

oSTEM Graduate Student Panel: November 12, 2019

Panel transcript

Panelists:

Julie (she/they) – University of Minnesota – Engineering

Austin (they/them) – Duke – Engineering

Liz (she/they) – University of Wisconsin, Madison – Chemistry

Amber (she/her) – Emory University – Chemistry

Mae (she/her) – University of Colorado, Princeton (Post-doc) – Neuroscience

Lisa (she/her) – Boise State University – Chemistry

Matthew (he/him) – University of Wisconsin, Madison – Chemistry (middle, second from left)

Chloe (she/her) – University of Chicago – Mathematics (middle right)

Natalie (she/they), Moderating – University of Minnesota – Chemistry

Itati (she/they) : Michigan State University – Ecology

[00:00:00] **Natalie**: We are using a gallery view here so that we can see everyone at once. So I think I can make that not show me... hide non-video participants. Perfect! Oh, who is having audio issues? Oh, that's Mike. Yeah, I have it recording to my computer, Mike, oh I'll just type it to him. Okay. All right.

[00:00:43] **Natalie**: So I have about seven o'clock. So just a couple housekeeping things to make this easier. If you are just an attendee, it's super helpful if you mute yourself so that we have less background noise. And if you are also an attendee, you won't need video.

[00:01:01] **Natalie**: If you want to ask questions. Chat is the best way to do that. I'm going to try to monitor chat, um, throughout so that we could chat questions and hopefully we have no audio hiccup issues and that'll be good. Liz, I still don't have video for you. I don't know if that's what you want.

Liz: Yeah, It was being rude. I'm gonna log back out and log back and really...

Natalie: OK, we'll see you in a minute.

[00:01:26] **Matthew**: You want panelists to go ahead and mute themselves unless they're chiming in?

[00:01:30] **Natalie**: Yeah, that would be great. And usually if you try to talk and you are muted, it should give you a warning. Your computer should pick it up and tell you, so.

[00:01:42] **Natalie**: So we'll give Liz a second here. And then we have snacks to people that are here in meatspace.

Audience Member: Meatspace?

[00:01:53] **Natalie**: Yeah, as opposed to cyberspace.

[00:01:59] **Liz**: I'm sorry, it was literally working yesterday.

[00:02:02] **Natalie**: OK, Liz, I will...everyone imagine how amazing Liz is.

Liz: Like, draw a picture of me.

[00:02:09] **Natalie:** OK. Perfect. All right. So I think we should get started and we're going to try to run through introductions. I can't think of a better way to do that other than poster order.

[00:02:17] **Natalie:** So I'm going to start with Julie. Can you introduce yourself real quick, name -

Julie: Hi

Natalie: - pronouns, fields, identities. The good stuff.

[00:02:26] **Julie:** Hi, I'm Julie, she/her I'm an environmental engineer, a six year PhD student at the University of Minnesota and a adjunct professor at the University of St. Thomas.

[00:02:38] **Natalie:** All right. And next on my poster is Austin.

[00:02:42] **Austin:** Hi, everyone. My name's Austin. I'm a second year PhD worker here at Duke University in the Civil and Environmental Engineering Department as well. But I'm definitely a chemist by training and I use they/them/their pronouns.

[00:02:57] **Natalie:** Thank you, and then I have I have Liz.

Liz: Hi I'm Liz, I am a chemistry graduate student at UW Madison in my fifth year and I use she/her/hers

Natalie: ...and Amber.

[00:03:13] **Amber:** Hi, I'm a third year graduate student at Emory in chemistry and I use she/her/hers.

[00:03:19] **Natalie:** And Mae!

[00:03:23] **Mae:** Hi, my name's Mae. I'm a first year postdoc at Princeton and my pronouns are she/her.

Natalie: ...and then I have Lisa.

[00:03:33] **Lisa:** Hi, I'm Lisa. My pronouns are she/her/hers and I am a first year clinical faculty, so teaching at Boise State University just graduated from the University of Oregon.

Natalie: ...okay, and..

[00:03:46] **Lisa:** Oh and chemistry, chemistry.

Natalie: Thank you. And Itati.

[00:03:53] **Itati:** Hi, everyone, I talk to my pronouns are she or they I'm a first year Ph.D. student at Michigan State University. I am in ecology and evolutionary biology and plant biology, but my research focuses on landscape scale, bio geochemistry.

[00:04:10] **Natalie:** Thank you. And then I have Matt or Matthew. I don't know which one you prefer.

[00:04:15] **Matthew:** Hi, Matthew, I use he/him/his. I'm a chemistry graduate student at University of Wisconsin, Madison. My research is actually in food science and in education psychology.

[00:04:27] **Natalie:** Oooh! And then I have Chloe.

[00:04:31] **Chloe:** Hi, everyone. I am...my name is Chloe. I'm a...oh, she/her/hers. I am a math PhD student at the University of Chicago. And this is my second year.

[00:04:43] **Natalie:** All right. So I have some prepared questions. [to the audience] Does anyone have questions they want to ask right off the bat or jump into everyone's ones? Questions about graduate school? No, I have prepared ones, it's fine.

All right. So graduate school application deadlines are coming up. I think that's like, you know, a winter time thing. And one thing I thought would be relevant is, were you out or not in your personal statement? And how do you navigate that in the application process?

[00:05:13] **Natalie:** I think we're just going to have to play nice, chime in, and take turns. So anyone who wants to hop in first.

[00:05:20] **Julie:** OK. So I was out on all my applications. Um, usually when I came out as trans, it was within the first paragraph. And it's a really simple sentence. Try not to overcomplicate things, trying to bring out too much emotion, cause that usually makes some straight people uncomfortable. So just be objective. Yes, I'm queer, whatever. Move on from it. I also made sure that -- at the time I didn't have my name legally updated -- so in the top corner of all my papers had in big bold letters, my name Juliet Johnston ended like this tiny, horrible fight was my deadname. Name said if I ever lost my paper, they can get back together. But that's kind of how I've handled it. It's worked out so far.

[00:06:06] **Natalie:** Thank you -- I don't know, anyone else have any other experiences in applications being out, being not out? Lisa, you raised your hand, but you're muted.

Lisa: Spacebar OK, OK. I'm using my spacebar. So I didn't actually address anything in my personal statements, but I think as a gay female, it's very different. And I recognize that. I um, did -- it was in my resumé, though, which is part of your graduate package. And it was there as part of um - I did service. I did a lot of activities within the LGBT+ community in undergrad. And I also received a couple of scholarships. So, I mean, that was there. I will say it was in my cover letter for job applications this past year and I do not think it hurt me. Diversity is diversity, and it could hurt for sure. But I was selective in where I applied. So.

[00:07:28] **Natalie:** Yeah, anyone else? Or...okay, Itati then Austin?

[00:07:38] **Itati:** OK. Sorry - Yeah, I was out in all of my materials and then I was out during all of my interviews so I interviewed before submitting applications, so it was pretty obvious. And then I went to Texas A&M University first, and that didn't work out. But I had a graduate diversity fellowship there. So at every event that we would have, like that was part of the nametag. I was like, what are your identities? I'm one of them that was always like queer, so, yeah.

[00:08:06] **Natalie:** Interesting -- Austin.

[00:08:10] **Austin:** Yeah. I made a very conscious effort to be very out in all of my graduate school applications, including in my personal statement. I thought it was always like a really integral part to how I like viewed science and viewed my potential as like a chemistry or, um, environmental engineering PhD student. I will say the one hiccup I had was how my recommenders gendered me in the recommendation letter writing process that I didn't realize was quite going to be a problem because I was out all of them as queer and genderqueer. But then I forgot to, like you know, ask them how they would gender me until, you know, after some of my advisors had already like submitted one. And one was like, hey, I just wanted to check in and see how you wanted me to gender you. And that was really, really sweet of him. And thankfully, the other two had just either not gendered me or used they/them/their pronouns. But it was one of those things where I'm like, oh, this is just something I hadn't thought about and should have given a little bit more thought to as I was doing the application process. Like in addition to the normal sending your CV and my personal statements and research statements to my, you know, recommenders, I also should make sure to be clear and say please gender me with they/them/their pronouns in the letters.

[00:09:39] **Natalie:** I also would not have thought about that at the time. People don't think because that's part of the application process, you don't see it a lot. You just ask for a letter. All right. So if anyone has nothing else on that, I think Austin, you can--

Lisa: Can I kind of chime in real quick about letters.

Natalie: Yea -

[00:09:56] **Lisa:** So as a new professor, I will say that I am actually doing this panel over, sitting at a panel in on a panel as a professor, listening to students at Boise State about students' needs and particularly non binary and trans students and doing a whole weeklong workshop on that as a faculty member. And so I will say that talking -- if you are out, talk to your faculty member, hopefully. I mean, also awesome, Austin, that you had a faculty member that asked you that. I knew that I did something that I asked my students on day one. But I also recognize that changes. But, uh, be willing to go talk to your faculty member because it does impact how you might have to out yourself in graduate school.

[00:10:51] **Natalie:** Thank you -- Mae did I see you raise your hand. Thank you. Yeah.

[00:10:55] **Mae:** So I wasn't out when I was applying to grad school, but I was out when I was applying for my postdocs. And one thing that worked for me was during my interviews, I individually came out to the people in the labs that I was interviewing at. And that gave me an opportunity to sort of gage their reactions individually to get a good idea of like how they would approach me or think about me. And fortunately, everything seemed to go well at both places I interviewed. And it's definitely different for graduate school. But if that's something you're worried about, that might be something you can bring up one on one with the people and I just basically do the same thing. Julie said, I just casually was like, by the way, I'm a transwoman and look to see how they reacted.

[00:11:49] **Natalie:** Okay - All right. I think we've got a lot of different perspectives on the question, which is good because it's a hard question like you got to out yourself and now there's paperwork for it? Dang!

[00:12:01] So this is kind of like in that same vein. But one question -- I asked our oSTEM members for questions before this -- is how do you seek out a supportive and accepting adviser? And that's also complicated because academically supportive and socially accepting, we would hope are a perfect Venn diagram, but maybe are not always.

[00:12:25] **Natalie:** Itati – yeah – go ahead.

[00:12:26] **Itati:** So I guess one of the bigger reasons that I transferred out of my first PhD program is my advisor like, was not supportive. Not that they weren't like...they knew I was queer. But when it came to actually like living out any of my identities, I was like a queer person or as a Latinx person and they were like, "Oh, I don't like that. Don't talk to me about it. Don't bring it up. Don't like...live it out loud." And so I actually think it's kind of really hard. And you have to go by like track records of past students who have some sort of minoritized identity. And then it's kind of a lot how like...one on one they act with you. I would say that the junior faculty that I've met are way more accepting than some of the older faculty I've met. Older faculty like absolutely don't know how to handle it because even if they're OK with queer people in general existing, they don't understand what it's like to actually, you know, involve like that kind of personal stuff in like a professional academic setting, they think it should be totally separate. And so it's really about giving your one on one interactions with people and seeing how comfortable they are with it. And usually people make it really obvious, especially during interviews like with their body language or the way that they actually react. So, yeah, it's all about it's all about just like testing out those interactions and it is really hard sometimes. So there's not really like a best way to do it.

[00:13:55] **Natalie:** Yeah. Matthew, I saw some heavy nodding. Do you have a story or a comment about advisors?

[00:14:02] **Matthew:** I have an expressive face, um, I was unusual in that I changed labs at the end of my third year of graduate school. Don't recommend that, by the way. My first boss was widely considered one of the more agreeable, um not, overly demanding, professors in the department- and he was - and he was a nice guy. He and I didn't connect. My mother to this day thinks part of that is because of my sexuality. So when I was applying to the National Science Foundation Graduate Research Fellowship Program, you'll hear about the NSF I'm sure, one of the ideas I had was sort of for a side project where I would – um, this was back before, I'm an Eagle Scout, back before Boy Scouts allowed the LGBT community broadly into the scouting program - was to leverage my dual identities, to reach out to Boy Scouts and teach chemistry. They do have a program for that. And he didn't really know how to react to that and basically, pushed me off to another professor, which who is an amazing guy and widely involved with the LGBT community on campus. And so to some degree, it's a matter of – um, and I've seen and I've talked to other my queer fellow grad students in department because I'm friends with all to some degree, it's a matter of how forward is one's queer identity or identities as opposed to one's identities as a scientist or as a researcher, or as a student. And if you're okay, working with a person who is very discipline driven, is very driven, in my case, by chemistry or by soil science or whatever it is. And you can background that identity and you're perfectly OK with your boss ignoring that identity. Cool. And as long as that person is moderately OK, but being aware of where you stand and how much you can foreground to various identities and be advised that in any minority status in particular or any identity status when identities are fluid. So when something is more prevalent and when something is more salient will change over time and learn to accept your own control in those situations

and comfort levels in those situations. And plan it in advance. And I've liked the commentary I'm hearing about getting a feel for what people are going to do. The sooner you can get that, the better. But don't put yourself at risk to do so.

[00:16:44] **Natalie:** Thank you. Anyone else have comments on – yeah, Lisa, raising your hand on advisers and then Lisa and then Chloe, I'm pointing you can't see what I'm pointing at. I'm sorry.

[00:16:55] **Lisa:** I cannot see what you're pointing at but – ok -

Lisa: I was very fortunate to have two bosses and one that he was very much my science boss and another work was very much my social boss- Like my, my boss kept me kept me sane in graduate school. But I think finding, finding graduate programs where there is a diversity movement happening or there is support for diversity movements and there's support for mental health and other aspects and – someone said they're from Emory- I know, Jen Heemstra is huge there.

We try to snipe her at Oregon before she joined Emory, but – um, so, and making sure that there are support system structures is already in place and it's amazing. If there aren't, is there support to create a support systems? Or why aren't those support systems already in place? I guess like thinking about that that side of the culture because, fifty years in the closet is a long fucking time in the closet, and I think anyone who's young, which I assume most I assume most of the undergraduates and anyone looking at graduate schools are under the age of 50, thought it's a poor assumption on my part because there are graduate students that are over 50. Don't be in a program where you don't feel comfortable.

[00:21:23] **Natalie:** Thank you, Chloe. You – yeah -

[00:21:28] **Chloe:** OK, OK. I fixed it. So I'm in math and we choose our advisors in our second year and I already felt super like, ill prepared to do this. Just I didn't do any reading courses - we only take classes our first year, so I didn't feel like I knew any of the advisers very well and I had to choose. And then the other thing was I wasn't out to anybody. And so this was this was really hard. And one of the things that I did, which is probably my biggest recommendation just in general, is talk to students of potential advisors and actually in general talk to students wherever you're thinking about going for grad school. I don't know how much they do this on other subjects, but in math, if you get in, you typically go visit -

[00:22:35] **Natalie:** I know that is very common in chemistry as well.

[00:22:37] **Chloe:** Yeah. So, so one like the number one question I think to ask when you go visit is are you happy here? Is it supportive? If you're not out like I was - it doesn't have to be a specific question. You can just ask, are you happy? Is it supportive? And then you can ask the same things of potential advisors. Is this person supportive? Whatever. Yeah.

[00:23:09] **Natalie:** Austin, I see you – uh, a raised hand.

[00:23:11] **Austin:** I think I want to be even more specific in the advice and talk to the most senior students in the lab group, um, that you're trying - that you're potentially considering whether that's like in a rotation sort of thing or if you're sort of - you have to come in with an advisor - the way about my program at Duke is and often many of the engineering programs are because I know that, like my own relationship with my advisor has changed so substantially since my first year to my second year, and I know it's going to change

substantially as I move on. And there are many things that I was entirely unaware of because I was talking to the most junior members of my lab. And there are things that are just, unrelated to queerness, but like general like lab conduct that I think are incredibly important. And you will only find out from talking to people who are most senior in the lab group. And I think that's like a critical, critical piece because I was very lucky to – like in the last sort of last throes of my visit, I to talk to, you know, a 5th year queer PhD worker who was very, very honest with me. And so I came into Duke with a much better perspective about what the environment is like than I would have otherwise. So talk to the like the most senior people as possible.

[00:24:34] **Natalie:** I think that's good advice. Can I get Itati, and then Amber, I think I saw Itati raise your hand in the middle of Austin's great wisdom.

[00:24:44] **Itati:** Yeah, I would say. Like, be very cognizant of which people you're getting to talk to on your visits. Because I definitely got duped into joining A&M, and I'm totally fine with saying that because it's true. I think for a lot of people, like if they don't share the same axis with minoritization that you two that you do, if you're they're not queer, if they're not a person of color or whatever, know if they don't share that axis with you, then they don't know. They could totally answer you, “Yeah, I'm happy. Everything's fine. Yeah. Lab conduct is great.” But then you can get there and with your own identity be like, oh, no, this is not the place for me.

So even though A&M, you know, does have mental health services for LGBT students, you know, they do have like an LGBT mentors program, even though there's all this stuff in place up supposedly to make queer people feel more comfortable joining that institution. It's actually not it's very unfriendly to queer people, especially if you don't kind of live in a way that makes you assimilate with very straight people if you don't act like you're super straight, if you can't pass, then it's a really hard place to be. And so I would say if there if everyone who's talking to you kind of looks the same and kind of says the same thing, that should be a warning sign that, you know, your visits being manicured so that they can get you, the scientists, but they don't care about you, the person. And as happy as a place can make you professionally if they can't help you personally. If it becomes very clear that the institution actually can't stand who you are, you're not going to be happy there. So I would say be cognizant of who you're talking to, because I also talk to only senior grad students when I was at A&M. But none of them shared my identities. And so the picture that I got was the picture that the advisor at A&M wanted me to see. And now I'm at MSU and I'm way happier.

[00:26:38] **Natalie:** Yay I'm glad you're happier. Amber.

[00:26:43] **Amber:** Kind of two things on that. I think one, not only people like talked to people who share your identities, but also your personality. So I think that can be a huge thing, I especially noticed that in my lab that if you're more outspoken versus more on the shy side like that can just completely change how you interact with your boss and thus kind of like shade how your mentorship is, I guess. But then another thing is on visits, ask about the resources, particularly to professors, because if they know about them, that probably kind of can tune you in on the fact that they care about it at least a little bit more. If they have absolutely no idea what resources or what kind of initiatives are going on, then that can also kind of give you an idea that clearly they have no idea and thus they're probably not going to understand marginalized identities very well.

[00:27:39] **Natalie:** Thank you, all right. I think we covered a lot. Which is good. I'm going to pause - do we have any questions from the folks that I have here in Minnesota, in real life –

Matthew: Panelists love spontaneous questions.

Natalie: Yeah, we really love spontaneous questions - also moderators.

[00:28:01] **Attendee:** So the question not necessarily identity related –

Natalie: - yes, that is totally fine-

Attendee: So I'm applying to grad school right now and deadlines are coming up. What was sort of like the timeline for your admissions process. What was like the visiting, like I guess?

[00:28:18] **Natalie:** Did we all hear the question? Yes. Itati - I see a hand.

[00:28:23] **Itati:** So I had all my application materials before I visited. So I had everything done, obviously, besides the letters of recommendation like the month before they were all due because I didn't want to submit applications to places if I was like, "This is definitely not going to work out." So I had everything done by the beginning of October. I went on all my visits from that middle week of October to the middle week of November. And then based on what I thought I saw institutionally, like on my visit, I tweaked my personal essay to fit the institution a little better because institutions can pretend to be a lot of things on paper, right, on their websites, on the little brochures that they hand you, whatever. But once you're there and you get a feel for the actual people, the actual professors in the department, the character of the program that you're going to, it can be a little easier to tailor your essays to what they should look like to actually get you in. So I did that. But I think everyone visits before the application deadline for their application. There are visits that happen after application deadlines, but those are more like. You know, they're really sure that they want you and they've already extended the - What is it called? They've already extended your letter –

Natalie: Your offer –

Itati: Thank you. Yeah. And then it's more like them really begging you to come over.

[00:29:51] **Natalie:** So, Lisa has made a great point [in chat] and Itati, you're ecology, right? Some sort of biology.

[00:29:58] **Itati:** So I applied to a bunch of different programs - cause my, my general interest is actually large-scale bio geochemistry, but there's not really like programs that say, "I'm large-scale biogeochemistry." So I actually applied to like, um UT-Knoxville because they have their program in like atmospheric science and geology and then MSU plant biology and ecology and evolutionary biology. A&M was ecosystem science and management. UW Madison was geography. And then for NCSU was forestry. So it was a bunch of different fields. All generally had to do with either geology, geography or ecology.

[00:30:43] **Natalie:** Yea, so Lisa's made a great point. The application process is really variable by field, so I know it definitely looks different for chemists. Liz, can I call you out because I haven't heard from you yet? Tell us about the application process and visiting.

[00:30:57] Liz: I would love to, thank you, Natalie. So for chemistry, at least if I remember correctly, the rough timeline was applications were due December-ish and at least where I applied, I started hearing back pretty quickly. I had some acceptances before the end of the year and most trickled in within the first couple of weeks of January. I don't know if other schools are doing this, but UW is certainly starting to push their visit weekends earlier and earlier because they kind of think if they can get you there first and get you there early you may stick better. So when I applied, I applied to way too many schools. I had to choose, kind of pick and choose where I wanted to actually visit - which is certainly some something to consider. It's a lot of time going on these visits. It also can be challenging resource wise because it's often that you get reimbursed as opposed to they pay upfront. So that's something to consider as well. So, I sort of narrowed down where I was actually going to visit. I went on for visits between February and the end of March. And so in general, I think that timeline may be moving up a little bit more. There are certainly people that go apply to eight schools, get into eight schools and go on eight visits. But it's certainly something you need to consider on a personal level.

[00:32:21] Natalie: Yeah, you bet. All right, then, Chloe, after Amber, thank you.

[00:32:25] Amber: Yeah, something. Also, when you're going through that, I ended up visiting a school that I almost didn't visit because I didn't think I was going to like it at all. It was very much a safety school for me and it ended up being the only one that competed with Emory, like when I was choosing. So, like, also, keep in mind that what on paper may seem like, oh, I don't want a visit that may actually be one of your better options. So, but, again, it is expensive and takes a lot of time, especially if you're still in classes and everything. So kind of keep that in mind as well.

Natalie: Chloe?

[00:33:03] Chloe: So timeline wise, math is pretty similar in that, but then the one thing that I wanted to say was this weird thing happened to me. So I applied to the University of Michigan and actually got rejected. But I got the NSF fellowship, which if any of you do not know about this, you should apply for that. And the reason that I say this is because the University of Michigan found out that I got this fellowship and emailed me saying, "Hey, by the way, just kidding. We actually want you to come here." Which I actually did visit and ended up not liking it, but. It's an interesting -- it's an interesting story. I know that I'm not the only person that this has happened to. So if there's somebody if there's somewhere that you really, really want to go and maybe can get over them rejecting you first, you can you can potentially use like leverage to do that.

[00:34:16] **Natalie:** It's a really interesting story. Wow – yea - OK. Other audience questions? Oh, there's a question in the comments. Can we get a quick blurb about the NSF fellowship? Yes. Who's volunteering to give the blurb? Julie and Itati, oh, I don't care – both of you know, I know a lot of you know. Julie, go first and then we'll get some from Itati.

[00:34:40] **Julie:** OK. So the NSF fellowship is a really competitive fellowship for most graduate student programs in STEM. Because you're competing essentially against everybody for about two thousand slots. It is three years guaranteed funding for your tuition as well as your salary and such completely funded from the NSF program. You have two statements that you get to write. One is a personal statement. It's usually three pages long and then a research proposal, which you don't actually have to do the research

proposal that you're proposing. But a really solid research proposal that is only two pages long. And the idea is they're hiring the person so you can take your money and go pretty much wherever you want. You need to stay within your field that you originally proposed it. But. Yeah, it just it was kind of like a free ticket wherever you want to go. So.

[00:35:34] **Natalie:** Yeah – Itati, do you have more GRFP info?

[00:35:39] **Itati:** Now, that's pretty much that's pretty much it.

[00:35:42] **Audience Member:** Can you explain what a fellowship is?

[00:35:44] **Natalie:** I'm going to give this one to you then – Itati, what's a fellowship. We got a panel question - how would you describe one?

[00:35:53] **Itati:** Ooh, um, fellowship - it's kind of like a contract between you and somebody else. But it's for you to have the stipend that you need in the tuition coverage that you need to be able to perform your, you know, research. So at Texas A&M, I was on two different fellowships. One was through the university - so the university itself was hiring me. And then the second fellowship was through the College of Agriculture - so the college that my department is and was also hiring me. So, basically those two entities were hiring me to cover my tuition and then also pay my stipend. So in grad school, somebody else pays your tuition, hopefully. And then there's also a stipend that you get. And that's basically your paycheck. So those two fellowships were what covered my tuition and my stipend. And then when it came into my actual research funding, so the funding that would pay for my project, that came through something else, that came through a series of grants that my P.I. at A&M had. Now that I am at MSU I'm no longer on a fellowship. I am a graduate teaching assistant, so the way it works for me at least is I devote 20 hours a week to teaching for the biological science program and they pay my tuition and stipend and then I get to do 20 hours of research on the side in plant biology. So somebody else is, I'm teaching and earning my paycheck and then getting to do research instead. But a fellowship, you don't have to do that. It's like you and your research and somebody else is paying for you to do that. Basically.

[00:37:26] **Natalie:** I see, I see a peace-sign hand raise from Mae – yeah

Mae: I just since we're talking about fellowships broadly, I just want to say to the people thinking about applying to graduate school, do not go get a PhD somewhere if they won't pay you.

Natalie: Yep!

[00:37:45] **Itati:** I love the broad nodding of all of the participants!

Natalie: So this was one of the questions we got was did you pay for or get paid for grad school? And I'm - I'm pretty sure everyone here got paid - Yes? – or Itati did you not get paid for some part?

[00:38:00] **Itati:** No, I was going to say. I don't know how many of you know Michael Bogan on Twitter. He's @MtBogan but he's a professor at the University of Arizona now. But he actually had to pay for his PhD. He had to pay, uh tuition and then he had to have a separate job entirely to be able to like literally afford to live. So they're definitely are PIs out there that'll just hang you out to dry if you don't get anything. That happened to one of

my lab mates at Texas A&M and that really cemented my will to leave was our PI reneged on her contracts, he was like, "Actually, I'm not going to pay you for the final semester of your PhD." Well, she was totally un- like- unsure where she would get the money to pay tuition, unsure of where she would find a stipend. Thankfully, things worked out in her end. But definitely be careful because PIs who don't have any money will, definitely, suddenly not have your best interests at heart. Yeah, definitely. You try to avoid PIs that you think will be that way. Not everyone pays for your PhD and those are definitely people you need to avoid.

[00:39:12] **Natalie:** I see a hand-raise from Lisa who has grad student and PI experience.

[00:39:17] **Lisa:** Yea, I'm not a PI I'm a teaching faculty but uh - graduate student experience in general. Don't -uh - there are grad schools out there that have students - grad students - that are unionized. And that will help prevent things. Like what Itati was just talking about. And I know that the Supreme Court in our current government just made it more difficult for some schools to unionize. But I do know that there is still quite a number of them out there that are unionized. I can speak for University of Oregon and Oregon State at the bare minimum. Those also allow for you to get really amazing health insurance, then if you are -- depending on the school, I know Oregon, one of the biggest aspects of our health insurance we negotiated it over two years now, two years ago now. And one of the aspects that was a no-go for our negotiations was ensuring that students, any trans or nonbinary students, could get the treatment that they needed. And so that might also be something that you want to ask about. What is what? What does the health insurance look like as graduate students?

[00:40:45] **Natalie:** Thank you. OK, I see hands. I'm going to take one side because we have a question here. It's very easy for me to answer, which is what does a P.I. stand for science, for principal investigator, it's your academic boss. It's like they will be a professor. They conduct research. They sort of find the money, hire you, guide the lab sites and research directions. So, there are plenty of PIs here on campus. So who do I see hands from? Chloe! I know you guys just unionized. So is that what you want to talk about? Or tried to unionize - yeah -

[00:41:20] **Chloe:** Yeah. So I wanted to say is if you're if you end up in a grad school, which does not have a union, one of the things that you can do is unionize. We're actually in the middle of a fight with our university on this. We went on strike last quarter. It was wild. But yeah, so. So, this is definitely something that you can do. But to be honest, I definitely would suggest trying to go somewhere that's unionized.

[00:41:54] **Natalie:** Austin, I saw also a hand from you.

[00:41:57] **Austin:** Yeah. So I guess Chloe sort of almost sort of hinted at this, that there's a lot of, um, suddenly folks. Well, that there's sort of different levels of unionization. So public universities are governed by the state labor laws. And so if you're in a state that has amazing labor laws like California, Michigan has a better one than like, say, North Carolina, where like you, public employees have no right to collectively bargain around their working conditions. And so we also touched on the fact that the National Labor Relations Board, the Trump one, is proposing a rule change to make it so that graduate student workers are considered primarily students and not at all workers so they do not have the right to unionize. And so this affects both grad workers and undergrad workers at private universities and colleges. And so places like Duke and Chicago are sort of in like a almost a middle ground. And Emory while we're were oftentimes like direct join minority

unions. And I guess time is back to sort of like the application process is like this is this is probably the group of people that are most likely to have an inside scoop on what conditions are like at the university. More broadly, at the university, more broadly, they are most likely to know like is the healthcare actually good? Because many people who don't have to interact with their health care don't know about the quality of their health care, including, say like myself. I never really thought about dental until I chipped a tooth last weekend and now I am waiting until winter break when I can fly back home and use my parents' dental insurance, which is a distinct privilege, as like a twenty three year old still on my parents' dental insurance, but they like the union grad workers will know sort of oftentimes best how the administration views particularly marginalized students on a university wide scale, and particularly if your department has a high union density that says good things about your department generally.

[00:44:16] **Natalie:** Do we have more audience questions. Please, please ask a question.

[00:44:21] **Audience member:** OK. I don't know how-

[00:44:23] **Natalie:** I can also just repeat it

[00:44:28] **Audience member:** There was a tweet that I saw.

[00:44:33] **Audience member:** And the person that actually said it was popular, I mean, someone like me for a moment, and then she was-

[00:44:42] **Natalie:** OK, come up here then because I'm not going to repeat a whole blurb.

[00:44:46] **Audience member:** Or you can read it

[00:44:46] **Natalie:** No, it's fine.

[00:44:48] **Natalie:** You're alright. You're an attendee.

[00:44:52] **Audience member:** OK, so it literally says it's pronoun day question mark. OK, here's my unpopular opinion about pronouns. Yes, identifying with your pronouns can help trans people, but it can also hurt trans people. So there is a continuous thing. But there was one point that I wanted to mention. The person states that I worry that this trend of getting cis people to identify their pronouns will turn into cis people shaming other people to add in their pronouns in the name of being a good trans ally. So yeah. And the person specifically says that the problem is you're assuming then who's cis and who's not. So I wanted to kind of you can have a general discussion as to what you think cis people continue identifying their pronouns. Is it negative?

[00:45:37] **Natalie:** Thank you. And OK. Yeah. So I can also really post to grad school, I can also say my P.I. advisor sent out an email today that was like I never asked you all your pronouns. I just put them on the website. I didn't. Oh, God, please. You know me, please email if I'm wrong.

[00:45:52] **Mae:** So I can just jump in real quickly.

[00:45:57] **Natalie:** And discoursing is fine. Yeah. Go ahead, Mae.

[00:46:03] **Mae:** I mean, I disagree with that. I have my pronouns in my email signature and I think everyone should do that. Cis or trans, I think we should also just introduce ourselves to new people generally giving our pronouns. Um-I think if anything says cis people not giving their pronouns makes me feel more uncomfortable because then it makes me feel like I'm outing myself by giving my pronouns and I would rather it be a sort of a common thing. And if someone's not ready to be out, they don't have to be out yet. This isn't forcing anyone to out themselves.

[00:46:44] **Natalie:** I see, I see nodding, so yes. Julie chime in.

[00:46:48] **Julie:** Yeah, it's just normalizing behavior like it's making space so that if you do want to change pronouns or something like that at any point, you have that ability to.

[00:46:58] **Julie:** It's not about forcing anyone to do anything. That's. I don't know. I need to like read that comment again, but it seems like they have no idea what they're talking about. So, yeah.

[00:47:10] **Natalie:** Itati, I see a hand.

[00:47:13] **Natalie:** You're muted. Unmute yourself.

[00:47:19] **Natalie:** No, I have, you're muted, we can't hear you.

[00:47:24] **Itati:** I think it's because my spacebar is broken. No, I actually saw that tweet and I don't know. Tweets like that. I feel like this really weird place where it's like, what if everyone starts using pronouns?

[00:47:38] **Itati:** Because I think it misinterprets what normalizing this behavior means because if you normalize the behavior, then it's no longer like indicative that someone's outing themselves or coming out.

[00:47:51] **Itati:** If it's a normal behavior for both cis and trans people, then it's no longer this optic of like, yeah, I'm outing myself, you know. So I think it just fails to understand literally basic vocabulary like what normalizing a behavior means.

[00:48:06] **Itati:** And so it comes from like that weird place. I feel privileged like I shouldn't have to do this thing because, you know, other people who want more inclusion are doing it. Yeah, that tweet rolls around or some iteration of that tweet always rolls around on like any moment where like the queer community is trying to like celebrate something, which is also why I'm always suspect when it rolls out.

[00:48:31] **Itati:** But, you know, it's about normalizing the behavior in the first place so that it's no longer like someone flagging themselves as queer in some way or trans.

[00:48:42] **Natalie:** Thank you, Austin. And I'm sorry, I don't mean to laugh. Just like what if everyone starts using pronouns? Like, you mean how language works, like how language is like how we use words. Austin, I see a hand from you.

[00:48:54] **Austin:** Yeah. This is a it's always like a lovely piece of discourse, but like only only exists when, you know, we don't truly like deconstruct ideas of gender. And I think that's like always the frustrating thing is that like I know that like most of the people I run into who are at least like trying or like a step above, like, say, you know, say the chair of

my department who went on a rant about identity politics ruining America when I brought up the idea that he should maybe put pronouns in his bio in his email signature.

[00:49:27] **Austin:** So that's obviously what we're really up against is like those like cis white men who are the reason America is the way it is. Verses like even like some of my colleagues who are interested in making the space more inclusive are just memorizing pronouns. They're not like deconstructing ideas of what they think of gender.

[00:49:56] **Austin:** And I think that always, that should probably be a piece of discourse I'm most interested in discussing rather than, oh, what is it potentially bad that someone may out themselves when sharing their pronouns. Because I think, oh, that means that we haven't done a good enough job of deconstructing what gender means. And particularly in like a place like America. So it's so coded along like class and racial lines in ways that are very like we know, we know. We know that like perceptions of gender are so, it's a colonial device. It's like it's it's a device that was used to like subjugate African African-American slaves. Like the whole of the whole thing.

[00:49:27] **Austin:** And so I always hope for you know, the discourse about deconstructing gender rather than the vague worry. I tend to default, say if I'm running an icebreaker, I say, and if you would like to share your pronouns, please feel free. And then once I share my pronouns all of the people with like the cis guilt also share their pronouns. The whole thing.

[00:51:00] **Natalie:** I do also notice this. There's like a there's a way to set an expectation in the room. You might not have like the ability to do as a first year grad student.

[00:51:08] **Natalie:** But when you get older, it really you can start make people think about things by thinking about things yourself. All right. Oh, do we have a comment on discourse from Lisa?

[00:51:21] **Lisa:** I just want to say that you do have the opportunity to change that as a first year graduate student.

[00:51:26] **Natalie:** Okay.

[00:51:27] **Lisa:** You make that opportunity.

[00:51:29] **Natalie:** That's fair. I'm sorry.

[00:51:30] **Lisa:** Introduce yourself with your pronouns. Write them on your name tags. Make it a thing.

[00:51:33] **Natalie:** Yup. You're right. I'm just feeling it more and more now that I have a class. And turns out they'll just do stuff if I model it.

[00:51:44] **Natalie:** So I have a question and chat from John and you can also see it, but I'm going to read it. Do any of you have oSTEM chapters at your university and what does your involvement look like as a grad student if you do?

[00:51:57] **Natalie:** Austin.

[00:52:01] **Austin:** Duke doesn't have an oSTEM chapter, it's also like a part of kind of a constellation of queer groups on campus that are that are housed in their center for sexual and gender diversity. So I don't know. I don't know what it's like at the University of Minnesota, but ours is grad student only. It's like predominantly grad student.

[00:52:24] **Austin:** And so it functions fairly differently than than yours as well. Mine is very corporate and very white, cis, gay. And so I personally don't enjoy interacting with them and tend to like avoid interacting and going to a lot of their events and meetings because I find the focus like very one dimensional. And so I tend to interact most with the more like intersectionally minded queer grad student organizations as well as like my union, which I guess is like a almost like a queer grad worker organization anyway.

[00:53:07] **Natalie:** Julie, next. And Julie, you're here in Minnesota, so we do have an oSTEM chapter.

[00:53:10] **Julie:** Yeah.

[00:53:12] **Natalie:** Yeah, clearly.

[00:53:15] **Julie:** We do have an oSTEM group. But I want to like kind of complement with what Austin was saying where it feels very undergrad and corporate centric, where the culture is definitely changing for our oSTEM group. But I didn't really seem to find a place that I wanted. So I started up my own organization, Queer Science, where we do more outreach for high school students and it's it spans more through graduate students, professionals and undergrads and connects a little bit. But it does have a little bit more about graduates in focus. So it's a little bit different than oSTEM itself because I just can't find a place. But thanks to Natalie, our oSTEM culture is changing. Anyways, you can find me later if you want more questions about that. And we'll be at the oSTEM conference next week, not next week, Friday. We'll be there on Friday. Giving a presentation this weekend. OK. Thank you.

[00:54:12] **Natalie:** And Itati, do you have an oSTEM chapter or.

[00:54:16] **Itati:** So there wasn't an old STEM chapter at either Texas A&M. or MSU.

[00:54:22] **Itati:** There are LGBT resource centers at both places. But like my issue kind of always revolves around like I'm always the only brown queer person in either of those two groups. And the other thing is that they're very they're very cliquey. So they're always people who've already kind of known each other and established their lives. If you're trying to be someone like.

[00:54:45] **Itati:** Trying to make your way through that can be really hard to try and incorporate yourself in your place. You're like the only one. And also where everyone else is in a different kind of life stage than you. So for me, most of the interactions I get with other queer people are either other queer brown people that find me on campus because usually I wear a rainbow beanie. So it's very obvious that I'm clear or it's through interactions with people of color on Twitter.

[00:55:14] **Itati:** Almost none of my like in real life interactions come from some sort of corporatized group. It's very much like one on one and then coming together. So, yeah, it's rough sometimes.

[00:55:32] **Natalie:** You have other questions here or we have another one here. Oh Lisa is raising her hand. Thank you.

[00:55:38] **Lisa:** All right. Oregon also doesn't. Oregon did not have an oSTEM.

[00:55:46] **Lisa:** And we chose not to incorporate oSTEM in particular when we were making a group because of all the things that had to be and have to us and also said it being pretty corporatized. And so we formed LGBT Plus in STEM which is a group for graduate students, faculty and staff in the sciences really focused on. Yeah. The graduate students, faculty and staff because we felt that undergraduates already had a pretty intense space available to them. And as graduate students we do a lot of teaching. So then sometimes you adding yourself to your students unintentionally or various other things, or you're becoming and looking to become a faculty member. So figuring out what that label looks like and whatnot. So just the politics are just quite a bit different from another undergraduate versus graduate student perspective. And then Boise State also does not have an oSTEM chapter that I've heard about. If anyone knows of that, that's a different thing. But Oregon actually also had a woman graduate sciences and CMIS, which is communities for minorities in STEM, focused on all minorities. But with a particular focus on racial ethnic minorities. And so we all did. And we also have women in physics, too. And so we all did, worked together to ensure and lot of a lot of people were cross members, members of multiple groups of. Because of our minority statuses. So.

[00:57:40] **Natalie:** Yeah. I mean, I will also say that sometimes it seems like there are more spaces for undergrads to like do identity stuff, and part of that is like there's a terrible funnel. Itati.

[00:57:51] **Itati:** Well, I actually agree with the sentiment that there's more spaces for undergrads because I definitely felt wildly more comfortable in undergrad being kind of like out and about with professors and with people older than me.

[00:58:05] **Itati:** And then once I got to grad school, I might be part of it. Just my really bad experience my first time around in grad school. But definitely in grad school there's like this expectation of you. You kind of like grew out of talking about this. And now, like now that you're older, you're a much more private citizen. It's like this pretence that your identity doesn't affect other parts of your life, even though like being a scientist or being a grad student, only one on one identity of the many facets of the identities that come together to form like you as a person. So I had this experience when I was at A&M where someone that I wanted to be on my committee was like shocked and horrified that I was queer. I came out to them because we were talking about something. It became very obvious that he didn't understand my positionality on something because he didn't know I was queer. I came out to me literally like turned away from me for five minutes to process it and then came back and continued talking to me. But it was very clear that it disrupted his sense of who I was and if he wanted to work with me professionally. So that was super hard because nothing like that ever happened in undergrad. So it's really hard to find a place where you're comfortable that's also not like this corporatized like very undergraduate space.

[00:59:16] **Natalie:** Other questions. Noah.

[00:59:19] **Audience member:** It's more of a grad school question. Is there anyone that didn't attend grad school right away that went into the workforce? I'm an engineer who's

kind of undecided about grad school or not. I'm looking at full time jobs right now, but might shift back for a master's or MBA potentially.

[00:59:33] **Natalie:** Can we all hear the question? No?

[00:59:36] **Natalie:** OK. So the question is, if anybody took time off in between graduating and grad school and.

[00:59:44] **Natalie:** Yeah. Whoever's first to chime in and we'll take turns. Or. And also-

[00:59:51] **Itati:** So what is your specific question about doing that? Because I took I took a full gap year where I did like the summer of my gap year, I was doing like a research technicianship in Norway. And then I came back and I was like, man, I really don't like science right now.

[01:00:05] **Itati:** And I literally worked retail at Walgreens. And so, like, what's your real like, what's your more focused question, I guess, about doing that?

[01:00:14] **Audience member:** Yes. Deciding what you want to do. I'm not convinced I want to do grad school, but I want to keep my options open. So if I change my mind later, does anyone have that experience?

[01:00:24] **Itati:** I would say that you would probably benefit at looking at grad programs like specific information. So for some graduate programs, they get like "sussed" out if you have like a lot of gap year, whereas for other grad programs like the Yale School of Forestry Environmental Studies, they were like, yeah, don't even talk to us if you don't have three years of experience outside of undergrad. Like, don't even look towards this application because we want you to have that outside experience. So when you come in, you know what your focus is. You know what you want to do. You know what researchers or PIs you want to work with. So I think it all depends. If you don't know right now out of undergrad, that's OK. Definitely taking a gap year or two and doing kind of more focused jobs. If you could get some sort of short term internship that can help fill employment positions.

[01:01:14] **Audience member:** I'm applying to positions now, it would be like process engineering. Not like temporary, but like full time, full time.

[01:01:21] **Natalie:** I think that will still be OK. It would be like a yearly contract or more.

[01:01:28] **Audience member:** You can quit whenever.

[01:01:31] **Audience member:** Yeah, I know. That's just that's what I'm saying, just anyone who has that experience.

[01:01:38] **Audience member:** Intending to do something full time.

[01:02:45] **Natalie:** I saw a raised hand from Matthew earlier about taking a gap years or..

[01:02:54] **Matthew:** My coming out story to my parents was also the same night I told my parents I wasn't immediately going to go to graduate school and the coming out wasn't as big a deal as the not going to graduate school in my family. So I took a year and I worked the summer after I worked at a as a science camp counselor, basically for one of my

professors, as an undergrad was rolling out. And then I ended up at my parents at the time.

[01:03:22] **Matthew:** We were living in Beaumont, Texas, which is sort of on the Texas Louisiana border. And so the main industry there for anyone in science is oil refineries. So I worked I ended up getting into what was technically an internship at an oil refinery nearby. I worked in the quality control lab as a chemistry entry and I wasn't sure what I wanted to do. I spent since my freshman year college figuring I wanted to go to graduate school in chemistry.

[01:03:48] **Matthew:** And by the end I was going to I don't know entirely what I wanted to do right now. And so I got hanging out at the refinery was a useful and engaging experience for me. I definitely learned a lot.

[01:04:01] **Matthew:** I definitely got to see a different slice of humanity than I would have seen elsewhere. And I got to learn a little bit more about how some of the real world uses chemistry in my field. Have you worked in a job that was related to your field? You would still apply whether that field was chemistry or engineering or forestry has as such. I do think it was helpful, it definitely made me a little bit older than some of my peers, which was a weird headspace to be in sometimes and building off some of what what people have said both in person to this question and in the stream of comments. You do want to be ready to go into graduate school. You do want to think about that before you do it. It is an engaging and exciting and interesting experience that can also be a very drudging experience. It can also be a very frustrating experience, imposter syndrome if you don't know what it is. Look it up, it is rife in graduate school and it is in your graduate degree. And one thing I underappreciated coming in, the work you do and the time you spend there is entirely focused on research. So if you don't really love research particularly, you need to do a long and hard thinking. I came in wanting to teach and I definitely taught and I'm still want to teach eventually. But since it since research itself wasn't my first love, that does make it harder.

[01:05:27] **Matthew:** So be aware of that.

[01:05:29] **Natalie:** Yeah, Itati.

[01:05:33] **Itati:** I think, like when you're straight in undergrad and you have this more generalized degree, I think it is really hard to think outside of that headspace. And it's really easy to feel like you're always going to feel like you don't know what you want to study, like you don't know what you want to do.

[01:05:48] **Itati:** But I think as soon as you're not in that headspace of undergrad, like running the sprint all the time that is undergrad, it feels a lot easier to kind of feel like, well, what did I actually like about the courses that I took? When did I actually like that?

[01:06:00] **Itati:** Like the conversations I had with professors or with my peers or something like that. What actually made me like this thing enough to get my undergrad degree in it.

[01:06:08] **Itati:** And the longer you spend away from undergrad, the more sure that you feel. So when I graduated my undergrad and then a week later, I started my job in Norway and that whole time I was like, wow, I really don't want to do this the rest of my life. Even though it was large scale biogeochemistry. But then as I got out of that headspace of like

I'm still an undergrad, I'm still running the sprint. As I spent more and more time, you know, going through the literature by myself or going through and looking at graduate programs and seeing like, well, what could I really be when I when I grow up? It became a lot easier to focus on what I actually liked, I think. Give yourself the space to kind of not heal from undergrad because undergrad is not inherently traumatic for everyone, but give yourself room to have some breathing space because even if you take a year or two or three, as long as you're able to speak intelligently about it and about what that change and headspace and experience gave you, it's not like grad schools are going to be like spooked, you know, because most grad students aren't going to be like fresh out of undergrad for most fields and still the youngest person in my Ph.D. program and I've been to two different ones. So yeah, I think it becomes easier as you're not in the space of undergrad. You figure out what you want.

[01:07:31] **Natalie:** Thank you, Lisa.

[01:07:33] **Lisa:** So, I'm in a unique experience, a unique position, talking not from my experience but what I wish I'd done.

[01:07:40] **Lisa:** I finished high school three years, went to undergrad, finished undergrad in normal in the four years with a double major, minor, etc. Basically the standard overachiever that gets that gets you the PhD. because it's about persistence. It's not about your brains. It's not about whether or not you're smarter than anyone else or anything else. It's only about your persistence in the system. And I am a person that the academic system worked really well for. But the only reason I went to graduate school was to teach. I did not want to do research. I like it. It's fun, but it is a drag if it is not your, if you do not find it to be your motivating factor of life. If you cannot live your life around it for-

[01:08:47] **Lisa:** 40 plus hours a week. It is a drag, at least that was my experience. I am not a person that can talk about, that wants to leave-

[01:09:01] **Lisa:** and go to go to a bar and talk about more research or talk about people or name drop people from here or there, what not.

[01:09:10] **Lisa:** When I leave work, I leave work.

[01:09:14] **Lisa:** Granted, sometimes I don't leave until 8 or 10 o'clock.

[01:09:17] **Lisa:** But my point being is that I like to have separate sides and I also don't revolve around my success of research. But I did find that I revolved around my my failures.

[01:09:30] **Lisa:** There are a lot of failures in graduate school and I can speak specifically for a group for chemistry and that you are failing more than 97 percent of the time. There is a reason it takes five plus years to get your degree. With that being said, if you are unsure what you want to do or you feel like you want to take some time off from school, do it. Do not hesitate to do that. I graduated in May and the first summer that I've had off since I was 16 was this summer.

[01:10:16] **Lisa:** And I can't believe, I didn't realize that and didn't realize kind of what I was missing since that.

[01:10:26] **Lisa:** until I've had it.

[01:10:28] **Lisa:** But I also did my Ph.D. with it, kind of a focus on knowing that I wanted a teaching job and knowing that I didn't want to do a postdoc. And so I worked really hard to set myself up and do my professional development side, knowing that's what I wanted to do. I have friends that did the same thing, but wanting to start their own business, starting small steps. A science based business startup.

[01:10:57] **Lisa:** So depending on the program you're in and depending on the P.I. you have, we might find that there is support for different opportunities like that. I had friends that did internships while they were in graduate school to help them figure out if they wanted to go into industry or not or wanting to go into the national labs or whatnot. But if you are interested in going into industry, there are also master's programs that pair you with industrial partners and do and pair you part of your master's program. Part of earning your master's degree is a paid internship. And so while you pay for a chunk of your masters, you also earn more plus, plus you almost are guaranteed to have a job out of earning your masters. So there's that too. So there's lots of options for graduate schools. I agree with you, if you just want a masters degree, don't pay for it. Go through the Ph.D. program, get your masters that way.

[01:11:53] **Natalie:** I see some some hands from Amber.

[01:11:56] **Amber:** Yeah, I know a couple people who did like research post backs, literally just like reached out to different professors whose research in theory they'd also be interested in for grad school and to see if they have some kind of research like assistant position. That way if you haven't ever done full time research, you can get that experience because like many others have touched on, you need to know that you'll be happy just being in lab and not going to class and coming back to a lab for two hours. Yes, I was about to say, for the NIH as well, I have a friend who did that because she wasn't sure. And it just really kind of gives you a more realistic view, because I don't think industry. I mean, I wouldn't know I've actually never been in industry, but I don't think it's as similar of an experience. So if you can kind of mimic it, exactly, that can be good.

[01:12:45] **Natalie:** So I have 8:11 and I promised that I would not hold any of you past 8. So you are free to leave, but if you would want to stay and anyone else here has closing questions, I am happy to voice them.

[01:12:59] **Natalie:** Or you can voice them yourself.

[01:13:03] **Audience member:** I have a short question.

[01:12:04] **Natalie:** Yeah, tell me you short question.

[01:12:50] **Audience member:** I'm fairly certain I want to do research, I want to do grad school. How many programs did you apply to? I'm applying to five, but that seems like a lot to me, but-

[01:13:15] **Natalie:** OK, is that a hand or did you also apply to five?

[01:13:19] **Itati:** Both! So I started looking at 10 of them and then I narrowed it down to five. So grad school is not the same as applying to undergrad where an undergrad you're just like throwing as many out there and like praying you get in. Grad school is a two way street. So like, you know, you want to go there, but they also need to impress you. Right.

So if in you're emailings to, you know, a PI and potential advisors, they put you off in some way or, you know, they say something like, oh, my program doesn't have any money. But if you show up with your own money. No, thank you.

[01:13:57] **Itati:** So I started out with 10, I only applied to just five and then only really seriously considered three after visiting. And I got into all three that I wanted. So I know five seems like a lot, but there are a lot of people who apply to, you know, double that because they really think that's how many labs that they'd be willing to go into. So I see.

[01:14:21] **Itati:** So it's all about the interplay between you and like the people that you're talking to at that institution.

[01:14:30] **Natalie:** Mae, you applied to twelve I see in the chat here.

[01:14:35] **Natalie:** And Lisa makes a good point about applications. There are waivers for them. Mae please tell us about applying to twelve grad schools.

[01:14:41] **Mae:** Yes. So. Well, it was a while ago now. So I don't really fully remember it.

[01:14:47] **Mae:** But I, so I do neuroscience research now. I was in a psychology department in undergrad and I was a psych major. And I don't know how it is at Minnesota-

[01:15:02] **Mae:** But at a lot of colleges, psychology is one of the most popular majors and that stays true for graduate school, too. And so the recommendation, which was mainly built around clinical psych students, was apply to 20 programs. And so the people, my department said to apply to 20. And I gave up after 12. I couldn't find more than that. I would say since I have been given a platform here, when you are interviewing and considering acceptances, if you get acceptances. If you know you're not going to go somewhere, reject the offer. Open it up for someone else who might be able to get it in off the wait list. What I did for myself throughout the application of interviewing season was I would always hold only two offers and if I knew I wanted one over another one, I would reject it and just keep those top two until I decided and really keep an open mind till the end, because at the end, my top choice ended up not being where I went and what started as my bottom choice before the interviews ended up being where I went for grad school, and that was not because I didn't get into the top choice or anything like I got into the top choice. I got into more, other universities, but really get a good feel of where you're going to be and where will be a good fit for you. And because we have been talking about taking time off. I think all the reasons to take time off have been really good reasons to do so. And if you think you should take time off, absolutely take time off. It won't hurt you. It will only benefit you. But I. I just want to say, like, I went in straight from undergrad and I survived. I'm still here. It is a thing you can do. It's not a bad decision. You just need to figure out what's right for you.

[01:17:01] **Natalie:** I would agree. I also came in straight from undergrad. Julie.

[01:17:05] **Julie:** So this goes back to an earlier question of like, what is the timeline for grad school. For some of you who know what field you want to go into, start looking at some of the professional societies that have on their websites because they will often post like we are looking to hire a Ph.D. student in this certain research lab so you can start seeing who actually already has money and is looking for students. You can just send those professors an email. So every professor, every university that I applied to, I applied to seven, there was always at least two professors that I was talking to about like various

offers or whatever and things like that, that they were interested in hiring me for. So I already had like a real set of. I just had a clear expectations. I'm also a science geek like everyone else here, so I have a giant Excel spreadsheet of like who are the people at these universities, how excited am I about their research program, how excited am I about other things, like how walkable is the city, how bikeable as the city? Do they have a thing that I'm looking for? All these kinds of like different queer resources? I'm being trans like I made sure that they had health insurance and things like that, kind of like what Austin also was saying earlier. So there's a bunch of checklist kind of things that I had and I just kind of tallied up and was like, OK. University of Minnesota, Michigan and UMass Amherst were like my top three just based on numerical scores at that point.

[01:18:32] **Julie:** And then here I am. So, yeah.

[01:18:36] **Natalie:** I also had a spreadsheet.

[01:18:38] **Natalie:** Liz, do you also recommend the spreadsheet option?

[01:18:44] **Liz:** I was echoing Amber's point that you can email professors as you're deciding if you're interested to learn more.

[01:18:52] **Natalie:** And also for waivers, yes. Austin.

[01:18:54] **Austin:** Yes, I think I would more so like highly encourage and particularly if it's like in my experience I applied to both chemistry Ph.D. programs and environmental engineering programs. And in chemistry, it's common to rotate and just get accepted with departmental funding for your first couple of years and then going on to your advisor's funding after that. With my environmental engineering, it was like not that way. And so I was like, thank goodness I had a really good advisor. I had gone, you know, to an environmental engineer in my chemistry department and undergrad at a small liberal arts college because he was clear to tell me like, no, you need to, like, email these people and ask if they are taking on students because they should know if they have the money or if they have the prospects of having the money to support you because you might end up in those those kinds of situations. He thought to talk about where you get left, left off to dry, essentially. And so you can also learn a lot about the program by how those professors respond to you. And I highly recommend a weighted rubric for your decision making process. That's what I did. It very much like is a way to, like, systematized what is a truly qualitative decision but can teach you things about yourself as well, which those are what those devices are to me. It is more to learn about yourself than necessarily about the schools.

[01:20:21] **Lisa:** I chose my schools based off of their proximity. Based off their proximity to soccer teams, women's soccer teams and school ski hills. So that was that was how I chose what schools to apply to because those are important to me.

[01:20:41] **Natalie:** I love that. Other thoughts on applying or numbers or weighted rubrics or fee waivers. It is expensive to apply to grad school. It's ridiculously expensive. Anyone else? Just nods, we all know it's expensive. We all did it.

[01:20:59] **Austin** Particularly like the GRE requirement that often some schools have. Or the subject list requirement that maybe some schools highly encourage, like the University of Minnesota. If you, if the department had a movement to remove the GRE requirement,

you can infer some really important things about the politics of the department and also the willingness of the faculty to make changes for the benefit of their institution.

[01:21:27] **Natalie:** Yeah, Itati.

[01:21:29] **Itati:** Some grad programs will have like if they require the GRE, they'll have like a refund waiver. Kind of.

[01:21:36] **Itati:** That's what NCSU did. So therefore if your program required the GRE. But because I was a low income student, they reimbursed me for it when I went to visit. So they paid for my visit and then they also reimbursed me the like two hundred and seven dollars for the GRE. They reimbursed me for that. So always inquire about if that's a policy as well or if you can get a fee waiver for the application itself. The thing about fee waivers for applications, though, is sometimes it does require a back and forth with your undergrad institution and that can take a lot longer than you think it will. So if you think you need a fee waivers for some place definitely start going through that process sooner rather than later because it can take a while.

[01:22:20] **Natalie:** Thank you. Does that help?

[01:22:22] **Audience member:** It does. It makes me nervous.

[01:22:25] **Natalie:** That short question became very long.

[01:22:27] **Natalie:** Do you have a question?

[01:22:29] **Audience member:** What's the GRE?

[01:22:29] **Natalie:** Yeah. So the question we have is what's the GRE? I didn't actually know what it stood for. Thank you. It is a arguably useless test. Yeah, it has three sections. It's a verbal, which means like how many vocab words do you know? And then math, which is a high school math. Pretty much. Yeah. I. You are making a face at me, and I understand. And the last part and part is written and it's like write a five paragraph essay on this random prompter. Something.

[01:23:07] **Natalie:** Yeah. Yeah. OK. Yes. Matthew is correct it is the grad school. And oooo Austin has shared their rubric here on how to make a. I will also, when I transcribe this, make sure all the chat stuff. Chloe.

[01:23:26] **Chloe:** So, yeah, the GRE is ridiculous and useless. One thing that I will say is something that I got told over and over when I was applying to grad school, so I didn't do very well on the math GRE. There's like specific math subject test. And I was told that grad schools use it to weed people out. And like in particular, they just won't look at some applications. I applied a bunch of places anyway and I got in. So I wouldn't let this discourage you. The other thing is that the NSF fellowship does not require that you submit your GRE scores. So if you have if you were like me and you have really terrible GRE scores, this might be a way of getting around that. The GRE is a terrible test.

[01:24:20] **Natalie:** Yeah. Itati.

[01:24:22] **Itati:** The other thing I would say about the GRE, it's less do you know things and more-

[01:24:27] **Itati:** Are you able to do things quickly? So are you able to quickly type a five paragraph essay? Are you able to memorize shortcuts to do a math problem so that you can weed out which the what the answers will be without actually doing the work? Because your biggest opponent, when taking the GRE is time. You're going to run out of time rather than not actually know things because it's literally testing things you learned like your sophomore year of high school. It's not testing like your higher cognitive function staying or ability to think critically. And so if you take the GRE and like me, run of time and you don't complete half a section and it bombs your math score like that isn't actually reflective on you. But if a graduate institution like in my case, Duke symbols that out and says you clearly weren't a high quality student and you shouldn't have applied, that tells you something about whether or not that department would have actually valued you anyway. So I would say, like when you're studying for the GRE, it's less about content mastery than time mastery. And it's honestly probably more worth it for you to go somewhere that will review you holistically rather than, you know, pull little strings to nit pick at you because you don't you don't need to be judged by something that is assessing the intellect that you were literally 10 years ago in your life. So the biggest thing that the GRE predicts is literally your socioeconomic class and nothing else.

[01:25:56] **Natalie:** Yeah, very much like the SAT. Mae?

[01:26:02] **Mae:** So I just want to change the subject a little bit to something that I don't think has really come up yet. And if it has, I'm sorry for having a horrible memory, but I served on my graduate programs admissions committee. And one thing that was weighted incredibly strongly was the reference letters, and you really want to make sure that the people writing your reference letters not just start are getting your pronouns right, but like are writing you a good reference letter because that will make or break your acceptance. And if they are trying to decide between like two people, especially if they know the people writing the letters, they'll look to see what was said about you. And like everybody gets put down, it's like being in the top 10 percent. You really want to get people who are going to advocate the heck out of you.

[01:27:00] **Natalie:** Yeah, Lisa, you have comments on that? You're muted.

[01:27:06] **Lisa:** Yes. Yes. So the reference letters are huge. I definitely agree with Mae. And also, like if you are if you have the opportunity to do research.

[01:27:19] **Lisa:** Natalie, I think would be a great resource probably for you to learn about how to get into a research lab specifically at Minnesota, but also looking at summer undergraduate research opportunities, either Atmos or other institutions, they have them through the NSF, but there are also institutions that have them funded, that have been funded privately.

[01:27:43] **Lisa:** And will just take, just advertise their programs just on their own websites. And so you can reach out to professors about those too and just reach out and say, hey, are you looking for some a summer researcher. I'm really interested in your research. And I think that would be a more in more detail conversation than just that. I'm sure Natalie would be a good resource for you there. But also asking the references, your reference letter writers, it's okay to ask a professor if they would be able to what what they would say in their letter.

[01:28:20] **Lisa:** Yeah, I didn't really realize that until about a week ago when I was sitting down with another professor who is a P.I. talking about a student who probably wouldn't get a positive letter based off of some really bad reactions that recently happened. And we were talking about that. Would you be. I was like, would you be able to write a letter of recommendation for this student and the other professors? Like, I couldn't, not based off what just happened. But then other students. Totally. Now, I think as a student, you typically will know whether or not they can write that letter or not for you. But you're here totally in your right to ask what they would say.

[01:29:05] **Natalie:** Yeah, Itati and then Chloe. And then we'll be close to closing time.

[01:29:11] **Itati:** So I've had two REUs, or Research Experiences for Undergrads so I had a USDA one and then an NSF one.

[01:29:18] **Itati:** And then I did my international exchange for my job right out of undergrad. So I will say that, you know, your letter writers might not always be from those research experiences and you shouldn't feel bad if they aren't, because the thing about some research experiences specifically is that they're really short. So they're really good to teach you a lot of techniques or a lot of things about yourself, but they might not be long enough for you to actually cultivate that kind of relationship with that advisor, for you to be able to ask for a good letter of recommendation. So please don't like ask the professor you had once to write your letter of recommendation. Definitely make it like a professor that you've actually spent a lot of time conversing with and that you did really well in their class and that they know about you, not just professionally, but also like in the more personal aspect. Because you want them to write a good letter about you like as the whole entity and not just like, yeah they got an A in my class and they're very hardworking because everyone has that letter that says, yeah, they got an A in the class and they're very hard working. The more details that justify like why your specific and unique experience should be in that grad program or be in that lab the better. And it's really easy, I think, especially when you're an older undergraduate student to realize like which professors would write that about you.

[01:30:39] **Natalie:** Thank you. And Chloe.

[01:30:42] **Chloe:** So in addition to being able to ask what things letter writer might be able to say about you. This is the best advice that I got when I was applying to grad school. You can also tell them what you want them to talk about. So what I did is and this is advice that I was given. What I did was I sent I wrote down a list of for each of my letter writers. Oh, remember, you know me because we did this together. We did this together. We did this together. I was hoping you would talk about these particular aspects of me. So I had somebody talk about me in classes and as a T.A., I had someone talk about me as a researcher. I had people like specifically focus on different aspects. And I think that this is totally OK. And then the other the other phrase that I've heard people say is like when you when you ask a letter writer, you should always ask not like, can you write me a letter of recommendation, but you should ask, can you write me a good letter of recommendation?

[01:31:51] **Natalie:** Thank you. Yeah.

[01:31:54] **Natalie:** Asking for concrete and specific things is good. That's true, Matt. So I think we're at time. I'm gonna say thank you all.

[01:32:01] **Natalie:** Yeah, you can ask a closing question.

[01:32:02] **Audience member:** So you guys are all in grad school. What's your plan after grad school?

[01:32:08] **Natalie:** Itati go ahead and then we'll just go in whatever random order we can figure out.

[01:32:15] **Itati:** Sorry. So I like I'm at an R1 institution right now, but I think I got both flavors of like what academia can be.

[01:32:24] **Itati:** So I definitely came from an R1 institution that was like, sorry. The only thing that's considered academic success to us is going to end up going to another top tier research university. And that's definitely not for me. I love doing research, but I don't want it to consume my whole life. So now that I have had kind of like a good experience with a top tier research institution at MSU and then a bad one at Texas A&M, I think I really want to be somewhere that kind of values the whole individual rather than like some axis of them. I definitely want to be a professor at a smaller liberal arts college because they would give me the opportunity to mentor and teach with but also do my own research. But that's very closely knit with my lab group rather than, you know, always focusing on getting the next grant or always focusing on publishing the next paper or something like that.

[01:33:19] **Itati:** So yeah.

[01:33:23] **Natalie:** Who else? Some of you are also already out of grad school. But there is there is more after.

[01:33:33] **Natalie:** Chloe?

[01:33:36] **Chloe:** I have no idea. And that's OK.

[01:33:40] I probably eat something, academia E, but either either research or teaching and I don't really know between those. So we'll find out.

[01:33:55] **Natalie:** Anyone also plans to share?

[01:34:00] **Mae:** I mean, I can see what I'm doing here. I'm currently a postdoc. I started in August.

[01:34:08] **Mae:** I mean, it's what I want to do. I want to know, do academic research for the foreseeable future and my work focuses on something that is very related to trans health. I look at how hormone sensitive neurons in the brain coordinate as a global network across the brain during social behavior and how hormones state changes lead to plastic changes in these circuits. And so I actually feel, at least for the time being, that it's a way that can actually hopefully make some positive change and benefit. And so I don't know. Ph.Ds. don't have to be esoteric and lead to esoteric things. And I want to continue in research to try to do some cool shit.

[01:34:57] **Natalie:** Thank you.

[01:34:59] **Natalie:** Other plans after grad school. As we close out, we'll start calling people out. Lisa?

[01:35:05] **Lisa:** I'm a, I think I mentioned before, I'm a clinical faculty at Boise State. Clinical faculty is kind of this new term that I didn't know existed until I was applying for jobs.

[01:35:15] **Lisa:** It's essentially a teaching position. It's the universities. There are certain universities that are getting away with hiring permanent teaching faculty, even when there's a hiring freeze on permanent teaching faculty by using this term clinical faculty. And so I am full time teaching, 80 percent teaching 20 percent service. We're getting chemistry and I will get to develop some upper division coursework. So it's kind of exciting. And exactly where I want to be.

[01:35:52] **Natalie:** Very cool. Julie. I'm going to start calling on people.

[01:35:58] **Julie:** I am currently looking for postdoc positions and I want to be a future faculty somewhere else.

[01:36:07] **Natalie:** Austin.

[01:36:09] **Austin:** I'm in a similar boat as Itati. I did my undergrad at a small liberal arts college, Grinnell College. For those of you in the Midwest who might know about it, I think I would prefer most to be at particularly like a small liberal arts college that, like, really encourages and facilitates. I graduated in 2018, really facilitates student research because I think I worry about sort of be a dual expectation of being like an excellent teacher and also an excellent researcher I think at many of these small liberal arts colleges. And I think if there's not the institutional support for the funding of the lieber of the undergrads in particular, in addition to the resources that honestly it's like a trace metal geochemist, like really it's really expensive to do my research. Like every every icPNAS remains like very expensive. So having that like financial support, I think it's critically important. So like an institution like Grinnell really did and so like its peers, I think are sort of my goal. But, you know, there's maybe like 40 of those schools total, let alone like the amount of support and like job's openings. It's all you know, it's wonderful, to say the least. When you go in like the faculty job search, apparently it's everything. You just apply to everything. Period.

[01:37:42] **Natalie:** Matthew, where are you headed?

[01:37:48] **Matthew:** So it's already been said, I always wanted to teach at a really small school where I knew my students as people, not numbers.

[01:37:58] **Natalie:** And Itati.

[01:38:01] **Itati:** Sorry, I guess the other reason I want to teach at a smaller liberal arts college or as a slag is because there's like a minority woman-

[01:38:08] **Itati:** It's. Like the only thing that really kept me at the academy to begin with was that my professors knew me as a person. And so when it came to certain things that I'm going to connect with or, you know, certain like one on one attention that I needed, I was able to get that. Whereas, you know, my mom and all of my cousins went to like a bigger state school. As like one of five hundred students or like one of like a thousand students in like some given class. And so it can be really hard to get, you know, the mentorship that you need, especially when you're an underrepresented minority at these bigger schools. And I think, well, if I hadn't gone to my small liberal arts college, I wouldn't even be here talking to you. So it was really hard because my undergrad was a

predominantly white institution, but still it was so much better for me as a minority student to have gone there than you have gone anywhere else. So if I could provide that opportunity, but then actually be able to empathize and not just sympathize. I think that would be like the gold star.

[01:39:11] **Natalie:** Thank you. OK. I think we've had a great and long panel, so I'm going to say thank you to everyone. And I will transcribe this and anonymize it as much as anyone wants. I can take out last names.

[01:39:26] **Natalie:** I can take out whole names. I can give you a pseudonym. And I'll e-mail you to ask and then also transcribe all the good stuff in chat too. Yeah, Lisa.

[01:39:38] **Lisa:** Can I just make a plug real quick for the ACS, American Chemical Society LGBT plus graduate students, faculty, or graduate students, postdocs symposium.

[01:39:49] **Lisa:** We'll have it at Philadelphia this year. We have one, we'll have one next year in an August fall symposium too.

[01:39:59] **Lisa:** So American Chemical Society, which is a professional organization, has already has some discipline for gay, trans, and allies. So there are opportunities as postdocs and graduate students too. Wanted to make a plug.

[01:40:16] **Natalie:** Yeah, it's called GTAC because it's a fun DNA joke because everyone's a dork.

[01:40:20] **Lisa:** GTCA

[01:40:21] **Natalie:** GTCA. I know it's the four bases.

[01:40:23] **Natalie:** And I was like, oh, you did a dork thing, everyone. Cool. Thank you, everyone.

[01:40:30] **Mae:** I just want to say quickly because I know we've talked about some of the hard stuff in grad school. It's worth it if it is right for you. And like, we need more queer people in science. Period. This cis nonsense is nonsense and crazy and we need to burn it down. Since this is being transcribed, I need to put that to my name.

[01:40:48] **Natalie:** Yes. I'm going to say that's a great ending note. Thank you.

[01:40:55] **Julie:** Thank you, Natalie.

[01:40:57] **Natalie:** Yeah, you bet.

[01:41:00] ****Other thank you's.**