Employment for Chemists

Recently an excellent article in C&E News entitled “Down but not Out” covered the current bleak employment situation for chemist. [http://pubs.acs.org/cen/coverstory/87/8744cover2.html](http://pubs.acs.org/cen/coverstory/87/8744cover2.html)

This article highlighted all of the jobs that were lost due to the recession. This situation coupled with the lack of employment opportunities has prompted the board members to make it the theme of this BMGT division newsletter.

The letter will review the current employment situation as well as looking at a job forecast until 2018.

The rest of the newsletter is dedicated to inform ACS members of all of the employment advise a chemist can gather from the ACS and its partners.

The current employment environment for chemist according to the US Department of Labor, Bureau of Labor Statistics is the following:

Chemists accounted for about 84,300 jobs in 2008. In addition, 24,800 chemists held faculty positions.

About 42 percent of all chemists were employed in manufacturing firms—mostly in the chemical manufacturing industry. Firms in this industry produce plastics and synthetic materials, drugs, soaps and cleaners, pesticides and fertilizers, paint, industrial organic chemicals, and other chemical products. About 18 percent of chemists worked in scientific research and development services; 9 percent worked in testing labs.

**Education and training**

A bachelor’s degree in chemistry, or in a related discipline together with a significant background in chemistry, usually is required for entry-level chemist jobs. Most research jobs in chemistry and materials science require a master’s degree or, more frequently, a Ph.D.

Many colleges and universities offer degree programs in chemistry. In 2009, the American Chemical Society (ACS) had approved about 650 bachelor’s, 310 masters, and 200 doctoral degree programs. In addition to these programs, other advanced degree programs in chemistry were offered at several hundred colleges and universities.

**Advancement**

Advancement among chemists usually takes the form of greater independence in their work or larger budgets. Others choose to move into managerial positions and become natural sciences managers. Those who pursue management careers spend more time preparing budgets and schedules and setting research strategy. Chemists who develop new products or processes sometimes form their own companies or join new firms to develop these ideas.

Job growth is expected to be slower than the average for all occupations. New chemists at all levels may experience competition for jobs, particularly in declining chemical manufacturing industries. Graduates with a master’s degree or a Ph.D. will enjoy better opportunities, especially at larger pharmaceutical and biotechnology firms.

**Future Projections**

The 2008 listings for job growth in the professional, scientific, and technical services area were approximately 21 percent (see Figure below), firms like manufacturing companies will continue to outsource their R&D and testing operations to smaller, specialized firms. Chemist positions, a subset in professional, scientific, and technical services, will see a 2 percent growth from now till 2018 as increases in biotechnology-
Why Attend ACS Webinars?

FAST – No wasted time here. Get right to the heart of addressing issues important to you in 60 minutes. Fits easily into your busy schedule.

CONVENIENT - No airport security. No traffic congestion. No down time. Listen from the comfort and convenience of your desk or your bench.

EASY – An online computer or telephone is all the equipment you need. Just go to the weblink, enter the webinar code, and you’re in. That’s it. Instructions are sent in advance.

ACTIONABLE - Learn from luminaries and subject experts on strategies and tactics you can start using right after the webinar.

LEARN WITH YOUR PEERS – Use a speakerphone and as many people as you want can listen in – at no cost to you. Many professionals use these sessions as a cost-efficient, time-efficient means of group training and reinforcing key issues in a fresh new manner that they will remember and act on.

AFFORDABLE – Free. A benefit to you from the American Chemical Society. No cost of travel or attendance fees.

Employment for Chemists (Continued)

related fields will be tempered by declines in other chemical manufacturing. Demand for chemists is expected to be driven by biotechnology firms. Biotechnological research, including studies of human genes, continues to offer possibilities for the development of new drugs and products to combat illnesses and diseases that have previously been unresponsive to treatments derived by traditional chemical processes.

The American Chemical Society offers many programs to assist chemists in finding employment.

Take the Mystery Out of the Job Search: Get Support from the ACS Career Experts!

ACS Careers Job Club Webinar Forums features moderators Lisa Balbes, Ph.D., and James Burke, Ph.D., ACS Career Consultants with a combined 40 years of experience in assisting hundreds of job seekers in the chemical industry. The launch is Tuesday, March 9, 2010, with a 20-minute topic presentation followed by a Q&A session. Subsequent forums will be held the second Tuesday of every month from 1pm to 2pm ET. Please visit www.acs.org/careers to register for this free service!

Employers Are Looking to Hire: If You Are Looking for a Job, Register for the ACS Career Fair!

The Career Fair is the premier place where employers can promote their company and meet job seekers face-to-face to discuss employment opportunities. Job seekers can attend a variety of workshops, participate in mock interviews, and make appointments for individual résumé reviews. The Career Fair will be located in the Moscone Center, West Hall, Level One. It will be held Sunday, March 21, 10am to 5:30pm; Monday and Tuesday, March 22–23, 8am–5:30pm; and Wednesday, March 24, 8am–noon. Job seekers and employers can register at www.acs.org/careers.

Bancroft tells a graduating class at the University of Southern California in 1929:

“One cannot count on having somebody else exploit one’s discoveries. Consequently, [the scientist] must make up his mind to sell himself to the scientific world if he is not going to run the risk of being classified as a man whose ideas, though excellent, came when the time was not ripe for them. . . . Since the greatest discoveries are likely to be ones for which the world is least ready, we see that the greatest scientific men should really be super-salesmen.”

Connecting you with subject experts and global thought leaders in chemical sciences, management, and business. Please join us weekly, Thursdays at 2:00pm ET. For upcoming events: http://boilthisdown.org/?page_id=385 To suggest topics for future webinars, please email to imp@acs.org.
Create Your Own Local Networking Job Club

Energize your job search by creating your own local job club. Go to www.acs.org/careers under ACS Career Advice, then to Job Search Essentials for this and other job search information.

Starting a Job Club Checklist
- Determine your membership.
- Name your group.
- Fix a place, time, and frequency for meetings.
- Figure out finances.
- Plan programs.
- Set expectations for and from members.
- Communicate within and about your group.
- Celebrate successes.

Determine Your Membership
- Will you be open to anyone who wants to join? ACS members only? By invitation only?
- Will you have only unemployed members? Employed, but looking for a better position? Employed, and willing to give advice to others?
- Will you recruit all members at the start, or allow people to come and go?

Name Your Group
Pick a name that defines your mission. You could be a Job Club, Community Action Team, Careers in Transition, Community Employment Action Team, or support group. Or get creative: Maybe your members will be more excited about a Chemists Conquer Careers Club.

Fix a Place, Time, and Frequency for Meetings
People will be more likely to come if the meetings are at a regular time and place. A regular time and place also create a sense of normalcy and rigor. This type of regular activity can be very useful for people who don’t currently have that in their work life. You can probably use a room for no charge at a local college, university, or company, especially if you have someone on the organizing team who works there. Otherwise, you can try a coffee shop, library, bookstore, church, or other public place. If you have to pay for a meeting place, you either need to find a sponsor, or collect dues from members. You could meet early in the morning before work, for lunch, or over or after dinner.

Figure out Finances
If you find a free place to meet, and don’t meet over meals, you probably won’t have any expenses. If you meet over a meal, you can make it Dutch treat and handle expenses at each meeting. If you have to pay for the meeting room, or have more complicated food arrangements, you may need to collect dues and have a treasurer.

Plan Programs
People will be more willing to attend if there is a topic, agenda, and featured speaker on a career-related topic. Make sure to plan enough time for the presentation, questions, and networking.

Potential speakers include people who can talk on trends in your industry, business reporters, résumé writers, career coaches, authors of books on career-related topics, HR managers, representatives of placement agencies, or headhunters. You can also have members share their expertise on what has worked, what hasn’t, what they know about local companies, and so on.

Make sure to build in some fun and activities to let the participants get to know each other on a personal level.

Set Expectations for and from Members
Each member should always bring a pen, paper, business cards, and possibly résumés. At each meeting, establish an understanding of the expectations of each participant, which may include constructive criticism only, respecting confidentiality requests, coming prepared, and honesty. You may also limit complaining to 30 seconds per person, before moving on to more constructive conversations.

Communicate within and about Your Group
Set up an email list, ACS Network group, Facebook group, or other means for your members to communicate between meetings. Encourage posting of openings, tips, etc., and publicity of the group to other people. You may or may not want to make the membership list public.

Contact local media, as well as local companies, and let them know about your club. Media coverage means more employers will hear about your members.

Include Accountability
You may want to have a part of the meeting where each person reports on their progress since the last meeting, solicits advice, then makes a plan for what they will do before the next meeting. They can share the mini-successes too, such as setting up informational meetings, securing interviews, making new contacts, and so on. This reporting process creates personal accountability and encourages group members to set personal goals and meet them. If your group is large, you may want to break into smaller groups for this part of the program.

Job Club: Resources for More Information
North Jersey Section of the ACS — Careers in Transition Group www.njacs.org/careers.html
Meets the first Thursday of each month from 5:30pm to 9 pm at Fairleigh Dickinson University in Madison.
Topics covered at these free workshops include:
- the latest techniques in résumé preparation, ways to improve a résumé, answers to frequently asked interview questions, and conducting an effective job search.

There is a Dutch-treat dinner, and participants are encouraged to bring transparencies of their résumé so everyone can view and comment on it.

Articles
For Networking and Support, Join or Start a Job Club
http://www.quintcareers.com/job_club.html

What is a Job Club?
http://abcnews.go.com/GMA/JobClub/story?id=6121035&page=1

How to Start a Job Club?
http://abcnews.go.com/GMA/JobClub/story?id=6121092&page=1
ACS Announces the 2010 Schedule for Short Courses

Our 2010 Schedule is out! Find out which courses are being offered in what cities at www.proed.acs.org/2010.

The ACS Office of Professional Education has dramatically revamped its website and registration system so you can find the courses you’re looking for in no time. Bookmark this link today: www.proed.acs.org. You can now search our short courses, webcast courses, and ProSpectives Conferences by topic area, date, or location and even browse our full instructor list.

We are continuously investing in new course development, so if you don’t see what you’re looking for, just drop us a line at shortcourses@acs.org, and we’ll do our best to serve your technical training needs.

SEE the Future of Sustainability Through Chemistry

The global challenges of providing sufficient and secure energy, clean drinking water, and adequate food, housing, and medical care will require the creative input of all of the planet’s scientists. To address these challenges, ACS will host an innovative Sustainability Engagement Event (SEE) during the spring national meeting in San Francisco (www.acs.org/sustainability).

The event will help us to SEE this future. It will focus on collecting, refining, and implementing the ideas of a broad range of stakeholders, and on strengthening their engagement. The goals are to generate excitement about the ACS sustainability efforts; to brainstorm, create, and develop projects that can and will make a difference; and to connect with members of all ages and fields, especially those who are not currently engaged with ACS on a volunteer level.

The varied backgrounds and experiences of chemists inspire us in different ways to offer workable solutions at the local, regional, and global levels. Working together, ACS and chemists can identify the solutions that will help us achieve a sustainable future.

All meeting attendees and ACS members are invited to participate in the event forum. Even if you are not planning to be in San Francisco, you are encouraged to share your ideas at www.acs.org/sustainability.

The SEE kickoff will take place on Sunday, March 21 from 6pm to 8:30pm in the Expo Hall, and the forum will be on Tuesday, March 23 from 3pm to 5:30pm. Pre-registration is requested for the forum, which is quick and easy at www.acs.org/sustainability.

Your Travel Budget’s Cut, But You Still Need Training? Try an ACS Webcast!

Few companies are immune from the economic hardships in the headlines, and many budgets have been trimmed. But it is still crucial to your career to engage in continuing education to expand your skills and stay abreast of new topics.

Join the ACS Webcast mailing list at www.proed.acs.org/emailme to be the first to hear about the 2010 schedule, try out new courses for free, and receive discounts not available to the general public! Save your time and money and take a look at the courses available online through ACS.

ACS Webcast Short Courses provide the same quality training that ACS has long been known for. However, the courses are presented over the Internet, so they offer added convenience and flexibility.

Economical. Most ACS Webcasts cost less than $100 an hour, which is far less than most technical training.

Easy. Our technology is easy to use and works with all typical computer systems, so virtually anyone can easily view a webcast from the comfort of their home, office, or lab.

Convenient. Class attendance is NOT required. If you miss a class, simply use your on-demand access to the session recording so you can catch up on your own time.

Informative. All class materials are available for download, and you can email the instructor anytime.

There are expanded course offerings in analytical, organic, pharmacology, engineering, instrumentation, and other areas. For the full list of Webcast Short Courses and more information on available discounts, visit www.proed.acs.org.
A Note From the Chairman

Dear BMGT Members,

I am sure that I am not being too informative today when I say that it has been a tumultuous period of time for anyone that has not been on a deserted island and there ensconced inside a Faraday cage! The chemical and allied industries are emerging from the deepest trough since the Great Depression. Disconcerting terms such as “jobless recovery” and “reset economy” still fill the news channels. Yet, the “i” word has never (well during my almost 30 years as a scientist/industrialist anyway) been resounding more loudly. Yes, dear BMGT membership – in the boardrooms of major corporations, in the laboratories around San Francisco and Guangzhou and university meeting places in Pune, College Station, Berkeley, Berlin and indeed within ACS’ multiple forums, “Innovation” is the word on most lips. Cases in point: During the past year I attended the ACS Leadership Forum in Fort Worth, the Spring Meeting in Salt Lake City and the autumnal gathering in Washington DC. In between these landmark meetings I traveled widely within the US, several times to Europe, to India, Singapore and China receiving ample verification that we are on the verge of a renaissance in innovative endeavor.

In trying to rationalize this, one does not have to look much further than the organizations which emerged most strongly from the Great Depression and subsequent deep recessions. The evidence is overwhelming that those organizations which invest in sources of innovation such as technology development and R&D during downturns, benefit during the inevitable upturn, in proportion to the magnitude of the malaise. This is an amazingly exciting truth! In addition, we have major trends that will fuel the innovative flames, sustainability, urbanization and billions of people entering the “middle” class. Since BMGT members are working at (or intending to!) the intersection of commerce and science, we have so many opportunities to shape the innovations that will further transform our lives. From providing clean, safe water to billions of people who do not have it, to helping to harness solar power, to curing disease, BMGT members are or should be present. Innovation also showed up during our programming at the national meetings during the past year, from Salt Lake City, to Washington DC to San Francisco during March 2010. BMGT has introduced a few innovations of our own this past year. We hosted a globally “live” conference in Washington, aptly named “Globalization of the Enterprise” together with colleagues of chemical associations in Europe and Latin America; and, the ACS Award in Industrial Chemistry sponsored by BMGT and the Synthetic Organic Chemical Manufacturers Association was awarded to George G. I. Moore of 3M at Salt Lake City.

During 2009, your Executive Committee welcomed Jared Bunker on board as secretary and Dan Daly as newsletter editor. During the committee elections, held during October 2009, Carol Duane was elected as Chair Elect and Mick Hurrey as Councilor. We are happy to have them on board and working on your behalf going forward.

Innovatively yours,

Anthonie Lombard

April Webinars

Creating a Successful Career in Public Policy and the Chemical Industry – Lessons Not Taught in Classrooms. Have you ever wondered how policies that affect directions in science and research are made? Would you like a career that helps shape science policy? From stem cells research to climate change, these scientific issues are as much driven by policy decision as scholarly research. Our speaker will share her observations of policy making in the chemical industry and give you an insightful glimpse into the decision process. Join us to learn about science policy and how you can prepare for a career in that field.

ACS Webinars: Your Career Matters! Series – Thursday, April 8, 2010, 2:00-3:00 PM ET; free registration and more information online at https://www2.gotomeeting.com/register/894562635

US Immigration for Foreign-born Scientists – What You Should Know about Employer-Sponsored and Self-Petitions for Green Cards. What do foreign-born scientists, technology entrepreneurs, and investors need to know to legally work in the US? How can one gain the path to citizenship as a scientist? Foreign-born scientists and scholars have and continue to con-
New Board Member—Tony Brazzale

Tony graduated with a chemistry degree from Southern Illinois University in 1996, and then began his career as a medicinal chemist with Abbott Laboratories. After a couple of years in the area of anti-bacterial drug discovery he moved to Wyeth, working in the area of women’s health research. It was during his time at Wyeth when Tony became involved with the ACS as a member of the National Younger Chemists Committee and also in the Trenton Local Section of the ACS. Following his time in medicinal chemistry he moved toward the business side of science with expanding roles in a series of chromatography focused companies. He is currently Vice President of Business Development and a Board Member at BIA Separations.

“I am extremely happy to be involved with BMGT as the membership chair. A recurring theme that comes up when speaking about membership within the ACS and it’s divisions is that whatever brings you to ACS membership the first time never goes away

For example, if you are a chemist you will always be a chemist no matter what your job title is or what area you are working in. Just as many of my colleagues that are still doing research are trying to share their knowledge and experiences at national meetings and through publications, we at BMGT are encouraging that same communication and understanding between the technical functions and the commercial functions of the chemically oriented community.

For those in the commercial functions that are looking for where you fit into the Society, or those that are in the more traditional technical or research roles that are looking to share in the knowledge base of the more commercial functions that the Society contains – the Division of Business Development and Management is for you, and we welcome you with open arms. We have made it extremely easy and painless to join us and learn about what the division has to offer. In fact, your first year of membership within the division is on us! Visit us on our website: http://www.chemicalenterprise.org/ for more information and a link to join the division.”

Carol Duane

Raising Capital with Angels: What They Don’t Tell You at Business School. Do you know what it takes to raise capital in this economic environment? Raising capital is an important lifeblood for entrepreneurs and small businesses, yet the process is often a black box. Learn from our speaker strategies to raise smart money and avoid the pitfalls of fools money. Join us to explore the ins and outs of raising funds and building a successful marriage with your investors. This is a must attend event for entrepreneurs, scientific professionals, investors and business leaders who are interested in learning about capital raising and angels financing.

ACS Webinars: Small & Medium Business Series – Thursday, April 22, 2010, 2:00-3:00 PM ET; free registration and more information online at https://www2.gotomeeting.com/register/917951850
A Program Roadmap, 239th ACS National Meeting,  
San Francisco, CA, March 21-25, 2010  
Technical Sessions

**Monday, March 22, 2010**  
* Sustaining a Chemical Business through Federal R&D Grants  
9:00 AM-12:00 PM, Moscone Center – West Bldg., Room 3014  
*Sponsored by SCHB, Co-sponsored with BMGT and PROF*

**Tuesday, March 23, 2010**  
* Sustainability, Chemistry and Industry: A Profitable Combination?  
8:30 AM-11:30 AM, Moscone Center – West Bldg., Room 3020  
BMGT, Co-sponsored with SCHB and PROF*

**Wednesday, March 24, 2010**  
* Sustaining a Work-Life Balance  
1:00 PM-4:30 PM, Moscone Center – West Bldg., Room 3014  
*Sponsored by SCHB, Co-sponsored with BMGT, PROF, WCC, and CEPA*

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**ACS Award in Industrial Chemistry: Symposium in Honor of James A. Cella**  
1:00 PM-4:00 PM, Hotel Nikko – Nikko II  
BMGT, Co-sponsored with POLY, includes the Industrial Chemistry Award Address by James A. Cella at 3:05 PM

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**Industrial Chemistry Award Reception**  
* Industrial Chemistry Award Presentation Honoring James A. Cella  
Monday, March 22nd, 4:00 PM – 6:00 PM - Reception  
Hotel Nikko - Golden Gate room  
BMGT, Co-sponsored with POLY and GE

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**Other Symposia of Interest:**

- Laboratory Design and Operation for a Sustainable Planet: Building Gates and Removing Fences (CHAS, Tue)
- A Sign Of The Times: Five Key Issues That Are Changing The Landscape of Patent Law (CHAL, Tue)
- Chemistry and the Developing World (CHED, Tue)
- Green Chemistry for a Sustainable World (I&EC, Tue)
- Polymer Innovations and the Global Economy: Sustainability Challenges and Commercial Opportunities (POLY, Sun, Wed)
- Best Practices for Entrepreneurs (SCHB, Sun)
- Global Water Sustainability (SUST, Mon)
- ACS Award for Encouraging Women into Careers in the Chemical Sciences: Symposium in Honor of Mildred S. Dresselhaus (WCC, Mon)

**SOCIAL EVENTS:**

- ACS Award in Industrial Chemistry Reception, 4:00 – 6:00 PM (Mon)
- "Just Cocktails" Reception, 4:00 – 6:00 PM (Tue)

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