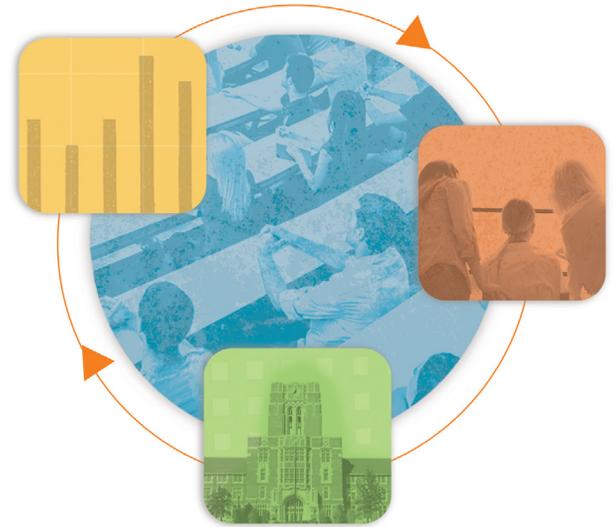




Preventing Sexual Harassment and Reducing Harm by Addressing Abuses of Power in Higher Education Institutions



Edited by Daniel L. Kleinman and Jeena M. Thomas

Authored by members of the Remediation Working Group of the Action Collaborative on Preventing Sexual Harassment in Higher Education¹

About Products of the Action Collaborative on Preventing Sexual Harassment in Higher Education

This Perspective Paper is a product of the National Academies' Action Collaborative on Preventing Sexual Harassment in Higher Education, which identifies and discusses a topic that is in need of research. The views expressed in this paper are those of the authors and not necessarily of the authors' organizations or the Action Collaborative on Preventing Sexual Harassment in Higher Education. They do not represent formal consensus positions of the National Academies of Sciences, Engineering, and Medicine. Copyright by the National Academy of Sciences. All rights reserved.

Learn more: www.nationalacademies.org/sexualharassmentcollaborative

¹Information about the authors can be found at the end of the paper.

INTRODUCTION

To reduce the risk of sexual harassment in higher education institutions, the National Academies of Sciences, Engineering, and Medicine report *Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine* (2018) recommended “reducing hierarchical power structures and diffusing power more broadly among faculty and trainees.” In order to address this recommendation, it is important to understand how the abuse of power can contribute to sexual harassment and consider ways in which inappropriate use of power differentials can be mitigated.

Sexual harassment consists of three types of behavior: “gender harassment (sexist hostility and crude behavior), unwanted sexual attention (unwelcome verbal or physical sexual advances), and sexual coercion (when favorable professional or educational treatment is conditioned on sexual activity)” (NASEM, 2018). Any of these behaviors can stem from abuses of the power of one individual over another (Uggen and Blackstone, 2004; Elias et al., 2013). Within this context, power differentials occur between two people (or groups) who have differences in positional authority or identity (Magee and Galinsky, 2008); that is, when one person (or group) has “more or less influence or control over a situation and valued resources based on their position, title, gender, race, level of authority, etc.” (Umpress and Thomas, 2022).

Research shows that organizations with large power differentials are more likely to be associated with high rates of sexual harassment than organizations with smaller power differentials (Ilies et al., 2003; NASEM, 2018; O’Callaghan et al., 2021; Sutton et al., 2021), and power differentials are a key feature of the structure of higher education (Fitzgerald and Cortina, 2018; Freire, 2018; Vanstone and Grierson, 2022). In addition, sexual harassment is found to occur in environments where there is disrespect (e.g., microaggressions and verbal

harassments), resulting in an *uncivil* environment (Lim and Cortina, 2005; NASEM, 2018). Incivility can result from the same “dominance and power that drive instigation of sexual harassment” (Kabat-Farr and Walsh, 2022).

Research also reveals that when power differentials are abused and sexual harassment occurs, the consequences can be more negative than harassment coming from an individual with equal or less power. Those who experience sexual harassment from someone with more power “experience greater impacts and negative consequences for [their] job satisfaction, intent to leave one’s job, and organizational commitment, as well as health-related variables such as depression, emotional exhaustion, and physical well-being” (NASEM, 2018). Additionally, the more power associated with a person committing sexual harassment, the more harmful the harassing behavior is perceived to be by the one experiencing it (Cortina et al., 2002; NASEM, 2018).

According to the National Academies’ 2018 report and other research, potential explanations for the increased harm associated with sexual harassment resulting from the misuse of power differentials include learned helplessness by those with less power who experience sexual harassment (Thacker and Ferris, 1991; NASEM, 2018); fear of sexual coercion from someone with more power (Cortina et al., 2002; NASEM, 2018); and retaliation from those abusing their power to commit sexual harassment that could affect the work or career of those with less power (Cortina et al., 2002; NASEM, 2018). Taken together, the abuse of power differentials in higher education increases the chances for sexual harassment to occur and increases the level of harm experienced by those affected by sexual harassment.

Differences in power, of course, are inherent in social relations and institutions, and they can be used positively or negatively (Gibson et al., 2014; Vanstone and Grierson, 2022). This paper

focuses on mitigating the negative aspects of power differentials—those that can take the form of sexual harassment or sexually harassing behavior toward individuals and groups.

Following an overview of power differentials in higher education, the paper describes the importance of understanding power differentials through an intersectional and equity lens. It then defines eight types of power differentials that frequently occur within academia, based on the following:

- Financial status
- Citizenship status
- Career
- Race
- Gender
- Sexual orientation
- Family status
- Health status

The definition of each type includes a hypothetical example of the power differential, suggestions for data to assess its scale and prevalence, and institutional case examples of mitigation. We end the paper with a call for action.

Recognizing that power differentials are engrained in society, the goal of this paper is to compel readers to advocate for and develop policies, practices, and innovative strategies by which institutions can acknowledge and remediate the misuse of power differentials and “develop supportive structures and systems for those who experience sexual harassment” (NASEM, 2018). We hope it inspires readers to take action—to implement strategies that diffuse abuses of power in their own institutions.

UNDERSTANDING POWER AND POWER DIFFERENTIALS IN HIGHER EDUCATION

Higher education institutions are typically organized with a hierarchical structure, where authority and

responsibility over various resources vary across positions (Bowles, 2022). A hierarchical structure is meant to establish order across responsibilities, facilitate coordination between positions, and motivate individuals to pursue increased authority or responsibility (Magee and Galinsky, 2008). Although hierarchies may not be inherently bad, they do result in differences in power, and significant power imbalances can result in power isolation, which can “foster and sustain sexual harassment” and prevent those with less power from seeking help without risk of retaliation (NASEM, 2018).

Power is understood as the amount of control and accessibility an individual has over rewards, punishments, and resources (Magee and Galinsky, 2008). For example, compared with others, an individual (such as a faculty member) or group (such as an institution) with power might have more control over or access to rewards (e.g., ability to promote) and desirable, beneficial resources (e.g., money for funding) or punishments (e.g., refusing to work with students without citizenship status; refusing to include women who might take time off for family) and undesirable, burdensome tasks (e.g., assigning invisible labor tasks, like time-consuming policy making, that will not bring personal scholarly benefit) (Fox, 2008; Magee and Galinsky, 2008; Griffin et al., 2011; Hirshfield and Joseph, 2012; Duncan, 2014; Guarino and Borden, 2017; Umphress and Thomas, 2022).

Once one party has power over another party, they can exert their control or access over resources in different ways. French et al. (1959) identified different ways in which individuals can use their power, including the following (see also Raven, 1992, 2008), which we believe can also be applied to groups:

- *Providing information* – ability to influence by persuading the best practice or behavior
- *Giving rewards* – ability to influence by providing a positive incentive

- *Applying pressure (coercion)* – ability to influence by threatening with a negative consequence
- *Providing expertise* – ability to influence by exerting superior insight or knowledge about what is best expected in conditions

How parties use their power can affect how others perceive an individual or group's power (Raven, 2008). Gibson et al. (2014) identified three ways (or framings) in which power differentials are perceived by faculty in academia:

1. *Authority framing* – looking at a relationship from an authority-figure perspective
2. *Subordinate framing* – looking at a relationship from a subordinate perspective
3. *Peer framing* – looking at a relationship from a peer perspective

The ways in which power is perceived by both parties (e.g., one individual/group might have an authority framing, while the other has a subordinate framing) signals who might have more power and who is more vulnerable and/or dependent. Contrastingly, a party might recognize the power they hold and see themselves with an authority framing when interacting with someone they have identified as having less power (or being more vulnerable) and perceive as having a subordinate framing. Understanding the effect one party's power has on another party can also help with identifying vulnerabilities and/or dependencies experienced by those with less power. For an individual, vulnerabilities might include immigration status, language status, housing status, physical isolation, insurance status, wage status, and arrest/incarceration status (Fitzgerald, 2021). In addition to the vulnerabilities noted by Fitzgerald, individuals and groups of individuals in academia can also experience vulnerabilities related to race, health, gender identity, sexual orientation, financing (e.g., salary adjustment, funding for travel, research equipment), and career advancement (e.g., tenure, promotion review) (O'Callaghan et al., 2021; Sutton et al., 2021). For example, PhD students

and postdoctoral fellows may depend on faculty supervisors for stipend or salary support. Similarly, PhD students, postdocs, and junior faculty depend on more senior faculty for letters of recommendation and, for junior faculty, support in tenure cases (O'Callaghan et al., 2021). Understanding the potential vulnerabilities that make individuals dependent on others can help mark power dynamics that could manifest as abuse (Sutton et al., 2021).

Furthermore, an individual's viewpoint of the power differences in a relationship can be affected by different identities (gender, race, class, etc.) or vulnerabilities (Cole, 2009; Fitzgerald and Cortina, 2018; Sutton et al., 2021). For example, although women in organizations may hold positions of power because of their job titles, a woman may still view some situations with a subordinate framing even while she is in an employment-based position of power. Indeed, individuals may experience multiple viewpoints of power where they may feel subordinate in one situation yet be an authority figure in another (Gibson et al., 2014) because of how a situation affects a particular vulnerability or identity. Two individuals, for example, might see each other from a peer framing because of their job titles, but one may feel subordinate to the other in certain situations because of a vulnerability or identity. Subsequently, *intersectionality*, or intersecting social identities,² especially for marginalized groups, is an important factor that contributes to how power is both used and perceived (Crenshaw, 1989; NASEM, 2021; Umphress and Thomas, 2022). The concept of intersectionality describes how the overlapping nature of social categories (such as being a woman and being Asian) combine to create advantage or disadvantage that is greater than just the sum of the experience for those with only one identity (Crenshaw, 1989). It is critical to consider the role of intersectionality when examining power dynamics and power differentials because its multiplicative

² Examples of social identities include race and ethnicity, sexual orientation, gender identity, age, and disability status.

effects “produce distinctive social arrangements of power and inequality based on structural constraints and differential access to power and resources” (Hefner, 2013, pp.15-24). Failing to account for intersectionality limits the conceptualization of the power dynamics and power differentials, and in turn, reduces the effectiveness of potential interventions.

Addressing the National Academies’ 2018 report recommendation to diffuse power differentials in order to reduce the probabilities of sexual harassment first necessitates an understanding of what power is, how it can be used, how it can influence the perception of both individuals and groups, and how power and the perception of power result in vulnerabilities. A few questions can help institutions recognize the manifestations of power in an environment so that they can take steps to mitigate and proactively prevent abuses of power by individuals and groups:

- Where are there power dynamics and what resources result in a power dynamic?
- How could power be used or misused in the environment?
- Using an intersectional lens, how is power being perceived by different individuals and/or groups?
- What vulnerabilities and identities are affected and how are those with different vulnerabilities and identities perceiving the party with power?

An example of an institutional strategy for dealing with individuals in sexual harassment cases is Utah State University’s Respondent Education for Employees and Students. This practice teaches respondents (i.e., individuals found responsible for sexual harassment) about the abuse of power dynamics and how to identify their own power and understand how to use that power in a positive or neutral way (see Box 1).

UNDERSTANDING POWER DIFFERENTIALS WITH AN EQUITY LENS

It is also important to understand and recognize power differentials with an equity lens,³ knowing that systems of oppression can affect how resources are controlled or made accessible and that differences in power can propagate systemic inequities. Specifically, when a system distributes resources to benefit some and punish others, favoring a dominant or majority group, then the system preserves oppression (Freire, 2018). Systems that allow for certain parties to have access to more resources, while other parties are oppressed, gives more power to those with more resources and results in privilege (Morgan, 2018).⁴ For example, research shows that systems and policies in higher education institutions reflect the “ideal worker norm” (Leskinen and Cortina, 2014; NASEM, 2020), which is the expectation that employees should be able to give long hours, constant availability, and visibility. The ideal worker norm assumes a “gendered separation” of work and family responsibilities; for example, men can have competitive careers while women are expected to manage caregiving responsibilities (Leskinen and Cortina, 2014; NASEM 2020). The ideal worker norm especially disadvantages women of color, that is, those who represent multiple identities, and perpetuates the ability for dominant groups to hold power, resulting in those in the dominant group having a level of privilege that gives them more power compared with those who have not historically been in the dominant group (Morgan, 2018). In fact, employers have punished those who do not meet the ideal worker norm, while rewarding

³ The authors define *equity* as the distribution of resources for the specific needs of a particular party, taking into consideration the party’s current access to resources. Comparatively, *equality* occurs when resources are distributed equally without taking into account the needs or access a party has to resources. (Umphress and Thomas, 2022).

⁴ The authors define *privilege* as the amount of power held by a party because of social identities or the structure of a system that results in more or less favorability, unearned advantage, or entitlement compared with another party (Privilege, 2021; Umphress and Thomas, 2022).

Utah State University's Respondent Remediation and Reintegration¹

Utah State University's (USU) Office of Equity created a dynamic remediation and reintegration strategy to utilize science-based education methods for individuals found responsible for sexual harassment (USU, 2021). Education strategies and topics vary and are adopted based on the severity of the respondent's actions and their individual risk assessment. A unique facet of USU's strategy is their education on power differentials, notably their work on understanding what creates power differentials and navigating power dynamics. Using PowerPoint presentations, videos, podcasts, and other materials, USU demonstrates an innovative approach to educating respondents of sexual harassment.

Paired with active engagement and open dialogue, USU's program aims to cultivate critical thinking on what power is, what power an individual has, and how to use or regulate one's own power. USU derives its accountability framework from the Science-based Treatment, Accountability, and Risk Reduction for Sexual Assault, or STARRSA, project (STARRSA, 2017). They are helping students correct accountability misconceptions and understand how accountability and responsibility are intrinsically tied with power. USU also took inspiration from *Manhood 2.0*, a project co-authored by Promundo-US and the University of Pittsburgh School of Medicine (2018). This program's lessons on power dynamics were used to inform USU's respondent education to increase awareness of power in relationships and how our understanding of gender, race, ethnicity, and other factors play a role in how much power individuals will have in society.

¹For more information, see <https://webassets.nationalacademies.org/files/PGA-CWSE-19-P-164/repository/year-2/utah-state-university-respondent-education-for-employees-and-students.pdf>.

those who meet expectations by giving promotions, funding, job security, and so forth (Leskinen and Cortina, 2014). Consequently, it is important to assess power with an equity lens that accounts for privilege so that the needs of groups typically oppressed are appropriately considered when giving access or control of resources.

While work is needed to restructure systems that result in continued oppression, one immediate strategy for navigating power differentials directly affected by systemic oppression is mentorship. Mentoring practices can create opportunities for mitigating abuses of power (including sexual harassment) between those of different careers and

across racial and gender differences. At the same time, formal mentorship (as agreed upon by both parties) can result in abusive or negative mentoring experiences because of the inherent power imbalance between a mentor and mentee (NASEM, 2019). Dinh et al. (2022) explored ways in which those who appear to enact power in responsible ways (e.g., a formally assigned mentor) can actually be given license by others, that is, "moral licensing," to engage in problematic and nefarious behavior (e.g., forms of sexual harassment). When moral licensing occurs, mentors and those in power are more likely to get away with uncivil behaviors and sexual harassment because they are not seen as a perpetrator, but rather someone who is still a

“good person” (Dinh et al., 2022). The National Academies’ 2019 report *The Science of Effective Mentorship in STEM* recommends that institutions should support and utilize mentoring programs that recognize and understand the diversity represented between mentees and mentors. By doing so, institutions can recognize and intentionally mitigate various vulnerabilities and identities that can lead to power imbalances and, ultimately, potential abuses of power. Effective mentorship—especially those that address power differentials between individuals across race and gender—takes equity and diversity into consideration and can help reduce stereotype threat, affirm a sense of belonging, increase innovation and productivity, and might contribute to increased representation of underrepresented groups in sciences (NASEM, 2019).

TYPES OF POWER DIFFERENTIALS

It can be helpful to break down the types of power observed and used in a situation by identifying specific vulnerabilities of an individual or group. Then, using an equity lens, institutions can recognize how an abuse of power can affect a particular vulnerability and put an individual or group at risk for sexual harassment, in order to strategically remediate and prevent future abuses. While neither exhaustive nor specific to academia, the types of power differentials discussed here—financial, citizenship status, career, race, gender, sexual orientation or gender identity, family status, and health status—affect resources that are particularly relevant and prevalent in higher education institutions, including how resources are made available and/or how and by whom they are distributed. Each of the following types of power differentials shows how individuals or groups are put in situations that can result in increased dependency, incivility, or oppression by another, which can increase the chances of sexual harassment if power is abused in the relationship. We recognize that these power differentials can intersect and prove to be multifaceted in academia.

For instance, students in teaching roles (teaching assistants) can feel vulnerable knowing that both their institution and an overseeing faculty member exert power by, respectively, being the source of their stipend funding (financial based) and supervising their teaching practices (career based). The student may experience inappropriate or unrealistic workloads but may not have power to reconcile the situation. For the purposes of this paper, we primarily focus on singular relationships (i.e., power differentials experienced between one group and/or one individual and another), and we hope additional work will explore the complexities of power differentials and how to mitigate related abuses of power.

Evidence of the prevalence for how commonly someone might experience a type of power differential can be found by analyzing nationwide data or data within an organization. For each definition, we have highlighted sources of data that can help with analyzing the scale of the type of power differential. After recognizing types of power differentials and assessing potential vulnerabilities in an environment, institutions can take proactive steps that prevent and remediate sexual harassment stemming from abuses of power. We have also provided several institutional examples that demonstrate how to respond to identified vulnerabilities by restructuring and developing programs that help individuals and units better prevent and remediate abuses of power.⁵ These examples highlight a method of diminishing or replacing (i.e., substituting) the amount of control or accessibility a party in power has over a particular resource. If the resource can be obtained through other means, then the power differential will decrease, and the party with less power will have less dependence (Magee and Galinsky, 2008). By diminishing power structures that affect various vulnerabilities, institutions can

⁵ Several of the institutional examples described in this paper are actively being evaluated by their respective institutions to determine efficacy and impact of the program. These outcomes and results are not yet available.

reduce the risk of sexual harassment. While we attempted to find institutional examples for each type of power differential, we found it challenging to identify strong examples for a few definitions, so we encourage readers to pursue and innovate additional mitigation strategies that can help address gaps in action.

Financial-based power differentials are inequities based on differences in financial resources. They exist when an individual or group has limited access to financial resources (e.g., funding for projects, grants, salary, loans) and is highly dependent on a single source of financial resources at a particular career stage (Pfeffer and Salancik, 1978; O’Callaghan et al., 2021). In financial-based power differentials, one party has control over and access to finances, while the other party does not. Financial-based power can also be demonstrated when one party has the finances to access specific resources, such as space and building accommodations, teaching assignments and teaching support, professional development opportunities, access to networks, and more. This relationship can result in the individual or group that does not have financial control or access being dependent on the individual or group that does. The individual or group with less financial control may not have access or ability to find better funding opportunities because of fear of retaliation or the magnitude of dependence associated with the current source of funding. Conversely, individuals who have access to an income through marginalized professions, such as sex work, may face discrimination from employers based on the source of that income (Gee, 2017; Snow, 2019). Access to financial resources may not be synonymous with income, since individuals may have significant financial responsibilities related to caregiving, familial support, loan repayments, health conditions, or other circumstances that limit their net financial resources. For example, independent students and those without access to family resources may face additional

financial-based vulnerabilities. Additionally, lack of access to financial resources may make it difficult for individuals to step away from a position or take a leave of absence. The example that follows indicates how this type of dependency makes an individual or group with limited financial resources more vulnerable to the party providing funding. Strategies that strive to diffuse abuses of financial-based power differentials would diffuse and decentralize financial structures so that there is no singular control of financial resources.

Example of Power Differential – A PhD student’s or postdoc’s funding may depend on an advisor or principal investigator who is employed by a university, making the student especially vulnerable to sexual harassment.

Data to Assess Scale and Prevalence – Trainee/student status, recipient of need-based scholarship, identified as qualifying for need-based aid/disadvantaged status on application to a program or other fellowship applications (e.g., National Institutes of Health), eligibility for federal assistance programs

Institutional Case Examples for Mitigation – Vanderbilt University’s Direct Admission Reform (see Box 2), Massachusetts Institute of Technology’s Guaranteed Transitional Support Program (see Box 4)

Citizenship status-based power differentials are inequities based on nationality and citizenship. They exist when those who are not citizens and/or have precarious immigration status have less access to or control of resources and opportunities than citizens of a particular country. A dependency can occur if a party with citizenship controls another party’s citizenship status, for example, when a person with citizenship has control over granting someone access to a student or work visa. In this type of power differential, persons without secure status depend on the good will of persons with citizenship. This can lead to a fear of repercussions that would affect their status if any particular action they take is

considered a problem, and it is a fear that citizens would not experience (O’Callaghan et al., 2021; Sutton et al., 2021). International and Deferred Action for Childhood Arrivals, or DACA, trainees may face additional challenges, including inability to apply for federal student aid and uncertain future employment. Strategies that strive to diffuse abuses of citizenship-based power differentials would account for citizenship privileges and address gaps in resources typically available to citizens but are not automatically made available to non-citizens.

Example of Power Differential – Students who speak English as their second language may have fewer research opportunities or more limited access to teaching opportunities than students for whom English is their first language. This could result in incivility, which would increase the chance of sexual harassment, toward those who do not speak English as their first language.

Data to Assess Scale and Prevalence – Student or employment records, visa/immigration paperwork

Institutional Case Examples for Mitigation – Vanderbilt University’s Direct Admission Reform (see Box 2)

Career-based power differentials are differences based on career-related status. They exist when individuals in an earlier career stage, or those who have yet to achieve certain career milestones, have less access or ability to make decisions, influence outcomes and the allocation of resources, advocate for themselves, and/or independently control personal work benefits like career progression, office space, accommodation for caregiving responsibilities, and so on (Cech and Blair-Loy, 2019; French et al., 2020). Individuals at earlier career stages also rely on individuals in later career stages for letters of support, nominations, or recommendations related to advancement and promotion (O’Callaghan et al., 2021), and they

may face greater job insecurity (Christian et al., 2021). In other words, since those who are later in their careers have more power, they can exert control and/or influence over those in earlier stages, in particular, for greater career opportunities and job security. Strategies that strive to diffuse abuses of career-based power differentials would account for status differences due to job title, description, and/or years of experience in a role or within an institution that would hinder access to resources, reduce independent control and decision-making, and minimize personal work benefits.

Example of Power Differential – A postdoc or junior faculty member may have or feel they have less ability to implement changes in their department, may be hesitant to speak out about concerns (including sexual harassment), and may be at risk or perceive they are at risk of experiencing retaliation for speaking or acting.

Data to Assess Scale and Prevalence – Student or employee records, professional title

Institutional Case Examples for Mitigation – Vanderbilt University’s Direct Admission Reform (see Box 2), Vanderbilt University’s Junior Faculty Mentoring Program (see Box 3), Massachusetts Institute of Technology’s Guaranteed Transitional Support Program (see Box 4), Boston University’s Provost Mentor Fellows Program (see Box 5) and Boston University’s Responsible Conduct of Research Program (see Box 6), Salk Institute for Biological Studies’ Entering Mentoring series (see Box 5)

Race-based power differentials are inequities based on racial or ethnic identity. They exist when institutional norms and practices lead to the systematic divergence in the treatment of white and non-white individuals. Individuals of color may experience bias, stereotyping, and discrimination; reduced opportunities; increased exposure to violence and harassment (Steele,

2010; Posselt, 2020; O’Callaghan et al., 2021); and greater service demands (e.g., invisible labor tasks) compared with their white peers (Fox, 2008; Magee and Galinsky, 2008; Griffin et al., 2011; Hirshfield and Joseph, 2012; Duncan, 2014; Guarino and Borden, 2017; Trejo, 2020; Campbell, 2021; Umphress and Thomas, 2022). This type of power differential is largely affected by systemic inequities, occurring when a system is set up in such a way that it allows white people more access to and control of resources (i.e., the group with power) compared with people of color (i.e., the group being oppressed) (Freire, 2018; Morgan, 2018). Of note, the extent of power differentials based on race may be difficult to identify given the pervasiveness of structural racism in academia and its integration into regular operations (McGee, 2020). Strategies that strive to diffuse abuses of race-based power differentials would use an intersectional lens to become cognizant of and account for privilege and systemic forms of oppression that result in one racial or ethnic group being treated differently and benefiting compared with another, and would then redistribute resources equitably.

Example of Power Differential – Admissions committees may implicitly or explicitly assume difference in preparation or ability between white students and students of color, creating an institutional culture of disrespect that would increase the risk of sexual harassment for students of color.

Data to Assess Scale and Prevalence – Self-identified race/ethnicity in employment, student records, demographics form

Institutional Case Examples for Mitigation – Boston University’s Provost Mentor Fellows Program (see Box 5) and Boston University’s Responsible Conduct of Research Program (see Box 6), Salk Institute for Biological Studies’ Entering Mentoring series (see Box 5)

Gender-based power differentials¹ are inequities based on gender identity and reflect situations in which people have more or less capacity to act depending on whether they are members of a gender majority or a gender minority (e.g., women, non-binary, and transgender). When influential positions are disproportionately held by those of one gender identity, another identity may constitute a minority, even when comprising a numerical majority, if those roles are subordinate in some way (e.g., lower pay, lower status) to those held by the identity in the numerical minority. These differentials also reflect situations in which transgender, nonbinary, and gender nonconforming identifying individuals (i.e., transgender, questioning, queer, intersex) are stigmatized or discriminated against based on their sex or gender identity (Freeman, 2020; Cech and Waidzunus, 2021; Sutton et al., 2021). Gender minorities may face bias, discrimination, and stereotyping due to institutional norms and practices and may have fewer opportunities for advancement, or they may face increasing exposure to harassment and violence (Carli et al., 2016; Weisgram and Diekman, 2017; Cidlinská, 2019; O’Callaghan et al., 2021). The inequities, and resulting oppression, experienced by gender minorities result in less control of and access to resources compared with gender majorities. This power differential is largely affected by systemic inequities, where the system gives more power to gender majorities and oppresses gender minorities. Strategies that strive to diffuse abuses of gender-based power differentials would use an intersectional lens to become cognizant of and account for privilege and systemic forms of oppression that result in one gender being treated differently and benefiting compared with another, and would then redistribute resources equitably.

¹Some wording in the sections on “gender-based power differentials” and “sexual orientation power differentials” has been revised from the original paper to clarify that power differentials can exist for all, including those identifying as cisgender, transgender, nonbinary, and gender nonconforming.

Example of Power Differential – Individuals in the subordinate gender may experience gender harassment when supervisors provide fewer career development opportunities based on assumptions (e.g., childbearing) that would restrict performance or advancement.

Data to Assess Scale and Prevalence – Self-identified gender in employment, student records, demographics form

Institutional Case Examples for Mitigation – Boston University’s Provost Mentor Fellows Program (see Box 5) and Boston University’s Responsible Conduct of Research Program (see Box 6), Salk Institute for Biological Studies’ Entering Mentoring series (see Box 5)

Sexual orientation power differentials

reflect situations in which LGBTQ+ individuals (i.e., lesbian, gay, bisexual, questioning, queer, asexual, pansexual) are stigmatized or discriminated against based on their sexual orientation (Freeman, 2020; Cech and Waidzun, 2021; Sutton et al., 2021). LGBTQ+ individuals may have access to fewer opportunities and resources compared with their peers, putting them at a disadvantage. In higher education, this power differential can be seen through discrimination in hiring, tenure, promotion, and so forth, that decrease retention of LGBTQ+ individuals (Sánchez et al., 2015; Garvey and Rankin, 2018). LGBTQ+ individuals may feel unable to advocate for equitable opportunities or access to resources because of fear of retaliation and fear of punishment, which can be seen through devaluation of work, exclusion from networks, and more. Strategies that strive to diffuse abuses of power related to sexual orientation would account for them when allocating resources and providing opportunities.

Example of Power Differential – Interviewer biases may overlook an applicant’s skill, competency, and ability for a job if an application or résumé shows increased

involvement or activity in LGBTQ+ organizations, or if an interviewee discusses their spouse or partner during the hiring process, creating an institutional culture of disrespect that would increase the risk of sexual harassment for those associated with the LGBTQ+ community.

Data to Assess Scale and Prevalence – Self-identified sexual orientation, in employment, student records, demographics form

Family status-based power differentials

reflect situations in which individuals in a working/learning environment may be treated negatively due to their family roles and responsibilities and the resulting real or perceived limitations associated with such duties, such as caregiving and/or eldercare responsibilities (Weisgram and Diekman, 2017; Cech and Blair-Loy, 2019; French et al., 2020; Fulweiler et al., 2021). In addition to time constraints that may come with differences in family roles and responsibilities, family status-based power differentials are also seen when resources are withheld from those with childcare responsibilities. For instance, the absence of parental leave or limited access to lactation rooms can negatively affect those with family responsibilities and create a disadvantage for them compared with those without family responsibilities. It is important to note that this power differential does not entail mistreatment of those who have voluntarily chosen not to have family responsibilities (Ashburn-Nardo, 2017). Strategies that strive to diffuse abuses of family status-based power differentials would recognize varied availability in time (including parental leave) and space (including lactation rooms) in a way that is respectful of both those with or without family roles and responsibilities.

Example of Power Differential – Students or employees with children may feel at a disadvantage if they are not included or are unable to participate in classes, group

discussions, team meetings, and so forth, that occur at specific times of the day (e.g., later afternoons or evenings when childcare is no longer available), resulting in a disrespectful environment that could lead to sexual harassment for those who are vulnerable.

Data to Assess Scale and Prevalence – Standing time conflicts, self-identified beneficiaries in student and employment records

Institutional Case Examples for Mitigation – Salk Institute for Biological Studies' Entering Mentoring series (see Box 5)

Health status-based power differentials are related to mental or physical health that may limit an individual's ability to engage in routine tasks or participate in school- or career-related social activities (Bynum and Sukhera, 2021; Sutton et al., 2021). Physical space, built environments, and accessibility technology also play a role in health status-based power differentials. For example, an office room may be less accessible to one party than to another party because there are no elevators or accessibility technology, making them disadvantaged compared with those who are supported by the building design. This can also include those with disability status, which results in a power differential when those with disabilities or

those who are regarded as having disabilities are discriminated against (which can be overt or covert) and consequently are ignored, marginalized, or have fewer and less prestigious opportunities than those who are not disabled or regarded as disabled (Myers et al., 2014; EEOC, 2023). Strategies that strive to diffuse abuses of health status-based power differentials would account for the physical environment and resources that make it challenging for those with health-related issues to participate and succeed.

Example of Power Differential – A lab may be less inclined to provide resources that respond to requested health-related reasonable accommodations because of the expenses, making those with health-related issues unlikely candidates for working in the lab and enabling a disrespectful climate that could lead to, for example, name calling or offensive remarks about bodies, that is, gender harassment.

Data to Assess Scale and Prevalence – Self-identified records, reasonable accommodation request data

Institutions have an opportunity to prevent and remediate the misuse of these power differentials by reconsidering their policies and related education

BOX 2

Vanderbilt University's Direct Admission Reform¹

The Department of Cell and Developmental Biology (CDB) at Vanderbilt University first identified a subset of graduate students at risk for negative outcomes, including sexual harassment, because of their dependence on individual faculty members for stipend and other support. Policies were then designed and subsequently adopted to reduce or diffuse the misuse of power differentials—specifically, **financial-based power differentials and career-based power differentials**—created by student dependence on single faculty members.

¹For more information, see <https://www.nationalacademies.org/docs/DDED6CE14BBB51B36BFBB46DDF0E7BD348E18AB1B07>.

Graduate programs in biological and biomedical sciences frequently offer admission through an umbrella program, where accepted students share a common first-year curriculum, complete research rotations, and then join an advisor's lab within a graduate program. This approach diffuses power and ensures that individual students are not unduly dependent on any one faculty member. However, in addition to a "cohort" admission model, biomedical graduate programs, including CDB, sometimes offer students a "direct-admit" path through which a student enters the department directly with the intent to work with a specific advisor. Direct-admit students may have less information for choosing an advisor, and given their dependence for stipend and other support on their direct-admit faculty member, they have less power to change labs if problems arise. Data collected in the CDB department found that 40 percent of direct-admit students were foreign nationals. Because of visa stipulations that they must leave the United States if they leave graduate school and the reduced availability of social support in this country, foreign nationals would be especially vulnerable to what could be **citizenship status-based power differentials**. Direct-admit students were more likely than others to leave graduate school without a PhD and/or to have significant academic problems. It was also noted that 30 percent of direct-admit students who had worked with their advisor before admission (as an undergraduate, a summer intern, or an employee) were very successful and had few concerns of sexual harassment and race or gender-based discrimination.

The director of graduate studies (DGS) in CDB worked with the department chair and the Graduate Education Committee to identify areas in which the direct admission program could be altered to provide direct-admit students with additional information/options, professional and social networking opportunities, and flexibility in changing advisors. Key changes made by the program included requiring that students

- are informed about and apply to the umbrella admission program to ensure that they are aware of that option;
- work in the future advisor's lab prior to admission or explain why that is not possible; and
- receive a copy of the future advisor's Mentoring Compact, which is a document outlining the responsibilities of the mentor and student, prior to admission.

Students are provided with a faculty committee immediately upon arrival and also are assigned a student advisory group to facilitate introduction to the Vanderbilt and departmental community. Funding is provided (for 12 weeks) to facilitate changing of advisors, if necessary, and admission occurs through a committee (instead of the prior unilateral decision of the DGS) to increase the trust of department faculty if the student seeks a new lab environment.

In summary, this program mitigates the harms that can result from the misuse of financial and career power differentials that could take the form of sexual harassment, explicitly providing financial and career support to students who take advantage of the program. Additionally, this program equalizes power differences between students who are US citizens and those who are not, since the former typically have a larger number of financial options (e.g., federal grant funding) when relationships with existing advisors do not work out.

Vanderbilt University's Junior Faculty Mentoring Program¹

Power differentials can be especially relevant to junior faculty on the tenure track. A junior faculty mentoring program at Vanderbilt University was implemented within the College of Arts and Science to address the misuse of **career-based power differentials** inherent in the promotion structure. The Program in Career Development (PCD) strives to aid junior faculty in developing a network of colleagues across departments, fields, and multiple career levels. The PCD operates in parallel with several other initiatives to support junior faculty. In 2017, the Vanderbilt provost launched the Faculty Insights professional development series, which covers topics of interest to junior faculty. Furthermore, every department is required to have a mentoring plan for its tenure-track faculty that is organized and run at the unit level.

Within the College of Arts and Science, the PCD was developed, in part, out of recognition that junior faculty benefit from interactions outside their direct line of evaluation (i.e., the department). PCD removes a traditional career-based power asymmetry between junior faculty members and senior departmental colleagues, who will be determining their fitness for tenure at the end of the probationary period, in order to diffuse the power structure that could make those with less power at risk for sexual harassment. All junior faculty are invited to participate in any or all activities of the PCD, and those who choose to participate are paired with senior faculty outside their home departments. The pairings are formal but confidential; only the PCD director, the mentor, and the mentee know of the relationship, which is intended to allow the junior faculty member to openly discuss concerns with the mentor without fear of repercussions. These mentoring relationships can last as long as the mentee wishes. Matches are made by the PCD director considering the academic focus (natural sciences, social sciences, humanities) and requests made by the junior faculty member (e.g., gender). The PCD also offers programming related to professional development, social events for junior faculty, cohort meetings to discuss issues related to tenure, and other resources.

A cross-department mentoring program such as the PCD helps prevent career-level-based abuses of power. By recognizing the vulnerabilities associated with being a junior faculty member, PCD provides junior faculty with guidance in navigating the professional and institutional obstacles en route to tenure from unbiased senior faculty.

¹For more information, see <https://as.vanderbilt.edu/internal/faculty/junior-faculty-mentoring.php>.

Massachusetts Institute of Technology's Guaranteed Transitional Support Program¹

A fundamental power asymmetry found in the mentor–mentee relationship between faculty and PhD students is **financial based**; however, financial power in the hands of a mentor faculty member can create abuses of power related to gender, race, citizenship, and career power differentials—abuses that can all take the form of sexual harassment. A new program at the Massachusetts Institute of Technology (MIT) seeks to limit the impact of such a power imbalance. The program, Guaranteed Transitional Support, provides students in challenging mentor–mentee relationships one semester of stipend support (and additional funding if necessary) independent of an advisor, allowing students time to seek a new mentor and a new funding arrangement should the need arise. For instance, if sexual harassment occurs, a student has the control and resources to leave the unhealthy relationship and find a new mentor. According to MIT (2021a, b), “The guarantee of transitional support will empower students to more freely exercise autonomy over decisions that will deeply impact their health and wellbeing, research progress and productivity, and future career after leaving MIT.”

The program created the role of Transition Support Coordinator (TSC), who serves as an advocate for students and helps them work through the transitional funding structure. TSCs perform an initial “intake assessment” for all students seeking transitional support, enabling the coordinator to understand the student’s situation and provide the student with information about the full array of options, including medical leaves and “moving beyond” MIT. The student need not provide “proof” of an unhealthy relationship, for example, one where sexual harassment has occurred, and there is no presumption that the advisor is at fault (MIT, 2021a, b). The program also acknowledges that loss of an established mentor–mentee relationship can adversely affect a student’s subsequent efforts to obtain external funding and employment. Thus, the Office of Graduate Education works with departments to ensure students have alternative letter writers and references when this is necessary.

The program recognizes that a challenging mentor–mentee relationship can disrupt a student’s academic progress. Students who utilize the program “receive reasonable academic accommodations, including flexibility around degree requirements and milestones, to minimize the amount of time their degree is ultimately set back (e.g., allowing flexibility around the timeline for executing incomplete degree requirements and not asking students to re-execute previously completed degree requirements)” (MIT, 2021a). This aspect of the program weakens the power a mentor has over a mentee by maintaining the opportunity and future prospects of the student irrespective of input from the mentor. In summary, this program mitigates the harms that can result from financial- and career-based power differentials that could take the form of sexual harassment. In addition, this program reduces power differences between students who are US citizens and those who are not, since the former typically have more financial options (e.g., federal grant funding), when relationships with existing advisors do not work out.

¹For more information, see <https://oge.mit.edu/finances/financial-assist/guaranteed-transitional-support/>.

Salk Institute for Biological Studies' *Entering Mentoring* Series and Boston University's Provost Mentor Fellows Program¹

The *Entering Mentoring* series is a widely used and an effective resource that trains individuals to develop better mentoring skills that address various factors, including power dynamics (Pfund, 2015; NASEM, 2019). The series has been used as a foundation for institutions to further build upon by developing new content that better teaches individuals to identify vulnerabilities and identities and respond to power dynamics and other factors that are relevant to the specific institution. Below we note how the Salk Institute for Biological Studies (Salk) uses the *Entering Mentoring* series and Boston University developed a new program inspired by the series to better address the individuals and dynamics in their organizations.

Salk Institute for Biological Studies' Entering Mentoring Series

With guidance and training from the Center for the Improvement of Mentored Experiences in Research and National Research Mentoring Network, Salk offers an adaptation (Pfund et al., 2014) of the *Entering Mentoring* series twice each calendar year to for postdoctoral trainees. Working collaboratively in a setting guided by a trained facilitator, postdoctoral trainees move through relatable case studies. Through these case studies, the trainees have the opportunity to place themselves—and the background and experiences they bring—into the scenario and consider diverse perspectives in order to propose and evaluate alternative solutions. Between sessions, trainees are encouraged to reflect on what they have learned and experienced, and apply it within their labs. Research shows that mentors learn to recognize and understand the vulnerabilities and identities—including **racial and gender differences**—that could result in power imbalances in their unit by practicing “perspective taking,” (Galinsky and Moskowitz, 2000; Umphress and Thomas, 2022). Trainees discuss their experiences with their cohort at the next session. For participants who are in a new mentoring relationship and/or who have not experienced strong mentoring relationships, this series provides (1) the space and tools to become strong mentors—both in their present role for those in earlier career stages and looking toward their future as faculty members; (2) techniques and strategies to “mentor up” while in postdoctoral training; and (3) a peer network from which to draw immediate and ongoing support as they navigate through, and transition out of, this final training stage of their careers. Through this program, mentors are encouraged to consider their mentee holistically as an individual, and not just within the context of their **career stage**. In addition to addressing career differences, the program uses case studies to illustrate **family status-based power differentials** to help mentors effectively address their mentees’ family responsibilities (e.g., childcare and caregiving responsibilities). Salk’s application of the *Entering Mentoring* series teaches postdoctoral trainees to understand the ways they may be mentored, and it prepares them for mentoring they may eventually do themselves, thereby creating greater mentoring skills and equipping future mentors to be cognizant of their power.

¹For more information, see <https://inside.salk.edu/fall-2021/mentoring-the-next-generation-at-salk/> and <https://www.bu.edu/pdpa/for-faculty/for-faculty/provost-mentor-fellows-program/>, respectively.

Boston University's Provost Mentor Fellows Program

Boston University has developed a model for mentor training called the Provost Mentor Fellows Program. This cohort-based program is sponsored by the university provost and meets monthly throughout the academic year (11 hours total time commitment) to promote peer learning across disciplines and highlight mentoring successes among faculty. Participants commit to updating their personal strategies for mentorship and also enacting changes within others. Although the Provost Mentor Fellows curriculum was adapted from the Entering Mentoring series (Pfund et al., 2015), Boston University has taken a unique approach with its program by shifting the focus in two ways. First, the training is intentionally designed to have a positive tone (rather than a corrective one) that promotes growth of recruited participants, who are in the program because they wish to improve their mentoring practices. Second, breaking down power dynamics is integrated throughout the curriculum, acknowledging that power can display itself at different moments and in different facets throughout mentoring relationships. Faculty reflect on their identities, how those identities connect to dominant narratives in our society, and how the salient aspects of those identities affect both how they interact with others professionally and how mentees may perceive them. Participants also develop concrete steps that can be taken to diffuse abuses of power dynamics within their spheres of influence. For example, literature on **race-based and gender-based biases** in scholarly feedback processes (e.g., grant/manuscript review, course evaluations, promotion and tenure) is used as an opportunity to invite participants to reflect on the ways they give feedback to individuals within their mentoring spheres, and whether or not those practices are intentionally or unintentionally biased based on social identity differences. These conversations and others throughout the training create the foundation of knowledge and awareness that culminates in a longer session explicitly focused on culturally aware mentoring practices.

In addition, the final project for faculty is to show how they will share their learning with their mentees and other colleagues. The final project requires faculty to select a topic area of mentoring where they would like to see change, which reinforces both the credibility of the follow-up steps and the likelihood that the project will run to completion. It also balances a top-down program sponsored by the provost with local strategies. In the past, mentor fellows have chosen projects that address power dynamics in ways that support mentees in their unit. While some participants choose to consider power directly (e.g., organizing skill-building workshops that address dismantling negative power dynamics), others choose to contemplate other aspects of department or program climate that will improve the mentee experience overall and give mentees more voice (e.g., career-planning templates adopted throughout the department).

Too often, faculty mentoring and/or harassment-related training can seem compliance based or punitive in nature, which can limit faculty participation and engagement. The positive framing of Boston University's training program allows participants to generate new strategies and has encouraged vulnerability and honesty among faculty. Program evaluations demonstrate that

participants are more aware of their identities and the influence of power dynamics in their mentoring relationships, and the majority of their self-reported action steps are tailored to address those in current and future mentoring environments. Such a program would make participants more aware of the need to develop respectful environments that make students, postdocs, and junior faculty less likely to experience sexual harassment. To summarize, this program seeks to engage the more powerful actors (faculty) in actively weakening and remediating the misuse of power differentials across many dimensions.

Boston University's Responsible Conduct of Research Program¹

Responsible conduct in research (RCR) broadly describes the awareness and application of established professional standards and ethical principles in the execution of research-related activities (Steneck and Bulger, 2007). Since the 1980s, the term *RCR* has also become associated with educational programs designed to teach graduate students and postdoctoral scholars about ethical practices associated with scientific investigation and developing scholarship with integrity (Steneck, 2007; Resnik, 2021). However, RCR education has proven not to be as effective as anticipated (Heitman et al., 2005, 2007; Hite et al., 2021). For instance, many of the example cases that are discussed in required RCR sessions highlight well-known or large-scale research misconduct cases instead of routine violations or acts of misconduct. Other curricula do focus on smaller ethical decisions graduate students or postdocs may be confronted with (e.g., decisions related to data selection or storage), but do not directly address or provide strategies for how participants can address the power structures that can make even the most obvious ethical choices feel risky or difficult to make.

Boston University has formally revised its required RCR curriculum to identify, address, and provide strategies to mitigate the abuse of power dynamics. The RCR curriculum now integrates required RCR topics with themes such as social justice definitions, setting mentoring expectations, implicit bias, and managing difficult conversations effectively—creating a space to work through various power differentials, including those related to **career, race, and gender**. The activities within required in-person workshops also move beyond solely analyzing and responding to case studies toward activities that require students to develop and apply professional skills in critical thinking, self-awareness, and communication. Examples include co-constructing authorship

¹For more information, see <https://www.bu.edu/pdpa/responsible-conduct-of-research/>.

guidelines and developing strategies to hold researchers accountable to them; participating in a social group formation simulation designed to highlight implicit biases; and role playing difficult conversations with faculty through applying improvisational techniques. For example, the training uses improvisational techniques to help students and postdocs practice having conversations that name and overcome misuses of power differentials (which can include sexual harassment) with faculty, including acknowledging the race-based and gender-based power faculty may have in mentoring or supervising roles.

through a lens that proactively acknowledges and addresses them—and the vulnerabilities associated with them—while also preventing and mitigating related abuses of power. With the six institutional examples in this paper as models, other institutions can similarly address those power differentials—and the range and depth of vulnerabilities—by either repurposing existing training and initiatives or developing new initiatives, to better serve individuals and groups within their organizations.

CALL TO ACTION

To successfully confront abuses of power, including sexual harassment, institutions could evaluate whether their existing policies and practices address the misuse of power differentials in higher education, particularly graduate education, postdoctoral training, and faculty promotion trajectories. We encourage institutional leaders to invest time, resources, and energy in better understanding the implications of power differentials in their organizations. Institutions that fail to address the effect and ramifications of power dynamics in educational and research environments or fail to create environments that prevent abuses of power will be at risk of creating or perpetuating psychologically unsafe environments that result in a loss of creativity, stifle innovation, and, ultimately, reduce organizational success (Bartlett and Bartlett, 2011; Leading Effectively Staff,

2022). Additionally, addressing and remediating the abuse of power differentials could help reduce financial repercussions resulting from lawsuits and other expenses resulting from investigations and legal processes that could be triggered by unsafe environments. Most importantly, institutions that are committed to prioritizing fairness in their organization (e.g., through their mission statements) are obligated to mitigate and prevent the abuse of power in order to create “diverse, inclusive, and respectful environments” (NASEM, 2018) so as to not be at odds with core institutional priorities. Institutions can begin this critical exploration with an honest reflection of how power differentials play out in their current culture. Some questions to guide this institutional reflection are as follows:

- What are the vulnerabilities, identities, and/or abuses of power in your unit/department/institution? How do the abuses of power tolerate sexual harassment in the environment?
- Does your unit/department/institution show signs of abuses of power related to a specific vulnerability or identity? Does your unit/department/institution measure and assess its climate regularly to identify any such abuses of power? (See Merhill et al., 2021.)
- How does your institution address the various vulnerabilities and identities in your unit/department/institution to create and maintain a safe, healthy, and productive space void of power abuse?

- How does your institution mitigate and remediate abuses of power specific to different types of vulnerabilities and identities? Are there existing policies or practices that your unit/department/institution has introduced to address specific power differentials?
- What efforts beyond legal compliance has your institution introduced and implemented in the past 3 years to address the risks inherent in power differentials in the academic environment as currently structured?
- What are some of the broader structures (economic, social, cultural) that may influence the power dynamics within your unit/department/institution? How might you address those influences within your unit/department/institution?
- What have your institution's senior leaders done to prevent and/or remediate the abuses of power and to create a culture of equity and inclusion where sexual harassment is rare?

Based on our case studies, we see some specific practices and policies that might be implemented on a widespread basis and assessed to ascertain their efficacy. We encourage institutions to first evaluate climate and culture by using climate surveys and assessing if institutional structures, practices, and policies maintain or diffuse abuses of power differentials. Both the definitions and the institutional examples presented in this paper challenge institutions to recognize the presence of power differentials in various environments, and to take holistic approaches (e.g., through hiring, admissions, mentorship, funding allocation) that acknowledge the vulnerabilities and identities of those involved. The following preventive and remedial actions are specific ways inspired by the foregoing definitions and institutional examples that institutions can consider when addressing the misuse of these types of power differentials:

- **Financial-based** – assess the effect and implications of direct versus general admission types by comparing attrition and grievance frequency (including charges of sexual harassment); implement formal bridge-funding mechanisms rather than ad hoc practices

- **Career-based** – assess the effect and implications of direct versus general admission types by comparing attrition and grievance frequency; programs that pair individuals at different career stages
- **Citizenship status-based** – assess the effect and implications of direct versus general admission types by comparing attrition and grievance frequency (including charges of sexual harassment)
- **Race-based** – mentorship programs specifically addressing differences in race
- **Gender-based** – mentorship programs specifically addressing differences in gender
- **Sexual orientation- or gender identity-based** – assess differences in resources and opportunities provided according to actual versus perceived sex, sexual orientation, or gender identity; implement programs that provide equitable access to resources and opportunities
- **Family status-based** – assess differences in time and space availability given to those with or without family responsibilities; provide access to parental leave; implement practices that take differences in time availability into consideration
- **Health status-based** – provide accessibility to physical space and resources that provide aid

Considering the precedential research and institutional initiatives as a foundation for change, we call on institutions to expand existing and/or create new policies and practices so that they more effectively prevent, disrupt, and reduce the abuses of power in their organization, and to innovate, in order to build and foster healthy, productive, and supportive environments. Importantly, we encourage institutions to undertake timely, rigorous assessment of these new methods and initiatives to understand the efficacy of their efforts to improve educational and professional environments.

Much work still needs to be done to properly recognize, address, and remediate various vulnerabilities, identities, and abuses of power that take on the form of sexual harassment. We also recognize the need for other perspectives to provide

insight on how best to recognize and diffuse the misuse of power differentials. Including experts representing various fields and roles in academia will help identify ways in which to strengthen initiatives and strategies that aim to diffuse power structures. We also ask readers to consider strategic first steps (e.g., public statements) that senior leaders, university administrators, and those holding other roles in higher education can take to establish strategies and policies that mitigate abuses of power. It is of utmost importance for institutions to prioritize research of gaps in this field, specifically, recognition of the types of power at play in specific environments (including power differentials found in both singular interactions and across multiple relationships), innovation and development of promising practices that reconcile abuses of specific types of power differentials (like race-based, gender-based, sexual orientation– or gender identity–based, and health status–based power differentials), and evaluation of strategies to assess success in diffusing power structures (e.g., climate surveys before and after implementation of a program). By doing so, institutions can create healthier, respectful environments that are more cognizant of and responsive to the vulnerabilities, identities, and potential abuses of power experienced in each environment.

REFERENCES

- Ashburn-Nardo, L. 2017. Parenthood as a moral imperative? Moral outrage and the stigmatization of voluntarily childfree women and men. *Sex Roles* 76(5):393–401.
- Bartlett, J. E., and M. E. Bartlett. 2011. Workplace bullying: An integrative literature review. *Advances in Developing Human Resources* 13(1):69–84.
- Boston University Professional Development & Postdoctoral Affairs. 2022. Provost Mentor Fellows Program. <https://www.bu.edu/pdpa/for-faculty/for-faculty/provost-mentor-fellows-program/>.
- Bowles, K. 2022. *Who and what is “the administration” at a university? Just Explain It to Me!* (blog), *Inside Higher Ed*. January 25, 2022. <https://www.insidehighered.com/blogs/just-explain-it-me/who-and-what-%E2%80%98-administration%E2%80%99-university>.
- Bynum, W. E., IV, and J. Sukhera. 2021. Perfectionism, power, and process: What we must address to dismantle mental health stigma in medical education. *Academic Medicine: Journal of the Association of American Medical Colleges* 96(5):621–623. <https://doi.org/10.1097/ACM.0000000000004008>.
- Campbell, K. M. 2021. The diversity efforts disparity in academic medicine. *International Journal of Environmental Research and Public Health* 18(9):4529. <https://doi.org/10.3390/ijerph18094529>.
- Carli, L. L., L. Alawa, Y. Lee, B. Zhao, and E. Kim. 2016. Stereotypes about gender and science: Women ≠ scientists. *Psychology of Women Quarterly* 40(2):244–260.
- Cech, E. A., and M. Blair-Loy. 2019. The changing career trajectories of new parents in STEM. *Proceedings of the National Academy of Sciences of the United States of America* 116(10):4182–4187. <https://doi.org/10.1073/pnas.1810862116>.
- Cech, E. A., and T. J. Waidzunus. 2021. Systemic inequalities for LGBTQ professionals in STEM. *Science Advances* 7(3):eabe0933.
- Christian, K., C. Johnstone, J. A. Larkins, W. Wright, and M. R. Doran. 2021. Research culture: A survey of early-career researchers in Australia. *eLife* 10:e60613.

- Cidlinská, K. 2019. How not to scare off women: Different needs of female early-stage researchers in STEM and SSH fields and the implications for support measures. *Higher Education* 78(2):365–388.
- Cole, E. 2009. Intersectionality and research in psychology. *American Psychologist* 64:170–180. <https://doi.org/10.1037/a0014564>.
- Cortina, L., L. Fitzgerald, and F. Drasgow. 2002. Contextualizing Latina experiences of sexual harassment: Preliminary tests of a structural model. *Basic and Applied Social Psychology* 24(4):295–311. https://doi.org/10.1207/S15324834BASP2404_5.
- Crenshaw, K. 1989. Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum* 1989(1):139–167. <https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1052&context=uclf>.
- Dinh, T., L. Mikalowski, and M. S. Stockdale. 2022. When “good people” sexually harass: The role of power and moral licensing on sexual harassment perceptions and intentions. *Psychology of Women Quarterly* 46(3):278–298.
- Duncan, P. 2014. Hot commodities, cheap labor: Women of color in the academy. *Frontiers: A Journal of Women Studies* 35(3):39–63. <https://doi.org/10.5250/fronjwomestud.35.3.0039>.
- EEOC (US Equal Employment Opportunity Commission). 2023. Regulations Related to Disability Discrimination. <https://www.eeoc.gov/regulations-related-disability-discrimination>.
- Elias, S. M., L. A. Gibson, and C. E. Barney. 2013. The role of social power in sexual harassment and job discrimination. In S. M. Elias (ed.), *Deviant and criminal behavior in the workplace*. New York: NYU Press. <https://doi.org/10.18574/nyu/9780814722602.003.0008>.
- Fitzgerald, L. F., and L. M. Cortina. 2018. Sexual harassment in work organizations: A view from the twenty-first century. In C. B. Travis, J. W. White, A. Rutherford, W. S. Williams, S. L. Cook, and K. F. Wyche (eds.), *APA handbook of the psychology of women: Perspectives on women’s private and public lives*. Washington, DC: American Psychological Association. <https://doi.org/10.1037/0000060-012>.
- Fitzgerald, L. F. 2021. Understanding power: It’s not just your boss. *Action Collaborative on Preventing Sexual Harassment in Higher Education: 2021 Public Summit*, October 12–13, 2021. <https://www.dropbox.com/s/uiuwaf05w15ohqd/Understanding%20Power%20-%20It%27s%20Not%20Just%20Your%20Boss.pdf?dl=0>.
- Fox, M. 2008. American Indian women in academia: The joys and challenges. *Journal About Women in Higher Education* 1(1):204–223. <https://doi.org/10.2202/1940-7890.1011>.
- Freeman, J. B. 2020. Measuring and resolving LGBTQ disparities in STEM. *Policy Insights from the Behavioral and Brain Sciences* 7(2):141–148.
- Freire, P. 2018. *Pedagogy of the oppressed*. New York: Bloomsbury Publishing USA.
- French, J. R., B. Raven, and D. Cartwright. 1959. The bases of social power. *Classics of Organization Theory* 7:311–320.
- French, K. A., T. D. Allen, M. H. Miller, E. S. Kim, and G. Centeno. 2020. Faculty time allocation in relation to work–family balance, job satisfaction, commitment, and turnover intentions. *Journal of Vocational Behavior* 120:103443.

- Fulweiler, R. W., S. W. Davies, J. F. Biddle, A. J. Burgin, E. H. G. Cooperdock, T. C. Hanley, C. D. Kenkel, A. M. Marcarelli, C. M. Matassa, T. L. Mayo, L. Z. Santiago-Vázquez, N. Traylor-Knowles, and M. Ziegler. 2021. Rebuild the academy: Supporting academic mothers during COVID-19 and beyond. *PLoS Biology* 19(3):e3001100. <https://doi.org/10.1371/journal.pbio.3001100>.
- Galinsky, A. D., and G. B. Moskowitz. 2000. Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology* 78(4):708.
- Garvey, J. C., and S. R. Rankin. 2018. The influence of campus climate and urbanization on queer-spectrum and trans-spectrum faculty intent to leave. *Journal of Diversity in Higher Education* 11(1):67–81.
- Gee, A. 2017. Facing poverty, academics turn to sex work and sleeping in cars. Outside in America series, *The Guardian* (September 28, 2017). <https://www.theguardian.com/us-news/2017/sep/28/adjunct-professors-homeless-sex-work-academia-poverty>.
- Gibson, C., K. E. Medeiros, V. Giorgini, J. T. Mecca, L. D. Devenport, S. Connelly, and M. D. Mumford. 2014. A qualitative analysis of power differentials in ethical situations in academia. *Ethics & Behavior* 24(4):311–325. <https://doi.org/10.1080/10508422.2013.858605>.
- Griffin, K., J. Bennett, and J. Harris. 2011. Analyzing gender differences in Black faculty marginalization through a sequential mixed-methods design. *New Directions for Institutional Research* (Special Issue: Using Mixed-Methods Approaches to Study Intersectionality in Higher Education) 2011(151):45–61. <https://doi.org/10.1002/ir.398>.
- Guarino, C., and V. Borden. 2017. Faculty service loads and gender: Are women taking care of the academic family? *Research in Higher Education* 58:672–694. <https://doi.org/10.1007/s11162-017-9454-2>.
- Hefner, M. K. 2013. Intersectional disadvantages in the emergence and transformation of legal disputes. *New Visions for Public Affairs* 5:15–24.
- Heitman, E., L. Anestidou, C. Olsen, and R. E. Bulger. 2005. Perspective: Do researchers learn to overlook misbehavior? The Hastings Center Report 35(5). <https://doi.org/10.2307/3528335>.
- Heitman, E., C. H. Olsen, L. Anestidou, and R. E. Bulger. 2007. New graduate students' baseline knowledge of the responsible conduct of research. *Academic Medicine* 82(9):838–845. <https://doi.org/10.1097/ACM.0b013e31812f7956>.
- Hirshfield, L., and T. Joseph. 2012. “We need a woman, we need a black woman”: Gender, race, and identity taxation in the academy. *Gender and Education* 24(2):213–227. <https://doi.org/10.1080/09540253.2011.606208>.
- Hite, R. L., S. Shin, and M. Lesley. 2021. Reflecting on responsible conduct of research: A self study of a research-oriented university community. *Journal of Academic Ethics* 20:399–419. <https://doi.org/10.1007/s10805-021-09418-0>.
- Ilies, R., N. Hauserman, S. Schwochau, and J. Stibal. 2003. Reported incidence rates of work-related sexual harassment in the United States: Using meta-analysis to explain reported rate disparities. *Personnel Psychology* 56(3):607–631. <https://doi.org/10.1111/j.1744-6570.2003.tb00752.x>.

- Kabat-Farr, D. and Walsh, B. 2022. The Role Civility Promotion Programs Can Play in Preventing Sexual Harassment in Different Higher Education Environments. *Paper commissioned by the Action Collaborative on Preventing and Addressing Sexual Harassment in Higher Education*. <https://nationalacademies.org/docs/DCD7F72FC492D59501D1E32ABE7DC065B2361E3CC528>.
- Leading Effectively Staff. 2022. What is psychological safety at work? How leaders can build psychologically safe workplaces. *Leading Effectively article, Center for Creative Leadership*. (December 15, 2022). <https://www.ccl.org/articles/leading-effectively-articles/what-is-psychological-safety-at-work/>.
- Leskinen, E. A., and L. M. Cortina. 2014. Dimensions of disrespect: Mapping and measuring gender harassment in organizations. *Psychology of Women Quarterly* 38(1):107–123.
- Lim, S., and L. M. Cortina. 2005. Interpersonal mistreatment in the workplace: the interface and impact of general incivility and sexual harassment. *Journal of Applied Psychology* 90(3), 483–496. <https://doi.org/10.1037/0021-9010.90.3.483>.
- Magee, J. C., and A. D. Galinsky. 2008. Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals* 2(1):351–398. <https://doi.org/10.1080/19416520802211628>.
- McGee, E. O. 2020. Interrogating structural racism in STEM higher education. *Educational Researcher* 49(9):633–644.
- Merhill, N. M., K. A. Bonner, and A. L. Baker (eds.). 2021. Guidance for measuring sexual harassment prevalence using campus climate surveys. Washington, DC: National Academies of Sciences, Engineering, and Medicine. <https://doi.org/10.17226/26346>.
- MIT (Massachusetts Institute of Technology). 2021a. Guaranteed Transitional Support (web page). <https://oge.mit.edu/finances/financial-assist/guaranteed-transitional-support/>.
- MIT. 2021b. Guaranteed Transitional Support Program. *Year 2 Public Description of Work for Action Collaborative on Preventing Sexual Harassment in Higher Education*. <https://www.nationalacademies.org/docs/D4C1FDCB7EF1D44D122197F460E3B92B1E2695965241>
- Morgan, K. P. 2018. Describing the emperor’s new clothes: Three myths of educational (in-) equity. In *The gender question in education*, 105–122. New York: Routledge.
- Myers, K. A., J. J. Lindburg, and D. Nied. 2014. *Allies for inclusion: Disability and equity in higher education*. Medford, MA: John Wiley and Sons.
- NASEM (National Academies of Sciences, Engineering, and Medicine). 2018. *Sexual harassment of women: Climate, culture, and consequences in academic sciences, engineering, and medicine*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24994>.
- NASEM. 2019. *The science of effective mentorship in STEM*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25568>.
- NASEM. 2020. *Promising practices for addressing the underrepresentation of women in science, engineering, and medicine: Opening doors*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25585>.

- NASEM. 2021. The impact of COVID-19 on the careers of women in academic sciences, engineering, and medicine. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26061>.
- O’Callaghan, E., V. Shepp, A. Kirkner, and K. Lorenz. 2021. Sexual harassment in the academy: Harnessing the growing labor movement in higher education to address sexual harassment against graduate workers. *Violence Against Women* (advance online publication). <https://doi.org/10.1177/10778012211035793>.
- Pfeffer, J., and G. Salancik. 1978. The external control of organizations: A resource dependence perspective. New York: Harper and Row.
- Pfund, C., C. Brace, J. Branchaw, J. Handelsman, K. Masters, and L. Nanney. 2014. Mentor Training for Biomedical Researchers. *W.H Freeman Entering Mentoring Series*.
- Pfund, C., J. L. Branchaw, and J. Handelsman. 2015. Entering Mentoring version 2. New York: W. H. Freeman.
- Posselt, J. 2020. Equity in science: Representation, culture, and the dynamics of change in graduate education. Stanford, CA: Stanford University Press.
- Privilege. 2021. Open education sociology dictionary. <https://sociologydictionary.org/privilege>.
- Promundo-US and the University of Pittsburgh School of Medicine. 2018. Manhood 2.0: A Curriculum Promoting a Gender-Equitable Future of Manhood. <https://promundo.org.br/wp-content/uploads/2018/11/PM-Manhood-2-0-curriculum-v12-2-E-1.pdf>.
- Raven, B. H. 1992. A power/interaction model of interpersonal influence: French and Raven thirty years later. *Journal of Social Behavior & Personality* 7(2):217–244.
- Raven, B. 2008. The bases of power/interaction model of interpersonal influence. *Analyses of Social Issues and Public Policy* 8: 1–22. <https://doi.org/10.1111/j.1530-2415.2008.00159.x>.
- Resnik, D. B. 2021. Research Ethics Timeline (web page). National Institute of Environmental Health Sciences. <https://www.niehs.nih.gov/research/resources/bioethics/timeline/index.cfm>.
- Salk (Salk Institute for Biological Studies). 2021. Inside Salk (Fall 2021). <https://inside.salk.edu/fall-2021/mentoring-the-next-generation-at-salk/>.
- Sánchez, N. F., S. Rankin, E. Callahan, H. Ng, L. Holaday, K. McIntosh, and J. P. Sánchez. 2015. LGBT trainee and health professional perspectives on academic careers—facilitators and challenges. *LGBT Health* 2(4):346–356.
- Schumann, L., W. Craig, and A. Rosu. 2014. Power differentials in bullying: Individuals in a community context. *Journal of Interpersonal Violence* 29(5):846–865. <https://doi.org/10.1177/0886260513505708>.
- Snow, M. 2019. I told my mentor I was a dominatrix. The Review (newsletter), December 5, 2019, *The Chronicle of Higher Education*. https://www.chronicle.com/article/i-told-my-mentor-i-was-a-dominatrix/?cid2=gen_login_refresh&cid=gen_sign_in.
- STARRSA (Science-based Treatment, Accountability, and Risk Reduction for Sexual Assault). 2017. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/starrsa-active-psychoeducation-ap-manual>.
- Steele, C. M. 2010. Whistling Vivaldi: How stereotypes affect us and what we can do. New York: W. W. Norton and Company.

- Steneck, N. H. 2007. Introduction to the responsible conduct of research. Revised Edition, August 2007, Office of Research Integrity. Washington, DC: U.S. Department of Health and Human Services. <https://ori.hhs.gov/sites/default/files/rcrintro.pdf>.
- Steneck, N. H., and R. E. Bulger. 2007. The history, purpose, and future of instruction in the responsible conduct of research. *Academic Medicine* 82(9): 829–834. <https://doi.org/10.1097/ACM.0b013e31812f7d4d>.
- Stockdale, M. S., D. O. Gilmer, and T. K. Dinh. 2020. Dual effects of self-focused and other-focused power on sexual harassment intentions. *Equality, Diversity and Inclusion* 39(1):17–37. <https://doi.org/10.1108/EDI-09-2018-0160>.
- Sutton, T. E., E. Culatta, K. M. Boyle, and J. L. Turner. 2021. Individual vulnerability and organizational context as risks for sexual harassment among female graduate students. *Social Currents* 8(3):229–248.
- Thacker, R. A., and G. R. Ferris. 1991. Understanding sexual harassment in the workplace: The influence of power and politics within the dyadic interaction of harasser and target. *Human Resource Management Review*, 1(1), 23–37.
- Trejo, J. 2020. The burden of service for faculty of color to achieve diversity and inclusion: The minority tax. *Molecular Biology of the Cell* 31(25):2752–2754. <https://doi.org/10.1091/mbc.E20-08-0567>.
- Uggen, C., and A. Blackstone. 2004. Sexual harassment as a gendered expression of power. *American Sociological Review* 69(1):64–92. <https://doi.org/10.1177/000312240406900105>.
- Umphress, E., and J. M. Thomas (eds.). 2022. Applying procedural justice to sexual harassment policies, processes, and practices. Washington, DC: National Academies of Sciences, Engineering, and Medicine. <https://doi.org/10.17226/26563>.
- USU (Utah State University). 2021. Respondent Education for Employees and Students. Year 2 Public Description of Work for Action Collaborative on Preventing Sexual Harassment in Higher Education. <https://webassets.nationalacademies.org/files/PGA-CWSE-19-P-164/repository/year-2/utah-state-university-respondent-education-for-employees-and-students.pdf>.
- Vanderbilt University. 2020. Altering Departmental Admissions Policies to Diffuse Dependent Relationships Between Graduate Students and Their Advisors. Year 1 Public Description of Work for Action Collaborative on Preventing Sexual Harassment in Higher Education. <https://webassets.nationalacademies.org/files/PGA-CWSE-19-P-164/repository/year-1/altering-departmental-admissions-policies-vanderbilt-university.pdf>.
- Vanderbilt University. 2022. Junior Faculty Mentoring (web page). <https://as.vanderbilt.edu/internal/faculty/junior-faculty-mentoring.php>.
- Vanstone, M., and L. Grierson. 2022. Thinking about social power and hierarchy in medical education. *Medical Education* 56(1):91–97. <https://doi.org/10.1111/medu.14659>.
- Weisgram, E. S., and A. B. Diekman. 2017. Making STEM “family friendly”: The impact of perceiving science careers as family-compatible. *Social Sciences* 6(2):61.

DOI

<https://doi.org/10.17226/26631>

SUGGESTED CITATION

Kleinman, D. L. and J. M. Thomas (Eds.). 2023. Preventing Sexual Harassment and Reducing Harm by Addressing Abuses of Power in Higher Education Institutions. Washington, DC: National Academies of Sciences, Engineering, and Medicine. <https://doi.org/10.17226/26631>.

AUTHOR INFORMATION

The authors of this paper are institutional representatives to the Prevention Working Group of the Action Collaborative on Preventing Sexual Harassment in Higher Education. In developing this paper, this group of authors was led by **Daniel Kleinman**, Associate Provost for Graduate Affairs, Boston University. Other authors include **Jason Killheffer**, Assistant Provost for Academic Integrity, Yale University; **Chloe Poston**, Associate Vice President for Strategic Initiatives within the Office of Institutional Diversity and Equity, Dartmouth College; and **Cara Tuttle Bell**, Director of the Project Safe Center, Vanderbilt University.

ACKNOWLEDGMENTS

The authors would like to acknowledge **Mallory Zaslav**, Vice President of Diversity, Equity, & Inclusion, Salk Institute for Biological Studies; **Kathy Friedman**, Associate Professor, Vanderbilt University School of Medicine; and **Sarah Hokanson**, Assistant Provost of Professional Development & Postdoctoral Affairs at Boston University, who shared her expertise and provided content to the paper. The authors would like to thank **Heather Preston** and the **National Academies Research Center**, who provided fact-checking services, and **Jan Summers**, who

edited the paper. The authors would also like to thank **Jeena Thomas**, Program Officer; **Frazier Benya**, Senior Program Officer; and **Abigail Harless**, Senior Program Assistant, at the National Academies of Sciences, Engineering, and Medicine, for the valuable support they provided for this paper.

This paper was reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise. The purpose of this independent review is to provide candid and critical comments that will assist the National Academies of Sciences, Engineering, and Medicine in making each publication as sound as possible and to ensure that it meets the institutional standards for quality, objectivity, evidence, and responsiveness to the charge. The review comments and draft manuscript remain confidential to protect the integrity of the process.

We thank the following individuals for their review of this paper:

Molly Bird, Massachusetts Institute of Technology; **Emmalee Fishburn**, Utah State University; **Sean Garrick**, University of Illinois; **Paul Gray**, University of California, Berkeley; **Mohamed Ismail**, Massachusetts Institute of Technology; and **Margaret Stockdale**, Indiana University–Purdue University Indianapolis.

Although the reviewers listed above provided many constructive comments and suggestions, they were not asked to endorse the content of the paper, nor did they see the final draft before its release. The review of this paper was overseen by **Marilyn Baker**, the National Academies, with assistance from **Prabhas Moghe**, Rutgers University. They were responsible for making certain that an independent examination of the paper was carried out in accordance with the standards of the National Academies and that all review comments were carefully considered. Responsibility for the final content rests entirely with the authors.

ABOUT THE ACTION COLLABORATIVE

The Action Collaborative on Preventing Sexual Harassment in Higher Education brings together academic and research institutions and key stakeholders to work toward targeted, collective action on addressing and preventing sexual harassment across all disciplines and among all people in higher education. The Members actively collaborate to identify, research, develop, and implement efforts that move beyond basic legal compliance to evidence-based policies and practices for addressing and preventing all forms of sexual harassment and promoting a campus climate of civility and respect. The Action Collaborative includes four Working Groups (Prevention, Response, Remediation, and Evaluation) that compile and gather information, and publish resources for the higher education community. The Remediation Working Group focuses on efforts that can limit the damage caused by experiencing sexual harassment and support those who experience it.

CONFLICT-OF-INTEREST DISCLOSURES

None disclosed.

CORRESPONDENCE

Questions or comments should be directed to Jeena Thomas at jmthomas@nas.edu.