



Professional & Workforce News

ACS DEPARTMENT OF CAREER SERVICES

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CHEMICAL EMPLOYMENT IN SMALL COMPANIES

There are many exciting job opportunities for chemists in small chemical businesses. Getting one of these positions is no more difficult than obtaining a job in a larger firm, but the process uses some different strategies.

Why Small Companies?

More and more chemists, whether new graduates or experienced professionals, are turning to smaller companies for employment. Small employers, although not as visible as their larger counterparts, are much more numerous than larger firms, and their ranks continue to grow. Of all U.S. manufacturing chemical and allied companies¹ in 1996, only 293 out of 12,377 firms (2.3%) had more than 500 employees. Only 42% (i.e., less than half) had more than 20 employees (see figure below).

Openings for technical positions abound in smaller firms. The percentage of new chemistry graduates working their

first industrial jobs in companies with fewer than 500 employees increased from 28% in 1990 to 42% in 1998. This trend is also evident across all degree levels. In 1998 (the last year for which data are available), 48% of bachelor's level, 34% of master's level, and 26% of doctoral level chemistry graduates worked in these smaller firms (see figure below).

Smaller companies, unlike large firms, tend to advertise their job openings regionally or locally, rather than nationally. Most are not household names, and chemists may be unaware of their existence. Their businesses often are quite specialized, and typically they do not even have a human resources department. Nonetheless, small companies provide

most of the newly created chemical industry jobs. Most important, small firms are emerging at a rapid rate, and they are hiring.

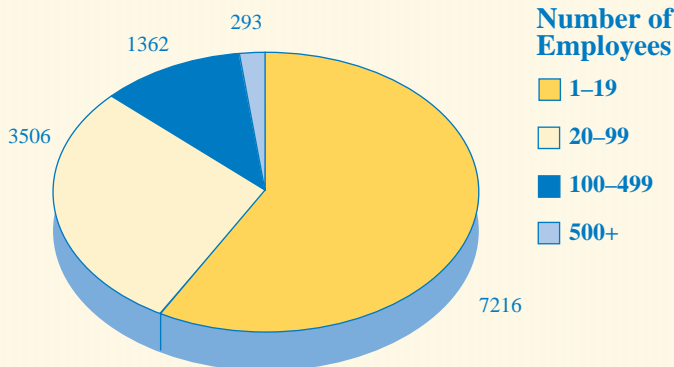
Why Work in a Small Company?

Small chemical businesses offer

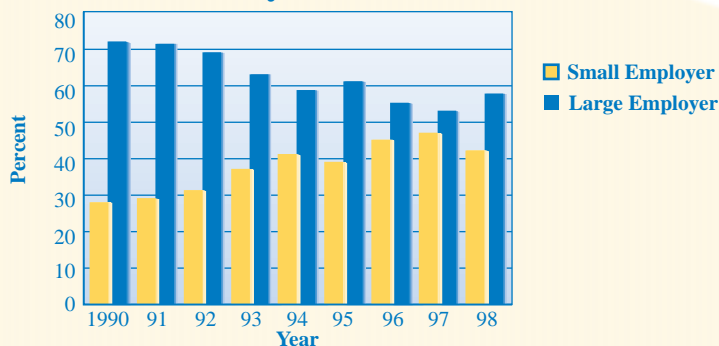
- *A high level of challenge and responsibility.* Because of smaller staffs, the individual is often given a greater degree of autonomy and is expected to be more self-directed.
- *Diversity of responsibilities.* Each employee is often expected to wear multiple hats and perform a diverse array of tasks rather than specialize in one area.
- *Stock options and employee ownership plans.* Many times, an increased risk of business failure is offset by potentially large payoffs in the event of success in the market.
- *Location.* Small companies are in many more diverse locations than larger ones.
- *Flexible work hours.* Often, a small firm offers more flexible hours, although total hours can be longer.

¹Chemical and allied companies include industrial chemicals, plastics and synthetics, and drug companies. Therefore, a large proportion of chemical professionals in manufacturing work in this category of employer. However, this category does not include a wide variety of private industry employers of chemists, such as manufacturers of petroleum products and rubber products, or nonmanufacturers, such as professional, scientific, and technical services.

Chemical and Allied Manufacturers, Including Drugs, 1996, by Size



Inexperienced Chemistry Graduates Employed in Industry, 1990-1998, by Size



Small companies = fewer than 500 employees
Source: ACS New Graduate Surveys

- *Presence in many areas of business and technology.* In any part of the chemical industry, small specialty companies exist.

Characteristics of Employment in Small Companies

The following list contains characteristics generally common to employment in small chemical companies.² It is neither complete nor applicable to all small companies, but it is generally representative and offers some basic concepts to consider.

Small chemical companies often

- *Require rapid creativity and response.* For a company with a limited product line, a competitor with a new superior product could mean disaster. Remember that R&D in industry focuses on new products and services for a profit, while in academia it is done to create new knowledge and to tell others about it. In small companies, emphasis is often on the D for development of solutions to problems, new products, and new markets. In a small business, little innovations count!
- *Demand flexibility from employees.* Small companies often require every employee to perform many different jobs. For example, an employee might be required to work in customer relations, sales, marketing, internal and external technical service, problem solving in production, monitoring, or bookkeeping.
- *Provide a great opportunity for new challenges.* The reward for success is often immediate.
- *Possess only limited supporting infrastructure and resources.* Sometimes public and university libraries must be consulted and external labs used. Employees may have to do their own repairs and engineering (and even plumbing!).
- *Can commit only limited financial resources.* Pay and benefits may be significantly lower with small com-



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panies than with large ones. Many small companies simply do not have sufficiently high, sustained profits to pay high salaries. However, sometimes other incentives and benefits can be negotiated. Smaller companies are more apt to offer stock options, bonuses, and other incentives tied to corporate profits.

- *Need sustained positive cash flow.* Small companies may have limited reserves and credit lines and may need to show a profit every year.
- *Allow flexible hours.* This includes flex time, scheduling jobs, and work hours based on the wants and needs of the individual. “So long as the job gets done,” is often the guiding principle. This, of course, also depends on the business needs of the company.

How To Look for Jobs in Small Companies

Networks. The best resource for finding jobs is your personal network. Over a lifetime, you may create many networks for various purposes and, often, names will overlap from one network to another.

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Although members of your network should be able to identify some small companies directly, they also can point you to the information that you need. They may suggest additional people to contact, such as the name of a relevant ACS local section officer, a small company employee, or even a hiring manager.

The larger your network, the larger the scope of your search and the more successful it will likely be.

While you are actively seeking a job, contact members of your network on a regular basis—perhaps a few people each day. Tell them that you are job hunting and

ask for their help. Call each person back in a few weeks if you have not received productive leads. Remember that the act of looking for a job is a job in itself. As you contact your network members, be polite and tactful, and give people the time and opportunity to be helpful. The larger your network, the more likely it is that you will meet with success. If you do not have a network, start developing one now and keep adding to it.

Who To Include in Your Network.

Friends, colleagues, professors, instrument vendors, service and repair people who visit companies, consultants, librarians, contacts made at scientific meetings, state and local government staff, and ACS Local Section officers should be included in your network. (Call 1-800-227-5558 for the name of your Local Section Career Program coordinator.) Many of

²Although this article is directed to chemists and is about chemical companies, many of the principles discussed apply to all small companies and obtaining jobs with them.

these people are widely traveled and may have held several jobs with multiple companies. They may know about small companies, where they are located, which are succeeding (or failing), and whether they have openings. They may be aware of forthcoming vacancies, cut-backs, or where not to apply. They might have opinions about which companies are good to work for and which are not.

Printed Lists and Publications. In addition to responses from your network, you can often obtain information from other sources, such as the local telephone company's *Yellow Pages* and the various directories in the Resource List on page 6. Look for companies with names that include the following words: chemist, chemistry, technology, engineering, waste, waste management, soils, metals, metallurgy, plastics, and polymers (among others). There are vast numbers of small companies in the United States, and they use a variety of words in their names. Use your imagination to find them.

Libraries. Your local librarian can help you locate other appropriate lists and resource materials. Also, visit libraries at local colleges and universities, as well as state depository libraries. Libraries often have multiple resources available that list business establishments by geographical regions and standard industrial codes.

The Internet. You also can use the Internet to obtain information, but beware: The Internet is such a rich source of uncategorized information that it can be overwhelming. Determine your specific targets before embarking on a Web search, and focus on companies in your preferred locations that employ chemists in your field of expertise.

Many Internet services can help you find posted jobs. One recent Internet search for chemistry-related jobs at the ACS Career Services site (www.acs.org) produced an abundance of opportunities to follow up. Browse through the site's "Build Your Career" section. Another great site (www.CareerPath.com) allows you to search through jobs posted in hundreds of major newspapers.

The Hidden Job Market

It is very important to realize that many jobs are hidden, and you must learn how to find them.

There are many advantages in doing so, such as less competition when jobs are not advertised openly. A company may be hiring, but for a variety of reasons, it may not be advertising.

Sometimes a job is not posted simply because a company is filling another position first. An employer may be too busy to develop a job description or even to place an ad, which can be especially true with small companies.

Operating space, cash flow, loan payment schedules, and other financial concerns may hold back a small company from growing and hiring, so it may not post job openings. And sometimes, even when a job is advertised, it only appears in a local newspaper.

Another type of hidden job is one that does not yet exist. In fact, an employer may not even be aware of the need to create it. In many small companies, you can create your own job. There may be an unrecognized need to upgrade or computerize a manufacturing process, manage government regulations, create a new related product line, or modernize financial record keeping.

The following are real-life examples of hidden jobs, based on personal experiences.

Case 1. A friend has his own small chemical business. For two years, at social events, he spoke of his company's need for an organic chemist. He complained of being too busy to hire

someone. (This would be a high-level, expensive hire, requiring careful consideration.) Finally, he placed an advertisement in a national newspaper, which generated 72 résumés. He spent many hours reviewing résumés and interviewing candidates before finally hiring someone. He is happy with the result, but he also spent a lot of time on the process. What could have happened if an appropriate candidate had simply walked into his office looking for a job?

Case 2. While walking through an exposition at a meeting, a retired chemist engaged an exhibitor in conversation and asked about his



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business. The discussion was casual; however, the end result was astonishing. The chemist's ques-

tions got the exhibitor thinking; before he knew it, the chemist was offered a job on the spot.

Case 3. A graduate student attended an ACS national meeting and the Division of Analytical Chemistry dinner and social hour. He was there to network. He conversed with an experienced chemist and mentioned his Ph.D. research field and the fact that he was looking for a job. Later, in talking with a professor friend, the chemist realized that the fields of the friend, the student, and the student's research supervisor overlapped. He introduced the student and the professor. Consequently, he overheard the professor say, "I will call your advisor and talk to him. I know a small company that has just the job for you. And they need somebody to fill it soon." The lucky graduate student had networked politely, boldly, and successfully.

Create a list of companies that you found on the Internet and compile more information about them. If they placed an ad on the Internet, they probably have a link to their home page. If not, determine whether they are publicly traded. Call and ask for an annual report. If they are not a public company, perhaps they can send you other literature outlining the company's contributions, safety record, or other community involvement. You also may call the Better Business Bureau and local Business Development Corporations to obtain information.

Cold Calls. Cold calling is the process of visiting a company in person, without a prescheduled appointment. Many salespeople use cold calling to introduce new products or services to a company, to provide information about upcoming products, or even to notify others about personnel changes. You can use the same method to obtain a hidden job. You may not know whether a position is available, but by cold calling you can find out. By exchanging information, you should be better able to determine whether employment will be mutually beneficial. Use cold calling only with small or medium-sized companies. Usually, cold calling doesn't work at large companies, because they tend to screen job candidates differently.

The principle behind cold calling is that personal contact and an enthusiastic presence normally are much more effective in establishing communications than contact by impersonal means. Remember, the company executive does not know you and probably has never heard of you; by walking in the front door, you hope to melt down any opposition.

The following steps can facilitate cold calling.

- Decide on a geographical location where you want to live and work.
- Locate as many small chemical companies in this area as you are willing to visit.
- Use your networks, lists, the library, the local Chamber of Commerce, local newspapers, and other means to gather technical and business infor-

mation about every company that interests you.

- Prepare a résumé that focuses on and reflects any skills and achievements that are relevant to the companies you are targeting.
- Take your résumé to the main office of a company on your list. Ask to see the person responsible for hiring. (You will not likely be fortunate enough to secure an impromptu interview on the first visit, but be prepared if it happens.) Tell the person who has received you that you live in this area (or would like to),



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that you know about the company, and that you think you would like to work there. Note the receptionist's name and the name of the president or CEO (you may already know this). Make sure that you obtain a

phone number so that you can call back later. Ask that your résumé be given to the CEO or whoever does the hiring. Finally, indicate that you will call back in a few days to discuss your résumé with the CEO. Demonstrate your interest by being a little aggressive, yet polite and tactful. Although this approach may seem intimidating, few people will react negatively to your interest in their company and their community.

- Follow up. Call back in a few days and determine whether the company is interested in you. If they are not (e.g., they're not hiring), thank them for their consideration, ask if you can call back in a few months, and move on. If they are interested, in all likelihood they will arrange an interview with you.

Meetings and Expositions. Visiting an exhibitor's booth at an ACS or other scientific meeting or trade show for the purpose of finding a hidden job is another form of cold calling. Many vendors expect a certain amount of booth traffic to relate to employment. Some companies with unposted job openings will send personnel qualified to discuss employment with those who stop by. As a candidate using this method, you follow a process similar to but generally less complicated than that of a cold call. Be sure to take résumés with you and be prepared for on-the-spot discussions of your work history, education, interests, skills, and salary history and requirements.

Posted Jobs. A posted job is advertised or publicized by a company to encourage applications. When a job is posted, a company is normally seeking to fill the position as soon as possible. Of course, many companies

announce their job opportunities. They may use advertisements in journals, magazines, and newspapers; postings on the World Wide Web; lists and data banks; campus recruiters; job fairs and employment clearinghouses; direct contact with



agencies and professors; and occasionally direct contact with candidates, especially at scientific meetings. Don't try to depend solely on such sources, however, because it is estimated that two-thirds of all job opportunities are hidden.

Job postings can be direct or indirect. Direct postings are written job descriptions that are made public, perhaps as announcements that may be viewed internally on a company bulletin board (in the traditional sense of a cork board or on an electronic board). Jobs may be directly posted on a company's Web page. Postings may also be placed in local and national newspapers, in magazines and journals (such as *Chemical & Engineering News*), on union bulletin boards, in databases, or in other lists on the Internet. Small companies typically post their jobs locally rather than nationally, because they may not have the financial resources to pay for relocating employees and may not wish to pay the higher ad rates often required for national exposure.

Indirect postings of job openings occur when information about them is provided to another party rather than made publicly available. A company may use headhunters or academics to find employees.

It also is common for companies to hire people from a temporary agency. This way, a company can obtain first-hand experience with a potential employee and assess his or her capabilities and "fit" into its business culture before offering a permanent position. Sometimes, a job opening is leaked through a network to find an appropriate candidate. Jobs announced at employment clearinghouses (e.g., ACS National Employment Clearinghouse, the Eastern Analytical Symposium, the Pittsburgh Conference, etc.), have elements of both direct and indirect postings. In general, the candidate must "show up" to find out about such a job opening, but the clearinghouses themselves are widely advertised.

It can be more challenging to find job postings for small companies than for large companies. To find postings, visit temporary agencies and headhunters in your area, and ask about jobs. Many temp agencies have local, regional, and national job lists. Attend meetings that have employment clearinghouses and exhibitions. Professors, librarians, and colleagues can tell you about such meetings or point you to resource material that will provide the necessary information. Don't forget to take your résumé to

these meetings.

Most job descriptions, whether posted directly or indirectly, will contain information on how to apply for the job. Be sure to follow the instructions.

Summary

Finding and working for small companies is a unique process. There are, however, procedures for finding hidden jobs and posted jobs in small companies. The rewards of working in this environment can be tremendous.

The ACS Department of Career Services publishes a catalog that is available by calling 1-800-227-5558. A list of "Resources for Career Management" can be obtained by visiting the ACS Web site at www.acs.org/careers.

Small Companies Resource List

D&B Business Rankings; Dun & Bradstreet, Inc.; Bethlehem, PA; categorizes by standard industrial codes and geographical region; updated and published annually.

Manufacturing USA; Gale Research, USA; categorizes by standard industrial codes and geographical region; updated and published annually.

Master Index; National Register Publishing, a member of the Lexis-Nexis Group; New Providence, NJ; categorizes by standard industrial codes and geographical region; updated and published annually.

Standard & Poor's Register Corporation; Standard & Poor's, a division of the McGraw Hill Companies; Charlottesville, VA; published monthly.

The Corporation Directory; Walkers Research LLC; San Mateo, CA; updated and published annually.

U.S. Private Companies; National Register Publishing, a member of the Lexis-Nexis Group; New Providence, NJ; updated and published annually.

U.S. Public Companies; National Register Publishing, a member of the Lexis-Nexis Group; New Providence, NJ; updated and published annually.

Wards Business Directory; Gale Research, USA; updated and published annually.

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Jean Parr, Head
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