomas Register of American Manufacturers*, and *The Job Seekers' Guide to Public*

and Private Companies are other good sources of information. For publicly owned companies, annual reports provide information about financial status as well as descriptions of product and new strategic initiatives.

Librarians also have access to publications from local Better Business Bureaus and from state and local business and industry organizations. Finally, many ACS local sections (especially those in metropolitan areas) maintain lists of local employers and have local section career program coordinators who are trained to assist ACS members.

Small Companies

Although many of the methods for locating large companies will work for small companies, it usually is harder to gather information. Your primary source should be your network, especially the members who either travel widely or have contacts with small companies and know where they are located. For example, instrument vendors and repair personnel travel widely within a geographic area. They would know about small companies, their viability, and, possibly, any employment opportunities.

In addition to the primary sources mentioned for large companies, consult the telephone Yellow Pages and the *Donnelly Directory*. Don't forget local and state Better Business Bureaus and other business and industry associations. Your librarian should have access to all of this information.

An often overlooked source of information are exhibits at national and, more importantly, ACS regional meetings. Regional meetings are especially attractive to smaller companies because they save time and money. It is a bonus if they are able to do some informal recruiting at the same time. Stop in at the exhibits to find out about a company's product lines and, if possible, indicate your interest in working for them.

Academic, Nonprofit, and Government Positions

Leads for academic positions, both teaching and research, can be found in *The Chronicle of Higher Education* and *Chemical & Engineering News*. *The Directory of Graduate Research* and *The Research Centers Directory* are good sources for names and addresses of contacts at specific organizations.

For positions at other kinds of nonprofit organizations, such as trade associations, look at *The Encyclopedia of Associations*, *The National Directory of Non-Profit Organizations*, *The National Trade and Professional Associations of the United States*, and *The American Consulting Engineers Council Membership Directory*. If you are considering a job with the government, *America's Federal Jobs—A Comprehensive Guide to Job Openings in the Federal Government* and *Federal Jobs Digest* are good resources.

After you have targeted a specific kind of organization, keep up-to-date by reading relevant periodicals such as *Chemical & Engineering News*, *Chemical Week*, *Business Week*, and *The Wall Street Journal*.

At Your Fingertips: Using the Internet to Your Advantage

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Increasingly widespread access to the Internet has vastly expanded the ability to make contacts, gather information, and obtain advice that can lead to interviews and, possibly, job offers. Its appeal as a job search tool lies primarily in its low cost and relatively high visibility. Myriad listings and resources are available at your fingertips. In fact, the Internet is so omnipresent in our lives that we have devoted an entire chapter to online resources.

Another appealing aspect to the Internet is that it is available 24 hours a day, 7 days a week; you can research whenever you want, for as long as you want. And by incorporating the Internet into your job search, you can search locally or cast a much wider net from the comfort of your computer. Living in Boston but want to work in San Francisco? The Internet can make your search easier, whether you're searching corporate home pages, making contacts on Usenet newsgroups, or browsing the newspaper classifieds.

Where To Find Information and Listings

To keep up with the Internet's continuing growth and expansion, a good starting point is one of the online Web portals, such as Yahoo or Excite. In addition to offering search capabilities, these search engines catalogue Web pages and sort them within hierarchies. In this chapter, we present several career-related Web sites of interest to job seekers. This collection is not meant to be exhaustive by any means; in fact, most of these sites contain hyperlinks to related sites that you may find helpful. In addition, the DCS publishes a periodical list of resources for career management.

ACS Services

ACS's ChemJobs combines résumé posting and job postings in one place. The ACS Job Bank and the Online Professional Data Bank (PDB) may be accessed via the ACS Career Services home page (www.acs.org/chemjobs).

The ACS Job Bank lists jobs posted in C&EN. The Online PDB is an Internet recruiting tool developed by the ACS that provides a fast, efficient, and cost-effective way for employers to find qualified job seekers. You (the job seeker) create a personal profile of information about your skills, experience, and areas of interest. Your résumé can be "posted in" for full text searching by employers. You may mark

your profile to be active (i.e., posted to searchable database) or inactive (i.e., saved until you are interested in being contacted by prospective employers) and have the option of labeling your profile as “confidential”. The confidential feature shows your profile but blocks all contact information to employers searching the database and is assigned a blind e-mail address.

The ACS Younger Chemists Committee (YCC) was formed to identify the needs and concerns of younger chemists and to develop programs responsive to their needs. The YCC site contains information about mentoring programs as well as other committee activities, back issues of newsletters, and employment and network resources of interest to younger chemists. Access YCC information through www.acs.org.ycc.

Newspaper Classifieds and More

Current regional classified advertisements may be accessed through major metropolitan newspapers, such as *The New York Times* (www.nytimes.com), the *Washington Post* (www.washingtonpost.com), and the *San Francisco Chronicle and Examiner* (www.sfgate.com). National advertisements can be accessed through newspapers with national circulation; the *Wall Street Journal* (careers.wsj.com) is a good example. Sometimes, local papers have online editions that contain classified advertisements.

Newspapers with a large print circulation usually contain hyperlinks to other career-oriented Web sites as well as supporting material in their online editions. To test-drive these features, log on to the ACS Job Bank or, if you're not an ACS member, log on to *The New York Times* Web site and click on CareerPath. This link leads to a Web page that contains hyperlinks to CareerPath's services as well as classified ads from 70 newspapers and a “Resources” section. This valuable section includes an archive of columns related to careers and the workplace as well as a very useful Job Market Internet Guide. CareerPath (also accessible directly at www.careerpath.com) allows searches of newspaper employment advertisements from cities throughout the country. Every month, job openings are culled from these advertisements and from corporate Web sites areas across the country. All jobs on CareerPath are purged every two weeks, so job seekers are not left to reply to old ads.

Public Sector Resources

Federal government agencies routinely advertise on the Web. The Office of Personnel Management maintains a Web site (www.usajobs.opm.gov) that provides access to current job openings listed by agency or profession. The Department of Commerce Web site, FedWorld (www.fedworld.gov/jobs/jobsearch.html), offers a search engine for all federal job openings.

Among several commercial sites that access federal jobs is Federal Jobs Digest (www.jobsfed.com). Besides job listings, this site has sections that describe federal benefits and federal jobs and provide advice on filing federal applications.

Academic Listings

Academe This Week, which appears in the weekly newspaper *The Chronicle of Higher Education*, has long been the best source for academic openings. Subscribers to the print edition can access job listings online (posted every Tuesday afternoon) from the current issue of *The Chronicle* at (www.chronicle.com/jobs). Nonsubscribers have access to only past issues. Job seekers can search by using the *Chronicle's* list of job titles or by using any key word or words of their choosing. In addition, searchers can limit their search to jobs in particular geographic regions.

The Academic Position Network, or APN (www.apnjobs.com), is a free service that provides announcements of academic positions that include faculty, staff, postdoctoral, and administrative positions. APN announcements are unlimited in length and are kept online until removal is requested or until the closing date has been reached (which means that you may chase down leads for positions that have long been filled). APN may be searched by country, state, and institution and also may be searched by using a word or combination of words.

Industrial Information

The Internet is an effective tool for job seekers who seek information about potential employers. Many companies provide not only extensive background materials and recent corporate press releases but also open job positions on their Web pages. If you want to apply for a job, submit your résumé from the Web site or by e-mail. Many of the print sources mentioned in Chapter 4 for locating companies also are available online, and services such as CorpTech (www.corptech.com) can be used to gather data on private and public technology manufacturers and developers.

America's Job Bank (www.ajb.dni.us) is a computerized network that links 1800 Department of Labor and state-operated Employment Service offices and provides information about well over a million positions. Most of the positions listed are full time, and the majority are in the private sector. There is no charge to prospective employers or job seekers.

Numerous commercial sites are dedicated to posting job opportunities, and many are accessible through portals such as Yahoo and Netscape. One example is the Monster Board (www.monster.com), which provides several services, including the Online Career Center, which features job opportunities in all fields at more than 700 corporations worldwide. Job seekers can search by location, industry, company, discipline, or key word to access thousands of career opportunities in all fields. Résumés may be submitted to the Monster Board's national database, thus providing exposure to potential employers recruiting online. Employer profiles that contain facts about each company's technology, products, benefits, and work environment also are available.

A more specialized site is C.E. Weekly Online (www.ceweekly.com), a service of C.E. Publications (publishers of *Contract Employment Weekly*), which contains job listings for contract technical employment. Its primary purpose is to furnish infor-

mation about immediate and anticipated contract job openings worldwide. Job seekers can search job listings, get more information about contract employment and résumé writing, and link to Web pages of contract firms that offer opportunities.

CareerMosaic (www.careermosaic.com) is an online guide to companies and opportunities. Individuals can research companies in various businesses, find out what they do, where they do it, and what their work environments are like. All information has been developed by the employer in cooperation with CareerMosaic, so it comes straight from the source.

Sites for the New or Recent Graduate

In partnership with college and university career centers across the nation, Jobtrak (www.jobtrak.com) provides information for students and recent graduates. In addition to posting full- and part-time job openings daily, the site provides company profiles and job search tips. The service is free to universities, but users (students and alumni) will need a university connection to gain access to Jobtrak. The search interface asks users to select their alma mater and to provide a password (available from your university career center).

Getting Past Go: A Survival Guide for New Graduates (www.aegonsmg.com/getgo) is a self-explanatory online document that contains information about writing résumés, looking for work, and deciding where to live.

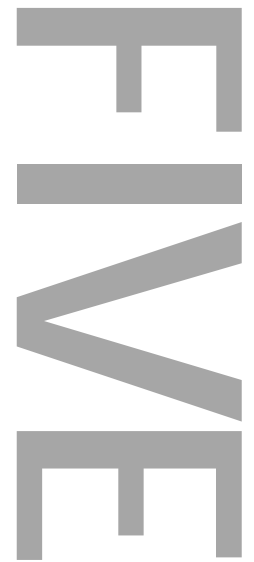
Posting and Submitting Your Résumé

Many multipurpose career sites on the Internet allow you to post your résumé at no cost. Think twice; once you post your résumé, you lose control over where it goes and who will see it. Your résumé becomes a public document, in the public domain.

In contrast, ChemJobs is an ACS member-only service, and résumés are accessible only to the employers that have been prescreened by ACS. And if you choose the confidentiality option, even the employers granted access to the database cannot see your name and contact information without your approval.

Also, just because a posting may be listed on the Web, do not assume that you can send your résumé electronically. Some employers still want a paper trail of the hiring process—particularly for reasons of affirmative action—and will not accept résumés sent via e-mail. On the other hand, some employers will accept résumés only as electronic files.

The Inside Scoop: Uncovering the Hidden Job Market



Evidence indicates that two-thirds to three-quarters of successful job seekers found their jobs as a result of personal contacts, networking, or cold calling—in what we like to call the “hidden” (or unadvertised) job market. In this chapter, you will learn how to find these hidden jobs.

Networking

The primary method for accessing the hidden job market is networking. Often a misunderstood technique, networking can help you obtain three things:

- information about each contact’s industry and the kinds of jobs that are needed;
- ideas for brainstorming that help you develop effective job search strategies; and
- introductions to other people who will provide even more information, ideas, and introductions.

Networking is a critical activity but often is done so poorly that it has somewhat of a bad reputation. If you think of your job search as a marketing exercise (i.e., selling yourself as a potential employee), then your network becomes the heart of your market development. It is important to understand the concept of networking, how to build a network, and—perhaps most important—the necessity of maintaining it, because maintaining your network is the key to successful lifelong career development.

What Is It?

Networking does not mean asking people to offer you a job but using your connections to find the person who will offer you a job. Everyone has a network, but not everyone knows how to use it. The foundation of your network consists of everyone you know, plus everyone those people know. The people you know include colleagues you see every day—supervisors, clients, professors, classmates, instrument vendors, service and repair people, neighbors, and relatives. They also include people you might see only occasionally, such as former classmates and/or colleagues, physicians, and dentists, just to name a few. Any of these individuals may have information or ideas you can use in your job search.

Building and Expanding Your Network

One method of building your network is to become active in a professional association that represents your field of interest, like ACS. A good way to start is to become active in your local section or to join an ACS technical division. Register and submit a presentation or poster for a regional or national meeting, or volunteer to serve on a committee. Anything you can do to make yourself and your abilities visible is effective in building your network. At meetings, talk to speakers after their presentations. Express interest in their work and ask whether they can offer you any suggestions in your job search.

It is a good idea to have business cards to hand out as you meet and talk to people. In conversations, you must be prepared to tell people about your job search, your background, and your desired position. If you don't advertise yourself, no one else will.

A Work in Progress

Maintaining your network involves keeping track of its members in a card file or a computer database. It is to your advantage to keep this file up-to-date. Make sure that you follow up on any leads suggested by members of your network.

Networking is based on reciprocity. Take every opportunity to assist others by referring people who have the skills that a specific employer might find useful. Remember that someday, you may call on them to return the favor.

Keep your contacts informed about your job search progress. Send thank-you or follow-up notes to your contacts for their time and willingness to help. If a job lead does not pan out, turn the negative result into a positive one by asking your contact for the names of other people who might be able to help you. In this way, you can broaden your network and better target your market at the same time. Share job search techniques that have worked for you with other people in your network.

Networking is not an occasional phone call; it is a way of life, whether or not you are searching for a job. It is so critical because, to do your job search well, you need to be in more than one place with your eyes and ears wide open—and networking is the only way to do it. By staying in touch with your network and letting its members know that you are interested in job leads, you can get a jump on the job market. Anecdotal evidence shows that people who have successfully rebounded from a job loss and who have made the best career transitions almost always had an established network to help them.

Cold Calling

Cold calling can be an effective way to approach some small and medium-sized companies. It usually is not a good technique for dealing with large organizations, which typically rely on formalized job search and hiring procedures.

What Is It?

Cold calling consists of contacting a potential employer and inquiring as to the existence of a suitable position. It has much in common with the informational interview process (see *The Interview Handbook* for an explanation and suggestions). The goal of both processes is to leave a positive impression so that when a position arises, your contact will think of you. Your success with this technique is highly dependent on your doing your homework.

Planning Your Strategy

First, decide on a geographic area where you want to work. Then, using the techniques outlined in Chapter 4, locate companies in that area that might be hiring chemists. Gather as much technical and business information about each company as possible. Be prepared to ask a variety of questions about the company, the kinds of people who are hired, and what those people do.

In addition, use the “Identify Your Values” exercise in Chapter 1 to do some personal research. Ask yourself,

- What do I like to do?
- What do I hope to do in my new career?
- What skills do I have?

Finally, prepare a targeted résumé (see *Tips on Résumé Preparation*) and visit the companies that interest you.

The Call

In cold calling, you are not unlike a salesperson following leads. You are walking into the company “cold”, trying to see an officer of the company (or at least the person who does the hiring), and explaining that you live in (or wish to move to) this area and would like to explore employment possibilities. You may find that you will have to leave your business card and a copy of your résumé with a receptionist, asking that they be passed along to the company’s president or CEO. Try to obtain the name of the person in charge (if you do not already have it), and say that you will follow up with a telephone call in a few days to discuss your résumé. You will find that corporate officers often will speak with someone who expresses interest in their company and will be of help. Don’t forget to follow up.

Cold calling works best when you make a personal visit to the company. The idea behind cold calling in person is that personal contact is much more effective than writing an impersonal letter or a phone call. Remember that the purpose of the meeting is to inquire about job openings and gather information. It should not be considered a job interview, so do not take advantage of someone’s willingness to help you. Still, you never know when someone might decide to interview you on the spot—so be prepared for that opportunity.

Staying Marketable: The Only Way To Ensure Job Security

SIX

As we have emphasized in this book, you should not focus on how secure you can make your job but on how to keep yourself marketable; seek ways to enhance your career and keep your options open. The DCS offers four recommendations for making yourself valuable to any potential employer. How you interpret these recommendations must reflect your personal and professional goals and values.

These recommendations are general and apply to everyone, regardless of age or career stage. If you want to be employed gainfully and continually, ready to respond to a tight job market, and have a fair amount of control over your professional destiny, then you cannot afford to disregard these recommendations. Maintaining marketability demands great personal and professional effort.

Develop Your Personal Network

As noted in Chapter 3, networking is the single most important method of finding a job. Remember that networking is asking people for information, not for jobs. If you ask people about their careers, they will gladly answer your questions. Chances are they will provide names of friends and colleagues who may be able to assist you. These professional contacts are also a good source to enhance your knowledge of chemistry-related fields in or outside your own area of expertise.

Expand Your Knowledge and Skills

Commit yourself to life-long learning. Amazingly, many chemists ignore this advice by not taking the time to maintain their professional viability.

Keep current in your field by enrolling in continuing education classes, reading, attending seminars, and talking to colleagues. When new technology is introduced, learn about it. Become expert in the latest technology in your area of specialization. Stay current in what is generally happening in chemistry as well as in your field.

Periodically assessing your values (described in Chapter 1) and keeping up-to-date on employment trends (discussed in Chapter 2) can help you chart the course of your career and determine which career options you want to explore, where your technical skills best fit, and which skills need improvement.

Develop your interpersonal skills, your ability to work as part of a team, and your communication skills. Recently, 12–15 professional positions listed in a major chemical manufacturer's position manual were for chemical scientists, and good communication skills were listed prominently among the qualifications for these jobs.

Learn another language—especially Chinese, German, Japanese, Spanish, or Russian. Develop business skills. Regularly read business-related publications such as the *Wall Street Journal* and *Business Week*. Learn about related disciplines, such as physics, biology, and engineering.

Make Yourself and Your Abilities Visible

Emphasize what makes you special. All chemists, at all degree levels, should publish and present research. Make an effort to attend local, regional, and national ACS meetings.

Be Flexible

If you are unemployed, use your time as an opportunity to expand your horizons and grow as a professional. Employed chemists should keep their options open by taking a new direction in their present career, for example, by making a lateral move, considering relocation, taking short-term assignments, or participating in a task force. Consider furthering your education in a new or related field.

ACS Career Services

The American Chemical Society (ACS) Department of Career Services (DCS) exists to empower and support the chemical community by providing products and services to strengthen ACS members' career self-management. DCS aims to enhance the economic and professional status of chemical professionals by providing career assistance, contact with employers, and information on employment data, trends, and issues to aid in career decision making.

All DCS services are available to all ACS members—full members as well as national and student affiliates. DCS provides several options to ACS members, including the following.

Publications

Books and pamphlets on various topics help you cope with sudden changes in your workplace, provide guidance in your current job, or help you find a new one.

Workforce Analysis

Reports provide information about chemists' salaries, current trends in the chemical workforce, and international employment opportunities.

Videos

These easy-to-use resources cover topics such as changing careers, developing the right résumé, and how to ace a job interview.

Workshops and Presentations

Given at universities and colleges, local section meetings, and national and regional ACS meetings by DCS staff and volunteers, informative sessions provide opportunities for obtaining skills and knowledge that enhance your career development.

Career Consultant Program

More than 60 volunteer consultants are available to assist you with various aspects of employment and career development, such as job search strategies, interviewing techniques, career transitioning, salaries, résumés, and networking.

Mock Interview Sessions

Videotape a practice interview and receive valuable feedback from DCS professionals. (Offered only at ACS national meetings.)

Résumé and Career Assistance

Expert consultants provide one-on-one assistance, review résumés, and discuss various issues concerning your career. This type of assistance is available at all regional and national meetings as well as by phone and following DCS workshops at local section meetings and colleges.

Telephone Assistance

General information regarding salaries, employment trends, career transitions, and other career-related issues is available to members. Call with your specific questions.

Moderated Discussion Forum

ChemCareers Connection is a recently launched Internet forum where chemists, chemical engineers, scientists in related fields, students, and other interested persons can pose questions related to career development in the chemical sciences. The forum, accessible at www.acs.org, is moderated by ACS career consultants, who offer their expert opinions as a part of the discussion.

Employment Clearing House

This provides ACS members and national and student affiliates with information on current job openings and provides the opportunity to interview onsite with employers during the ACS national and regional meetings. It is free to members and affiliates attending these meetings.

Online PDB

The Online PDB is an Internet recruiting tool developed by ACS. It provides a fast, efficient, and cost-effective way for employers to reach a highly qualified, vertical market of job seekers. All job seekers represented in the profile database are skilled professionals and members of the ACS, the leading membership society for chemists and chemical engineers.

ACS Job Bank

Weekly job postings, including an index of C&EN postings from the current and previous week, are at your fingertips. To access the job bank, go to <http://www.chemcenter.org>.

Situations Wanted Ads

ACS members and national and student affiliates who are unemployed or who have been given 60 days' notice of termination, as well as student members and affiliates who have not found employment two months prior to graduation, may place free advertisements in C&EN. Retired members who are looking for part-time employment and have applied for retired status with the ACS may place free ads. For more information, call 1-800-227-5558, ext. 6208.

For More Information

To find out more about how to make your ACS membership work for you and your professional development, please contact

American Chemical Society
Department of Career Services
1155 Sixteenth St., NW
Washington, DC 20036
Telephone: 202-872-4600 or 800-227-5558
E-mail: career@acs.org
Internet: <http://www.acs.org>

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APPENDIX B



**ACS CAREER
SERVICES**

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