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Career focus on Europe



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- Success of the European Research Council
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Science Careers Poll Results: A Realistic Readership

Jim Austin
 United States
 22 August 2008

Scientists are a realistic bunch. That's the message readers sent us, collectively, in response to [our recent poll](#) on reader morale.

Our respondents were mostly graduate students and postdocs--a nearly even split--with a remaining few percent split among undergraduates, faculty members, and research associates. In response to the question, "How do you feel about your long-term professional prospects?" more than half--54.6%, to be precise--described themselves as "Somewhat hopeful." A large minority, though--30.2%--chose the "Not very hopeful" option, which carried the explanatory note, "It seems unlikely that I'll have the career I've been hoping for."

Less than 10% of respondents were at either extreme: 9.5% of respondents chose "Despair" to describe their feeling about their long-term prospects, whereas 7.9% described themselves as "Very Hopeful (I feel my success in my chosen profession is virtually assured)." (If you're wondering why that adds up to more than 100%, it's because we allowed people to choose multiple options--a choice some people took advantage of, apparently to indicate that their true feelings were between categories.)

Also of note is that more than half of our readers aspire to be university faculty: 52.7% of you are seeking a "Research- or teaching-focused professorship." Some 41.5% of respondents hope to do "Research in the private sector or a government agency," 18% intend to seek "Other private-sector or government employment," and 11.9% chose "Other." (Once again, we allowed respondents to choose more than one option.)

Below, you will find the results of the survey, collected between 10 July and 1 August 2008, in tabular form, followed by a list of answers to our freeform questions. Enjoy.

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What kind of work do you hope to do in the long term?	
Research- or teaching-focused professorship	52.7 %
Research in the private sector or a government agency	41.5
Other private-sector or government employment	18.0
Other	11.9

How do you feel about your long-term professional prospects?	
Very hopeful (I feel my success in my chosen profession is virtually assured)	7.9 %
Somewhat hopeful (The future is still cloudy but I feel good about my prospects)	54.6
Not very hopeful (It seems unlikely that I'll have the career I've been hoping for)	30.2
Despair	9.5

Briefly describe why you feel this way about your professional prospects.

- Ego.

- I am highly motivated and enjoy my project topics but lacking of advices concerning the career pathway, quality of the work and the integrity.

- Very competitive field, and paths are very uncertain at this point.

- Graduate school (at least where I did it) prepares you best for a career in academia. Once one realistically looks at the job prospects for Ph.D.'s and post-docs actually getting a permanent position (they are pathetically low), it seems stupid that graduate school prepares students for a career in academia.

Staying in academia should be considered the "alternative career" as opposed to anything else that is usually considered alternative.

- Jobs seem competitive and postdoc mentoring is more focused on the success of the PI than the post-doc. It is a sink-or-swim environment.

- I have received good training and my goals are flexible.

- Private sector or government jobs seem more safe than research based jobs.

- My postdocs have gotten badly from a publishing standpoint and I have not had the opportunity to add teaching experience to my resume.

- My inability to attain funding and watching very talented and internationally known mentors fail to get funding has created pessimism in my future prospects.

- Between the increasing crunch to obtain funding, the excess flux of qualified candidates for a limited number of positions, and the pressures of publishing in high-impact journals, the options for obtaining and succeeding in academic research faculty positions seem quite gloomy.

I wonder if, as Ph.D. students, we're actually being trained adequately to juggle all of these concerns, and I don't think that most students enrolling in a Ph.D. program have any idea about the difficulty of what is to come - both in terms of the challenge of completing 5-6 hard years of research and in terms of then finding suitable employment afterwards.

- I feel that obtaining a PhD in the Biological Sciences (Neuroscience) has opened up many doors for me. Securing a research postdoc with a government agency (USDA) is just the first step along the path.

- Poor funding situation and lack of support for women in science with families.
- The American market can still accommodate a large number of PhDs in the private sector in administrative jobs
- I feel like there is nothing out there for me that I will enjoy in science
- I am too educated for most jobs, but not adequately qualified for the jobs, either.
- I realize that there are uncertainties and things over which one has no control. Therefore I can't say that I am very hopeful, but I feel that I work hard and that gives me hope that this and dedication will provide fruit.
- Lack of jobs on the market. I've been looking for several months.
- Well, in my country there're no many chances to work as a PhD. in the private sector. So research career is really a long term career, and it becomes difficult to survive.
- Because I already have 8 years postdoc experience and not much hopes that that is enough for anything else but to get another postdoc...the endless cycle. I know for sure I don't want to be in academics that just means more insecurity, with grant funding the way it is. I just hope to find a way in to an alternative route to use the degree I worked to hard to get...still have some hope but sometimes I wonder.
- It's hard to know which way to go next. I think I'll need to head away from research because I don't feel there are positions out there for people with projects that haven't really panned out and with personal circumstances dictating that they remain in Australia.
- Have already got a job lined up, before finishing my PhD
- I have doubts that I have "what it takes" to make it in the highly competitive and politicized world of research. Funding is hard to come by, and I'm not sure my skin is thick enough to take the beating that I've seen my mentors take.
- Just started a new postdoc in industry. Made the transition less than 6 months after defending my thesis. I feel I am motivated and work for a great company where I will be trained well. I think I have lots of potential, provided I work hard and stay focused.
- Once I had realized and accepted that bench research was not for me long term I have been try to build up my skills in other areas to increase my job prospects away from the bench.
- As yet, I have not completely committed to a specific career path, so I think my future is pretty wide open.
- It may all depend on the global economy, but I already have professional experience in my field (geology) as well as professional certification. I am currently in a PhD program (Earth Science/climate) which will enhance my skills and expand and develop my teaching and research experience.
- The cuts in the number of NIH grants that are being awarded makes it nearly impossible to get a faculty position and/or get tenure, because young investigators are at a disadvantage.
- I am not very hopeful about obtaining my career prospects because several highly talented, very intelligent, and motivated colleagues or friends are having difficulty finding jobs.
- There are a finite number of jobs in the teaching profession. I think I'm becoming qualified and have a clear idea of what choices to make to be qualified some day, but I'm still aware that I may not get a tenure track position.
- if one works hard, opportunities seem to present themselves
- I enjoy my research and I have a lot of ideas and motivation, and while I feel worthy of future funding and good positions I feel that getting either depends a great deal on luck.
- Have you looked around at the average age of productive professors in most universities? These people are never going to leave and open up a job for me. Also, from where would the money to fund my research come?

- I have had good papers and fellowships in the past and see two papers from my postdoc.
- As my work relates directly to the development of a human disease I hope that it is an area of work that will continue to receive funding. The fall in the amount of government research funding worries me.
- The support and path is very difficult to navigate and it is hard to find support to help you chart the path.
- is no future
- I feel good about my prospects because I have some practical work experience to go with my education.
- Will there still be a need for biological scientists if the economy continues to decline?
- There are so few positions relative to the number of postdocs, but I feel I have good training and would be competitive.
- A failure to educate students on careers outside academia leads to a postdoc pipeline. Top that with only 1/10 phds eventually getting a TT position.
- The job market for basic sciences research seems to be shrinking while undergraduate and graduate programs continue to produce more and more job seekers.
- I think there are too many PhD and industry is uninformed about what they can do. Also, I think academia doesn't do a good job of opening career doors outside of academia.
- Few female professors in my field; jobs seems to go to the most arrogant people who are friendly with the current professors, instead as to just good scientists.
- Being a non-US citizen, I am not sure if I can be what I wanted to be here in US.
- I am willing to work hard at it and make personal sacrifices, and I am also pretty flexible. Although I may not be a brilliant researcher, I have plenty of ideas, good organizational skills as well as teaching experience.
- not getting interviews for a position after postdoc
- Competition is tighter and sometimes the locations where there are jobs are not practical to raise a family
- Lack of support from faculty that I work with. Both professors are from different backgrounds where women are second class and I am treated like that at work.
- Everyone I know in science is struggling to get work/funding.
- Low salary, no job prospects.
- Because I'm moving into a field (consulting) with great long-term prospects for PhDs
- It seems the life sciences is saturated with qualified individuals and training never seems to end.
- Industry seems to be laying off people and academia does not give a good picture about funding. This places a huge burden in choosing what I really want to do since my happiness lies in both professional security and research.
- I already have professional experience in forensic science and will be switching from benchwork to applied research. I have a good idea of the challenges facing law enforcement in the coming years and the technology needed to overcome those challenges.
- I recently accepted a tenure track faculty position at an excellent R1 university.
- The expectation that people should sacrifice their personal lives, families, friendships, and mental and physical health for science is ridiculous.

- I am "not very hopeful" about my career prospects for two reasons: 1) There appears to be a glut of applicants to the standard BS/MS that require a general biology degree, and 2) I believe that the recent downturn our economy has taken is one of several that will occur over the next 20 - 50 years in the US (spanning my career)

- Decreasing success rate in virtually every funding competition. Latent anti-intellectualism in western thinking and devaluation of publicly funded science and technology research in current government policy.

- Success appears to be based on being the 'flavour of the month'. Luck seems to be more a part of success than hard work and intelligence.

- Reasons for feeling somewhat pessimistic include the current poor state of the economy, outsourcing to countries such as India and China, and lagging support for basic research from both government and private industry.

- I would really love a research associate position with some teaching. However the field of study that I am in, Microbiology, the funding is not there so I am not really that hopeful of finding what I want

- I rarely see job opportunists that describe my skill/interest set

- Given the funding crunch with the NIH a tenure-track career at a Research I University seems unattainable. There are good position at liberal arts colleges, but even those seem few and far between.

- No matter where you look young scientists are bottle-necked either trying to NIH funding in academia or fighting to keep their jobs as pharma layoffs and outsourcing hits everywhere. The prospects for young scientists are grim right now and I can only hope to transition off the bench to something more stable.

- I am working in two excellent labs for established PIs who are leaders in my field. I have great communication with both PIs and I get enough positive feedback to make me feel comfortable of my standing in their eyes.

- I've had some leads on positions, but none have panned out and I have not qualified for the positions I have applied to. (There are few positions in this field to begin with).

- very competitive, bad ratio male/female, as I am female, but I like the challenge

- There is very unequal distribution of research funds and if you are not doing something sexy (cancer research, nanotechnology, etc.), you have to work much harder to get a position.

- Although I'm no longer interested in pursuing a career in academic research and I don't know exactly what it is I'd like to do, I feel confident that I'll eventually find a career that uses my scientific background and is still a good fit for my interests.

- I seem to meet more and more postdocs in their 5th and 6th year struggling to get their foot into the job market. I am just hoping that I do not end up being one of them

- The types of jobs that I thought I could get with a PhD (like managing a hospital lab) are extremely few in number. I definitely do not want a PI position or a research-based position forever either.

- Lack of mentoring. Little to no guidance for non-academic career paths.

- During my time as a graduate student and as a postdoc, I have built a solid skill set of transferable skills. I feel there are many opportunities out there for me, and believe my skill set will allow me to get my foot in the door.

- I know I have the desired skills and knowledge to be a successful scientist, so I have every reason to be hopeful that my profession expectations will be met.

- Anything would be better than striving for a professorship at this point. Looking to industry with additional MBA training, I feel that the professional prospects are significantly better, the results will mean something to somebody, and I will be better compensated for my effort.

- I no longer enjoy the work that I do. Every day I feel like I belong less in research. My motivation and energy are depleted and I seriously question why I chose this path. 5 years into my PhD, I now feel that I have to complete it to

make my time investment at least somewhat worthwhile. With a very thin publication record, I seek an alternative "exit" once completed, but I worry that science has been ruined for me entirely.

- I've pretty much become disillusioned with science careers altogether. For the amount of work and hours necessary to be successful the rewards are limited. Most of my friends that avoided science are making twice to three times as much as I am and i have a more advanced degree. Why should a postdoc salary be less than that of a technician with only a bachelor's degree?

- Even though I did high quality research and worked with world leaders in their fields, I still faced unemployment due to lack of funds being available for my salary. I am now employed by industry, paid triple my postdoc salary and will actually work less hours compared with being a postdoc!

- It seems like I have so many other PhDs to compete against and I have no industry experience. However, my goal is to remain in government science and I feel good about my prospects in that regard.

- Declining numbers of permanent posts available in physical sciences coupled with large increase in student numbers and temporary posts.

- scarcity of permanent positions plus the added difficulties of having a family and a career as a woman in academia

- I feel I have a good set of skills and experiences. Also I am willing to be flexible to maximize my chances of having a career.

- On a short term contract but it has been indicated that I will likely be made permanent.

- I have seen the long term effects that a poor pedigree can have. I am thus determined to make sure that my pedigree is excellent. I know this may seem silly to some and is certainly not a guarantee of success but it could help secure my first faculty position. I am also very confident in my abilities as a researcher; however, I still do not wish to gamble with my career by ignoring convention.

- I am under no illusion that having a graduate research qualification (PhD) will improve my job prospects (since I do not wish to become an academic). But I am somewhat hopeful of my prospects anyway as I am prepared to look for work in a different or non-research field if necessary.

- The basic science and academia society have not made enough efforts for women or men to balance family and research. When I have children, I would like to stay home with them for 3-5 years but don't believe the research society (basic science) will not accept me back into research.

- Too much investment of time with very little benefits

- I'm currently working in a not that competitive area, and comparing myself to my coworkers, and my success to that of the other members in the lab (who are publishing well), I think that I should be able to make it.

- Too many PhDs are competing for too few job positions, unless your academic track record is stellar it will be very hard to compete.

- My husband is trying to talk me out of doing a postdoctorate as he wants to start a family straight after my PhD but I am worried this will put my career at a disadvantage.

- It's not certain, but I am determined. I feel that I have a decent background in research/teaching which will hopefully improve as a postdoc.

- Fairly good publication record and opportunities to grow, but there are always elements outside my control...

- Insecurity, short term contracts, not many positions, postdocs considered cheap labours, etc

- I am going to a good institution and joining a team of a famous professor. People from this group have gone on to become successful.

- Our lab has several postdocs who are in their late 30s/early 40s who have been unable to find permanent jobs. They

are still in the tenure-track mindset and might have better luck finding a permanent job if they looked outside academia like I'm planning to do. At the same time I wonder if it would be better to cut my losses and leave grad school now with a Masters.

- I feel there is a fair chance I would eventually be able to obtain a continuing research and teaching position at an Australian university, but there is a question of opportunity cost when I look at better paying industry jobs, and possible research opportunities overseas. Sometime in the near future I might be forced to decide between career aspirations and staying close to family and my home country.

- There are so many other options, and you don't need your Doctor's degree.

- Current economic downturn, lack of opportunities, likely disintegration of big pharma.

- I don't know how to balance the demands of a full-time faculty position with the delights of young offspring.

- have seen others get private sector jobs post graduation, but have no idea how to do so.

- Most everyone I know in my area of study has gotten jobs.

- Progressively increasing responsibility within career suggests that future career perspective will similarly increase as in the past

- I know there must be careers out there that would match my interests but I am having a very hard time finding any advice on seeking alternative careers.

- As an international postdoc with a MS and a PhD degree from USA, I am not optimistic about visa restrictions for jobs in private sector for non-citizens and also in general about funding scenario for securing research grants.

- not many jobs; jobs go to people from the same labs over and over

- In looking for available positions, it seems like the only way you can get them is if you know somebody on the inside.

- Funding is tight, and only the top candidates will be able to get academic jobs, and more importantly, keep them.

- I feel I am an excellent candidate for a teaching professorship, but I don't think there will be that many job openings in the places I want to work.

- I am bound to an area due to two-body problem (my spouse has TT) so it is much more difficult to find position. Otherwise I am able to develop ideas and have worked on them myself. Also my target are 2nd tier schools so without this constraint I would probably be able to get a TT.

- I have published some journal papers, which, I think, would be one of the most important factors in securing a long-term research profession. However, there are other factors such as having the good "old boy network" alumni in research profession from my institution, which I consider that I don't have. Hence, the future is still cloudy.

- I recently was awarded an NIH grant and just accepted a faculty position at a great institution. Therefore, I feel very good about my short-term prospects. However, I am still quite concerned about my long-term success in research (and achieving tenure) given the funding climate.

- No money, no respect, too many hours, too many obstacles to do nice research, no job security.

- I feel that a master's degree holding technician is in a great position to do research in academia or industry without some of the stressors of a PhD level position.

- Outsourcing of jobs is a real problem, and long-term job security seems impossible. You need to be in the top 10% to succeed.

- I know that many PhD's leave the bench, that PhD's have a high rate of satisfaction in their post-grad lives, and that I am talented and employable. I just don't know where I will fit in.

- getting industry jobs in biotech companies as I expect to graduate with my Phd this September seems next to impossible, especially with the current market scenario and visa restrictions. However I want to stay positive about the future and have faith in good things to come.
- I'm not exactly sure in what field I will end up.
- Although I am concerned about the overproduction of PhDs and outsourcing of research, I believe that I can have a successful and fulfilling career in science. I am concerned though about the current state of the economy and a very tight labor market for entry-level PhD researchers.
- Really, who needs a laser spectroscopist?
- The field of ecological design and engineering is growing and emerging, and there are numerous opportunities for research, testing and deployment to address the growing number of environmental problems, which are linked to a growing global environmental conciousness
- I feel like a PhD is training to be a professor. Even though a majority of Engineering graduate students do not plan to become professors the training is centered around that idea. So I feel that the training I am getting is not terribly relevant to anything I am likely to do later. However the reputation of the PhD is strong enough that I am fairly confident of my ability to use it as a stepping stone, learning other relevant abilities as I go.
- Watching postdocs looking for positions around me and seeing their lack of success I find myself less and less hopeful.
- So many people competing for so few positions is depressing
- The funding situation is not very bright at the moment. I am also going to be geographically limited in where i can look for jobs. I am more of an optimist, so on the whole i am still hopeful.
- I will now try an academic post doc, but am not sure that I want to be in academia. Many professors seems constantly stressed out and spend little quality time with family, so I would like to avoid this type of situation.
- I have seen many postdocs around me not getting the faculty jobs or the grants they want.
- I have been trying to get a Ph.D. level position for over a year. I feel that it has taken this long because my search is geographically limited. I will still find a good position but my patience is wearing thin.
- I have faith in my abilities once I get my "foot in the door" but I worry about being able to get an interview and then get the job with the way the economy is and the way in which the culture of science is.
- Openings for the jobs I am interested in are very few but I have good qualifications.
- Risked too much time and effort focusing on a successful academic career to the detriment of gaining experience in planning and areas for Plan B career. Back to square 1.
- I am quitting research after 5 years of postdocs to try my hand in a medical communications company where I will be able to use my scientific skills.
- I feel I have a set of skills and experience that will favor me.
- If I want a tenure-track position, I have to get in line behind postdocs who have been languishing in labs and waiting for 5 years or more.
- I am geographically restrained as part of a 2-career couple, and with a family. There aren't a ton of jobs out there, especially with federal funding situation and the current meltdown of big pharma, and there are always foreign postdocs willing to do whatever it takes to stay in the US.
- Industry seems to have a lot of possibilities, but the path is less well-defined than for an academic. That leaves a lot of possibilities, including not finding something satisfactory.

- The negatives facing people like me...I'm into helping and mentoring, not being in a tear-you-down environment...
- Even though I know I am looking to enter a competitive sector (establishing a group at an R1 institution), I think that my current training and upcoming postdoc training will provide a unique, multi-disciplinary foundation that will be vital to my success as a researcher. I also seek out resources (Web pages, seminars, courses) that will give me important background in non-research skills that are indispensable to running a lab.
- Research doesn't give predictable results that one can control, and yet career prospects (in research) depend a lot on how well you did during your grad school and post-doc years, so prospects can be good or bad depending at least partly on the papers you publish.
- I'm trying to leave academia at the moment. It's going slowly, but I'm still hoping things will work out.
- I have focused on a narrow area and this limits the job prospects. A lot of the jobs in my field are in program management rather than research.
- I am not sure which of two (both non-academic) career paths I wish to pursue.
- I no longer see myself doing research--but I feel that I am untrained and completely unprepared for anything else. I feel like I'm tapping away in the dark.
- My boss "advisor" (who is chair of the dept) is doing everything he can to undermine my writing of an RO1 grant, although grant reviewers are encouraging me that my specific research has a good chance of funding.
- Even though I feel there are many more PhD out there than there are jobs, I feel like I have done enough to separate myself from the field of candidates which will apply for the jobs I am interested in.
- The job market is not good, lack of guidance
- The combination of poor funding prospects and a glut of postdoc presently looking for faculty positions leads to an almost ridiculous level of competition. I have multiple papers in top-tier journals, but have been unable to find a faculty position
- Some days I feel hopeful, because I have a very good advisor and research, and I am doing well so far. Other days I worry that I won't be able to balance my desired career as a professor with other pressures--relationships, spouse's career, and especially having kids. It is important to me to have at least one child, and I plan to do it before attaining tenure, so I can only hope that it doesn't destroy my career. Also I worry that I'm simply not good (smart, creative, hard-working, well-connected, talented, well-spoken) enough to get a position and get enough funding to succeed.
- I think my getting a job doing something is fairly assured, with good recommendations from my advisers and past employers. Getting employment in a position I really enjoy AND a location I like is much less assured. I knew this to be an issue when I started my doctorate, of course.
- Low grant funding rates and not very many positions available
- There is very little chance to find scientific job in my country, and I wouldn't like to be an emigrant for the whole my life...
- very strong competition, rare opportunities. I will have to accept any offer regardless of the location and conditions.
- The funding in my field is simply not sufficient to support full faculty positions for all or even most of the postdoctoral fellows in it. Also, I do not have confidence in the quality of the grant review process.
- For academia positions: (1) funding is getting tougher to get (2) they are very competitive and saturated due to no retirement age limit. For private sector: (1) it has been proven to be very difficult to move to pharma from academia background (need to have great connections with insiders) (2) Most of pharma look for industrial experience in candidates (wonder how one could get industrial experience while no pharma would give that opportunity at the first place) (3) Most pharma look for translational researchers or clinicians who have been involved in drug discovery while most academic postdocs are not in those areas. I also feel that academia research focuses on cancer research and pharma focus on big diseases including cardio, pulmonary, and renal. This creates limited opportunities for postdocs

who are not in those fields. (4) Pharmas are under scrutiny by FDA due to side effects, attacked by lawsuits, and few drugs in the pipelines. I feel that pharmas are reducing their R&D capacity and farming out the R&D to academia.

- I work for a good company.

- The economic recession is definitely weighing heavily on my potential job prospects. I'm worried that academic research positions will be slashed in the next wave of budget cuts.

- I am in between somewhat and not very hopeful. I have successfully earned a postdoctoral grant, but need more publications in order to compete for an academic/research position.

- Confident in my abilities to be productive as a scientist.

- Academia seems like a recipe for underpaid, overworked scientific martyrdom. Also, I want to work in a field with more well-defined goals and short-term deadlines, which creates an atmosphere of accountability. I'm tired of living in a world of fuzzy, infrequent benchmarks where the only reward for success is self-acknowledgment.

- Seeing others struggle more each year. Tough budget situation, getting only worse.

- Lack of opportunities for someone who doesn't have a cell/science/nature paper despite being an excellent scientist

- There are very few jobs I'm suited for that open up each year. In addition, the funding situation seems to be very bad, and I worry that even if I did get a job, I might struggle to get funding and thus tenure. On a personal level, I'm not sure I want a job that seems to get more and more stressful. And, as I get older, I no longer have the enthusiasm to work long hours for low pay and seemingly limited career options.

- I have the feeling that things will eventually work out well, but my future looks quite cloudy right now. I am a postdoc and after some years I know I want a career in industry, but with no support from my PIs (PhD or postdoc PI) and no insider mentor to guide me I feel lost. I read *Science Careers* Forums very much and I know how important it is going to be to build a good network and to contact people, I just feel I miss a hand and a recipe to guide me.

- Career goals constantly change after 1-2 years postdoc works

- Have to get out of science.

- I feel I was able to secure a postdoc that was pretty clearly fast-tracked for a permanent research position. I am the only person in the major city/research hub I work in to deal with gnotobiotic animals, which is quite a bargaining chip for any interested party. I am also in a major biotech hub where I can network all but effortlessly in the course of pursuing my hobbies.

- I'm confident I can market myself

- A continuous flow of grant money is necessary to become an effective researcher in my field (Neuroscience). However, funding is becoming increasingly difficult to obtain creating a barrier between the 'big name' scientists and those just starting their career.

- My expectations and desires are not what they used to be.

- Changing demographics in the United States (baby boomer retirements), flow of foreign scientists back to home countries, emerging technologies resulting from significant healthcare investment.

Do you have any other comments to offer about your career prospects?

- In my opinion, international collaborations, effective communication and being mentored professionally are the most important aspects.

- Graduate school training needs to be revamped from the bottom up in a systematic, coordinated basis across all scientific disciplines, across North America.

- In addition to professional work, I am looking forward to raising a family.
- A career in research (especially academia) is unappealing because of the lack of available funding.
- I wish I had the realities of a research-oriented career explained to me as an undergraduate. I would have made so many different choices in my graduate career if I knew then what I know now.
- They suck
- I hate science (not *Science* magazine).
- I work in a university and have to counsel the graduate students. It's hard to tell them there will be life after grad school then post-docs, because it's not really true.
- Identifying which way to go (if not the traditional research one) is really difficult, as is trying to identify the skills that are translatable to other fields.
- I do feel as though I will find something that interests me, I just doubt I will remain in the sciences, except maybe in a small teaching capacity or in administration.
- Despite I think I can get a position in Brazil, the problem of funding looks the biggest in the long run. I have the promise of people here in Japan to cooperate with me in the future, but these are only words. If I cannot get funding to do research in the future, even with a stable position, I will be dead as a scientist.
- I have always had the goal to conduct research and to teach, but in my field, I think there are many paths to fulfilling careers beyond academia depending on your personal and professional goals.
- I am choosing to seek an academic position not because I view it as ideal for me, but rather because all other options seem worse.
- Extremely poor. It is just one level of academic hazing after another and it never ends. I suppose I need to accept the notion that I will be underpaid and overworked. Undergrads can expect a better entry-level salary!
- More career advice and discussion would help alleviate many fears on this topic.
- Feels like all efforts of past year has not borne much results and I have reached a dead end.
- I love the academic way of working and don't want to move into Pharma so I am hoping to move to Singapore where there is a structured approach to research careers and funding and where I feel there is a future for me. Additionally there is an obvious willingness from the government to achieve constructive research in a wide variety of disciplines.
- Topic is important - mine is a little esoteric which may make getting a job a slower process
- no comments at all - just disaster
- The current funding situation definitely clouds my future...
- Bleak. I hope to switch out of science as soon as I can figure out something else to do with my life that is positive. I'm tired of all the differential treatment and career sandbagging.
- There are simply too many biomedical scientists for the available jobs.
- *Science Careers* has been helpful to me in preparing for interviews, etc
- I feel like I've spent the last few years of my life making myself over-qualified.
- I start grad school next month but I'm already looking at alternative paths, some of which don't even utilize the skills I will gain in graduate school, since prospects are so dismal.

- I'm intelligent and good at what I do, but sheer hard work will not even get me close to success. - Our federal government needs to make biomedical research a priority again. There are no incentives to become a Ph.D. trained scientist anymore.

- I'm still challenged by leaving the "grad student mentality" and considering myself a professional and not a student. Hopefully this will fade once I get a job but I've had to make a very conscious effort to embrace being done w/grad school, even in my cover letters. NextWave's "Tooling Up" has been very helpful- thank you!

- My motto: why shouldn't I succeed, other did before!

- My husband is also a scientist and we wonder, what are the odds we'll both find a position in the same city? One of us will have to compromise and accept a suboptimum position.

- Undergraduates need more advice from faculty to help them understand why they should go to graduate school and help them decide if they are truly interested in obtaining a graduate degree, or only doing it because they can and don't know what else to do.

- After seeing the benefits and salary in industry, I think that postdocs are treated terribly by the academic system. The NIH really needs to do something about the salary scales and benefits for postdocs (postdocs have family and mortgages too)! The current system uses and abuses the skills and knowledge of postdocs rather than rewarding and acknowledging all of their hard work.

- Increase numbers of mid level posts. i.e have a job of scientific officer which is mobile and flexible but permanent so post docs can retrain in areas as needed-

- A dearth of new academic positions ensures that assistant professorships only go to top-flight (i.e. pedigreed) candidates. What happens to all the Ph.D. graduates from less prestigious labs/schools? I worry that people are graduating into a workforce that has no jobs for them. Industry seems to be the only place with any job growth but I wouldn't want my job to be at the mercy of stock prices or clueless, greedy executives.

- it is competitive everywhere, so why should I get out of research? The only reason to leave would be the higher income as a physician - but there are still some guys like me who simply don't care about it

- I dread being trapped in an endless postdoc cycle before getting my first real job.

- It might have been better to avoid postdoc and go to industry right away rather than being trapped in this glut

- I started out with research early and become very experienced comparing to people my age and my degree. My undergraduate school (a big research university) gives impression to students that hard-core research as done in academia is the ultimate goal of PhD or research. There are websites like Science careers and nature networking, so I'm not completely blind to other choices. I participate in mentoring and advising other students. From these experiences I hope other young students are more aware of the resources (i.e. science careers and nature network) and the choices available to them as they pursue higher degrees.

- I know whatever I end up doing I'm going to enjoy. As long as science and medical has some part in my career I will be happy.

- Looking at changing careers and prospects completely.

- I wish there part-time tenure-track opportunities were are real alternative. Or job-sharing. Or anything else that would help me balance serious research with joyful mothering.

- Don't let the man hold you down.

- I'm hoping to make a big enough impact on my field so that I will be recognized and have some hope of getting funding and job prospects.

- Jobs I could possibly get after grad school outside of academia are limited significantly due to lack of working visas (H1B) available.

- I wish graduate programs change their curricula to better prepare grad students for more career options than just the academic track. I guess this will be in great conflict with the goal of many academic PIs who care more about their names getting recognized than their underlings' professional development. Perhaps there should be some incentives for the academic PIs to encourage their underlings to spend part of their working time to explore other non-academic career options. I don't know what these incentives might be that can accomplish such things.

- Without the training in anatomy I would view the employment prospects as poor due to the intense competition for the few jobs and reductions in NIH funding

- Being an international student, US has always been a place where you can achieve all your dreams, I hope to achieve mine.

- Financial security is a concern, not will I/won;t I have a job. But more, can I find a job I enjoy and support a family.

- The prevalence of postdoctoral fellowships and the fact that they are almost required to get an entry-level PhD job highlights the diminished value of a PhD degree. There needs to be a greater push for people to get Masters degrees and to create more jobs for them and people with an BS. This will help my career prospects.

- To better my prospects, I'm considering a second postdoc - this time taking into account future prospects. This would involve some sort of mass spectrometry at one of the pharma companies here in Europe.

- If salaries and benefits in science were better, then maybe people would be happier and more hopeful.

- I wish the postdoc positions offered more actual training and less indentured servitude.

- I'd continue to do research if a relatively stable and reasonably paid permanent staff position were available, but that is less possible in the US than in the UK where I was educated.

- My advice, pursue always a professional degree. Professional degrees have limited degree holders and are more protected from immigration.

- I still feel there is too much of a focus in the life sciences on preparing graduate students for a life in academia rather than all other possible career options.

- I wish graduate programs would be more straightforward and realistic - quit pushing the "grad-to-postdoc-to-academic professorship" line, and implement an educational program which reflects the fact that the number of PhDs has doubled without the corresponding increase in tenured academic positions. - I wasted 10 years of my life being a postdoc because my advisor is so competitive that I can't branch off into my own lab.

- Working by myself (fieldwork, programming, analysis, writing), my achievements have been satisfying personally but the resulting slow speed to publish decreases my chances of success.

- A systematic overhaul of the funding system and the interplay between the NIH and universities is necessary. Increasing NIH funding may temporarily alleviate the current problems, but it will not alter the fundamental asymmetry between the population of students and postdocs and the number of tenured faculty positions, or the difficulties faced by younger researchers.

- I feel that PhDs are being produced by universities without tough quality control. This generates more PhDs than the available positions in private sectors and academia (I'm talking about real career tracks, not postdocs). - I'll take whatever pays enough to cover my mortgage if I don't land a position in academia.

- As a woman and mother, I'm not sure that I want my original goal of an academic professorship.

- I'm still waiting for the wave of mass retirements of the baby boomer academics.

- We are putting in our due time - Someone (who?) please help the struggling postdocs - such low percentages of those who finally get faculty positions are ridiculous and yet we hope!

- I just wish it were much less stressful!

- wish I was more hopeful about it all. wish there was more "lab management" training.

- Postdocing is a black hole

- There is a chronic lack of information about career prospects in this field and as a large, central professional journal, I feel that *Science* is in a position to promote information about research as a profession.

Jim Austin is editor of <i>Science Careers</i> .	
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