Good morning and welcome everyone to Arlington. I know many of you but in case you don’t know me, I am a physical chemist, having been a faculty member at Georgetown U for a decade, and now at the NSF for 14 years. I have been out as a lesbian (more or less) since I was 18. I’m very excited to see this session and hope that it will be of use to you and of benefit to your departments and the chemistry community. A lot of what you will hear about LGBTQIQ people can be translated to other minority groups. I know the speakers today and they are fantastic. Use us as resources, we’re here to help. Let me clarify two things before starting – first, while I am an NSF employee, I am telling more of a personal story - speaking here for myself - with permission from the NSF to do so. Secondly, my remarks are meant to include all forms of sexual orientation, gender identity and gender expression, but I will just say LGBT for short.

I first started talking about LGBT in STEM last year – it was at the first LGBT symposium at an American Physical Society March Meeting. From that time, it is amazing to see the sea change that has occurred in American society on this issue in a historically short time. Last year we were in the midst of a media blitz about the bullying of young LGBT people and their suicides. One shocking statistic for example is that more than 40% of transgender people in the US have tried to commit suicide. In response, the “It Gets Better project” inspired over 50,000 LGBT people or allies including many celebrities to post video messages to the youth to encourage them and to say “it gets better.” Indeed, this is why I decided to talk publicly about being gay, since it is something I can do for the young people. Maybe because many people got into this same process at the same time, all at once reacting to the media and coming out more publicly, the issue tipped in this past year. By November 2012, the media declared that gay marriage was no longer a dividing political issue. 54 senators support gay marriage, and 58% of the

1 http://meetings.aps.org/Meeting/MAR12/Event/161816

3 see the very good article on trans issues at http://ai.eecs.umich.edu/people/conway/TS/College.html

4 http://www.itgetsbetter.org/pages/about-it-gets-better-project/
public supports it. Even conservatives are admitting that gay marriage will inevitably be legal nation-wide.

Let me start with my story by sharing two contrasting points in my life. The first was when I was coming out at 18. It was 1976 and I barely knew what “gay” was. No one talked about it; there were no books in any library, there was nothing on TV and no way to get information about it. The only adult I talked to was my priest, and he told me I would have to abstain. So at 18, I walked out of that church and never went back. The saving grace for me came from my college friends who were also gay – by senior year we had found each other. Thanks to my group of friends, I made it through my 20’s. Luckily I was not harassed for being a lesbian. I also threw myself into academic work, in part as a kind of survival mechanism. But I do remember these years as a time of severe loneliness and darkness, and I can understand how kids would be suicidal, especially if they are being bullied by their peers, their families and their churches.

Contrast this story with a vignette on a cold day in January of this year, when I was standing shoulder to shoulder with people on the National Mall at the Presidential Inauguration. When President Obama mentioned gay marriage in his speech, there was a huge roar of approval from the crowd. I will never forget it – I had an amazing, visceral response when I realized – WOW! And these are mostly straight people! Yes, I knew intellectually there was support but on this day I heard the support in a deeper way, and it felt very, very good.

There is nothing inherently wrong with being LGBT. Parents get upset about it because for some of them, they feel shame, they don’t want their kids to suffer, and – last but not least - they want grandchildren. But the only reason there is shame and we suffer is because society makes it so. And grandchildren are not a problem- about a quarter of gay families opt for children and 40% want to have children. I think most people are realizing that LGBT people having quite ordinary lives and being who they are, are not threats to society. And further, we deserve equal rights.

So what does this have to do with science and chemistry? Why are we talking about it today? A few years ago, a well-meaning straight colleague said, “why are you raising it as an issue? It doesn’t matter if a scientist is straight or gay.” It took me awhile to answer that. It shouldn’t matter because there is no particular connection between being LGBT and having scientific talent. The stereotype associated with LGBT people has nothing to do with intelligence (as it does for women, for example.) According to the Implicit Association Test website\(^5\), most people (68%) find it easier to associate gay people with “bad” and straight people with “good.”

\(^5\) you can test yourself on implicit associations at https://implicit.harvard.edu/implicit/demo/

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The stereotype has to do with morals, not with intelligence. And society is now realizing that being LGBT is not a choice, not about morals, it’s more about nature.

Dr. K O’Hanlon writes about an amicus brief to the Supreme Court by the Gay and Lesbian Medical Association, which cites over 50 peer-reviewed articles. The last 30 years of research provides solid evidence that sexual orientation and gender identity are biologically conferred during the first 12 weeks of pregnancy and are as innate as handedness, height or skin color.” She goes on to say, “Nature never confers traits in a perfectly dichotomous fashion, and never is precisely black or white, but rather expresses as infinite shades of grey across a broad spectrum of greys, some very dark, some not so dark, some light, some very light. Likewise, almost no one is perfectly heterosexual or homosexual, purely male or female, but some blend of features that make them unique.” One last quote, “Observations of more than 450 species of animals confirm that fleas, birds, reptiles and primates (that is us) demonstrate bisexual or homosexual behavior.” And from a recent New York Times opinion, “there is a controversy in the scientific literature about how many people are intersex, but some estimates put the figure at up to 2%.” (Intersex is when an individual has physical attributes of both sexes; the old term was hermaphrodite.) It is an unanswered scientific question, in fact, why a species evolves various expressions of sexual behavior.

The reason being LGBT matters in science is because inequities exist. An intelligent group can attend to a lot of these inequities in short order. The message of my talk is that this is not a hard problem but it does need to be talked about. Science and engineering are some of the LAST groups to address this issue, AFTER churches and the military! One writer questions why science “waited till the last moment – when outside pressures, precedents and changes in the greater society are forcing the change?” It is to Rig’s credit that he included LGBT in the OXIDE set of diversity issues, and to the credit of the OXIDE board that they embraced it. We also have to thank Charles Pibel, the program officer of the OXIDE grant, Luis Echegoyen, formerly of NSF, Eric Rohlfing of DOE and Mike Rogers of NIH, agency leaders that supported it. It is so good to be on the right side of history! Chemistry is once again at the cutting edge of the Science and Engineering diversity cause.

When I spoke at APS last year, following my talk, a young man stood up and said, “But why does physics not yet accept LGBT people? Physicists are liberals.” He was truly baffled, and I think it’s a good question. In this sense, scientists have been very conservative in fact. The best

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6 http://www.washingtonblade.com/2013/04/11/rights-are-not-political-health-scrutiny-science-laws-discrimination/
7 http://www.nytimes.com/2013/03/30/opinion/natures-case-for-same-sex-marriage.html?_r=0
8 from “How Colleges and Universities Can Improve their Environments for TG/TS Students” by Lynn Conway http://ai.eecs.berkeley.edu/people/conway/TS/College.html

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explanation I’ve heard for this was put forth by sociologists Erin Cech and Tom Waidzunas. We are fortunate to have Erin here today, so stay tuned for her talk this afternoon. Additionally, with grants, publishing, faculty positions and tenure being so very competitive, people are afraid to introduce any factor that might cause negative decisions, even if the effect is only slight. It is very important to fit in. So many important decisions in science are made behind closed doors – tenure decisions and anonymous peer review of papers and grants. People are not going to come out if it causes a disadvantage. In fact, Rig and Shannon may tell you, it was difficult to get an academic speaker for this session today. We must dispel the bias so that there is no impediment to coming out.

I want to also note that many young people see this problem very differently than do those of us who are over 40. They have many fewer years steeped in homophobia, and their views and demands are likely to be quite different. This generation is seeking an upending of gender roles beyond the binary male/female, thus the term queer in the longer acronym LGBTQ. Eric Patridge is here today – Eric started a student group Out in STEM, and it will be very good to get his perspective on behalf of students.

What do LGBT people want of the Science and Engineering community? I would say the same as other minority groups – we want to be able to enter S&E without obstacles. It’s not about recruiting or having quotas. We don’t have data about the numbers of LGBT students, faculty and employees in the science workforce. For example, it is hard to make you, department leaders, care if you think you do not have any LGBT students or faculty. For the general population, 3.5% of adults in the US publicly identify in a survey as lesbian, gay or bisexual, 8.2% have had same-sex experiences, 11% acknowledge at least some same-sex attraction and 0.3% are transgender. We don’t know the percentages in science, and whether LGBT people are under-represented. We don’t know if LGBT scientists are there and their chairs do not know, or if LGBT people never entered science to begin with, or they left.

I’m going to make two main arguments, and then close with 10 quick things a department leader should know.

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10 http://www.nytimes.com/2013/01/10/fashion/generation-lgbtqia.html?pagewanted=all

11 www.ostem.org

I’ll reiterate the argument made yesterday by the LGBT breakout group - it is important for science and engineering to break the silence on this issue. In the absence of any discussion about LGBT issues, people will fill the silence with their own story. If we don’t check each other’s stories through honest discussion, then myths will evolve that can harm our discipline. You have invested so much in training your students, the country has invested precious dollars in them, we don’t want students who happen to be LGBT to walk away from science because their story is “I don’t see any successful LGBT people here – I don’t belong here, they don’t want me here.”

When I first started as a rotator at the NSF in 1999, I attended the orientation for new NSF employees. The HR person actually welcomed people of all sexual orientations, and assured us that gay people were respected and protected from discrimination.\(^\text{13}\) That felt so good! First time in my life anyone said anything like that! It was compelling therefore for me to stay at the NSF. Didn’t cost them a dime to say it.

It is a very simple thing to be welcoming to LGBT students, faculty and staff. You can start by saying the words, e.g. during an orientation session for new students. It’s very easy because we have made an acronym! You don’t have to try to say words like “lesbian” or “queer” or words that contain “sexual.” You can just say LGBT or GLBT and people will know what you mean. I think that some straight colleagues feel that they are being respectful of a gay person when they don’t mention it. “I’m going to treat you like everyone else and I’m cool with it.” But imagine the other side of that – a gay person will feel really uncomfortable because what is assumed is that everyone is straight. So the gay person either feels like an imposter, or feels like the real odd-ball for bringing the subject up, because no one else is talking about their sexuality. Any small gesture by the chair will be greeted with huge relief! Just saying LGBT once in a departmental setting can make a huge difference – it’s on the table, it makes it so much easier for someone to come out. There are also nonverbal ways to indicate welcome. As we mentioned yesterday, put a pink triangle “safe space” sticker on your office door.\(^\text{14}\) Put the link to the ACS Gay and Transgender Chemists and Allies Subdivision\(^\text{15}\) on your department website or in the graduate student handbook or in a class syllabus.

If you feel it comes across as too “politically correct,” don’t worry about that – the people for whom it matters don’t think it is just PC.

Do you want your LGBT colleagues and students to be out? If you want your department to be productive, if you want to retain talented students and faculty, your answer is yes. A person

\(^{13}\) Federal employees are protected from discrimination based on sexual orientation through Executive Order 13087 signed by Clinton in 1998.

\(^{14}\) [http://www.equal.org/safe-space-program/](http://www.equal.org/safe-space-program/)

\(^{15}\) [http://prof.sites.acs.org/lgbtandallies.htm](http://prof.sites.acs.org/lgbtandallies.htm)
can be much more productive if they are not spending energy trying to stay in the closet. It’s hard to be closeted, you have to filter everything you say. Science is a social endeavor. People talk about their spouses and kids, have photos on their desks, talk about vacations and so on. Choices of postdoc placements and jobs can be adversely affected by having a partner in the background that no one knows about.

On the other hand, some LGBT people may not be comfortable coming out or talking about it. So you have to try to read that. There may be family trouble and the person may not feel secure enough to come out or they may be very private. We are not to judge that.

Even if one is out, people on both sides often cope by not talking about it. This is extremely common but can lead to isolation. This is why it is important to have employee and student LGBT and allies groups. Last year, with an NSF’r Ron Buckmire and AAAS fellow Marcelo Vinces, we formed an LGBT and Allies affinity group here at the NSF, now with 35 members. We have lunches, host speakers, serve as resources for the NSF and encourage the inclusion of LGBT in science diversity discussions.

My second point is that it is very important for LGBT scientists to be visible. Audre Lorde said “The first thing a minority must do is make itself visible to itself.” I can tell you that if I had known that Sally Ride, the first American woman to enter space in 1983, was a lesbian, it would have made a big difference to me and to countless other LGBT youth.

10 things a department leader should know about LGBT:

1. Know the vocabulary. LGBTQIQ stands for Lesbian, Gay, Bisexual, Transgender, Queer, Intersex and Questioning. Please see the handout for a discussion about terms. Honestly, I have to refer to the handout as well because it is confusing even to me. The term “gay” refers to males, but can also commonly apply to males and females. Sometimes women prefer the term lesbian. Transgender refers to people whose gender identity (in the brain) is different from their assigned sex at birth. Transgender woman refers to someone born with sex assignment as a male and identifies as a woman (male to female), and similarly for transgender man (female to male). Cisgender (easy for a chemist to get this) refers to people whose gender identity matches their assigned sex at birth. So, for example, I’m a cisgender Lesbian. Queer is a term that used to be perjorative, but is reclaimed by people who feel that they don’t want to identify with male or female. Questioning is when one is not sure of one’s status. “Sexual orientation” is usually preferred to “sexual preference” as most of us don’t think it is a preference, which implies choice. Sexual minority is a good umbrella term for all of these.

[^6]: There are many glossaries available. [http://lgbt.utah.edu/training/ally.php](http://lgbt.utah.edu/training/ally.php)
2. Know the laws in your state (see HRC website and handout.)\(^\text{17}\) Be aware that there are laws that disfavor LGBT people. Only 21 states and the District of Columbia have employment protection for LGB and only 16 for trans people. Only 18 states and the District of Columbia have same-sex marriage or the equivalent. Five states prohibit adoption by an LGB parent and 20 states do not protect LGBT people against hate crimes. Let’s say you are LGBT and are moving to work at NSF. It is very advantageous for someone to live in MD or DC, but not in VA. This kind of information should be on a website for new employees. Emigration and immigration are still problems for LGBT couples, e.g. married same sex couples cannot obtain a spousal visa or green card; this could affect your recruiting or sending students and postdocs abroad.

3. When sending your students abroad, know the laws in the other countries.\(^\text{18}\) More than 80 countries criminalize homosexuality and seven of them impose the death penalty. On the other hand, 11 Countries allow same-sex marriage (including Argentina, Spain, Denmark, Belgium, Canada, Iceland, Netherlands, Norway, Portugal, South Africa and Sweden (and parts of Brazil, Mexico and the US)). (note added 4/17/13 – New Zealand becomes the 12\(^{th}\) country!)

4. Know the workplace policies at your university – for example, the right to family leave, insurance options that include partner and LGBT family benefits, and retirement benefits. For transgender people, there are often issues of health insurance, since many health insurance policies exclude transgender health. Organizations sometimes fail their trans employees when it comes to correcting records to reflect name changes, providing gender neutral spaces, as well as career counseling. For LGBT students there can be issues related to housing, safety and access to counseling and education about LGBT issues in order to help with the coming out process, which often occurs during the college years, and can be very painful depending on the student’s other support – family, church, and peers.

5. Be sensitive to double minorities – e.g. being bisexual and African American, or being a lesbian and female. These folks have to navigate two worlds and sometimes compromise between them, with added stress and potential for isolation. For me, I feel that I spent more of my career fighting sexism. Sometimes I experienced exclusion from networks, for example, among straight women. That sort of response is typical for double minorities.

6. If someone is out of the closet and doing well, showcase them – raising role models like Sally Ride greatly elevates our reputations and counteracts old stereotypes. Right now, the most famous LGBT people are entertainers or in the arts – we are in science too. LGBT role models

\(^\text{17}\) [http://www.hrc.org/resources/entry/maps-of-state-laws-policies](http://www.hrc.org/resources/entry/maps-of-state-laws-policies)

\(^\text{18}\) [http://en.wikipedia.org/wiki/LGBT_rights_by_country_or_territory](http://en.wikipedia.org/wiki/LGBT_rights_by_country_or_territory)
being out help to transform the collective conscious that permits aggressive hostility, homophobic violence and bullying that is still present in our society.

7. Don’t assume that because someone has a same-sex partner that they will not have childcare issues. LGBT people can become parents through various means including former relationships, coparenting, adoption, donor insemination and surrogacy. Career-life balance efforts will likely apply to your LGBT faculty member or student.

8. Consider diversity part of the training you are giving your students. Hold ally trainings. Allies have stories about how they became allies. With an accepting diverse community, students will be better equipped for a multicultural society and for a workplace that is often already more accepting than many university settings.

9. Join, sponsor, or encourage others to join the many groups that support and advocate for LGBT scientists and engineers. Chris will mention those in the next talk and some are listed in the handout. The very informative LGBT physicists’ website\(^\text{19}\) has best practices for departments, which is a very useful resource. In addition to national groups, support the local LGBT groups on campus. Meet with the director to find out how your department can participate.

10. Learn more about LGBT issues – including all the forms of sexual orientation, gender identity and gender expression. Address anti-LGBT incidents and bias immediately. Host a speaker in your department on LGBT issues. Write letters to the editor. Finally, promote respectful, rich and honest dialog whenever you can.

I will close with this thought. When we feel accepted and supported as full members of the workplace team, we are better able to contribute, to join fully and to help others. And at that point, there is a big win for society – because we can contribute fully to the advancement of science and innovation – all greatly needed to addressed global problems of our society today.

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\(^\text{19}\) http://lgbtphysicists.org/index.html

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