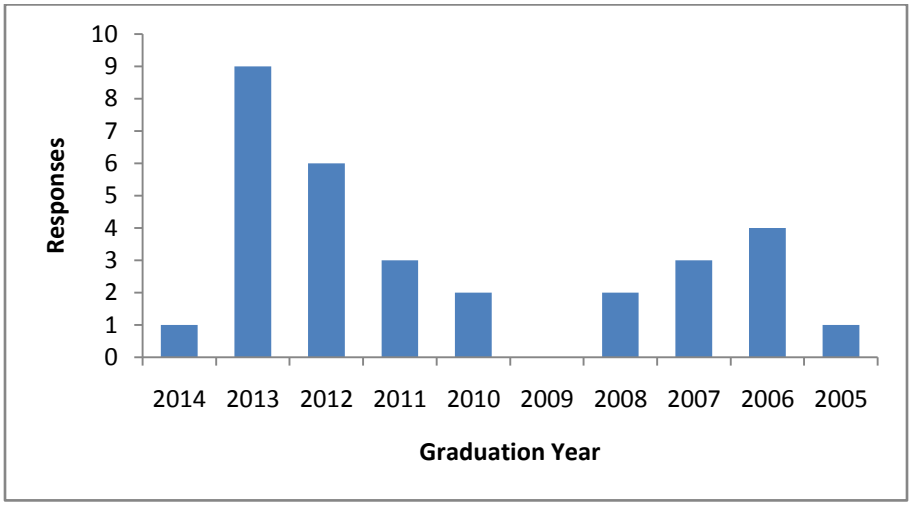
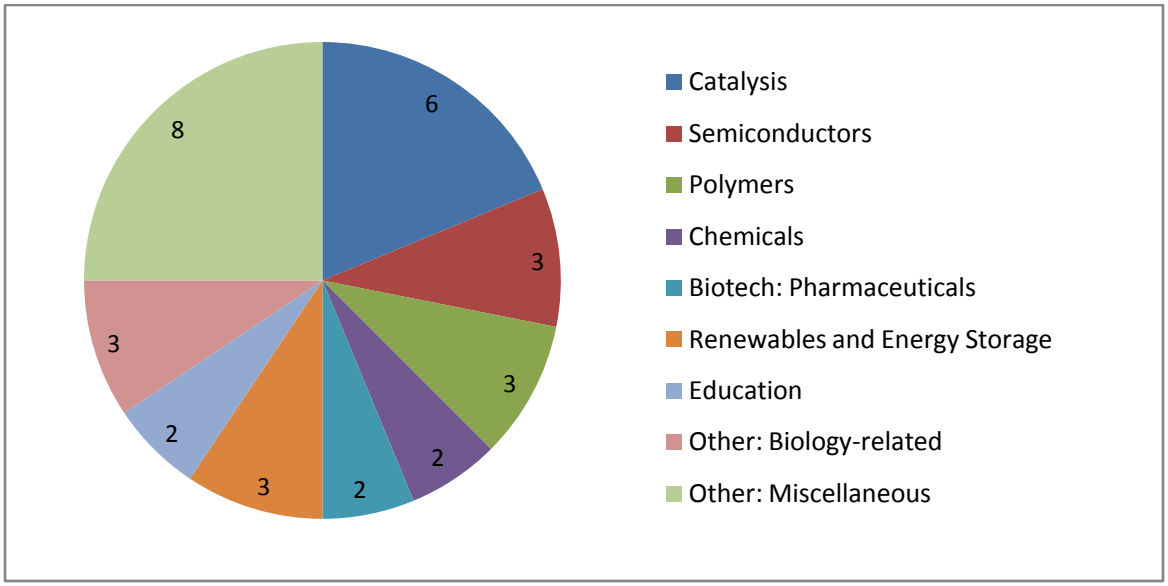
Survey Results

Background Information

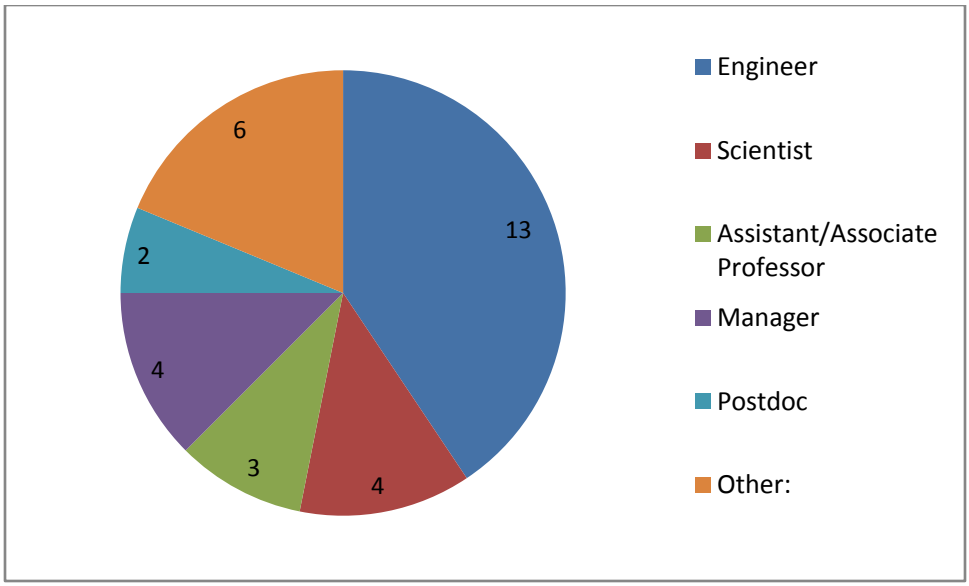
- *Number of replies* = 32
- *Graduation Year*



- *Gender*:M/F: 21/11
- *Degree*: PhD/MS: 28/4
- *Current area of focus*:

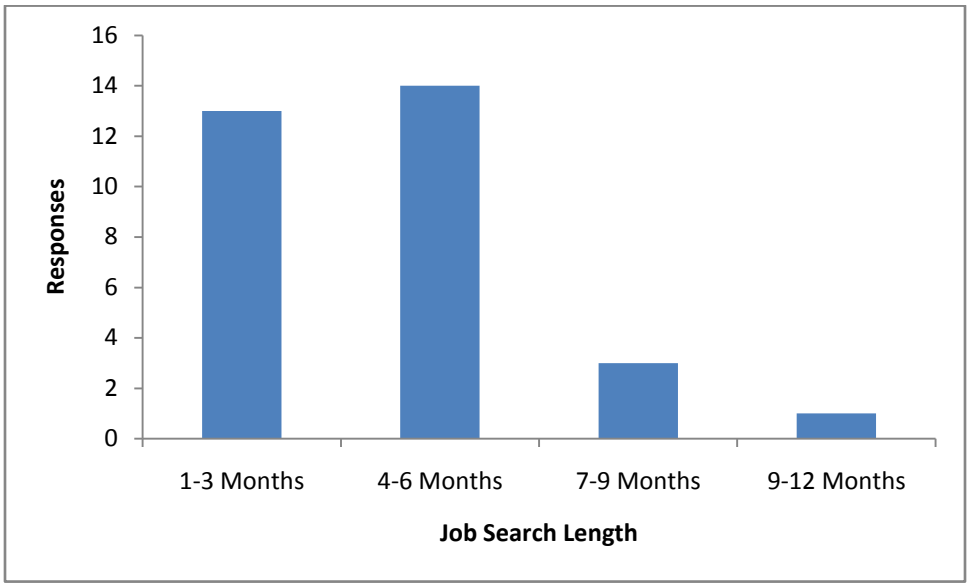


- *Current job title*:

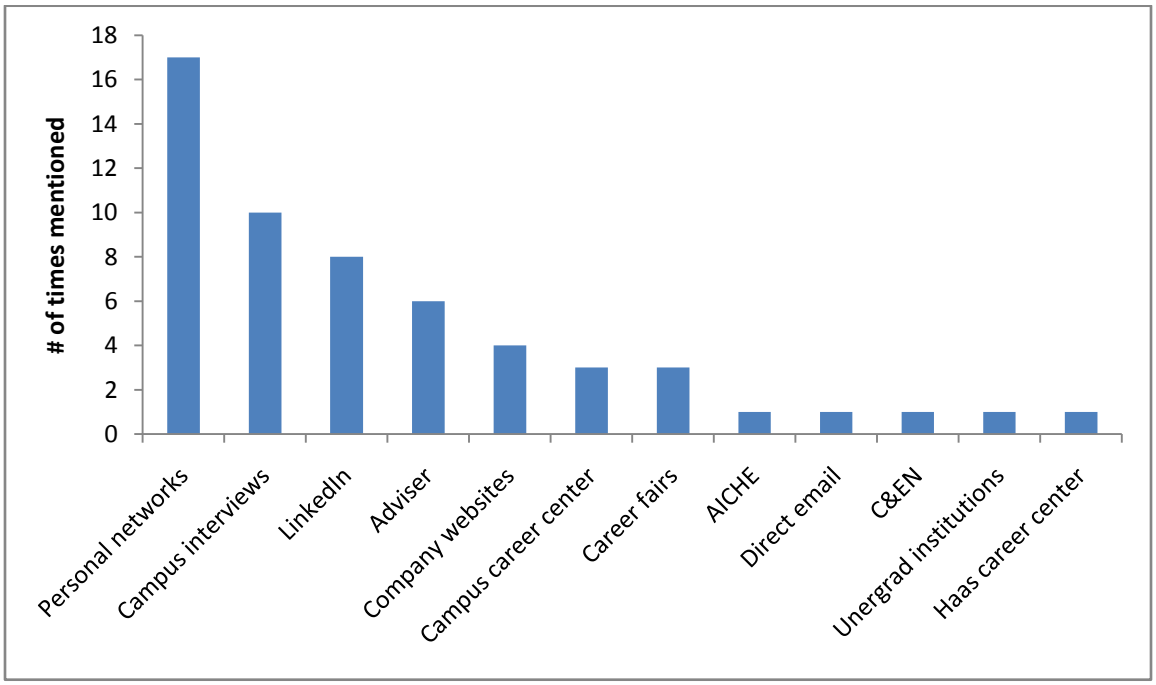

13
4
3
4
2
6
Engineer
Scientist
Assistant/Associate Professor
Manager
Postdoc
Other:

Job Search Information

- *How long did your first job search take?*



- *What were the best resources in finding your first job or position?*



- *How many positions did you apply to?*
  Average: 8 ± 7, Median: 6
- *How many interviews did you receive?*
  Average: 4 ± 2, Median: 3
- *How many offers did you receive?*
  Average: 2 ± 1, Median: 2

Note: Positive correlation with number of interviews vs. number of applications ($R^2 = 0.68$) but no correlation between number of offers vs. number of applications ($R^2 = 0.0091$)

- *Do you have any additional advice about job searching and interviewing?*

Recurring themes:

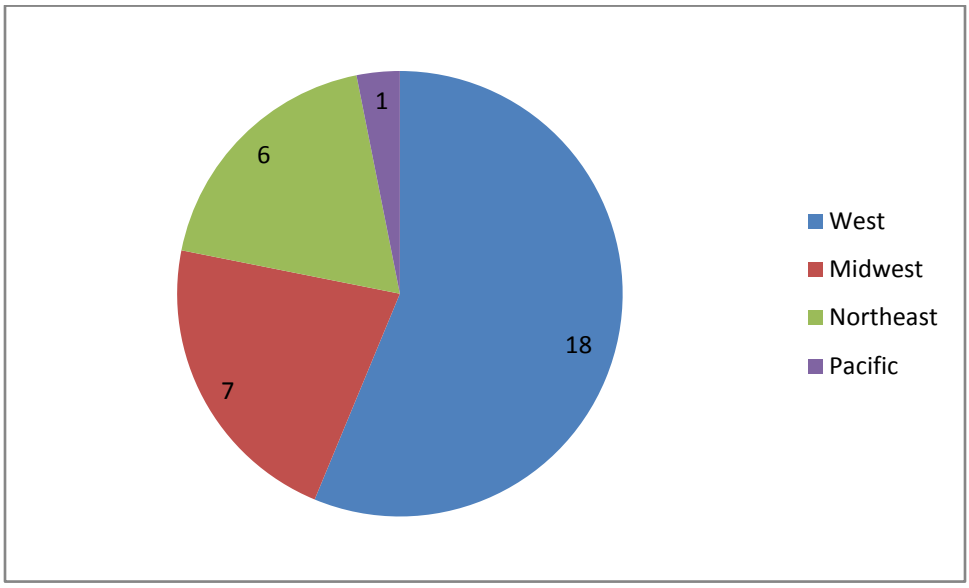
1. Start your job search process early. This includes thinking about what you want to do.
2. Build your network and don't be afraid to contact people when looking for jobs.
3. Practice your interview talk as much as possible and prepare for interview questions.
4. Be persistent, and don't let rejection get you down.

- Start your search very broadly, don't limit it to your thesis topic or even your general area of study. The worst case scenario is getting practice applying/interviewing. Don't let rejection (or lack of response) get you down. This is the last survival-of-the-fittest aspect of grad school, so stay motivated. Lots of places out there are looking for smart, hard-working UCB ChemE grads.
- Start early is the best advice. Getting a postdoc is easier than getting an industrial job. Faculty position is even harder. I recommend preparing and practicing your interview presentation. It is a different kind of talk in my opinion then a basic seminar talk.
- Practice, practice, practice. Think about how you can sell what you've done to them and how it is relevant to them. Reach out to your network.
- Start early
- Start early and be open to living outside of the Bay Area if you are fixed on a specific career path
- You almost always need to have a contact if you're interested in working in a small company/start-up. The best way to find a job is to use and develop your network.
- The most difficult part is getting the interview. Use your personal connections to ensure this. Even if you haven't talked to that person in years, still grab the phone and call them.
- Narrow down your options before you start the search. Look for a job you want, not necessarily a job you can get. Don't let an employer pressure you into accepting an offer before you are ready.
- Work your connections - I received many more interviews from simply contacting people I knew who were working at companies I was interested in than I did from submitting resumes to positions posted on LinkedIn or company websites.
- Start thinking about it before graduating but take a long break before starting ; use your network; do american journal experts while you are unemployed"
- It's all about who you know. Start early building your network and be persistent.
- Contacting people in your network for informational interviews well in advance of graduation can be a great way to learn more about the positions you want and helps you focus your graduate time on learning the skills needed to get that job.
- Use the UC Berkeley Career Center resources like resumé and cover letter revisions and their website resources for resumé and cover letter formatting and meeting employers at career fairs.
- Keep trying!

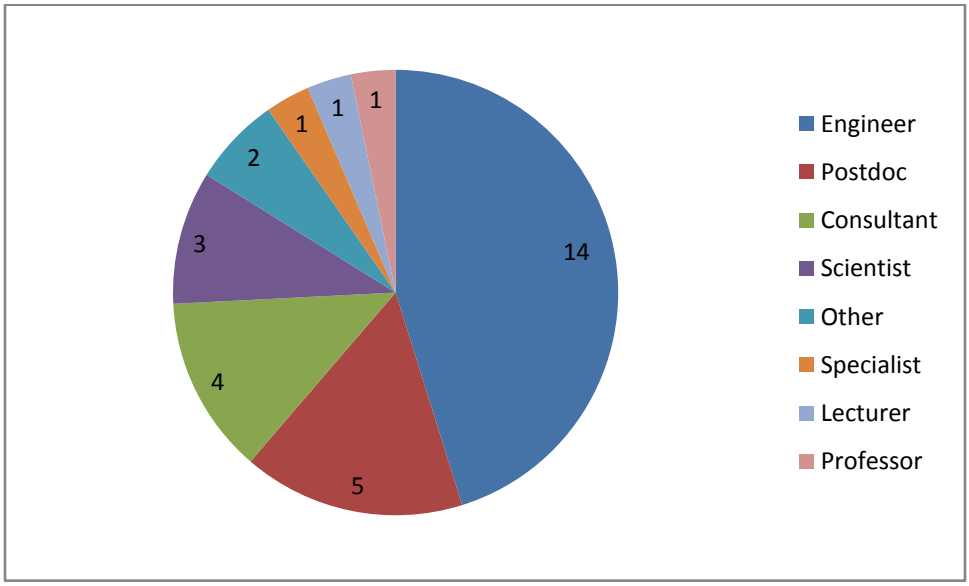
- Practice your interview routine. Be prepared to answer classic interview questions.
- Start early building relationships. Internships are key, even as a PhD so work with your advisor on this early.
- Network with alumni to get your foot in the door.
- Onsite campus interviews are a great way to get a first job at the larger chemical companies.
- Prepare a good and accurate CV. this tailors the interview questions you will get asked
- Network
- Make sure you apply to jobs you are really excited about. It is much easier to make a good impression if you really care about the projects!
- Practice interviewing with people who aren't your friends
- Go on as many on-site interviews as possible, even if it doesn't appear to be a company you are interested in, you can gain much experience from the process. You may also be surprised what different companies have to offer and the culture differences between companies. Start the interview process early, even if you plan to finish Dec of the following year, begin the process in the Fall of the previous year.

First Job Information

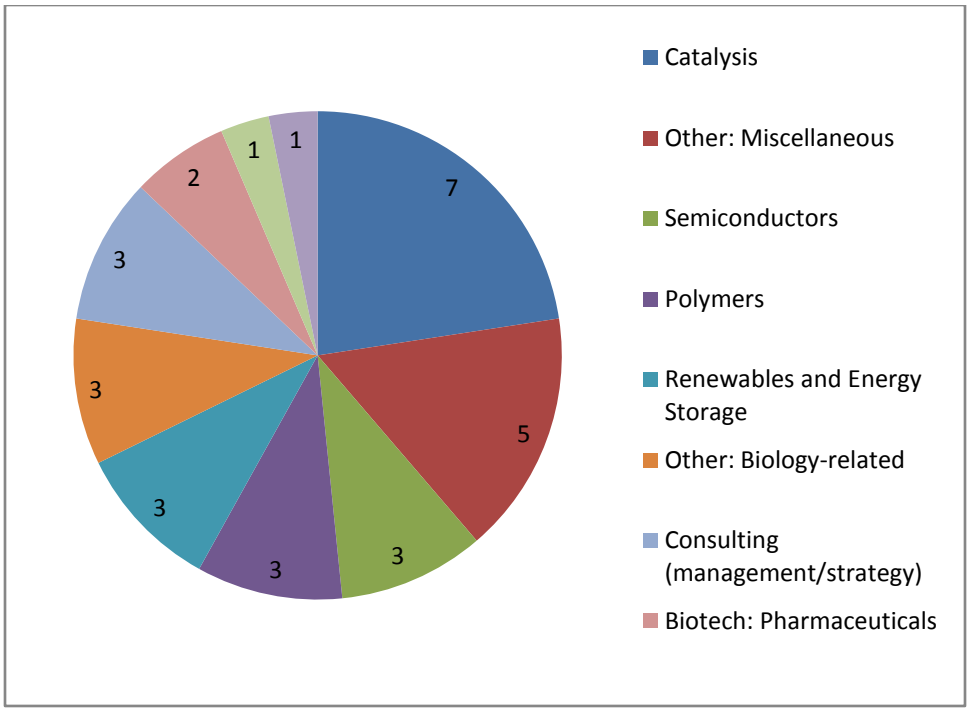
- *Where was your first job located?*



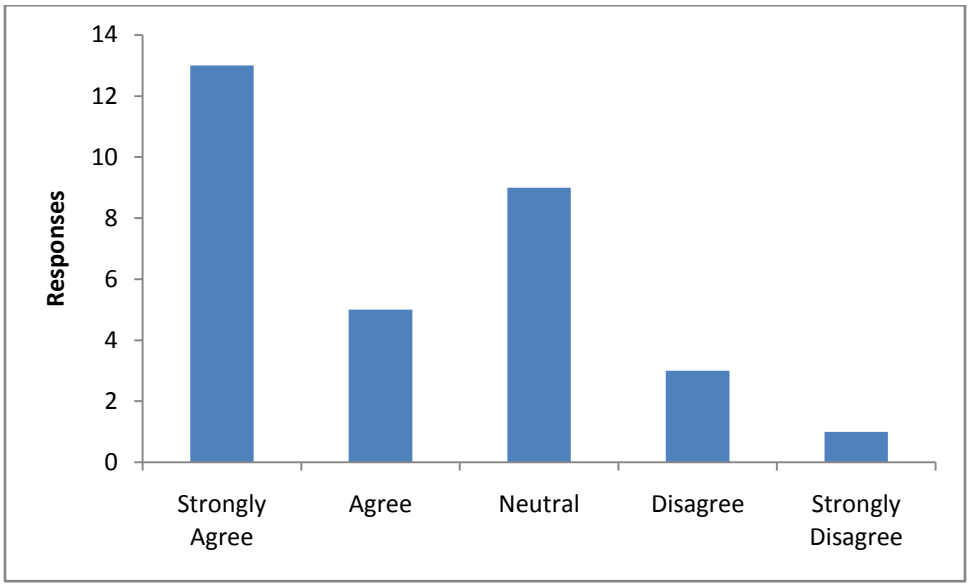
- *What was the job title of your first position?*



- *What area of focus (scientific or non-scientific) was your first job in?*



- *Was this area of focus related to your area of study in graduate school?*



- *What was your approximate starting compensation?*

Industry Positions	Average Salary	Dev	Bonus
Specialist	41000	0 (N = 1)	N/A
Postdoc	72000	0 (N = 1)	N/A
Consultant	118500	14107	Yes, signing bonus, varied from 4000 to 20000
Engineer	92409	11006	Most none, two signing bonus/moving package ~5-6K, three others have annual bonuses (varied %-tage).
Scientist	98500	9192	Yes, signing bonus or annual bonus
Regulatory Affairs	89000	0 (N = 1)	N/A
Overall	94475	20099	

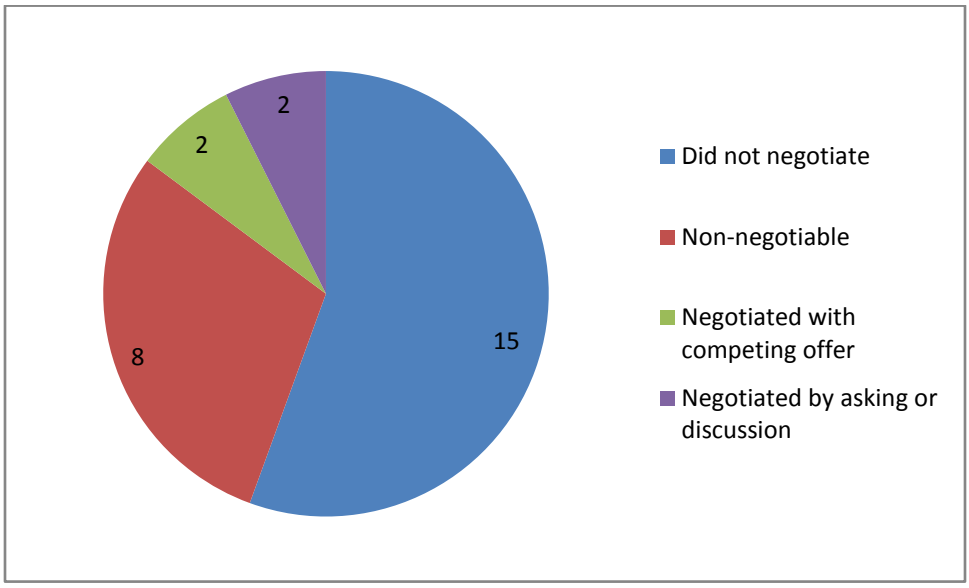
***Note**: no one indicated benefits status for industry positions

Academic Positions	Average Salary	Dev	Benefits (Y/N/NA)
Postdoc	42500	2887	Y
Lecturer	84000	0 (N = 1)	Y
Assistant Professor	75000	0 (N = 1)	NA

***Note:** no one indicated bonuses for academic positions

Industry Salary by Gender	Average Salary	Dev
Female	101333	33194
Male	93038	10615

- *How did you negotiate your starting compensation?*



- *Do you have any additional advice about choosing your first job?*

Recurring themes:

1. Find a job where you can learn and grow your skills. Your first job will most likely not be your last job, so plan for your career as a whole.
2. Find a job that fits you, excites you, and has good people.
3. Don't be afraid to branch out beyond your area of study. Be confident.

- Follow a path that will lead you to the career you want.
- UCB career services is very lacking, you will need to leverage everything you have beyond them. Conversely my undergraduate career services office was quite helpful
- Find a place you'll be happy. Work isn't everything.
- Be strategic. Think of the job itself and where you want to be in 5-10 years.
- Follow what excites you

- I was fortunate that my postdoc PI gave me a reasonable starting salary. However, this is not always the case. Make sure the PI doesn't low ball you in your postdoc salary. Keep in mind your cost of living as well. Also, the postdoc union usually negotiates a minimum starting salary for postdocs. You should request something higher if possible.
- Only do a postdoc if you serious about academia. If you only care about finding industry jobs, then a postdoc isn't for you. However, if you can't find an industry job then a postdoc should be your fallback position.
- I didn't really have much of a choice, however, it is important to decide what you are going to learn from that job. What skills will you develop, what new area will you become an expert in, how will this job help you to get your next job, etc. The purpose is not to get a job, the purpose is to learn X or develop Y. That being said, salary, location, benefits and other tangibles and intangibles come into play as well.
- Make sure the projects/work is interesting but also make sure you really like the people you will be working with!
- It's a big decision, but not the last job you'll ever get. Important to make sure your first job will give you opportunities to continue to develop skills.
- Look for best fit, not most prestigious. It helps to be flexible with location.
- Don't say yes to the first offer you get just because you have to pay rent. Then again, your first year of experience has to start somewhere... So don't take forever!
- Don't worry too much about it being a life-long job; there are very few people who stay in their initial job for a whole career. Think instead if you will enjoy it and learn things that will help you move in the general career direction you want.
- Don't be afraid to look outside your area of study.
- Do not think you are not qualified. You can problem solve and learn. I was going to the interview the next day and did not know the operational steps in mfg well. Called a fellow grad student with more experience in that area the night before, went over the basics and was able to talk the talk at the interview. Always prepare and know what you want to do.
- Be sure to conclude ahead what your values are, explore all opportunities and select the one that seems to fit you the best.

Career Development Information

- *How many jobs or positions have you held?*
  Average Jobs/Year: 0.8 ± 0.6
- *How have your job titles changed from your first position?*
  No change:14
  Other:
  - Process Engineer ➔ Director of Mfg. Sciences
  - Postdoc ➔Assistant Professor ➔ Associate Professor
  - Research Engineer ➔ Venture Fund Secondee➔ Innovation Process Manager ➔Director of Innovation
  - Consultant promoted to project leader (manager) ➔ left for family reasons ➔ founded educational consultancy; also adjunct college lecturer intermittently.
  - Associate ➔ Engineer ➔ Senior Engineer
  - Untenured ➔ Chaired faculty through tenure and Department Chair
  - Postdoc ➔ Assistant Research Professor
  - Research Scientist ➔ Business Development Manager ➔ VR, R&D ➔ Consultant ➔ Director ➔ External Collaborations ➔ Founder and President
  - Senior associate ➔ Vice President ➔ Executive Director ➔ Managing Director / Partner
  - Postdoc ➔ Scientist ➔ Senior Scientist ➔ Staff Engineer ➔ Senior Hardware engineer ➔ Staff Hardware Engineer
  - Chemical engineer ➔ Lead Chemical Engineer
  - Postdoc ➔ Scientist
  - Engineer ➔ manager
  - Research Scientist ➔ Project Leader ➔ Fellow
  - Researcher ➔ Supervisor / Team Leader ➔ Manager ➔ Executive
  - Reg. Affairs Coordinator ➔ Reg. Affairs Consultant ➔ Business Development Consultant ➔ Reg. Affairs Associate ➔ Sr. Reg. Affairs

- *How many companies or institutions have you worked for?*
  Average Companies/Year: 0.6 ± 0.4
- *What skills and/or classes from graduate school have been most applicable to your career?*

  - Research and teaching, all of it really.
  - Managing people and effective presentations (written and oral).
  - Mathematical methods, technical writing.
  - Management of Technology certificate curriculum at Haas. Bioengineering electives were also relevant as a consultant to biopharma companies.
  - Not many to be honest, most useful skills have been from undergraduate and general business skills.

- Transport phenomena, kinetics, catalysis, any Haas MBA class, leadership and strategies from the public policy school (R. Reich).
- Polymer chemistry, physics, material science, surface science
- Management of Technology Program at Haas Business School. It is very important that this program receive support to be re-instated. It helped many PhDs transition into non-technical fields of interest.
- Communication, teamwork, interpersonal, time management, multitasking, independence, strong work ethic.
- Molecular and Cellular Biology classes (my "minor"), bioengineering classes."
- I think the lab experience is more important than any class I took at Berkeley.
- Chemical reactions, Physical chemistry, Catalysis
- I have not found the classes to be directly relevant at all. What is useful is being able to learn new material quickly. Some of that is being exposed to a wide range of topics which helps to give you some basis when, inevitably, you are asked to work on something outside your core expertise. The other side is the ability to apply what you have learned in another area or what you know of the fundamentals to the problem on hand.
- Surface science
- Writing and presentation skills, problem-solving skills / troubleshooting
- General problem solving, working in a team, most standard ChE course work (fluid dynamics, kinetics, BioE)
- TA for courses.
- Research skills, critical thinking, none of the CBE classes were useful, only outside classes that pertained to my research
- Kinetics and reaction engineering
- General laboratory skills- building lab equipment, grad level physical organic chemistry.
- Ah :/ none
- Ability to learn on my own. Ability to find and assess information. Ability to break down a complex problem and attack it in manageable chunks. Persistence. The best classes I took are no longer offered, or they are taught in a completely different way by different faculty, so that's irrelevant.
- Mathematics, computation
- Writing, presentation skills and mathematics (PDEs).
- Immunology
- Computer programming, separation processes, thermodynamics
- Problem solving and knowing how to learn
- Becoming an independent thinker who read the literature and interacted with as many professionals as possible.

- *In hindsight, what would you have done differently in graduate school to enhance your career?*

Recurring themes:

1. **Network more (!!).**
2. Publish more.
3. Taken opportunities to increase breadth of technical skills/knowledge.
4. Taken more business/non-technical classes.
5. Done an internship.
6. Get more experience with grant writing.

- Made more/better contacts and relationships with non-advisor faculty.
- More direct experience with project / personnel management and grant writing
- I might have pushed hard to be a second/third author on more work that came out of my lab. I thought my publications were rather limited given the amount of work I put in.
- Networked more rigorously.
- At this point, nothing.
- Taken more opportunities to learn new skills and techniques, and developed deeper expertise in more areas.
- Publish more papers and patents. Develop more connections.
- An additional internship (I waited until my last summer to do this). Internships should become a more common feature of graduate study as they build bridges for students to understand their career passions and create a network.
- Explored more career opportunities, made and stayed in contact with more scientists
- Made better connections with professors in the MCB department.
- I would have more aggressive with churning out publications as that is critical in regard to being competitive for a faculty position.
- It absolutely matters what you've done in graduate school. I would have worked on more industrially relevant topics and started networking much earlier. I also would have considered what area I wanted to go into when choosing a project and an advisor. They (industry) tell you that they are only looking for good people, but they are looking for good people with as similar background to what they are doing as can be found. Therefore, it is useful to either try to choose a project or projects that have relevance to what you want to do, or to try to frame what you have done in a way that is relevant to the problems that your potential employer is facing.
- Minor in business rather than custom field.
- Not stressed out so much
- Attend more seminars, learn more about the fields of work going on around me outside my narrow area of focus. Jobs today require a breadth of knowledge and understanding of many areas to solve interdisciplinary problems, the more you can talk the language of the other fields the more likely you will succeed.
- Take more management courses. Apply industry safety standards in grad work.
- I would have taken on a professional internship before graduation. Or perhaps I should have chosen a different department for graduate school since no environmental engineering firm

seems to be hiring ChemEs. They rather hire a civil engineer with a few chemistry classes and some transport phenomena background.

- For an academic career, I definitely would have made more effort to get involved in preparing / reviewing proposals, and in meeting people from the major funding agencies and learning how things worked there; I also would have tried to attend more conferences and make more contacts in general. For an industrial career, I think things worked out OK, but I certainly wouldn't choose Berkeley today with an industrial career in mind.
- Gotten unstuck and gone somewhere else
- I would not have attended graduate school. Rather, I would have pursued a professional degree, such as law (patents) or medicine. The technical world is too fickle, and one's degree area rapidly becomes yesterday's news. Once you reach the age of 40, it becomes increasingly difficult to find work. Over 50 practically it is impossible.
- Now ChE is better than Biology in this regard, but in general I find the benefits of a technical Ph.D. to be very modest.
- Work on more "low hanging fruit" projects to get more papers published
- Taken courses in biotech
- More management and finance training
- Not much - I was really fortunate to have a superb advisor and supportive wife.