

# Queer and Trans in Biology Consortium

September 2024

## Running a queer- and trans-inclusive faculty hiring process

**JL Weissman<sup>\*,1,2,3</sup>, Callie R. Chappell<sup>†,4</sup>, Bruno Francesco Rodrigues de Oliveira<sup>†,5</sup>, Natalya Evans<sup>†,6</sup>, Anna C. Fagre<sup>†,7</sup>, Desiree Forsythe<sup>†,8</sup>, Steven A. Frese<sup>†,9,10</sup>, Rachel Gregor<sup>†,11</sup>, Suzanne L. Ishaq<sup>†,12</sup>, Juliet Johnston<sup>†,13</sup>, Bittu K. R.<sup>†,14</sup>, Shayle B. Matsuda<sup>†,15</sup>, Sam McCarren<sup>†,16,17</sup>, Melanie Ortiz Alvarez de la Campa<sup>†,18</sup>, Troy A. Roepke<sup>†,19</sup>, Nasa Sinnott-Armstrong<sup>†,20</sup>, Cora S. Stobie<sup>†,21-22</sup>, Lauren Talluto<sup>†,23</sup>, José M. Vargas-Muñiz<sup>†,24</sup>, Advancing Queer and Trans Equity in Science (AQTES)**

1. Department of Ecology & Evolution, Stony Brook University, Stony Brook, NY, USA
2. Institute for Advanced Computational Science, Stony Brook University, Stony Brook, NY, USA
3. Department of Biology, The City College of New York, New York, NY, USA
4. Department of Biology, Stanford University, Stanford, CA, USA
5. Department of Microbiology and Parasitology, Biomedical Institute, Fluminense Federal University, Niterói, Rio de Janeiro, Brazil
6. Marine Science Institute, University of California, Santa Barbara, CA, USA
7. Center for Vector-Borne Infectious Diseases, Colorado State University, Fort Collins, CO, USA
8. Department of Biology, Santa Clara University, Santa Clara, CA
9. Department of Nutrition, University of Nevada, Reno, NV, USA
10. University of Nevada, Reno School of Medicine, Reno, NV, USA
11. Department of Civil and Environmental Engineering, Massachusetts Institute of Technology, Cambridge, MA, USA
12. School of Food and Agriculture, University of Maine, Orono, ME, USA
13. Hampshire College, Natural Science, Amherst, MA, USA
14. Departments of Biology and Psychology, Ashoka University, Sonapat, Haryana, India
15. Conservation Research Department, John G. Shedd Aquarium, Chicago, IL, USA
16. Department of Molecular and Cell Biology, University of Cape Town, Cape Town, South Africa
17. Department of Botany and Zoology, Stellenbosch University, Stellenbosch, South Africa
18. Department of Molecular Microbiology and Immunology, Brown University, Providence, RI, USA
19. Department of Animal Sciences, School of Environmental and Biological Sciences, Rutgers University, New Brunswick, NJ, USA
20. Herbold Computational Biology Program, Public Health Sciences Division, Fred Hutchinson Cancer Center, Seattle, WA, USA
21. Division of Herpetology, Department of Animal and Plant Systematics, National Museum Bloemfontein, Bloemfontein, South Africa
22. Department of Zoology, University of the Free State, Bloemfontein, South Africa
23. Department of Ecology, University of Innsbruck, Innsbruck, Austria
24. Department of Biological Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA

\*Corresponding author: jackie.weissman@stonybrook.edu

†Authors contributed equally and are listed in alphabetical order by last name



# Advancing Queer and Trans Equity in Science (AQTES)

Consortium members are listed in alphabetical order by first name

1. **Abigail Ray**, *Department of Internal Medicine, Microbiology Graduate Group, University of California Davis, Davis, CA, USA*
2. **Alejandro Rodríguez-Gijón**, *Department of Ecology, Environment, and Plant Sciences, Science for Life Laboratory, Stockholm University, Stockholm, Sweden*
3. **Anna C.B. Weiss**, *Department of Marine and Environmental Biology, University of Southern California, Los Angeles, CA, USA*
4. **Bruno Eleres Soares**, *Institute of Environmental Change & Society, University of Regina, Regina, SK, Canada*
5. **Bruno P. Lima**, *Department of Diagnostic and Biological Sciences, University of Minnesota School of Dentistry, Minneapolis, MN, USA*
6. **Clara Qin**, *Society for the Protection of Underground Networks, Dover, DE, USA*
7. **D. M. Grijseels**, *Social Systems and Circuits Group, Max Planck Institute for Brain Research, Frankfurt am Main, Germany*
8. **Eric J. Taylor**, *University of Arizona, School of Middle Eastern & North African Studies, AZ, USA*
9. **Erin Krichilsky**, *Columbia University Department of Ecology, Evolution, New York, NY, USA & Environmental Biology and American Museum of Natural History Richard Gilder Graduate School Department of Invertebrate Zoology, New York, NY, USA*
10. **Heema Kumari Nilesh Vyas**, *School of Chemical and Biomolecular Engineering, The University of Sydney, Sydney, New South Wales, Australia*
11. **Hilary I. Palevsky**, *Department of Earth and Environmental Sciences, Boston College, Chestnut Hill, MA, USA*
12. **Irais Ramírez-Sánchez**, *Department of Microbiology and Biotechnology for aquaculture and multi-trophic integration, Centro de Investigaciones Biológicas del Noroeste, La Paz, Baja California Sur, México*
13. **Jane M. Benoit**, *Department of Biological Science, Florida State University, Tallahassee, FL, USA*
14. **Janice M. Parks**, *Department of Plant Pathology, Washington State University, Pullman, WA, USA*
15. **Jay Gordon**, *Faculty of Applied Science and Engineering, University of Toronto, Toronto, ON, Canada*
16. **Jessica A. Goodheart**, *Division of Invertebrate Zoology, American Museum of Natural History, New York, NY USA*
17. **Kay McMonigal**, *College of Fisheries and Ocean Sciences, University of Alaska Fairbanks, Fairbanks, AK*
18. **L.L.M. van Schijndel**, *Laboratory of Genetics, Department of Plant Sciences, Wageningen University, Wageningen, The Netherlands; Biometris, Department of Plant Sciences, Wageningen University, Wageningen, The Netherlands*
19. **Leslie Dietz**, *Department of Chemical, Biological and Environmental Engineering, Oregon State University, Corvallis, Oregon*
20. **Maria Hamilton**, *Department of Marine Sciences, University of Georgia, Athens, GA, USA*
21. **Megan Cattau**, *Human-Environment Systems, Boise State University, Boise, ID, USA*
22. **Mica Yang**, *Department of Bioengineering, Stanford University*
23. **Michael W. Henson**, *Northern Illinois University*
24. **Michel Geovanni Santiago-Martínez**, *The Microbial Ecophysiology Laboratory, Department of Molecular and Cell Biology, The University of Connecticut (UConn), Storrs, Connecticut, USA.*
25. **Rebekah Penrice-Randal**, *Department of Infection and Microbiomes, University of Liverpool, UK; Department of Biochemistry and Systems Biology, University of Liverpool, Liverpool, UK*
26. **Swetha Sridhar**, *Systems, Synthetic, and Physical Biology, Rice University, Houston, TX, USA*
27. **Vincent James**, *School of Biological Sciences, Washington State University, Pullman, WA, USA*
28. **William Agnew**, *Carnegie Mellon University, oSTEM, Queer in AI*
29. **Yu Wan**, *Department of Infectious Disease, Imperial College London, London, UK; Department of Pharmacology and Therapeutics, University of Liverpool, Liverpool, UK*

# Abstract

Queer and transgender scientists face documented systemic challenges across the sciences, and therefore have a higher attrition rate than their peers. Recent calls for change within science have emphasized the importance of addressing barriers to the success and retention of queer and trans scientists to create a more inclusive, equitable, and just scientific establishment. Crucially, we note these calls come primarily from early career researchers; relatively few queer and trans scientists have passed through the gauntlet of the faculty job search to become faculty ourselves, which is typically key to long-term persistence in academia. Our lack of representation creates a self-reinforcing cycle in which queer and trans trainees do not see our needs considered in established processes and power structures. Moreover, this status quo has historically been and continues to be harmful, disproportionately impacting those of us who have multiple intersecting marginalized identities. Here, we provide concrete guidance to search committees to support queer and trans candidates throughout the faculty selection process based on our personal experiences as early career scientists who have been on the job market.

# Table of Contents

- Introduction
- Setting the Tone for the Search
- Posting the Position & Collecting Responses
- Evaluating Applications
- Selecting Finalists
- Campus Visits
- Be prepared to answer difficult questions
- Making an Offer
- Varying Needs and Solutions Across International Contexts
- Conclusions



# Introduction

The attrition of queer and transgender (trans) trainees from Science, Technology, Engineering, Mathematics, and Medicine (STEMM) fields is well-documented across career stages [1–3]. Queer and trans individuals in STEMM are more prone to harassment, burnout, and social exclusion. We are more likely to experience unsupportive working environments, absence of role models, and biased stereotypes [1,4–11]. All of this occurs against a global political and legal backdrop where anti-queer and anti-trans legislation is being passed at a record rate [12–14]. Early career scientists have urgently called for the establishment of professional support and advocacy networks for queer and trans researchers as well as the implementation of institutional policies to support and protect us [15–18]. The number of tenure-track trans faculty in STEMM is exceedingly small, although this number is difficult to quantify due to a lack of assessments, sometimes stemming from a reluctance to collect such data by governments [19,20]. Data collection efforts are further complicated by pressure on individuals to conceal their queer or trans identity (i.e., to be “closeted”) to reduce workplace harassment or discrimination [20–22]. At the same time, due to a documented increase in openly queer and trans adults in some countries ([22]; often where white supremacist culture has erased the visibility of previously openly queer and trans communities), departments may naturally see a rising number of openly queer and trans applicants. This influx creates an opportunity for institutions to improve queer and trans inclusion in STEMM through more equitable and thoughtful hiring practices.

Due to historic exclusion, there are few queer and trans faculty who can be consulted about strategies to counteract their own exclusion within many departments, potentially leading to a self-reinforcing cycle of further exclusion [23]. As an international working group of queer and trans scientists [15,16], we are hoping to break that cycle by sharing specific actions to support queer and trans candidates throughout the faculty recruitment and selection process (S1 Text). We provide guidance for running faculty searches in areas of particular concern to queer and trans applicants, rather than a comprehensive set of best practices for running faculty searches in general [24,25], keeping in mind that faculty hiring processes vary widely across regions. Our guidance may help institutions successfully recruit queer and trans candidates, but continued, proactive support is needed to guarantee the success of queer and trans scientists at all levels, especially in the face of mounting anti-trans and anti-queer movements [18,26]. We emphasize that in the face of such developments it is imperative that departments think critically about what measures are needed to ensure not only that early career scientists achieve professional milestones, but also that the safety and wellbeing of queer and trans faculty, staff, and students are guaranteed in the context of their local environment [27–29].

## Language & Scope

How people refer to themselves varies across cultural contexts; always respect the words a person uses to describe themselves. The words we choose to use in this paper may not be used or accepted by all individuals we wish to support. In general, we use “queer” as a broad term to encompass the range of sexualities and genders falling outside cisgender and/or heterosexual norms (i.e. cisheteronormative values). We include asexual and aromantic individuals, who do not seek sexual and/or romantic partnerships, and agender individuals, who do not have a gender, under our broad umbrella.

Our usage of queer in place of an acronym (LGBTQ+, LGBTQ2S+, 2SLGBTQI+) avoids an implicit ordering of identities, a relegation of some identities to “+”, and the implication that Two Spirit identities are the only indigenous contributions to identities extending beyond a binary conception of gender. Nevertheless, queer itself, as now-reclaimed but once stigmatizing term taken from English, a language that has global currency due to a specific colonial history, also comes with a suite of limitations. We recognize not all community members accept this (or any) language to describe themselves [30,31]. We specifically highlight transgender, gender nonconforming, nonbinary identities, as well as Two Spirit, Muxe, Hijra, Thirunar (Thirunangai/Thirunambi), Nupa Manba/Nupi Manbi, Kinnar, Jogappa, Shivashakti, Khwaja Sara and many other gender identities that extend beyond white conceptions of gender and transness, as being further marginalized even within this marginalized group. However, our recommendations can make the hiring process more equitable for all candidates, especially those with multiple marginalized identities (e.g., disability, first-generation student status, socioeconomic status, and/or marginalized race or ethnicity) who face even greater challenges [32,33].

Our perspectives are centered around the biological sciences. However, our guidance may be generally applicable to searches in STEM fields more broadly. While we focus on the hiring process in colleges and universities, these recommendations are useful for hiring STEM professionals in many research positions (e.g., at museums, aquariums, non-profit organizations, and in government).

# 1

## Setting the tone for the search

Before a job is posted, there are a number of actions a committee should take to ensure an inclusive and equitable search process. First and foremost, care should be taken in determining the composition of the committee, which should reflect the diversity of candidates an institution hopes to recruit. Unfortunately, longstanding biases in faculty hiring [34,35] mean that search committees, primarily composed of tenured faculty, usually have disproportionately fewer scholars of color, queer and trans scholars, women, disabled scholars, and especially fewer scholars holding multiple marginalized identities. Specifically, the number of openly trans faculty in STEM is small enough that many committee members are likely to have never knowingly interacted with a trans person as a colleague. Search committee inexperience can manifest in an uncomfortable environment for queer and trans candidates. Even well-meaning committee members can become hesitant and stilted due to fear of making a misstep, leading to an exhausting and uncomfortable experience for trans candidates especially.

Diversity, equity, inclusion, and justice (DEIJ) training, beyond the basic compliance training required by many institutions, is therefore critical to build familiarity with these topics. A single training on DEIJ for the search committee is unlikely to solve systemic issues, but it can set behavioral expectations for committee members during the search process and facilitate dialogue amongst them in the event of a misstep.

We recommend that at least one committee member receive extensive DEIJ training, but the training recipient not only be the most junior member. Where possible, having two such members reduces pressure on any one individual. Importantly, queer and trans-specific inclusivity training should be incorporated into a comprehensive and intersectional set of trainings that address many potential sources of bias (e.g., racism, sexism, and ableism; both explicit and unconscious) that may be mutually-reinforcing to the detriment of candidates who possess multiple marginalized identities [36]. If such expertise is not available in the department, we propose including compensated members from the institution's DEIJ office or university-level DEIJ taskforce, if one exists, or a professional DEIJ consultancy (preferably, one familiar with the local landscape). Unfortunately, in some regions it may be difficult to locate such expertise, but established organizations like the Safe Zone Project offer free resources to conduct such training [37]. Regardless, it is helpful to appoint one committee member as a "Diversity Advocate" who will be responsible for holding the rest of the committee accountable for running an inclusive and equitable search. Given the small number of marginalized faculty at many institutions, seeking diversity on search committees often means that the same faculty are repeatedly asked to perform extra service. We caution institutions against overloading their already marginalized faculty in this way and instead suggest they commit resources to engaging outside support as needed. Some authors noted that graduate student representatives on search committees can provide valuable perspective in these areas, considering that graduate student populations tend to both be more diverse than faculty populations and also more up-to-date on conversations surrounding equity and inclusion. While these trends may be true, we caution committees against relying heavily on uncompensated graduate student service and also remind departments that all search committee members at all career stages should undergo rigorous DEIJ training.

Once a committee is formed, members should draft a set of agreed-upon goals and values for the search, specifically with respect to how the committee envisions incorporating DEIJ principles into the search process. Alternatively, such goals may be developed at the department level to be applied to all searches. These goals and values should be shared more widely with the department for feedback, as well as applied consistently throughout the search process, to ensure fairness and accountability. Sharing these values with candidates may also proactively create an environment of trust. However, to maintain that trust it is essential to perform ongoing evaluation to determine if these goals are being met during the search process and to have internal mechanisms for committee members to raise concerns. Consider seeking the assistance of a DEIJ professional in drafting these goals and ensuring their implementation/evaluation (e.g., through the use of periodic evaluation with a rubric by evaluators external to the department). We also recommend critically evaluating who is and is not served by your stated goals and values. Authors from multiple countries recalled policies hyper-focused on the inclusion of cis women that often excluded trans people who also face gender-related discrimination (e.g., by failing to welcome trans women, actively excluding trans men, and forgetting entirely about people who fall outside this binary).

## Checklist: Preparing for the search

- Consider diversity in the search committee and provide relevant training
- Decide on goals and values for the search at the beginning of the process
- Be attentive to inclusive language in job postings
- Ensure that queer trans friendly infrastructure, including bathrooms and accommodations, are already in place

## 2

# Posting the position & collecting responses

Small differences between job announcements can dramatically change who decides to apply. For instance, using non-gendered pronouns such as “they” or “the applicant” instead of “he/she” may signal to non-binary applicants that their gender identity will be seen and respected [38,39]. These language choices give applicants early clues about departmental culture and can directly impact who decides to apply to a call. When legally obligated to specify that men and women are both encouraged to apply, make sure to include language clarifying that individuals with genders falling outside that binary structure are also welcome. As always, advertising broadly can lead to a greater diversity of candidates applying and posting the job advertisement in queer and trans in STEM affinity groups may encourage more queer and trans candidates to apply.

The job description and desired qualifications can also affect whether queer and trans candidates apply. How are desired candidates described? For example, does an institution only look for “exceptional researchers”, or are contributions to teaching, mentorship, and campus culture valued? While the balance of research, teaching, and service is typically fixed based on the nature of the institution, committees often have latitude in indicating that they value a commitment to good mentorship, collegiality, and inclusion and they often can choose the specific adjectives used in a posting. Keep in mind that high-quality candidates from marginalized backgrounds may be less likely to apply words like “exceptional”, “brightest”, or “best” to themselves despite their skill level and, consequently, these words may lead some individuals to be less likely to apply for opportunities [40]. Consider whether listed qualifications are required or simply desirable, and consider writing a statement encouraging applicants to apply even if they do not meet every single criterion.

Job announcements can also be crafted to indicate that the department values diversity and seeks to build an inclusive and equitable environment. Consider expanding such language beyond a boilerplate institutional paragraph. For example, if writing a statement encouraging scholars with marginalized identities to apply, consider including language like “We encourage scientists of marginalized genders and sexualities to apply...”. In some countries, DEIJ statements are now a standard element of the application package and can signal institution-wide efforts to promote inclusivity. In places where such statements are illegal, committees at the very least can ask candidates for statements about their approaches to mentorship and the creation of a welcoming and accessible classroom, laboratory environment, and departmental and institutional culture.

Inclusive language should also be used in the application forms themselves. First and foremost, application forms must accurately capture how applicants would like to be referred to. There should be an option for candidates to specify their pronouns, and this should be write-in rather than multiple choice. Candidates may have multiple sets of pronouns that can be used interchangeably, such as “they/them/theirs or she/her/hers”, may use neopronouns that the committee is unfamiliar with, or may not use pronouns at all. Some candidates may vary their pronoun usage over time. If you are confused as to how to correctly use a particular set of pronouns and a web search or trip to your institution’s queer resource center (if it exists) does not resolve your questions, send the candidate a polite email asking for clarification (see S2 Text). The term “preferred pronouns” should be avoided, as it implies that identity is merely a preference. Use the correct pronouns to refer to candidates even when they are not present in a conversation. This practice sets the tone for their reception at the university. Failure to create an inclusive environment can damage the workplace environment irreparably for the candidate.

Many barriers exist for queer and trans people to legally change their names and genders, and an applicant’s name and gender may not match their legal identification documents, transcripts, or even publication record, which may also not match each other [41]. If a legal name must be collected as part of the application process, please also include a space for “Name” (the word “preferred” is unnecessary) and then clarify if the applicant has a different legal name. If a legal name is not required, then indicate that clearly on the form so that candidates are aware of what is being asked. In cases where the name and legal name do not align, always use the applicant’s name for all correspondence and do not share a differing legal name with any individual unless it is absolutely essential (e.g., for immigration documents or a legal contract). If other documents (e.g., transcripts) have another name listed, wherever possible the chair should discreetly redact this information on the document before distributing it to the committee. Similarly, ensure the candidate is able to choose the title appropriate for them as a fill-in-the-blank text box, otherwise default to “Dr. X” where appropriate. In highly bureaucratic university systems, achieving these changes may require a great deal of proactive advocacy by the committee on behalf of their candidates, but they are well worth the effort.





In many countries, it is standard to collect at least some demographic data on candidates. If demographic data is to be collected, great care must be taken to do so in a way that is gender-inclusive and that maintains the candidate's privacy [42,43]. In places where it is standard to put photos on curriculum vitae (CVs), this practice should be specifically discouraged to preemptively avoid a source of bias.

While regional laws may require a binary gender question in some forms, institutions should consider adding (optional) questions collecting gender data more comprehensively when this is the case [42,44,45]. A number of best practices for collecting gender data in a way that is trans-inclusive are available and should be reviewed when putting together the application form (e.g., [42,43,46]).

Sometimes legal requirements may necessitate collecting information on assigned gender that may not align with an individual's actual gender, such as listed on a state identification card or birth certificate. In these cases, ensure candidates are aware of this data collection and take every possible measure to safeguard this information throughout the search.

It is important to explicitly state how demographic data will be used (e.g., tracking overall DEIJ efforts across years) and whether the information is confidential or available to search committees, so that applicants can understand the implications of answering such questions. Being "out" is not a simple matter for queer and trans applicants. Individuals may share parts of themselves during a job search that are not widely known by everyone in their personal and professional circles, which could have severe repercussions if disclosed. With this in mind, while data privacy is crucial for all applicants, it may be especially important for those who are queer and trans. Therefore, the search committee should inform candidates about any public information that will be provided to the department or university, for example, their speaker's biography and abstracts for talks. Wherever possible, the committee should request that candidates supply these descriptions themselves. It should always be possible to opt-out of sharing demographic information publicly. Similarly, even openly queer and trans candidates may not include information about their identity in their applications for a variety of reasons; all recommendations we make are best applied uniformly across candidates instead of assuming that candidates are straight or cisgender by default. Keep in mind committees are not automatically entitled to such information about identity, nor should assumptions be made about candidates or, for example, any partners they may or may not have.



## 3

# Evaluating applications

Well before applications are solicited, we recommend designing a comprehensive rubric for the ways that applications will be evaluated (see the materials provided by the University of Michigan’s Committee on Strategies and Tactics for Recruiting to Improve Diversity and Excellence (STRIDE) for an example: <https://advance.umich.edu/stride/>; [47]). Considerations include the scoring criteria and prioritization of supporting material. Ensure that the rubric scoring matches the search priorities and its advertised description, and apply this rubric consistently to candidates. In particular, consider how service is scored. Queer and trans trainees, as well as other trainees with marginalized identities, often contribute a great deal to service initiatives at their institutions and in their surrounding communities, particularly those focused on advancing diversity, equity, and inclusion [48,49]. These contributions tend to be undervalued, despite being one of the best indicators (in our view) of whether someone is likely to be a collaborative and community-oriented colleague. Furthermore, such experience is directly relevant to the role of faculty, which becomes increasingly service-oriented as individuals advance in their careers. Where possible within institutional constraints, include these activities in faculty search scoring rubrics and weight them comparably to other areas like research and teaching.

Some institutions currently require a “Diversity Statement” or “DEIJ Statement” from applicants, but the expectations and evaluation criteria of these statements are often unclear [50]. We encourage committees to develop a consistent rubric for evaluating these statements across candidates and to be specific and transparent about their expectations in the job ad. Some institutions apply the DEIJ statement as a first-pass filter, after which a candidate’s teaching and research potential is considered, so that applicants with a less-than-acceptable DEIJ statement are not even considered for the position. We support this specific use of DEIJ statements, as opposed to their frequent use as a nebulous tie-breaker. We also strongly recommend that committees value specific actions over statements of values; optimally a DEIJ statement should demonstrate that the candidate has already worked to improve conditions in the academy and/or some other segment of their community (e.g., via advocacy external to the university) and discuss specific actions the candidate will follow at the hiring institution (see standardized questions used by Rutgers University [51]). Nevertheless, keep in mind that this burden is also often disproportionately placed on queer and trans folks and may carry a heavier emotional and psychological weight given their personal connection with the issue. Additionally, much of this work is not readily visible as a line on a CV [52,53]. For example, queer and trans postdocs and senior graduate students may serve as important advocates and mentors for their peers and important advisors to senior faculty in non-formalized settings. Consider noting that such work is valued by the committee and should be discussed in the DEIJ statement in the job ad.

At least some of every search committee’s decision comes down to “fit”. “Fit” includes a number of intangible criteria that can make or break a candidate, from how well a candidate’s research complements existing departmental strengths to how collaborative

they seem as a colleague. We do not dispute that this is an important criterion, but we urge committees to take a structured and specific approach to assessing “fit,” using a detailed rubric that allows for consistency across candidates and helps prevent unconscious and conscious forms of bias. Assessing fit provides an unfortunate opportunity for unconscious bias to take hold and committees may benefit from attending additional training on this topic [54]. Several authors strongly suggested avoiding the term fit entirely in favor of more specific criteria. Keep in mind that trans people, in particular, are often culturally coded as “hostile” and may be less likely to be perceived as charismatic and sociable than their cis colleagues, regardless of behavior [7,55,56]. Additionally, stereotypes or assumptions about a candidate’s personality or personal life may lead some committees to inappropriately decide “they will never come here”, leading to fewer or retracted offers [21]. For example, despite common perceptions, some queer and trans candidates are specifically interested in moving to rural areas or areas without a large queer or trans community. While assessing a candidate’s interest is within the committee’s purview, trust your candidates and have an honest conversation with them before discounting their candidacy.

When scoring candidates, keep in mind that many trans and cisgender candidates alike may have changed their names for a variety of reasons, and this may impact the calculation of metrics committees sometimes use as heuristics for impact (e.g., h-index). Changing names on prior publications can be difficult even after a legal name change [57,58], and multiple authors on this piece have faced a great deal of difficulty in changing their names even at journals with publicized name change policies.

Finally, we urge committees to avoid easy forms of gate-keeping widely employed in academia. First, recognize that career timelines can look different for your queer and trans candidates who may have faced significant discrimination and/or taken medical leave for a variety of reasons, including obtaining gender-affirming care. We specifically discourage job postings that specify a maximum number of years since PhD, as is common in some countries. We also discourage the application of rate-based metrics for items like publications (e.g., papers per year), and instead suggest committees view candidates holistically. In some countries, it is standard to have an application section where applicants may describe mitigating circumstances if they wish. Second, we caution committees against an overreliance on prestige, a practice that tends to discount candidates from marginalized backgrounds who may have not had access to the same signifiers of academic status that are often heavily gate-kept. A candidate’s pedigree (institution names, advisor identity) is far less informative than their actual research record. We recognize a holistic view can also introduce bias if only applied to certain candidates, so we caution committees to pay close attention to all candidates.

## Checklist: Data collection and management

---

- Collect names and pronouns accurately
- Collect comprehensive gender data, ideally fill-in-the-blank
- Be aware of issues surrounding data privacy, and ask candidates to specify how their data (incl. name and pronouns) may be shared and with whom.
- Be transparent and specific about how data will be used and accessed during and after interviews

## 4

# Selecting finalists

At many institutions, it is typical to conduct a round of short phone or virtual interviews and collect letters of reference before inviting finalists for an on-campus interview. We recommend committees take care to ensure these key filtering steps are performed equitably. For screening interviews, applicants should be offered the option to have their camera off, wear a surgical mask, or interview by phone, without impacting the committee's decision-making process. Visual data about the candidate is irrelevant at best and a source of potential bias at worst. As we discuss later, trans candidates in particular face a great deal of pressure around presentation and may also experience gender dysphoria triggers related to the use of a camera [59]. On the other hand, at least one author noted that in some cases cameras can be helpful for those experiencing voice-related dysphoria by allowing candidates more control over their presentation to the committee. Providing an option, and thus alleviating this stressor, can result in better interview performance. We recommend having a standard set of questions for each applicant and to only ask follow-up questions to gather a better understanding of the candidate's original answer. In an effort to minimize interview stress and/or anxiety, it is recommended to make these questions accessible to the candidate at least one day before the interview. As you schedule the interview, ensure the candidates have the resources to bring their full selves to the interview. Consider resources that they might need during the screening interview, like child care, access to a hotel room (e.g., for candidates lacking a quiet home environment or a supportive workplace), etc., to be able to have an honest, open conversation, and cover those expenses. Ideally, have an administrative individual coordinate any needed accommodations beforehand. Such accommodations should be kept confidential from the committee to avoid bias.

We also encourage search committees to be thoughtful in how they incorporate information from recommendation letters into their evaluation of candidates, especially given strong evidence of gender bias in letters across fields [60–64]. For example, much has been written in academic advice blogs and editorials about when it is acceptable to exclude a graduate or postdoctoral mentor as a letter writer (e.g., [65]). Common wisdom suggests that leaving a mentor off the list can signal to committees that there is a problem with the applicant. We strongly caution committees against making these assumptions. In our experience, mentees exclude writers in cases where the mentor was dismissive and even abusive, which can be true even of well-liked and high-profile individuals. In some cases, we have seen applicants avoid requesting letters because of the emotional cost of dealing with casual queerphobia or transphobia from mentors, even though they would surely write positive letters. The expectation that a “missing” letter is a negative reflection on the mentee or that applicants should “give an explanation” for a missing letter from a key mentor specifically harms queer and trans mentees. Even more worrisome, this expectation enables retaliatory withholding of recommendation letters from mentees. Further, candidates may be concerned that committees will reach out to “get the whole story,” which we strongly discourage because it both violates the candidate's privacy and creates an opportunity for retaliation.

## Selecting finalists

As a straightforward solution, applicants should be able to indicate a conflict of interest (COI) exists with individuals at the applicant's institution, past workplaces, or the committee's institution. COIs should not be discussed or evaluated. COIs can exist for any number of reasons, beyond those specific to queer or trans people. COIs allow applicants to avoid needing to explain a 'missing' letter, diminish candidates' risk of being 'outed' as searching for a new career or position, and prevent issues when their advisor has conflicting interests with the candidate. We recommend that any disclosed COIs be kept confidential only to the search committee chair, and if a question emerges on a 'missing reference' in discussion of candidates, the chair can state that a COI was disclosed. Other letter writers, such as the candidate's other mentors or close collaborators, can speak just as effectively about what it is like to work alongside a candidate.

Finally, sometimes letter writers may use wrong or inconsistent names or pronouns for an applicant. In these cases, the best policy is to politely ignore the mistakes. Applicants may not be fully out to letter writers, or letter writers may unfortunately not take the identity of applicants seriously. Sadly, many of us have been in the difficult position of choosing writers who would make good strategic choices from a professional perspective, but do not see us for who we really are. As a rule, we recommend that committees consider the self-disclosed information submitted by the applicants themselves over other sources of commentary about a candidate's identity.

## Example pronoun and name request email

Dear Dr. <INSERT>

The search committee is excited for your upcoming interview at <INSERT> for the <INSERT> position!

In preparation we are reaching out to all our candidates to ensure we address everyone correctly during the interviews. If you wouldn't mind, could you please confirm the name and pronouns you would like to be used on communications with the department and broader university? To avoid any mistakes on our part, if you could also send a short audio recording of how you pronounce your name, as well as your pronouns used in a sentence, it would be much appreciated. These will be requested from all candidates and distributed to faculty, staff, and students in preparation for each visit.

We look forward to hosting you on campus and thank you for taking the time to consider our opening. Please do not hesitate to reach out with any questions or requests in advance of your visit.

Sincerely,

<INSERT>

## 5 Campus visits

It is common to invite finalists to campus to meet with faculty and give a research seminar and/or teaching demonstration. Because the candidates will meet with a broader set of faculty, students, and staff than the search committee during the interview, it is important to ensure the department at-large is prepared for such visits. Training on appropriate interview etiquette and on what kinds of questions are legal to ask candidates should be mandated for all faculty, students, and staff that will interact with the candidates or vote on their hiring. Ideally, this should occur well in advance of the announcement of a candidate's visit in an effort to prevent department members associating a particular individual with mandatory training. Even in self-professed "welcoming" departments, faculty may need some guidance on how to behave professionally during interviews. For example, professional behavior dictates that if you make a mistake when using a candidate's pronouns, simply correct yourself, offer a brief apology, do not let it happen again, and move on. Excessive apologizing creates a difficult situation in which candidates are pressured into the awkward place of needing to repeatedly reassure their cisgender colleagues that a microaggression "wasn't a big deal", whether or not it actually was. Some authors noted that in their experience, the less-formal nature of lunches and other meetings with students meant that candidates were sometimes asked inappropriate and even illegal questions (e.g., about marital status). The importance of maintaining professionalism during interviews should be impressed upon all members of the department.

Addressing candidates with the correct names and pronouns is a basic expectation during the on-site interview. Several authors report that many if not most faculty would greatly benefit from practicing in advance, especially those introducing candidates to others during the interview for the academic job position. Make this expectation clear to your faculty before the interview. Make sure a candidate's pronouns, if known, are shared with faculty, staff, and students who will be meeting the candidate ahead of time. It can be extremely jarring to be misgendered or to have awkward pauses come up around pronouns, and this can have a significant negative impact on a candidate's performance during a conversation or talk. Introductions should use academic titles (e.g., Dr.), especially before a talk, and titles should be used consistently (i.e., do not refer to a candidate by their first name after referring to a senior faculty member as "Dr. X"). If possible, allow candidates a chance to review introductions beforehand.

It is possible that your department has a number of "bad actors" who may behave with hostility towards candidates despite training and guidance. It is important to be honest with your candidates about such departmental dynamics, while also shielding them from these negative interactions during the interview, a time when they are already likely to be under a great deal of stress. Be prepared for specific stages of the interview where such individuals can do the most harm (e.g., chalk-talks in some US departments), and avoid putting them in one-on-one situations with the candidate. In particular, we recommend offering your faculty, staff, and students training in effective tools for bystander intervention to prepare them for these situations [66–68].

For institutions that have group interviews, which are common in many European countries, bystander intervention for faculty, staff, and students is also important because candidates may face discriminatory behavior from other candidates present at the same interview. Cross-candidate interactions should be kept to a minimum, and one-on-one interactions avoided.

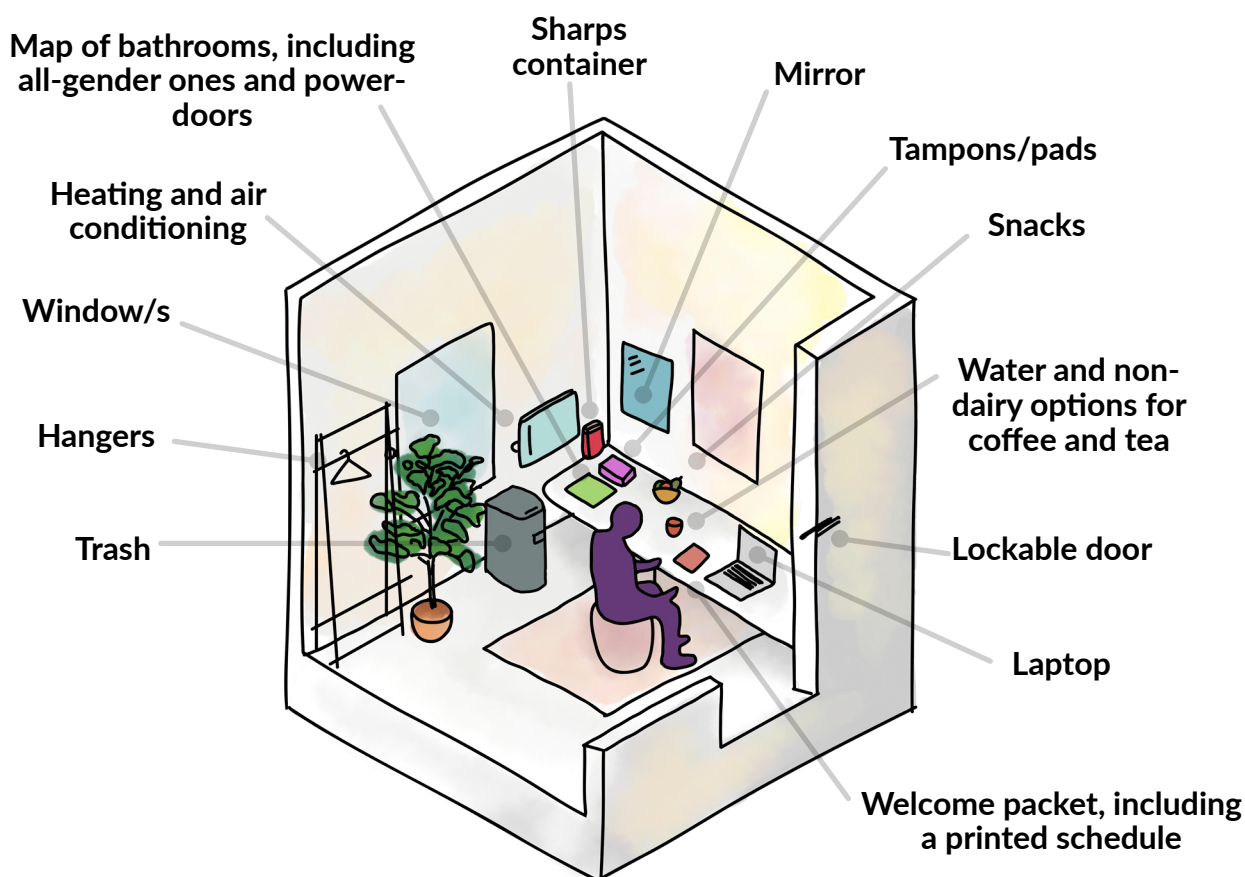
Accessibility of local infrastructure is also essential, as queer and trans individuals are more likely to also be disabled and/or chronically ill [69–71]. Interview days are long; ensure your candidates have regular bathroom and hydration breaks (see S1 Table for a sample schedule). Opportunities for breaks are especially important for candidates with a range of medical conditions. It is best practice to give all candidates and all department members meeting with candidates, regardless of perceived gender identity, a map of all gendered and gender-neutral or single-use bathrooms on campus and some indication of their accessibility. Whenever possible, schedule in-person meetings, breaks, or presentations in buildings where these options are all available, optimally on the same floor. Similarly, plan proactively with your candidates to ensure COVID-19 safety protocols during their visit that will guarantee their health and safety [54].

## Sample faculty interview schedule

Time	Meeting	Location
8-8:45 AM	Breakfast with Dr. A and Grad Student Search Committee Rep	
8:45-9 AM	Intro to staff, set-up in guest office, locate bathrooms	Guest office
9-9:25 AM	Faculty meeting - Dept. Chair	Rm 1
9:25-9:55 AM	Faculty meeting - DEIJ Committee Representative	Rm 2
9:55-10 AM	Break	Guest office
10-10:30 AM	Campus, facilities, lab space tour	Rm 3
10:30-11 AM	Break and prep time	Guest office
11-12 PM	Seminar	Seminar Rm 1
12-12:50 PM	Lunch with students	Seminar Rm 2
12:50-1 PM	Break	Guest office
1-1:25 PM	Faculty meeting - Dr. B	Rm 4
1:25-1:30 PM	Break	Guest office
1:30-1:55 PM	Faculty meeting - Dr. C	Rm 5
1:55-2 PM	Break	Guest office
2-2:25 PM	Faculty meeting - Dr. D	Rm 6
2:25-2:30 PM	Break	Guest office
2:30-3 PM	Faculty meeting - Dr. E	Rm 7
3-3:15 PM	Break/walk to Dean	Guest office
3:15-3:45 PM	Meeting - Dean	Admin Rm A1
3:45-4:30 PM	Meeting - HR/Benefits	Admin Rm A2
4:30-5 PM	Faculty meeting - Search Chair (wrap up)	
5-6 PM	Return to hotel/break	Hotel/guest office
6-onward	Dinner with faculty	

In particular, queer and trans folks are at increased risk of experiencing both severe COVID-19 and long COVID symptoms (i.e., symptoms lasting longer than four weeks after initial infection) [72,73]. Respect a candidate's right to mask during the interview, offer the option to provide high-quality respirator masks, and consider moving meals outdoors or to other well-ventilated areas. Having this infrastructure in place will ensure the comfort of your candidates and allow them to present the best versions of themselves on the interview day.

Keep in mind that trans people, including non-binary people, should be allowed to use whichever restroom they are most comfortable in, and do not necessarily need to use gender-neutral restrooms exclusively. One of our authors recalls a specific incident where a faculty member insisted on putting a "temporary gender-neutral restroom" sign they had made on a women's room door while a candidate who was a trans woman went in. While the faculty member felt they had been a good ally at that moment, the candidate felt humiliated and confused. If there are university or legislative policies that prevent trans people at your institution from using the bathroom that aligns with their gender identity, or if you have a lack of gender-neutral facilities on campus available for non-binary candidates, let your candidates know before they travel to campus so that they can plan proactively with you.



**Figure 1:** Ideal set up for a guest office. The office, which may serve as a quiet space and getting-ready room should include a trash can, hangers, windows, heating and/or air conditioning, a map of bathrooms (including all-gender ones and those with power doors), a sharps container, a mirror, tampons and pads, snacks, water and non-dairy options to accompany coffee and tea, a lockable door, a laptop computer (if needed), and a welcome packet that contains a printed version of the schedule.



For travel, especially international travel, allow candidates the option to choose their own accommodations and itineraries while still having the institution coordinate payment. Candidates may have specific needs around access to services and safety that impact their choice of accommodations. Some forms of travel may be more accessible and/or welcoming than others, certain airlines or rail lines may be known for making better accommodations for travelers, and some locations may be unsafe to connect through. Have a contingency plan in place in case your candidates run into issues during travel, including an emergency number to call. For example, even with identification reflecting a name and gender change some trans candidates may encounter significant difficulties from airport security and customs. These risks are even more pronounced for candidates of color who may additionally be racially profiled in these contexts.

Finally, consider offering candidates a guest office or other private space. All eyes are on a candidate during a job interview. Queer and trans people already face an incredible degree of scrutiny around expectations for professional dress [59] and gender presentation. This scrutiny manifests as “hypervisibility”, affecting transfeminine people in particular, where their actions and presentation are consistently surveilled even as our needs within society are rarely considered or met [74,75]. Giving candidates a private space, optimally with a mirror, a trash can, and a door that locks and sufficient time to get ready and “freshen up” before research talks, teaching demos, chalk-talks, etc. can significantly reduce pressure around presentation. Many candidates may want to change when they arrive at or leave campus as well. For example, depending on the surrounding area and the candidate’s own comfort level, they may choose intentionally less conspicuous clothing for travel and would appreciate having a designated space to change clothing. One author recalls an interview as a newly-out and nervous trans person where they ended their visit by changing their outfit inside of the department chairs’ office closet before running to the airport.

## Checklist: Campus visits

---

- Ensure candidates have easy access to appropriate bathrooms
- Ensure queer and trans friendly accommodations and travel options, and allow candidates to choose their preferred options
- Provide a place to change and prepare
- Get name and pronouns right, especially for introductions
- Train all faculty on queer and trans inclusive behavior
- Offer contacts on-campus and a comprehensive info packet
- Prepare HR and know your benefits
- Reconsider “fit”; Always use standardized rubrics to assess how well a candidate is suited for a particular role

## 6 Be prepared to answer difficult questions

Interviews almost always include time for candidates to ask questions to the committee. Be prepared to answer challenging questions about the local area and campus and departmental culture openly and honestly. For queer and trans applicants, getting a sense of the environment is critical not only to our professional success but also for our own safety and wellbeing, as well as that of our friends and family. Recognize that trans people have historically been left out of many queer liberation movements, such that it is not safe to assume that a region has trans-friendly policies even when it has a history of supporting queer-friendly ones (e.g., early legalization of gay marriage) [76,77]. Responses such as “[Insert location] is great! You won’t have any problems” are not satisfactory and can be a red flag to applicants that the committee is not knowledgeable or able to advise them about the local climate. Even countries with many legal protections in place have hostile regions to queer and trans individuals.

More worrying is the fact that, due to rising anti-trans movements, many regions now have laws in place that allow discrimination against queer and trans individuals, or even go so far as to actively criminalize our existence [18,26]. We challenge our readers to think critically about what supporting your queer and trans colleagues would look like where you live and work. This means being transparent about any existing or anticipated problems at your institution when speaking with candidates so that they can make an informed decision about their futures. It also means identifying or creating measures to protect your queer and trans colleagues from harassment both internal and external to the university and to ensure they are able to advocate for themselves and their communities.

Many of these concerns can be addressed by providing all applicants with an info packet including benefits information and contact information for individuals who can answer further questions about benefits (especially in countries lacking universal healthcare), information about the local legal landscape (including any bans on gender affirming care), university DEIJ policies and resources, information about faculty mentoring programs, and contacts for affinity and employee resource groups on campus (e.g., as provided by the University of Nevada Reno QLAB [78]). This packet should also include information on how to report instances of discrimination and clearly indicate which reporting mechanisms are anonymous. Such information will be useful even for candidates who may not be queer or trans (e.g., candidates with a queer or trans family member such as a partner or dependent) and would optimally be provided to all candidates before they come to campus to interview.

While search committees may not be able to address all of a candidate’s questions themselves, there may be queer and trans faculty or staff on campus who are not involved in the search but can speak to candidates about the institution and surrounding area. It can be very helpful to offer to share contact info with the candidate’s and faculty or staff members’ prior approval.

Additionally, many institutions have queer and trans faculty and staff groups that can serve as resources about campus and community climate for queer and trans people. More broadly, meeting with a member of an institutional DEIJ committee or office could build context for ongoing efforts across campus. Optimally, make these contacts available to all candidates regardless of perceived identity. Where possible, contacts with a range of intersecting identities can provide a holistic view of campus culture (e.g., a Person of Color who is trans may have a different perspective than a white person who is trans about campus climate, and this may vary based on the cultural context of the institution). More than one of the authors took a job in what many might consider a hostile area because of one of these discussions, and another of us turned down a job in a region widely viewed as welcoming to queer and trans individuals because of a similar conversation.

When discussing benefits, the committee should make every effort to provide information that is easily accessible to the candidate (i.e., not on an internal website) and clearly worded. One example might be to provide a benefits summary fact sheet during negotiations. “Good” health benefits often means something very different to your trans and queer applicants. Many state healthcare systems and/or insurance plans (in countries without state systems) offer only incomplete coverage of gender affirming care or limited patient choice in terms of covered care and providers, and this varies widely by country. When faculty can, they should always advocate for a high standard of gender affirming care through the health plans accessible to those working at the university (e.g., through collective bargaining efforts). Further, many governments discriminate or prohibit reproductive services such as in vitro fertilization, prenatal testing, abortion, medical protocols for intersex individuals, surrogacy, or adoption for trans and queer people. Even the mechanism for accessing care (e.g., what kinds of referrals are required) may vary widely between health systems. Offer all applicants time to speak with someone knowledgeable about the local healthcare landscape, especially if that candidate is coming from a different healthcare system, and make sure that person knows specifically what gender affirming care is covered and can answer questions. This may happen during the on-site interview or during negotiations. Given the cost of healthcare, this may be an important point of discussion during negotiations for queer and trans candidates and for candidates with a queer or trans family member, so committees should be prepared to offer compensatory benefits or pay if health insurance coverage is insufficient. Keep in mind this may also be true of many candidates for a variety of reasons unrelated to gender affirming care.

Finally, do not hesitate to ask for more time. If an applicant asks a question that the committee cannot answer, rather than giving a poorly considered answer, tell them you will look into it and get back to them. Then, make sure to follow up promptly over email or in another meeting. We appreciate our concerns being taken seriously and want to see that there will be an effort at a departmental and institutional level to address them; an intentional answer is a great way to show that. We encourage institutions to be proactive in learning about themselves through regular assessment. This can be accomplished in part internally (e.g., by using tools like the European Union’s Diversity Self-Assessment tool [79]), but optimally by engaging outside evaluators with DEIJ expertise and/or queer and trans advocacy groups that can provide deeper, individualized feedback.

## 6 Making an offer

Expectations around offer packages vary widely across countries and institutions depending on, for example, whether healthcare is nationalized or employer-provided, whether salary scales are negotiable or fixed by the government or collective bargaining agreements, whether startup research funds are provided, and whether a variety of other benefits like housing assistance are offered by the university. We offer advice on assembling an inclusive offer package below based on negotiated packages we have seen in the past, recognizing not every item will always be achievable depending on local resources, especially in countries with under-funded university systems.

Keep in mind when making an offer of employment that queer and trans people are much more likely to face financial precarity than the general population [80,81] and may be cut off from familial sources of support. We also face severe pay disparities, which are most pronounced for trans individuals; for example, trans women in the USA make an average of 60 cents on the dollar of the average worker, trans men make 70 cents on the dollar, and non-binary, genderqueer, genderfluid and two-spirit workers also make 70 cents on the dollar [80,82]. These gaps are further exacerbated by racial inequality, such that queer and trans People of Color make less than their white peers. Thus, salary offers should be based on the job in question, not previous income. Healthcare requirements and often incomplete insurance coverage elevate the costs of living for queer and trans people, such that job packages may need to reflect these costs to be appropriate. Providing resources like subsidized childcare, eldercare, or faculty housing may go a long way towards alleviating some of this financial strain, and making it clear in the initial offer which of these are available, if any, is critical. Family resources like childcare and eldercare should be made accessible to an individual's chosen family, which may include non-biological or married family members.

At some institutions, salary and startup packages are determined through an extended negotiation process. The quality of a candidate's offer should not depend on their skill as a negotiator [83–85]. We urge departments and administrators to actively describe negotiation as a process and emphasize that the purpose of negotiation is to find a mutually beneficial outcome. It is essential that departments provide transparency on what can and cannot be negotiated for candidates. Consider linking candidates to early career faculty internally who are willing to discuss what their offer packages included. Applicants may not know what is reasonable to ask for, so be active and try to identify opportunities for compromise to meet the candidate's needs. This is particularly true for applicants without close peers applying for academic jobs. Queer and trans applicants may not feel that they have permission to ask for these things, and may more easily be perceived as asking for too much, especially relative to other candidates [86]. It is critical to be transparent about the average faculty salary in the department, and at the minimum let candidates know where to find information on pay bands for position ranks at the institution.

Standardized packages can help, but we caution against using equity as an excuse for underpaying faculty: paying incoming faculty less does not solve the problem of paying senior faculty too little (i.e., salary compression). Wherever possible, post salary ranges on job ads to help candidates understand what can be reasonably expected.

In some countries, it is common to accommodate “spousal” hires for married and sometimes unmarried couples [86]. If such arrangements are possible, ensure these accommodations are equitable regardless of a couple’s genders or marital status, and consider how you might accommodate other family arrangements that fall outside of a traditional two-person relationship or nuclear family. If spousal accommodations are offered, set a policy of finding placements for non-academic partners regardless of marital status. Many queer and trans people may face workplace discrimination, and partner employment at your institution may help minimize this risk [87]. Also consider whether benefits associated with the position (e.g., healthcare in countries without universal access) can be extended to non-traditional families (e.g., multiple partners, other kinds of dependents than children).

Finally, consider the requirements for tenure at your institution [88]. It is well documented that minoritized faculty perform more service as they are continually asked to assist on DEIJ committees, provide mentoring and support well beyond required office hours for students from similar demographics, and are otherwise asked to be present at service activities to represent their demographic [5]. In the context of widespread anti-queer and anti-trans discrimination, it often falls to us to keep queer and trans students alive and safe as the only individuals in positions of power who understand or are trusted with knowledge of dangerous and stressful situations as they arise. This unaccounted service requirement immensely benefits the university community and must be acknowledged in a candidate’s offer letter and effort responsibilities should be clearly outlined to ensure these activities are visible and contribute to their retention and tenure. Some institutions have recently formalized such arrangements as “mentor professorships” with reduced teaching loads in exchange for increased service expectations.

## Checklist: Making an offer

- Be aware of pay and resource disparity
- Offer quality should not depend on negotiation skill
- Offer support for *all* family arrangements
- Account for service in percent effort
- Factor the experiences of precarity and transition costs and leave in considerations of initial offer and tenure expectations

## 7

# Varying needs and solutions across international contexts

While the guidance discussed above is written to be generalizable across many different contexts, our colleagues and co-authors from around the globe face myriad country-specific challenges. We note that ongoing debates about the structure of academia, at least in major scientific publications, often focus disproportionately on the challenges faced by academics in Europe and North America (with some key exceptions), without recognizing how the needs of researchers vary across national and cultural contexts. For example, due to limited funding and the nature of how funding is dispersed in many countries, early-career scholars may fight hard to get their research groups on track with a smaller pool of resources. At the same time, these researchers are often overwhelmed with heavy lecturing and administrative workloads. As a result, the science of researchers from what is often referred to as the “Global South” is still underrepresented worldwide [89,90]. Even in places with a robust history of research engaging with queer and trans individuals, such as Puerto Rico, [91], resource limitation can act as a major barrier to success [92]. At the same time, documented biases in publishing against scientists from countries where a majority of the population is not white create an environment where their contributions are systematically devalued by existing networks of scientific power and recognition [90,93–95]. Thus, legacies of colonialism pose a major barrier to building a more inclusive and equitable scientific practice, both by first-order effects that limit the flow of resources to deserving scientists, and through the second-order effects a resource-limited environment creates wherein the institutional and administrative capacity to implement many of the suggestions we provide here may be limited due to an overwhelming workload.

We provide three examples of countries facing specific challenges, along with their successes and opportunities, below.

## Brazil

In Brazil, the selection process for a tenure-track academic position in a higher-education institution differs strikingly from the systems in the US and Europe. In a short timeframe applicants are subjected to several rounds of exams on scientific knowledge, teaching, and their research record and are subsequently ranked and eliminated. In most cases, there are no DEIJ policies in place and advertisements for positions follow a predefined governmental format, with no regard to inclusivity, gender-neutral language, and usage of pronouns. In particular, DEIJ commissions and committees are still scarce in most Brazilian universities, and the few that exist rarely consider issues facing queer and trans scientists [96,97].

Universities and research centers should institutionalize general DEIJ policies and committees, which would facilitate adoption of the strategies to run inclusive and equitable selection processes for queer and trans applicants.

As a start, DEIJ statements should be incorporated into the application package and ranking process. Nevertheless, a lack of resources for proper DEIJ training of faculty members and a lack of institutional motivation make these issues more challenging in Brazil, which still has high rates of queerphobic and transphobic violence [98,99]. That being said, Brazil has seen successes in promoting racial and ethnic diversity in academia through the use of a quota system [97], an example that could be applied more broadly to other countries that have struggled in this context, and perhaps to other marginalized identities (e.g., queer and trans identities).

## South Africa

South Africa is fortunate to have excellent legislation protecting the rights of individuals based on gender identity. These protections are not shared by some neighboring countries such as Namibia, which has recently repealed its only law protecting the labor rights of individuals with diverse sexual orientations ([100]; though its anti-sodomy laws were recently ruled unconstitutional). Like Brazil, quota systems have been used here to advance diversity initiatives with some success for racially marginalized groups and (primarily cisgender) women. South Africa was the first country in the world to protect individuals' sexual orientation as a human right as part of its Constitution in 1995, and has developed a series of laws for equality in the workplace based on sexual orientation and gender identity [101]. However, implementation of this policy in the workplace is often lacking, especially when applied to trans individuals [101,102]. Gender is interpreted as a strict binary, where women (cisgender or transgender) are a marginalized class and men (cisgender or transgender) are not, with little consideration of gender identities falling outside this binary (e.g., non-binary identities). This may, perversely, lead to reduced opportunities for some transgender applicants who may be viewed as less desirable if their intended path of transition is seen as "reducing" diversity in the workplace, such as by adding to the number of men at the institution and not women [101], though increasing the representation of transmasculine scholars will help institutional equity. For example, one of the authors of the present paper has received additional eligibility for funding opportunities based on this interpretation of equality, while another one has suffered reduced opportunities.

Numerous hurdles faced by queer and trans students in South Africa severely limit the number of queer and trans individuals that make it to the faculty application stage (e.g., [103,104]) and especially Black queer and trans people report feelings of otherness in academia [96]. This could be mitigated by the presence of other queer academics [105] and, similar to Brazil, the development of comprehensive DEIJ training and policies, especially pertaining to challenges faced by queer and trans individuals [106]. Although some South African universities have formulated such policies, they often lack enforcement [107], emphasizing the need for additional resources to be committed in this area.

## India

In India, selection processes for academic jobs in government institutions are clearly defined by a system of reservations, or quotas, around caste categories to remedy historical exclusion and injustice. Despite these measures, elite government scientific institutions fall short of their caste quotas [109] while private institutions fare worse without being bound by reservation. Science institutions also fall short with regard to gender equality around which there is no quota system [110].

In 2014, the Supreme Court NALSA judgment recognized transgender persons as a “socioeconomically backward community” deserving of reservation [110]. The government stalled any implementation of this reservation citing ambiguity on whether that wording amounted to inclusion in a mandatory “backward caste” quota, in which case trans people would be eligible to compete with aspirants from designated backward caste communities for their reserved seats [111]. This would largely only help elite caste transgender persons receive some form of reservation and would change nothing for backward caste, dalit and adivasi transgender persons who face discrimination when they compete with cisgender aspirants within their quotas. Anti caste activists in the trans community proposed a system of “horizontal” reservations that accounts for intersectional marginalization based on gender, disability and caste, setting aside specific gendered fractions within each caste quota for persons from marginalized genders, with about 1-2% allocated for trans people [114]. Such a system provides a valuable example of how trans identities could be incorporated into existing quota systems in other countries as well using an intersectional approach.

The NALSA verdict also resulted in policy changes in the University Grants Commission that have allowed some trans scholars to advance trans friendly bathroom and accommodation measures in their academic institutions [115]. The government also created a “transgender” category on many intake forms and created a pipeline for changing documented name and gender identity on government IDs [116], enabling some trans individuals possessing identification with varying names and genders listed to apply for jobs and academic degrees.

While the discourse of gender and science largely remains a cisgender upper caste “Women in STEM” discourse, social scientists from marginalized castes have pioneered an intersectional understanding of gender and caste that has led to the creation of a mandate for an Equal opportunity cell in every University [116], which addresses all form of discrimination under a single body where intersectionality is understood as the default rather than as an exception.

Eventually, what distinguishes the subcontinent of South Asia from many places in the “Global North” is the living history of trans visibility that dates back centuries before the advent of the modern nation state. The notion of transgender identity as an aspect of caste rather than gender emerged from a caste patriarchal lens of trans people who historically organized a way to live together as a community. This was seen as being more akin to a caste or tribe-based grouping, and was formalized and criminalized by Colonial British rulers under the Criminal Tribes Act of 1924 [112,113]. While trans people continue to battle this legacy and struggle in academia and other realms of employment due to the exclusive status historically claimed for such spaces by elite caste cisgender men, our presence as historically visible, and therefore seemingly natural, and even the validity of our marginalization on account of being transgender is largely culturally undisputed - a battle that still lies ahead of many trans activists in the Global North.





# Conclusions

It is not always obvious who among your candidates are queer or trans or who may have queer or trans loved ones. In fact, some faculty may come out as queer or trans later on in their careers and this decision may be influenced by their institutional environments. Our recommendations can and should be applied to all candidates, and will likely be beneficial to many outside the queer and trans community.

The recommendations we offer are not exhaustive: work with your candidates as partners in this process to meet their needs and help them show the best versions of themselves during the interview. These changes are simply a starting point to making a more inclusive academic enterprise – consider the suggestions listed here a baseline upon which to build. Many of the authors on this article have been in situations where our performance suffered in queerphobic and transphobic academic contexts. For individuals with multiple marginalized identities, this distress is further amplified. By creating an inclusive and equitable environment, you can see the best of each candidate, allowing the search committee to make the best-informed choice possible. At the same time, we emphasize the importance of transparency by the search committee in discussing the local environment honestly so that candidates can make well-informed choices about their own futures.

Although it is not the main focus of this article, efforts to hire equitably should be followed with systems for faculty retention. The equitable hiring practices discussed above are meaningless if not backed up by efforts to ensure a safe, inclusive, and equitable working environment in your institution. Consider how to continue supporting queer and trans candidates once they become faculty, especially in the professionally vulnerable years pre-tenure [28,29,33]. Even before the tenure clock starts, measures can also be taken to support queer and trans scientists at all career stages. While this paper focuses on the faculty recruitment process, we imagine our toolkit can be a guide for recruiting students, postdocs, and staff within academic institutions.

In closing, we note that this article is written against the backdrop of a legal and political climate that is increasingly hostile to queer, and particularly trans, individuals globally [117–121], making our recommendations more urgent than ever. While our focus on the job search limits the scope of this article with regards to the rights and marginalization of queer and trans people, we want to highlight that the recruitment process is only one component of hiring a new colleague into faculty. Trans faculty may experience significant harassment in the local community, death threats, and online targeting. We encourage institutions to use their resources and power to protect their marginalized faculty members from political hostility, offering them a safe place to work. At the same time, for many institutions, it may be more difficult than ever to commit to these actions due to legal constraints [122]. We have no easy solutions to these challenges that a search committee alone can solve, but we encourage you to work directly and transparently with your candidates to creatively problem-solve. Nearly all the recommendations we make can be offered broadly to improve the experiences of all candidates, but will have an outsized effect on queer and trans individuals.

## References

1. Thoroughgood CN, Sawyer KB, Webster JR. Because you're worth the risks: Acts of oppositional courage as symbolic messages of relational value to transgender employees. *J Appl Psychol.* 2021;106:399–421. doi:10.1037/apl0000515
2. Cech EA, Waidzunus TJ. Systemic inequalities for LGBTQ professionals in STEM. *Sci Adv.* 2021;7. doi:10.1126/sciadv.abe0933
3. Maloy J, Kwapisz MB, Hughes BE. Factors Influencing Retention of Transgender and Gender Nonconforming Students in Undergraduate STEM Majors. *CBE Life Sci Educ.* 2022;21: ar13. doi:10.1187/cbe.21-05-0136
4. Freeman JB. Measuring and Resolving LGBTQ Disparities in STEM. *Policy Insights from the Behavioral and Brain Sciences.* 2020;7:141–148. doi:10.1177/2372732220943232
5. Hanasono LK, Broido EM, Yacobucci MM, Root KV, Peña S, O'Neil DA. Secret service: Revealing gender biases in the visibility and value of faculty service. *J Divers High Educ.* 2019;12: 85–98. doi:10.1037/dhe0000081
6. Siegel DP. Transgender experiences and transphobia in higher education. *Social Compass.* 2019;13: e12734. doi:10.1111/soc4.12734
7. Moss-Racusin CA, Rabasco H. Reducing gender identity bias through imagined intergroup contact. *J Appl Soc Psychol.* 2018;48:457–474. doi:10.1111/jasp.12525
8. Gazzola SB, Morrison MA. Cultural and Personally Endorsed Stereotypes of Transgender Men and Transgender Women: Notable Correspondence or Disjunction? *International Journal of Transgenderism.* 2014;15: 76–99. doi:10.1080/15532739.2014.937041
9. Mckinnon R. Stereotype Threat and Attributional Ambiguity for Trans Women. *Hypatia.* 2014;29: 857–872. Available: <http://www.jstor.org/stable/24542107>
10. Cech EA, Pham MV. Queer in STEM Organizations: Workplace Disadvantages for LGBT Employees in STEM Related Federal Agencies. *Soc Sci.* 2017;6: 12. doi:10.3390/socsci6010012
11. Nolan MM, Blythe IM, Vincent-Ruz P. Behind Closed Doors: The Untold Challenges of Transgender and Nonbinary Graduate Students in Chemistry. *ChemRxiv.* 2024; working paper. doi:10.26434/chemrxiv-2024-8nq9g
12. Nakajima K, Jin CH. Bills targeting trans youth are growing more common — and radically reshaping lives. NPR. 28 Nov 2022. Available: <https://www.npr.org/2022/11/28/1138396067/transgender-youth-bills-trans-sports>. Accessed 21 Feb 2024.
13. Human Rights Campaign Foundation. State Equality Index. In: Human Rights Campaign [Internet]. 2024 [cited 21 Feb 2024]. Available: <https://www.hrc.org/resources/state-equality-index>
14. GATE, Berianidze L, Castellanos E, Honorika K. Anti-gender mobilizing: Global and Regional Conversations. New York City: Global Action for Trans Equality; 2022. Available: <https://gate.ngo/anti-gender-mobilizing-global-and-regional-conversations/>
15. Getz LJ, de Oliveira BFR, Pérez-López E. We need a Pride in Microbiology Network. *Nat Microbiol.* 2023;8: 999–1000. doi:10.1038/s41564-023-01394-y
16. Gregor R, Johnston J, Coe LSY, Evans N, Forsythe D, Jones R, et al. Building a queer- and trans-inclusive microbiology conference. *mSystems.* 2023; e0043323. doi:10.1128/mSystems.00433-23
17. Kinkaid E. Will we avert geography's "trans failure?" American Association of Geographers. 26 Feb 2024. Available: <https://www.aag.org/will-we-avert-geography-trans-failure/>. Accessed 19 Apr 2024.
18. Aghi K, Anderson BM, Castellano BM, Cunningham A, Delano M, Dickinson ES, et al. Rigorous science demands support of transgender scientists. *Cell.* 2024;187: 1327–1334. doi:10.1016/j.cell.2024.02.021
19. Langin K. LGBTQ Ph.D. graduates will soon be counted in key U.S. survey. *Science Careers.* 14 May 2024. doi:10.1126/science.z0d1u4l
20. Freeman JB. US agency obstructs LGBTQ+ equity in science. *Science.* 2024;384: 169. doi:10.1126/science.ado5636
21. Blumenfeld WJ, Weber GN, Rankin S. In our own voice: Campus climate as a mediating factor in the persistence of LGBT students, faculty, and staff in higher education. In: Chamness Miller P, Mikulec E, editors. *Queering classrooms: Personal narratives and educational practices to support LGBTQ youth in schools.* Charlotte, North Carolina: Information Age Publishing Inc.; 2016.
22. Conron KJ, O'Neill KK, Goldberg AE, Guardado R. Experiences of LGBTQ People in Four-Year Colleges and Graduate Programs. UCLA School of Law Williams Institute; 2022 May. Available: <https://williamsinstitute.law.ucla.edu/publications/lgbtq-colleges-grad-school/>
23. Bracic A, Callier SL, Price WN 2nd. Exclusion cycles: Reinforcing disparities in medicine. *Science.* 2022;377: 1158–1160. doi:10.1126/science.abo2788
24. Fine E, Handelsman J. *Searching for Excellence & Diversity: A Guide for Search Committees.* Madison, Wisconsin: Women in Science & Engineering Leadership Institute - University of Madison-Wisconsin; 2012.
25. Bhalla N. Strategies to improve equity in faculty hiring. *Mol Biol Cell.* 2019;30: 2744–2749. doi:10.1091/mbc.E19-08-0476
26. McKenzie BJ. *Workplace Experiences of Transgender Faculty at Institutions of Higher Education.* Vance J, editor. Doctor of Philosophy of Education, Northcentral University. 2020. Available: <https://www.proquest.com/docview/2461972497?pq-origsite=gscholar&fromopenview=true&source-type=Dissertations%20&%20Theses>
27. Patridge EV, Barthelemy R, Rankin SR. Factors impacting the academic climate for LGBT STEM faculty. *JWM.* 2014;20: 75–98. doi:10.1615/JWomenMinorScienEng.2014007429
28. Wright-Mair R, Marine SB. The impact of relationships on the experiences of racially minoritized LGBTQ+ faculty in higher education. *J Divers High Educ.* 2023;16: 673–683. doi:10.1037/dhe0000373
29. Davis TJ, Greer TW, Sisco S, Collins JC. "Reclaiming My Time" Amid Organizational Change: A Dialectical Approach to Support the Thriving and Career Development for Faculty at the Margins. *Advances in Developing Human Resources.* 2020;22: 23–40. doi:10.1177/1523422319885115
30. Worthen MGF. Queer identities in the 21st century: Reclamation and stigma. *Curr Opin Psychol.* 2023;49: 101512. doi:10.1016/j.copsyc.2022.101512
31. Atshan S 'ed. *Queer Palestine and the Empire of Critique.* Redwood City, CA : Standford University Press; 2020. Available: <https://www.sup.org/books/title/?id=30833>
32. Boustani K, Taylor KA. Navigating LGBTQ+ discrimination in academia: where do we go from here? *Biochem.* 2020;42: 16–20. doi:10.1042/BIO20200024
33. Wright-Mair R. The Costs of Staying: Experiences of Racially Minoritized LGBTQ + Faculty in the Field of Higher Education. *Innov High Educ.* 2023;48: 329–350. doi:10.1007/s10755-022-09620-x
34. Haynes C, Sweedler J. Are We There Yet? Biases in Hiring Women Faculty Candidates. *Anal Chem.* 2015;87: 6989. doi:10.1021/acs.analchem.5b02454
35. Kayes P. *New Paradigms for Diversifying Faculty and Staff in Higher Education: Uncovering Cultural Biases in the Search and Hiring Process.* Multicultural Education. 2006;14: 65–69. Available: <https://www.semanticscholar.org/paper/0b6c7dad406b4333debc39219ccac4689770535d>
36. Crenshaw K. Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Rev.* 1991;43: 1241–1299. doi:10.2307/1229039
37. Evans NJ. The impact of an LGBT Safe Zone project on campus climate. *J Coll Stud Dev.* 2002;43: 522–539. Available: <https://psycnet.apa.org/fulltext/2002-17472-007.pdf>
38. Goldberg AE, Matsuno E, Beemyn G. "I Want to Be Safe...And I Also Want a Job": Career Considerations and Decision-Making Among Transgender Graduate Students. *Couns Psychol.* 2021;49: 1147–1187. doi:10.1177/00110000211037671
39. LaScotte DK. Singular they: An empirical study of generic pronoun use. *Am Speech.* 2016;91: 62–80. doi:10.1215/00031283-3509469
40. Collier D, Zhang C. Can We Reduce Bias in the Recruiting Process and Diversify Pools of Candidates by Using Different Types of Words in Job Descriptions? Cornell University; 2016 Oct. Report No.: ILRHR 6640. Available: <https://hdl.handle.net/1813/74363>
41. Ryan JM. Expressing identity: toward an understanding of how trans individuals navigate the barriers and opportunities of official identity. *Indian J Gend Stud.* 2020;29: 349–360. doi:10.1080/09589236.2019.1570841
42. Rasmussen K, Chen J, Colquhoun RL, Frentz S, Hiatt L, Kosciesza AJ, et al. Gender Inclusive Methods in Studies of STEM Practitioners. *arXiv [stat.AP].* 2023. Available: <http://arxiv.org/abs/2307.15802>
43. Kronk CA, Everhart AR, Ashley F, Thompson HM, Schall TE, Goetz TG, et al. Transgender data collection in the electronic health record: Current concepts and issues. *J Am Med Inform Assoc.* 2021;29: 271–284. doi:10.1093/jamia/ocab136
44. Casper AMA, Atadero RA, Fuselier LC. Revealing the queer-spectrum in STEM through robust demographic data collection in undergraduate engineering and computer science courses at four institutions. *PLoS One.* 2022;17: e0264267. doi:10.1371/journal.pone.0264267
45. Sanchez D, Guerra RC, Farrell S. Demographic Data Collection of LGBTQ+ Identities: Barriers and Motivations. 2022 ASEE Annual Conference & Exposition. American Society for Engineering Education; 2022. p. 13.

46. Bond A, Kelly T. A quick guide to data collection for LGBTQ+ characteristics. 2024. doi:10.6084/m9.figshare.24633756.v1
47. Liemohn MW, Linderman JJ, Settles IH. Space physics guide to STRIDE: Strategies and tactics for recruiting to improve diversity and excellence. *Frontiers in Astronomy and Space Sciences*. 2023;10. doi:10.3389/fspas.2023.1152567
48. Michel LV, Forsythe D. "If I don't, who will?". *ASBMB Today*. 2022 [cited 22 Feb 2024]. Available: <https://www.asbmb.org/asbmb-today/opinions/031022/if-i-don-t-who-will>
49. Weiser SG, Wagner TL, Lawter M. Double jeopardy: (Trans) versing higher ed as queer trans advocates. *Journal of Curriculum and Pedagogy*. 2018;15: 323–339. doi:10.1080/15505170.2018.1542359
50. Bombaci SP, Pejchar L. Advancing Equity in Faculty Hiring with Diversity Statements. *Bioscience*. 2022;72: 365–371. doi:10.1093/biosci/biab136
51. Roepke T. Diversity Statement Questions. figshare; 2024. doi:10.6084/M9.FIGSHARE.26279146.V1
52. Lawless B. Documenting a labor of love: emotional labor as academic labor. *Review of Communication*. 2018;18: 85–97. doi:10.1080/15358593.2018.1438644
53. Bellas ML. Emotional Labor in Academia: The Case of Professors. *Ann Am Acad Pol Soc Sci*. 1999;561: 96–110. doi:10.1177/000271629956100107
54. Hu X, Hancock A-M. State of the Science: Introduction to Implicit Bias Review 2018-2020. Kirwan Institute, The Ohio State University; 2024 May. Report No.: APA-7. Available: <https://kirwaninstitute.osu.edu/research/state-science-introduction-implicit-bias-review-2018-2020>
55. Nadal KL, Davidoff KC, Davis LS, Wong Y. Emotional, Behavioral, and Cognitive Reactions to Microaggressions: Transgender Perspectives. *Psychology of Sexual Orientation and Gender Diversity*. 2014;1: 72. doi:10.1037/sgd0000011
56. Gazzola S. Stereotypes of transgender women and men: Content, strength, and valence. Morrison M, editor. Master of Arts, The University of Saskatchewan. 2012. Available: <http://hdl.handle.net/10388/ETD-2012-03-372>
57. Langin K. New, more inclusive journal policies ease author name changes on published papers. *Science Careers*. 25 Feb 2021. Available: <https://www.science.org/content/article/new-more-inclusive-journal-policies-ease-author-name-changes-published-papers>
58. Gaskins LC, McClain CR. Visible name changes promote inequity for transgender researchers. *PLoS Biol*. 2021;19: e3001104. doi:10.1371/journal.pbio.3001104
59. Kimberly Zayhowski, MS, CGC (she/her), Nina Sheridan, MS, (she/her). Queer Erasure in Standards of Professionalism. Perspectives of the National Society of Genetic Counselors. 2022 [cited 23 Jan 2024]. Available: <https://perspectives.nsgc.org/Article/queer-erasure-in-standards-of-professionalism>
60. Eberhardt M, Facchini G, Rueda V. Gender Differences in Reference Letters: Evidence from the Economics Job Market. *Econ J*. 2023;133: 2676–2708. doi:10.1093/ej/uead045
61. Madera JM, Hebl MR, Dial H, Martin R, Valian V. Raising Doubt in Letters of Recommendation for Academia: Gender Differences and Their Impact. *J Bus Psychol*. 2019;34: 287–303. doi:10.1007/s10869-018-9541-1
62. Dutt K, Pfaff DL, Bernstein AF, Dillard JS, Block CJ. Gender differences in recommendation letters for postdoctoral fellowships in geoscience. *Nat Geosci*. 2016;9: 805–808. doi:10.1038/ngeo2819
63. Trix F, Psenka C. Exploring the Color of Glass: Letters of Recommendation for Female and Male Medical Faculty. *Discourse & Society*. 2003;14: 191–220. doi:10.1177/0957926503014002277
64. Madera JM, Hebl MR, Martin RC. Gender and letters of recommendation for academia: agent and communal differences. *J Appl Psychol*. 2009;94: 1591–1599. doi:10.1037/a0016539
65. Chang VY, Munson M, Termini CM. Approaches to address bias in letters of recommendation. *Trends Pharmacol Sci*. 2023;44: 321–323. doi:10.1016/j.tips.2023.03.002
66. The Rockefeller University. Bystander Intervention. In: Education & Training [Internet]. 10 Dec 2019 [cited 22 Feb 2024]. Available: <https://www.rockefeller.edu/education-and-training/bystander-intervention/>
67. LeHigh University. What is Bystander Intervention. In: LeHigh University [Internet]. [cited 22 Feb 2024]. Available: <https://studentaffairs.lehigh.edu/content/what-bystander-intervention>
68. National Sexual Violence Resource Center. Bystander Intervention Tips and Strategies. In: National Sexual Violence Resource Center [Internet]. [cited 22 Feb 2024]. Available: [https://www.nsvrc.org/sites/default/files/2018-02/publications\\_nsvrc\\_tip-sheet\\_bystander-intervention-tips-and-strategies\\_1.pdf](https://www.nsvrc.org/sites/default/files/2018-02/publications_nsvrc_tip-sheet_bystander-intervention-tips-and-strategies_1.pdf)
69. Smith-Johnson M. Transgender Adults Have Higher Rates Of Disability Than Their Cisgender Counterparts. *Health Aff*. 2022;41: 1470–1476. doi:10.1377/hlthaff.2022.00500
70. Fredriksen-Goldsen KI, Kim H-J, Barkan SE. Disability among lesbian, gay, and bisexual adults: disparities in prevalence and risk. *Am J Public Health*. 2012;102: e16–21. doi:10.2105/AJPH.2011.300379
71. Greene SM, Schachat SR, Arita-Merino N, Cao XE, Gurnani H, Heyns M, et al. Accessible interview practices for disabled scientists and engineers. *iScience*. 2024;27: 110220. doi:10.1016/j.isci.2024.110220
72. Cohen J, van der Meulen Rodgers Y. An intersectional analysis of long COVID prevalence. *Int J Equity Health*. 2023;22: 261. doi:10.1186/s12939-023-02072-5
73. Kuehn BM. Sexual Minorities Have Greater COVID-19 Risk Factors. *JAMA*. 2021;325: 1136. doi:10.1001/jama.2021.3356
74. Hennekam S, Dumazert J-P. Intersectional (in)visibility of transgender individuals with an ethnic minority background throughout a gender transition: Four longitudinal case studies. *Gend Work Organ*. 2023;30: 1585–1610. doi:10.1111/gwao.12992
75. Jourian TJ. Who's trans(\*)forming who? *Journal of Autoethnography*. 2022;3: 226–230. doi:10.1525/joa.2022.3.2.226
76. Bailey A. "Go home to the second wave!": Discourses of trans inclusion and exclusion in a queer women's online community. *Discourse, Context & Media*. 2022;50: 100656. doi:10.1016/j.dcm.2022.100656
77. Lee Aultman B, Currah P, Brettschneider M. 3. Politics outside the Law: Transgender Lives and the Challenge of Legibility. *LGBTQ Politics*. New York University Press; 2017. pp. 34–53. Available: <https://www.degruyter.com/document/doi/10.18574/nyu/9781479849468.003.0007/html?lang=en>
78. University of Nevada Queer and LGBT+ Advocacy Board. UNR LGBTQIA2+ Resource Guide.docx. In: University of Nevada Queer and LGBT+ Advocacy Board [Internet]. [cited 22 Feb 2024]. Available: <https://nevada.app.box.com/s/liom6sj41garvpumrsoqov7n0pej1a9n>
79. EU Diversity Self-Assessment Tool. In: EU Diversity 2024 [Internet]. 2024 [cited 16 Jul 2024]. Available: <https://eudiversity2024.eu/eu-diversity-self-assessment-tool/>
80. Shannon M. The labour market outcomes of transgender individuals. *Labour Econ*. 2022;77: 102006. doi:10.1016/j.labeco.2021.102006
81. Grant JM, Mottet LA, Tanis J, Harrison J, Herman JL, Keisling M. Injustice at Every Turn: A Report of the National Transgender Discrimination Survey. Washington: National Center for Transgender Equality and National Gay and Lesbian Task Force; 2011. Available: [https://transequality.org/sites/default/files/docs/resources/NTDS\\_Report.pdf](https://transequality.org/sites/default/files/docs/resources/NTDS_Report.pdf)
82. The Wage Gap Among LGBTQ+ Workers in the United States. In: Human Rights Campaign [Internet]. [cited 23 Jan 2024]. Available: <https://www.hrc.org/resources/the-wage-gap-among-lgbtq-workers-in-the-united-states>
83. Toosi NR, Mor S, Semnani-Azad Z, Phillips KW, Amanatullah ET. Who Can Lean In? The Intersecting Role of Race and Gender in Negotiations. *Psychol Women Q*. 2019;43: 7–21. doi:10.1177/0361684318800492
84. Recalde MP, Vesterlund L. Gender Differences in Negotiation: Can Interventions Reduce the Gap? *Annu Rev Econom*. 2023;15: 633–657. doi:10.1146/annurev-economics-092022-115353
85. Hernandez M, Avery DR, Volpone SD, Kaiser CR. Bargaining while Black: The role of race in salary negotiations. *J Appl Psychol*. 2019;104: 581–592. doi:10.1037/apl0000363
86. Rivera LA. When Two Bodies Are (Not) a Problem: Gender and Relationship Status Discrimination in Academic Hiring. *Am Sociol Rev*. 2017;82: 1111–1138. doi:10.1177/0003122417739294
87. Ball N. My Fave Queer Chemist. 2020. Available: <https://podcasters.spotify.com/pod/show/mfqc/episodes/Dr--Nicholas-Ball--Pomona-College-ei1t0b>
88. Catanzaro SJ. Evaluating Faculty's Multifaceted Work. *Inside Higher Ed*. 13 Jul 2023. Available: <https://www.insidehighered.com/opinion/career-advice/2023/07/13/academe-needs-new-way-evaluating-faculty-work-opinion>. Accessed 19 Apr 2024.
89. Amarante V, Burger R, Chelwa G, Cockburn J, Kassouf A, McKay A, et al. Underrepresentation of developing country researchers in development research. *Appl Econ Lett*. 2022;29: 1659–1664. doi:10.1080/13504851.2021.1965528

90. Nakamura G, Soares BE, Pillar VD, Diniz-Filho JAF, Duarte L. Three pathways to better recognize the expertise of Global South researchers. *npj Biodiversity*. 2023;2: 1–4. doi:10.1038/s44185-023-00021-7
91. Esteban C, Ramos-Pibernus A, Irizarry-Rodríguez A, Díaz-Medero LX, Mattei-Torres E, Jiménez-Ricuarde C. LGBTQ+ research in Puerto Rico: What has been documented? In: Chaparro RA, editor. *Latinx queer psychology: Contributions to the study of LGBTQ+, sexual and gender diversity issues*. Switzerland: Springer Nature Switzerland AG; 2022. pp. 69–88. doi:10.1007/978-3-030-82250-7\_5
92. Karasmanis EP. Doing science in difficult socioeconomic circumstances. *Mol Biol Cell*. 2018;29: 1271–1273. doi:10.1091/mbc.E17-11-0645
93. Liu F, Rahwan T, AlShebli B. Non-White scientists appear on fewer editorial boards, spend more time under review, and receive fewer citations. *Proc Natl Acad Sci U S A*. 2023;120: e2215324120. doi:10.1073/pnas.2215324120
94. Espin J, Palmas S, Carrasco-Rueda F, Riemer K, Allen PE, Berkebile N, et al. A persistent lack of international representation on editorial boards in environmental biology. *PLoS Biol*. 2017;15: e2002760. doi:10.1371/journal.pbio.2002760
95. Taşkın Z, Taşkın A, Doğan G, Kulczycki E. Factors affecting time to publication in information science. *Scientometrics*. 2022;127: 7499–7515. Available: <https://www.google.com/url?q=https://link.springer.com/article/10.1007/s11192-022-04296-8&sa=D&source=docs&ust=1721153321215517&usq=AOvVaw3FQsdt0YHnx82Pul66RTfG>
96. Staniscuaski F, de Oliveira L, Infanger C, Tzanakou C. Is Brazil ready for gender equality in science? In: Nature Publishing Group UK [Internet]. 19 Dec 2023 [cited 21 Feb 2024]. doi:10.1038/d41586-023-04060-9
97. Oliveira W, Soares BE, Marques P, Souza C, Dias AS, Bello M, et al. Advancing racial equity in Brazil's academia. *Science*. 2022;376: 707. doi:10.1126/science.abq5212
98. Mendes WG, Silva CMFP da. Homicídios da População de Lésbicas, Gays, Bissexuais, Transsexuais ou Transgêneros (LGBT) no Brasil: uma Análise Espacial. *Ciência saúde coletiva*. 2020;25: 1709–1722. doi:10.1590/1413-81232020255.33672019
99. Happen – Arte e Política LGBTQI+, Grupo Gay da Bahia. Dossiê denuncia 273 mortes e violências de pessoas LGBT em 2022. maio 8 2023 [cited 21 Feb 2024]. Available: <https://observatoriomorteseviolenciaslgbtbrasil.org/dossie/mortes-lgbt-2022/>
100. Haitembu RK, Mbongo EN, Brown A. The job interview experiences of a Namibian transgender teacher graduate in pursuing employment. *African Journal of Career Development*. 2023;5: 8. doi:10.4102/ajcd.v5i1.94
101. International Labor Organization. *Pride at work: Study on discrimination at work on the basis of sexual orientation and gender identity in South Africa*. International Labor Organization; 2016 May. Report No.: 4. Available: <https://www.ilo.org/publications/study-discrimination-work-basis-sexual-orientation-and-gender-identity-0>
102. Diale BM, Brown A, Kagola O. Gender diversity and sexual orientation in the South African workplace. *African Journal of Career Development*. 2023;5: 3. doi:10.4102/ajcd.v5i1.103
103. Sithole S. Challenges faced by gay, lesbian, bisexual and transgender (glbt) students at a South African university. *The Journal for Transdisciplinary Research in Southern Africa*. 2015;11: 193–219. doi:10.4102/TDV11i4.54
104. Banda Chitsamatanga B. Do we have the right to call ourselves an inclusive university? Untold stories of queer students at a rural university in Eastern Cape Province, South Africa. *Sexualities*. 2023;0: 1–22. doi:10.1177/13634607231208052
105. Andrews G, Nichols H. Developing academic identities as gay male lecturers at south African universities: Two autoethnographic narratives. *Alternation (Durb)*. 2021;28: 38–64. doi:10.29086/2519-5476/2021/v28n2a3
106. Matthyse G. Heteronormative higher education: Challenging this status quo through LGBTQI awareness-raising. *South African Journal of Higher Education*. 2017;31: 112–126. doi:10.20853/31-4-890
107. Buthelezi J, Brown A. In(ex)clusion of transgender students in South African higher education institutions. *Transformation in Higher Education*. 2023;8: a278. Available: <https://thejournal.org.za/index.php/thejournal/article/view/278/578>
108. Paliwal A. How India's caste system limits diversity in science – in six charts. *Nature*. 11 Jan 2023;613: 230–234. Available: <https://www.nature.com/immersive/d41586-023-00015-2/index.html>. Accessed 24 Jul 2024.
109. Muralidhar S, Ananthanarayanan V. Women's representation in Indian academia and conferences. *Commun Biol*. 2024;7: 389. doi:10.1038/s42003-024-06058-z
110. National Legal Services Authority v. Union of India and others. India: Supreme Court. 2024. Available: <https://main.sci.gov.in/jonew/judis/41411.pdf>
111. Parashar S. Inclusion of transgender community within socially and educationally backward classes: Examining the deeper concerns. *J Indian Law Inst*. 2017;2: 105–123. Available: <https://ili.ac.in/pdf/sakshi.pdf>
112. Simhadri YC. *Denotified tribes, a sociological analysis*. New Delhi: Classical Publishing Company; 1991. Available: [https://books.google.com/books/about/Denotified\\_Tribes\\_a\\_Sociological\\_Analysis.html?id=ahgcAAAAIAAJ](https://books.google.com/books/about/Denotified_Tribes_a_Sociological_Analysis.html?id=ahgcAAAAIAAJ)
113. India Code: Section 377. Unnatural offences. Government of India. Sect. 377, Act 26 1955. Available: [https://www.indiacode.nic.in/show-data?actid=AC\\_CEN\\_5\\_23\\_00037\\_186045\\_1523266765688&orderno=434](https://www.indiacode.nic.in/show-data?actid=AC_CEN_5_23_00037_186045_1523266765688&orderno=434)
114. Pasricha A. Trans people demand “horizontal reservation” What is horizontal reservation and why do trans people want it? *Jagran Josh*. 23 Jan 2024. Available: <https://www.jagranjosh.com/general-knowledge/trans-people-demand-horizontal-reservation-what-is-horizontal-reservation-and-why-do-trans-people-want-it-1706013131-1>. Accessed 1 Aug 2024.
115. Raheja G, Manocha SD, Mishra A, Vashishth SSC, Chadha A, Jain A, et al. *Accessibility guidelines and standards for higher education institutions and universities*. New Delhi: University Grants Commission; 2022 Jun. Report No.: 110002. Available: [https://www.ugc.gov.in/pdfnews/8381868\\_Draft-Guidelines-UGC\\_20-Feb-2021.pdf](https://www.ugc.gov.in/pdfnews/8381868_Draft-Guidelines-UGC_20-Feb-2021.pdf)
116. *Guidelines for Gender Champions*. University Grants Commission of India; Ministry of Human Resource Development; 2015 Dec. Report No.: D.O. letter No. F.91-2/2014(GS). Available: [https://www.ugc.gov.in/pdfnews/7284626\\_Gender-Champion.pdf](https://www.ugc.gov.in/pdfnews/7284626_Gender-Champion.pdf)
117. Lemerand S, Duran A. *Supporting Queer and Trans Students Amidst a Rise in Anti Queer and Trans Legislation and Policies*. Reczek R, editor. PhD, Ohio State University. 2024. doi:10.4018/979-8-3693-2853-8.ch012
118. Bush K. *Anti-Queer Policy as it Translates to Violence Against the LGBT Community*. Stracuzzi N, editor. Bachelor of Arts with Honors, University of New Hampshire. 2023. Available: <https://scholars.unh.edu/honors/780/>
119. Stacey L. *Anti-LGBTQ State Policies and Population Health, 2014-2020*. Reczek R, editor. Doctor of Philosophy, The Ohio State University. 2023. Available: [https://etd.ohiolink.edu/acprod/odb\\_etd/etd/r/1501/10?clear=10&p10\\_accession\\_num=osu1689271170943654](https://etd.ohiolink.edu/acprod/odb_etd/etd/r/1501/10?clear=10&p10_accession_num=osu1689271170943654)
120. The Chronicle Staff. *DEI Legislation Tracker*. The Chronicle of Higher Education. 9 Feb 2024. Available: <https://www.chronicle.com/article/here-are-the-states-where-lawmakers-are-seeking-to-ban-colleges-dei-efforts>. Accessed 22 Feb 2024.
121. Flannery ME. *Anti-DEI Laws Take Aim at Students of Color and LGBTQ+ Students*. NEA Today. 14 Feb 2024. Available: <https://www.nea.org/nea-today/all-news-articles/anti-dei-laws-take-aim-students-color-and-lgbtq-students>. Accessed 22 Feb 2024.
122. *Students For Fair Admissions, Inc. v. President and Fellows of Harvard College*. United States Reports. 2023. Available: <https://www.supremecourt.gov/>

## Acknowledgements

We would like to acknowledge Elliott J. Marston, Fátima Sancheznieto, Robert W. Thacker, and several anonymous contributors for their thoughtful comments on an earlier version of this manuscript.

JLW would like to acknowledge comprehensive team-science training provided by the The National Science Foundation-funded EMergent Ecosystem Responses to ChanGE (EMERGE) Biology Integration Institute as part of their summer program, which helped make this collaborative effort possible. CRC was supported by an NSF Postdoctoral Research Fellowships in Biology Program (2305961).