Acceptance in the workplace for “out” gay scientists is not that unusual in today’s scientific workforce—whether it be in a university, industry or federal setting—thanks to the enormous strides that have been made in the movement for lesbian, gay, bisexual, and transgendered (LGBT) people’s equality. And yet, despite the progress, obstacles for LGBTs in science still exist in various and sometimes subtle forms, including access to role models, mentorship, and ultimately, the science itself.

By Jenny Kurzweil

Karl Kingsley lives in the desert—literally and figuratively. He is an assistant professor of biomedical sciences at the University of Nevada, Las Vegas School of Dental Medicine, located on the northern border of the Mojave Desert. Then there is the desert within the scientific community. Kingsley says, “Of course, being Las Vegas, there is a big, beautiful college for hotel administration, but the university science departments are really small and run on a shoestring.” He also feels as if he is in the desert as far as the gay and lesbian community is concerned, which in Las Vegas is “surprisingly small.”

As the only “out” faculty member at the dental school, Kingsley, who completed a Ph.D. in biology and did his postdoctoral training at Stanford University, is undoubtedly a rarity. Yet, despite the odds, Kingsley finds his work environment is not only tolerant, but welcoming. He points to the fact that the university has an assistant vice president of diversity whose job is “to make sure that the faculty, students, and staff here are diverse in every way—race, religion, ethnicity, and sexual orientation—it’s all in there.”

Come a Long Way

Thirty years ago, the work environment for LGBT scientists was much less hospitable. Rochelle Diamond is a member of the professional staff at the California Institute of Technology and the chair of the National Organization of Gay and Lesbian Scientists and Technical Professionals (NOGLSTP). She first got involved with NOGLSTP in the early ‘80s when she lost her industry job after coming out as a lesbian. She says, “No person should be harassed or driven from a job because of their sexual orientation or gender identity.”

Diamond believes—despite the difficulties she’s experienced—that it is much better to be openly gay in the workplace than not. “It is an advantage to be out, because when you are out you quickly find the people who are accepting of you and those who aren’t. Then you can decide to go where you are accepted.”

Diamond further explains that NOGLSTP, which is a member-driven nonprofit organization, works to reduce this fear of being out by providing role models through its recognition awards program and
online mentoring program (in partnership with MentorNet). In addition, NOGLSTP helps increase LGBT visibility in the sciences by hosting LGBT receptions or presenting scientific symposia on LGBT-related research at national scientific conferences including the American Association for the Advancement of Science (AAAS), American Chemical Society (ACS), American Mathematical Society (AMS), Society for Women Engineers (SWE), and Society for Advancement of Chicanos and Native Americans in Science (SACNAS).

Out in Industry

While NOGLSTP works with scientists in all sectors, Out & Equal Workplace Advocates primarily focuses on industry. Out & Equal works with Fortune 500 companies to create equal employment policies and resource groups in support of LGBT employees. Founder and executive director Selisse Berry says, “We strive to create a workplace where people can be actually out and equal, and be able to bring all of who they are to work every day.”

Twelve years ago when Out & Equal was founded, only a handful of companies offered domestic partner benefits or included sexual orientation in their equal employment opportunity (EEO) policy. Gender identity recognition wasn’t even on the periphery. Now Berry reports, “Over half of the Fortune 500 companies offer domestic partner benefits; 95 percent of them include sexual orientation in their EEO policy, and approximately 40 percent include gender identity.”

Genentech has been one of the leaders in fostering diversity in the scientific work force. David Polakovs and Jeff Harris are co-chairs of Genentech’s LGBT employee resource group which has three main areas of focus: community outreach and education, professional development, and strategic health care. The group holds seminars on retirement planning and tax advice for domestic partners, and forums on career development including topics such as what it’s like to be out within the community and the company. Although Polakovs and Harris feel that being LGBT at Genentech is really a “nonissue,” the LGBT group and other diversity groups contribute to the company’s inviting environment. Polakovs explains that at Genentech there is diversity not just in people’s race, sexual orientation, or gender, but also “a general feeling of acceptance and respect.”

Reta Anderson, a process engineer at Boeing, has also found a positive working environment in her industry. A representative of BEAGLES (Boeing Employee Association for Gays, Lesbians, and Friends), Anderson explains that BEAGLES and the other employee resource groups provide a channel for employees to network, share common interests, and learn about the different cultures and backgrounds of their colleagues. She says, “When you have an opportunity to form relationships with people that have a similar background and share a way of communicating that is unique to a culture—when you come to work every day and know that there are people like you there—well, it makes the environment a lot more pleasant.”

Gay Government Employees

Similar to industry and academia, the federal work force has begun to offer a more tolerant working environment to all employees, including LGBTs. This includes security clearance issues and nondiscrimination policies that may be impacted by the sexual orientation or gender identity of the worker.

Leonard Hirsch, senior policy adviser at the Smithsonian Institution and president of Federal GLOBE (Gay, Lesbian, Bisexual, Transgender Employees of the Federal Government) says, “Over the last 20 years, across the board, it has become less problematic or no problem being LGBT within the federal work force.”

Formed in 1993, Federal GLOBE is an employee organization for the entire federal government. It works to develop nondiscrimination policies, suggest avenues of redress should there be any discrimination, strategize with unions on negotiating for fair and equal treatment for LGBT employees, provide educational
training for managers, create diversity procedures, and encourage fair and diverse hiring practices.

However, Hirsch believes, there are some major stumbling blocks, especially for (nonmilitary) federal employees working overseas. The spouses and partners of gay and lesbian federal employees in foreign service are not afforded the same rights as legal spouses. For example, if there is a flu epidemic, spouses/domestic partners cannot receive a flu shot at the embassy. Hirsch says wryly, “If there is a coup, your canary will be evacuated [by the US government]. Your cat will be evacuated. But your partner will not be.”

Dean Hamer, a chief scientist at the National Cancer Institute of the US National Institutes of Health, has been out for his entire 30-year career in the federal government. He reports that overall he has not experienced any outright discrimination from the scientific community. Rather, Hamer says, the prejudice he faces in the federal system comes from the government itself, which does not provide domestic partnership benefits for federal employees. He emphasizes, “I have great health care coverage, which every American should have, and my legal spouse gets none of it. And I have a great pension plan, as every American should, and he is not included in that. If I die, he is cut off cold. That is just not right and not fair.”

The Fight for Equal Protection Benefits

Sexual orientation and gender identity are not protected under the Civil Rights Act of 1964; in fact, there is no federal prohibition of discrimination toward LGBTs in the workplace. (Certain states have enacted local statutes which do provide some protections to LGBTs.) A proposed federal Employment Non-Discrimination Act has been hotly debated in Congress since 1974, but has yet to pass. The movement for LGBT workplace equality in the scientific enterprise and beyond has been driven predominantly at the grassroots level and on an institution by institution basis through the collective efforts of organizations like NOGLSTP, Out & Equal Workplace Advocates, and Federal GLOBE. In addition, many individuals act as role models by being willing and proud to work as openly gay scientists despite the risk of harassment and unfair treatment.

The right to domestic partnership benefits is an issue important not only to gay and lesbian federal employees but to the academic LGBT community as well. Many universities offer domestic partnership benefits on an institution by institution basis and, if they are publicly funded, have to contend with the laws in some states banning the recognition of domestic partnership and gay marriage.

Concha Gomez is an academic staff member in the mathematics department at the University of Wisconsin-Madison. When applying for her current job, Gomez was shocked to find out that the university did not actually offer domestic partnership benefits. Luckily, her hiring committee was sympathetic and Gomez was able to negotiate a higher salary to cover the cost of her partner’s health insurance. But now, with the passage in 2006 of Joint Resolution 53 amending the Wisconsin constitution to ban same-sex marriage, the movement to grant benefits to same sex couples in Wisconsin has experienced a serious setback because the state does not recognize gay marriage or domestic partnerships.

Similar legislation has been passed in a number of states, apparently driven by religious and social conservatism. Currently well over half the nation has statutory and constitutional bans on same sex marriage and/or recognition of same sex couples. Concerned about staying competitive and not losing scientific talent due to lack of benefits, public universities in states with antigay marriage legislation are figuring out how to finance domestic partnership benefits through grants and private funding.

“The obvious outcome of being a ‘double minority’ is that it shrinks your pool size immensely and it becomes incredibly hard to find role models.” —Ajit Dash
A Lack of Visible Mentors

It is this surge of conservatism that fuels the fear of coming out for many young gay people. Even though homosexuality has become increasingly acceptable in mainstream culture, the rapid succession of antigay marriage legislation and the antigay epithets heard around high school campuses with astonishing frequency can make being openly gay difficult. The Gay Lesbian Straight Educator’s Network (GLSEN) reports that 86 percent of LGBT students reported experiencing verbal harassment at school because of their sexual orientation, and almost half (45%) of all LGBT students experienced this form of harassment frequently (2007 National School Climate Survey available at www.glsen.org/binary-data/GLSEN_ATTACHMENTS/file/000/001/1290-1.pdf).

For many students, making it out of their small towns and conservative communities to the university setting is the ticket to finally being able to come out. However, Ben Barres, a professor of neurobiology at the Stanford University School of Medicine, says that young people can become conflicted and confused about whether or not it is safe to come out, even on relatively liberal university campuses. “Especially when prominent and conservative faculty members make pejorative statements and the university administration remains silent. Even though people mean well, staying silent in the face of such behavior has a profound and hurtful significance to the students.”

An openly transgendered professor, Barres believes that there is a profound lack of role models for students and that many gay and transgendered faculty of his generation, particularly in the sciences, are still closeted. “I can’t tell you how many times I hear from students after I have given a lecture or they see a video of a talk I gave at Harvard, ‘Wow, I didn’t know it was possible to be openly gay and still have a successful career in the sciences.’”

The lack of visible mentors translates to junior faculty and postdocs as well. Ajit Dash, a postdoctoral fellow in biological engineering at Massachusetts Institute of Technology (MIT) moved from the “relatively open-minded” metropolitan area of Bombay, India, to Boston, in part because of MIT’s gay-friendly policies. However, despite the multiple student LGBT networks and organizations within MIT, there is no formal faculty group to provide mentoring for the students. “If people at the higher levels were encouraged to come out,” says Dash, “it would create a more welcoming environment for future generations.”

Furthermore, Kingsley at the University of Nevada, who is interested in doing research on the connections between cancer and sexually transmitted diseases, struggles with a lack of mentorship. “When you are not in the mainstream and when you are researching something that might not be in the mainstream, it is so important to have a mentor to show you the ropes. Oftentimes you are looking around for someone who looks like you—to see that other people like you have done this before.”

Being a “Double Minority”

For Chanda Prescod-Weinstein, a doctoral candidate at the Perimeter Institute for Theoretical Physics in Ontario, Canada, the idea of finding someone who looks like her seems like an impossible feat. As a self-identified black lesbian in theoretical physics, she has faced some unique challenges during her educational career. One of the factors that she finds most challenging in academia is that workplace discrimination is subtly infused into social scenarios. She has had to deal, for example, with references to ‘you black people’ from a colleague when co-workers failed to speak up in her defense, and has also

“Diverse people bring diverse approaches. By having differing experiences and points of view, we can solve problems in better and more innovative ways.”
been made to feel awkward and set upon when interrogated in front of a fellow worker about her sexuality by an interviewee for a postdoctoral research position.

Furthermore, Prescod-Weinstein is tentative about being openly gay in the black scientific community where “there is a definite level of homophobia and, by and large, it has been allowed to dominate the setting.” She maintains contact with the LGBT scientific community through an informal social network. Unfortunately, her community is spread out across the United States and Canada, so most of the support she garners and friendships she maintains are through e-mail, listservs, and phone calls.

She is also out to a number of her colleagues in the National Society for Black Physicists (NSBP). She says, “The NSBP conference is the only four days of the year where I get to be around black physicists and I need those four days to help me get through the other 361. In the same way, I need that connection with queer scientists—they are part of my community too. It is my recharge, my identity, and a matter of psychological survival that I get to touch base with people who understand those aspects of my experience.”

Dash similarly believes that finding a network of supportive peers and colleagues is essential for LGBT scientists. However, he says, “The obvious outcome of being a ‘double minority’ is that it shrinks your pool size immensely and it becomes incredibly hard to find role models. A lot of the decisions that one makes need support and guidance from people who have been there before.” Furthermore Dash notes, being a person of color makes you a “visible” minority, “where you do not have choice of being identified or not. However,” continues Dash, “being LGBT is an invisible minority status, giving you the option to choose to lay it on the table or not. If you already feel disadvantaged belonging to one minority, it is extra hard to make the choice of being out in the other.”

**Brit Ventura**, a graduate student in neuroscience at the University of Oregon notes challenges of being out in the Latino community, but also has seen the rewards. Growing up in New Mexico in a large Latino family, Ventura explains, “A lot of social customs come with the Latino community and they are very tied to religious roots, so it is not the most welcoming environment for LGBT people.” In the university setting, Ventura felt more comfortable coming out and has now found, at SACNAS, a place he can be recognized as Latino, gay, and a scientist at the same time. In partnership with NOGLSTP, Ventura hosts the annual LGBT reception/panel at the SACNAS conference.

Gomez of the University of Wisconsin-Madison spoke on an LGBT panel at SACNAS some years ago. Openly gay in the mathematical community for many years, Gomez said it was a wonderful and emotional experience to be visible to the Latino community. “I was excited about finally being out and public in SACNAS as a lesbian, and very moved by the positive response that we got from the community.”

**Research Discrimination**

Being an openly LGBT scientist may be one thing, but embarking on gay-related research is another. Hamer, well known for his controversial research on the “gay gene,” says, “In terms of a traditional scientific career, like getting into the National Academy of Sciences or being on editorial boards, doing gay-focused research is not a help.” He states bluntly that due to his work on the gay gene, job offers died off very quickly.

Hamer asserts that the response to his work may have been less of a homophobic reaction and more about resistance to research centering on sex. Even scientists who are investigating heterosexuality often experience the same sort of response. In terms of finding funding for sex-related research, he says, “It becomes political and is often cast as ‘why are you wasting our money on something that should be private?’”
But sex research, whether it be straight or gay, Hamer argues, has the greatest biological and human relevance. “In terms of biology, sexual behavior is how we evolve. In terms of neurobiology, it is how we arehardwired, and lastly, in terms of human interest, it is what we think about a lot!”

Joan Roughgarden, an evolutionary biologist at Stanford, agrees that response to the study of sexuality and gender diversity is not so much homophobic, but rather destabilizing to accepted scientific thinking. She also acknowledges that funding for this kind of research is difficult, if not impossible, to find. Although her regular academic salary from her tenured position provided the time for research and access to library facilities, she carried out her own “controversial” research without any additional funding. Roughgarden was harshly scrutinized for her research on sexual and gender diversity and the critique even turned personal. As a transgendered scientist, critics marginalized her and quickly accused her of having an agenda.

However, studying sex and gender is an essential part of challenging the heterosexist narrative that pervades our culture, Roughgarden believes. She says, “If you watch traditional nature shows, what you get is a message over and over again of the naturalness of heterosexuality. If you attend medical symposia, you hear again, the naturalness of heterosexist physiology with a very clear pathologizing of the diversity that we know occurs.”

Diversity Makes the World Go Round

Roughgarden and Hamer’s personal experiences of sexuality and gender may have fueled their scientific research, but is that necessarily a bad thing? Karen Ottemann, an associate professor of microbiology and environmental toxicology at University of California, Santa Cruz stresses, “We need diversity in science. Diverse people bring diverse approaches. By having differing experiences and points of view, we can solve problems in better and more innovative ways.”

It is important to recognize the valuable work that has been done in creating a more inclusive and safe workplace for LGBT scientists. It is also clear that there is much work to be done, both within the scientific community and society at large. As Hamer and Roughgarden exemplified through their own research experiences, a foundation for a stronger, more diverse scientific work force could be laid by funding cutting-edge research on sexuality and gender on state and federal levels. Providing federal recognition for same sex unions that would enable equal benefits and issuing federal mandates for the protection of LGBTs in the workplace would encourage the younger generation of scientists like Dash, Ventura, and Prescod-Weinstein to participate openly and proudly in the nation’s scientific enterprise. Ultimately, equality on this level will promote visibility and truly will encourage scientific advancement in all diverse communities.

Jenny Kurzweil is a freelance writer and editor. She lives with her partner and their two children in Santa Cruz, California.

DOI: 10.1126/science.opms.r0800063

LGBT LINKS

INDUSTRY
Boeing - www.boeing.com
Genentech - www.gene.com

UNIVERSITIES
Perimeter Institute for Theoretical Physics - www.perimeterinstitute.ca
Stanford University - www.stanford.edu
Stanford University School of Medicine - med.stanford.edu
University of California, Santa Cruz - www.ucsc.edu/public
University of Nevada, Las Vegas, School of Dental Medicine - dentalschool.unlv.edu
University of Wisconsin - Madison - www.wisc.edu
ORGANIZATIONS
American Association for the Advancement of Science (AAAS) - www.aaas.org
American Chemical Society (ACS) - portal.acs.org/portal/acs/corg/content
American Mathematical Society (AMS) - www.ams.org
Gay Lesbian Straight Education Network (GLSEN) - www.glsen.org/cgi-bin/iowa/all/home/index/index.html
MentorNet - www.mentornet.net
Out and Equal Workplace Advocates - www.outandequal.org
National Organization of Gay and Lesbian Scientists and Technical Professionals (NOGLSTP) - www.noglstp.org
Society for Advancement of Chicanos and Native Americans in Science (SACNAS) - www.sacnas.org
Society of Women Engineers (SWE) - societyofwomenengineers.swe.org

FEDERAL GOVERNMENT
National Cancer Institute - www.cancer.gov
Smithsonian Institution - www.si.edu

FURTHER RESOURCES
Lynn Conway Home Page (database and resource for transgendered persons) - ai.eecs.umich.edu/people/conway/conway.html
Triangle Area Gay Scientists - tags.zuberfowler.com
Tribe – a social networking forum for gay, lesbian, bi, trans, intersex, queer, and friendly heterosexual allies in the sciences and technical professions - tribes.tribe.net/glbtscientists
Transgender at Work Resource Page - www.tgender.net/taw

UPCOMING FEATURES
Faculty 1—February 6
Postdoc 1—February 20
Focus on Singapore—March 6