

# Converging Goals: Examining the Intersection Between Diversity, Equity, and Inclusion and Nuclear Security Implementation

Nuclear Threat Initiative Global Dialogue on Nuclear Security Priorities,  
April 14–15, 2023

Sneha Nair

## Introduction

Diversity, equity, and inclusion (DEI) is an important framework for addressing widespread social and political inequities with critical implications for strengthening security at nuclear facilities. A growing body of empirical evidence indicates that more diverse, equitable, and inclusive work environments improve organizational outcomes.<sup>1</sup>

Unfortunately, the nuclear field, which encompasses energy, security, and nonproliferation issues/specializations, has historically lacked diversity. This includes racial representation, gender, sexuality, and other marginalized demographics.<sup>2</sup> Although data is sparse, the nuclear security community, a subset of the larger nuclear field, faces similar challenges. For example, women in nuclear security and those working on the physical protection of nuclear weapons, material, facilities, technology, and information have less representation than in other areas in the wider nuclear field.<sup>3</sup>

The lack of diverse representation has spurred a wave of interest and initiatives targeted at increasing participation and reducing inequalities in the nuclear security field. The UN Women, Peace, and Security agenda; implementation of feminist foreign policies in states like Canada, Chile, France, Germany, Luxembourg, Mexico, Spain, and Sweden; social justice movements around systemic racial discrimination and the rights of historically marginalized communities such as the Black Lives Matter movement; and campaigns by indigenous activists to raise awareness about the ongoing effects of weapons testing and uranium mining to support the

---

<sup>1</sup> Sundiatu Dixon-Fyle, Kevin Dolan, Dame Vivian Hunt, and Sara Price, *Diversity Wins: How Inclusion Matters* (May 19, 2020), <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/diversity-wins-how-inclusion-matters>.

<sup>2</sup> Jessica Bufford, “Nuclear Security: The IAEA Faces the Future,” *Arms Control Today* (May 2020), <https://www.armscontrol.org/act/2020-05/features/nuclear-security-iaea-faces-future#endnote06>.

<sup>3</sup> WINS, *Gender and Nuclear Security: Challenges and Opportunities* (July 2019), [https://www.wins.org/wp-content/uploads/2020/12/Gender-and-Nuclear-Security\\_Pg33.pdf](https://www.wins.org/wp-content/uploads/2020/12/Gender-and-Nuclear-Security_Pg33.pdf).

nuclear industrial complex all present an opportunity for the nuclear field to strengthen human resource development and organizations.<sup>4</sup>

The International Atomic Energy Agency (IAEA), alongside Member States, industry, and civil society, has increased its focus on promoting the role of women in the nuclear field. Commitments by leaders and stakeholders in the field to civil society groups like International Gender Champions, Gender Champions in Nuclear Policy, Women of Color Advancing Peace and Security, and other organizations have popularized efforts to make the nuclear field more diverse, equitable, and inclusive. The primary venue for these initiatives is targeted at civil society and diplomats—not practitioners at facilities. Nuclear security, however, is a specialized subset of the broader nuclear field and subsequently requires a tailored approach to address its unique challenges and specific stakeholders, like the operators and guard forces.

This paper will examine these challenges by first defining DEI within the context of nuclear security and describing the problem DEI is trying to address, providing a framework for understanding DEI as a tool for strengthening nuclear security implementation, and then, based on this framework, providing recommendations for strengthening DEI in nuclear security.

## What Is DEI?

Diversity, equity, and inclusion is a framework through which organizations can evaluate their workforce composition, retention challenges, and opportunities for advancement and critically examine how structural biases might cause historically marginalized groups to be alienated and identify paths for improvement. DEI means different things in different settings. Most DEI literature centers on Western values, cultural contexts, and baselines for inclusion and is developed to highlight the role it plays in corporations, rather than its impact on security for critical infrastructure and on national and global security efforts more broadly.<sup>5</sup> This complicates efforts to understand the nuclear security workforce's composition; its subsequent hiring, retention, and advancement challenges; and how these complications manifest in different regions.<sup>6</sup> Thus, it is important to create a common understanding of what diversity, equity, and inclusion mean in a nuclear security context.

---

<sup>4</sup> Renata H. Dalaqua, "Lost in Translation? Understanding the Relevance of the Women, Peace and Security Agenda in the Field of Arms Control and Disarmament," *European Leadership Network Commentary* (November 30, 2020): <https://www.europeanleadershipnetwork.org/commentary/lost-in-translation-understanding-the-relevance-of-the-women-peace-and-security-agenda-in-the-field-of-arms-control-and-disarmament/>; UN Women, *In Brief - Feminist Foreign Policies: An Introduction* (July 2022), [https://www.unwomen.org/sites/default/files/2022-09/Brief-Feminist-foreign-policies-en\\_0.pdf](https://www.unwomen.org/sites/default/files/2022-09/Brief-Feminist-foreign-policies-en_0.pdf); Mari Faines, "What the Nuclear Policy Community Needs to Understand About Intersectionality," *Outrider* (December 21, 2021), <https://outrider.org/nuclear-weapons/articles/what-nuclear-policy-community-needs-understand-about-intersectionality>; Sylvia Mishra, *Racial Inequalities and Nuclear Policy* (Muscatine: The Stanley Center for Peace and Security, February 2022): <https://stanleycenter.org/wp-content/uploads/2022/02/CRNW-SPC21-AB-2-1-22.pdf>.

<sup>5</sup> Poornima Luthra, "Do Your Global Teams See DEI as an American Issue?" *Harvard Business Review* (March 21, 2022), <https://hbr.org/2022/03/do-your-global-teams-see-dei-as-an-american-issue>.

<sup>6</sup> Dixon-Fyle, Dolan, Hunt, and Price, "Diversity Wins"; WINS, *Advancing Gender Parity in Nuclear Security* (March 23, 2021), 12, <https://www.wins.org/document/advancing-gender-parity-in-nuclear-security/>.

- **Diversity** refers to “who is represented in the [nuclear] workforce,” including characteristics like gender, race, age, physical ability, or socioeconomic status.<sup>7</sup>
- **Equity** speaks to “fair treatment for all people, so that the norms, practices, and policies in place ensure identity is not predictive of opportunities or workplace outcomes.”<sup>8</sup> This takes into account the unique circumstances faced by an individual in their endeavor to enter the nuclear security field, their lived experience working in the field, and ensuring that their treatment is tailored to their needs, instead of a “one-size-fits-all” approach.
- **Inclusion** examines “how the [nuclear security] workforce experiences the workplace and the degree to which [nuclear] organizations embrace all employees and enable them to make meaningful contributions.”<sup>9</sup> Inclusion in this context means examining if all employees feel that their voices are heard, contributions valued, and concerns taken seriously.

Diversity can help address homogeneity in the workforce composition, equity can curb unfair treatment by reducing the impact of existing societal inequities on opportunities for advancement and growth for nuclear security practitioners, and inclusion can foster an open-minded nuclear security culture and expand a facility’s shared understanding of potential nuclear security threats. Collectively, these principles can work to mitigate counterproductive work behavior and prevent disgruntled employees from becoming insider threats. By understanding DEI as a set of values critical to security, and therefore as an element of an effective nuclear security culture, stakeholders can explore how DEI can contribute to stronger security at nuclear facilities.

## Context for Exclusion in the Nuclear Security Field

The bureaucracy, secrecy, and protocol surrounding the development of nuclear weapons and the subsequent Cold War arms race set the foundation for exclusion in nuclear research beyond nuclear weapons states and formed the basis for marginalization in the nuclear security field.<sup>10</sup> Secrecy is a cornerstone of national security strategies around the world. Given that nuclear terrorism has a low likelihood of occurrence but a high potential for catastrophe, secrecy is crucial. These processes both create hierarchies and work as a form of social control, enabling secrecy to be used as a tool for exclusion in the national and nuclear security fields.<sup>11</sup> At the same time, these systems disproportionately exclude demographics that don’t reflect the characteristics of those in power, thus dictating the nuclear security field’s decisionmakers by preventing inclusivity in the hiring process. The conscious and subconscious biases that inform

---

<sup>7</sup> McKinsey & Company, “What Is Diversity, Equity, and Inclusion?” *Featured Insights* (August 17, 2022), <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-diversity-equity-and-inclusion#/>.

<sup>8</sup> McKinsey & Company, “What Is Diversity, Equity, and Inclusion?”

<sup>9</sup> McKinsey & Company, “What Is Diversity, Equity, and Inclusion?”

<sup>10</sup> Hugh Gusterson, “Secrecy, Authorship and Nuclear Weapons Scientists,” in *Secrecy and Knowledge Production*, ed. Judith Reppy (Ithaca: Cornell University Press, 1999), 58.

<sup>11</sup> Joseph Masco, “Lie Detectors: On Secrets and Hypersecurity in Los Alamos,” *Public Culture* 14, no. 3 (2002), 441–467.

who is allowed into the field, and therefore who is allowed access to nuclear and national secrets, have resulted in unwarranted scrutiny of women, people of color, and other historically underrepresented groups and their subsequent exclusion or marginalized participation in the field.

To illustrate this phenomenon, U.S. government reports show that qualified applicants with foreign ties have been discouraged from applying to sensitive national security positions and faced barriers to obtaining a security clearance. This is in part due to preconceived confirmation biases held by investigators about certain racial or ethnic groups.<sup>12</sup> In recent news reports, statements by intelligence officials, and studies conducted by Blue Star Families and RAND Corporation, racial bias was seen as a significant factor that negatively affects the careers of diplomats, military personnel, veterans, and members of the intelligence community. These reports drew attention to the structural nature of exclusion in the security infrastructure.<sup>13</sup>

Bias and exclusion based on sex have also pervaded women's participation in some security spaces. A U.S. Department of Defense culture study found that sexism in the armed forces resulted in men perceiving women as less capable and competent. In analyzing survey responses, the study found that an overarching assumption of survey respondents was that the presence of women in traditionally male spaces would trigger problematic responses from men—thus disrupting the national security mission.<sup>14</sup> This theme of exclusion based on gender and sexual preference is also evident in the United Kingdom, where allegations of sexist and homophobic bullying at the Sellafield Nuclear Power Plant raised safety and security concerns about the toxic organizational culture at the facility.<sup>15</sup>

---

<sup>12</sup> National Commission on Terrorist Attacks upon the United States, *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States*, (Washington, D.C.: Government Printing Office, 2004), <https://www.govinfo.gov/content/pkg/GPO-911REPORT/pdf/GPO-911REPORT.pdf>; Tepring Piquado, Sina Beaghley, Lisa P. Colabella, and Nahom M. Beyene, *Assessing the Potential for Racial Bias in the Security Clearance Process*, (Santa Monica, CA: RAND Corporation, 2022), [https://www.rand.org/content/dam/rand/pubs/research\\_reports/RRA1200/RRA1201-1-v2/RAND\\_RRA1201-1-v2.pdf](https://www.rand.org/content/dam/rand/pubs/research_reports/RRA1200/RRA1201-1-v2/RAND_RRA1201-1-v2.pdf).

<sup>13</sup> Nicole Gaouette, "Asian American Diplomats Say Discrimination Holds Them Back as US Competes with China," *CNN*, (May 7, 2021), <https://www.cbs58.com/news/asian-american-diplomats-say-discrimination-holds-them-back-as-us-competes-with-china>; Rebecca Kheel, "Many Service Members of Color Are Turning Down Assignments Because of Concerns about Racism," *Military.com* (February 7, 2022), <https://www.military.com/daily-news/2022/02/07/many-service-members-of-color-are-turning-down-assignments-because-of-concerns-about-racism.html>; Nomaan Merchant, "As National Discussion on Race Continues, within Spy Agencies a Call to Diversify," *PBS Newshour* (May 19, 2022), <https://www.pbs.org/newshour/politics/as-national-discussion-on-race-continues-within-spy-agencies-a-call-to-diversify>; Piquado, Beaghley, Colabella, and Beyene, *Assessing the Potential for Racial Bias in the Security Clearance Process*.

<sup>14</sup> Elizabeth M. Trobough, "Women, Regardless: Understanding Gender Bias in U.S. Military Integration," *Joint Force Quarterly* 88 (January 9, 2018), <https://ndupress.ndu.edu/Publications/Article/1411860/women-regardless-understanding-gender-bias-in-us-military-integration/>.

<sup>15</sup> BBC, "Sellafield: Reports of Homophobic Abuse and Bullying 'Not Investigated,' Tribunal Told" (June 17, 2021), <https://www.bbc.com/news/uk-england-cumbria-57518102>.

These gender and racial biases, both in the United States and around the world, can produce recruitment, retention, and advancement challenges for personnel, which further exacerbates exclusion issues in national security—and subsequently nuclear security—fields.<sup>16</sup>

The barriers to access created by implicit bias in the nuclear security field have also prevented women, people of color, and other historically marginalized groups from contributing as knowledge producers—even in the broader nuclear field. To use a proxy example, white men have historically dominated debate in the nuclear policy field in terms of representation on panel discussions—often referred to as “manels”—and in assigning credibility. A 2018 survey conducted over a one-month period of U.S. publications, the *New York Times*, *Wall Street Journal*, and *Washington Post* found that at least 28 articles on nuclear policy cited only male experts—a phenomenon dubbed “marticles”—and a 2020 piece found that journalists covering issues in the arms control and disarmament community sourced men over women by a margin of 80% to 20%.<sup>17</sup>

Addressing the implications of the lack of inclusion in the nuclear security field requires multifaceted analysis, but there is a simplified way of understanding some of the root causes of exclusion in the nuclear field. Diverse talent (women, people of color, or other minority communities) are deterred from entering a field that lacks leaders who look like them.<sup>18</sup> The homogeneity of hiring managers results in an affinity bias that further creates barriers for diverse candidates. When hiring, individuals unconsciously seek out characteristics that reflect their own experience; therefore, diverse candidates with backgrounds different from the “norm” are less likely to be hired, perpetuating the cycle of exclusion in nuclear security.<sup>19</sup>

## DEI as a Tool for Strengthening Nuclear Security Implementation

DEI is a set of values essential for strong nuclear security implementation. An equitable work environment in which personnel feel included is also likely to breed higher employee satisfaction, which in turn, improves performance and reduces the likelihood of insider threats going unnoticed.<sup>20</sup> Equitable workplaces and security cultures are also less likely to produce disgruntled

---

<sup>16</sup> Gaouette, “Asian American Diplomats Say Discrimination Holds Them Back.”

<sup>17</sup> Alexandra Bell and Kelsey Davenport, “Behold, The Marticle (A Primer on How to Avoid Quoting Only Men as Sources,” *Poynter* (April 30, 2018), <https://www.poynter.org/newsletters/2018/behold-the-marticle-a-primer-on-how-to-avoid-only-quoting-men-as-sources/>); Lynn Fahselt, “Who Gets Heard Matters: We Are a Long Way from Gender Equity in Who the Media Quotes. Let’s Fix That” *ReThink Media* (August 19, 2020), <https://rethinkmedia.org/blog/who-gets-heard-matters-we-are-long-way-gender-equity>.

<sup>18</sup> Mareena Robinson Snowden, “One Size Does Not Fit All: Why Diversity and Inclusion Efforts Fail in the Nuclear Community and What Can Be Done About It,” *Bulletin of the Atomic Scientists* (January 6, 2021), <https://thebulletin.org/2021/01/one-size-does-not-fit-all-why-diversity-and-inclusion-efforts-fail-in-the-nuclear-community-and-what-can-be-done-about-it/>.

<sup>19</sup> Snowden, “One Size Does Not Fit All”; Becca Carnahan and Christopher Moore, “Actively Addressing Unconscious Bias in Recruiting” *Harvard Business Review* (July 7, 2020), <https://www.hbs.edu/recruiting/insights-and-advice/blog/post/actively-addressing-unconscious-bias-in-recruiting>.

<sup>20</sup> Matthew Bunn and Scott D. Sagan, *A Worst Practices Guide to Insider Threats: Lessons from Past Mistakes* (Cambridge: American Academy of Arts and Sciences, 2014), 158–163; Sneha Nair, *Diversity, Equity, and Inclusion in Nuclear Security Culture: Insider Threat Assessments at Nuclear Facilities* (Washington, DC: INMM and the

employees who may pose an insider threat.<sup>21</sup> A more diverse workforce brings different backgrounds and experiences to an organization and adds fresh perspectives. A diverse workforce will be more capable of identifying different strategies for strengthening nuclear security, examining potential vulnerabilities differently, and having their ideas and potential solutions considered and acknowledged by organizational leadership.

DEI tends to bring an openness to new ideas and places an emphasis on listening, which is central to creating an organizational culture in which personnel feel empowered to share instances of experiencing threatening behavior from peers.<sup>22</sup> Creating a security culture and an organizational culture where employees feel that complaints or concerns about racism, sexism, or homophobia will be taken seriously and processed without repercussion will likely improve the retention and performance of all employees—with specific improvements in retention of historically marginalized groups.

Centering these values as crucial to bolstering nuclear security means integrating the implementation of DEI into an organization's security culture.<sup>23</sup> Creating a diverse, equitable, and inclusive nuclear security culture requires organizations to ensure that DEI is seen as a critical component of security throughout the organization, from the executives to the guard force.

If nuclear facilities fail to protect personnel from abuse, hostility, or incivility on the basis of race, gender, sexual orientation, or any other characteristic, they create a toxic workplace in which individuals are less likely to share concerns.<sup>24</sup> Toxic organizational cultures can yield negative experiences and negatively impact employees in various ways including “elevated levels of anxiety, stress, depression, health issues, absenteeism, and burnout.” This, in turn, may compromise an institution's efficiency, productivity, and reputation.<sup>25</sup> These factors could impact how a guard force operates and the process by which organizations identify and mitigate potential security vulnerabilities.

---

Stimson Center, 2022), [https://www.stimson.org/wp-content/uploads/2022/08/209\\_INMM\\_Diversity-Equity-and-Inclusion-in-Nuclear-Security-Culture-Insider-Threat-Assessments-at-Nuclear-Facilities\\_final.pdf](https://www.stimson.org/wp-content/uploads/2022/08/209_INMM_Diversity-Equity-and-Inclusion-in-Nuclear-Security-Culture-Insider-Threat-Assessments-at-Nuclear-Facilities_final.pdf).

<sup>21</sup> Nair, *Diversity, Equity, and Inclusion in Nuclear Security Culture*, 9.

<sup>22</sup> Alexandra Stark and Heather Hurlbert, “The Limits of Orthodoxy: What Diversity Brings to Nuclear Security,” *Voices from the Field—Council on Foreign Relations* (March 18, 2019), <https://www.cfr.org/blog/limits-orthodoxy-what-diversity-brings-nuclear-security>.

<sup>23</sup> Nair, *Diversity, Equity, and Inclusion in Nuclear Security Culture*, 8–9

<sup>24</sup> Neville, Fenderson, and Jaros, “*Maybe It's Me*,” (Washington, DC: PERSEREC, June 2021) <https://www.dhra.mil/PERSEREC/Selected-Reports/#RN-21-01>. ; Nair, *Diversity, Equity, and Inclusion in Nuclear Security Culture*, 8–9.

<sup>25</sup> Neville, Fenderson, and Jaros, “*Maybe It's Me*”; Amna Anjum, Xu Ming, Ahmed Faisal Siddiqi, and Samma Faiz Rasool, “An Empirical Study Analyzing Job Productivity in Toxic Workplace Environments,” *International Journal of Environmental Research and Public Health* 15, no. 5 (2018), 1035, <https://doi.org/10.3390/ijerph15051035>; Steven H. Appelbaum and Barbara T. Shapiro, “Diagnosis and Remedies for Deviant Workplace Behaviors,” *Journal of American Academy of Business* 9, no. 2 (2006): 14–20, [https://www.researchgate.net/publication/265030001\\_Diagnosis\\_and\\_Remedies\\_for\\_Deviant\\_Workplace\\_Behaviors](https://www.researchgate.net/publication/265030001_Diagnosis_and_Remedies_for_Deviant_Workplace_Behaviors).



To create a nuclear security culture at an organization that views structural biases as potential vulnerabilities, DEI principles and advancement must be considered crucial assets for strengthening nuclear security implementation. Describing fair treatment and full participation of all people as a goal that strengthens nuclear security also broadens the legitimacy of DEI as values that improve an organization's performance, reputation, and leadership. Creating and upholding security culture is the shared responsibility of a range of stakeholders; therefore, changing it similarly requires buy-in across all/multiple levels of an institution.<sup>26</sup> This means that DEI must be mainstreamed throughout the entire organization's culture and across the international nuclear security regime.

Another key assumption should be that the structural biases that inform historic marginalization and exclusion are vulnerabilities for nuclear security. If nuclear security culture is, "the assembly of characteristics, attitudes and behaviors of individuals, organizations, and institutions which serves as a means to support and enhance nuclear security," then nuclear security stakeholders need to understand how shared DEI values strengthen the characteristics, beliefs, and attitudes of individuals, organizations, and institutions that underpin nuclear security by acknowledging and mitigating the effects of structural biases.<sup>27</sup>

In practice, this means understanding how DEI and nuclear security intersect in their goals and outcomes. Essentially, how policies can strengthen nuclear security efforts, while simultaneously making the field more diverse, equitable, and inclusive.

International guidance has begun to address some of these issues. The IAEA emphasizes the importance of inclusivity in its "Nuclear Security Culture" guide, emphasizing that "the quality of a decision is improved when the individuals involved can contribute their insights and ideas."<sup>28</sup>

The World Institute of Nuclear Security (WINS)-produced guide, *Advancing Gender Parity in Nuclear Security*, advocates for diversifying the workforce "by design," arguing that advancing women promotes innovation, performance, talent, and diversity of views strengthens nuclear security and profitability for nuclear organizations.<sup>29</sup> Drawing on other organizational culture studies, it stands to reason that diversity beyond gender also supports nuclear security by enhancing innovation, strengthening engagement, and increasing profitability for nuclear institutions. In a similar vein, failing to include diverse individuals has direct and indirect costs.<sup>30</sup>

---

<sup>26</sup> IAEA, "Nuclear Security Culture," *IAEA Nuclear Security Series*, no. 7 (2008): 12–16, [https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1347\\_web.pdf](https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1347_web.pdf).

<sup>27</sup> IAEA, "Nuclear Security Culture," 3.

<sup>28</sup> IAEA, "Nuclear Security Culture," 13.

<sup>29</sup> WINS, *Advancing Gender Parity in Nuclear Security*, 8–12, <https://www.wins.org/document/advancing-gender-parity-in-nuclear-security/>.

<sup>30</sup> Dixon-Fyle, Dolan, Hunt, and Price, "Diversity Wins"; WINS, *Advancing Gender Parity in Nuclear Security*, 12.

WINS developed a supplementary self-assessment tool for nuclear security organizations to assess gender diversity, equality, and inclusion implementation at different levels.<sup>31</sup> The tool aims to ensure that organizational culture reflects values that will strengthen the inclusion, advancement, and retention of a diverse range of individuals in nuclear organizations. This includes women, those with diverse backgrounds, and people with diverse gender identities.<sup>32</sup> Developing an organizational culture that espouses fair treatment and full participation of all people is an essential precursor to developing a diverse, equitable, and inclusive nuclear security culture. Incorporating DEI principles into the organizational culture of nuclear employers will foster a more welcoming and open-minded environment, which will in turn improve organizational outcomes.

### Improving Threat Identification to Reduce Risk

One way of strengthening nuclear security is by diversifying the field of practitioners. Far from simply fulfilling a social or political agenda, homogeneity of individuals and decisionmakers in the nuclear field creates vulnerability through associated bias that hampers threat identification in an evolving security landscape. This type of bias prevents an individual from seeing members of one's own group as a potential threat—which is especially risky when considering the threat posed by insiders.

Diversifying the perspectives included in nuclear security decision-making can expand the definition of who or what constitutes a “threat” for nuclear security.<sup>33</sup> The notion of “threat” and “security” are defined by the dominant culture, which inherently sidelines how marginalized groups—including women and minority communities—perceive “threats.”<sup>34</sup> An example of this is the threat posed by some white supremacist groups to nuclear facilities may go undetected if a white-majority workforce does not perceive these ideological leanings as indicators of a relevant nuclear security threat.<sup>35</sup> Unique individuals with diverse backgrounds experience systems of power differently and subsequently view risk and threat within the context of their own lives.<sup>36</sup> The hegemonic construct of a “threat” creates an “us” versus “them” dynamic that “others” the threat by creating a preconception of the threat as “foreign.” This dynamic is vulnerable to confirmation and affinity biases when it comes to assessing threats from within,

---

<sup>31</sup> WINS, *Advancing Gender Equality, Diversity and Inclusion in Nuclear Security Self-Assessment, Evaluation and Action Plan Tool*, (September 2022), 4, <https://www.wins.org/wp-content/uploads/2022/09/Self-Assesment-Tool-Print-version.pdf>.

<sup>32</sup> WINS, *Advancing Gender Equality, Diversity and Inclusion in Nuclear Security Self-Assessment, Evaluation and Action Plan Tool*.

<sup>33</sup> Nair, *Diversity, Equity, and Inclusion in Nuclear Security Culture*, 9.

<sup>34</sup> Bonnie Jenkins, “Redefining Our Concept of Security,” Brookings: Order From Chaos (December 4, 2019): <https://www.brookings.edu/blog/order-from-chaos/2019/12/04/redefining-our-concept-of-security/>.

<sup>35</sup> Rebecca L. Earnhardt, Brendan Hyatt, Nickolas Roth, “A threat to confront: far-right extremists and nuclear terrorism,” *Bulletin of Atomic Scientists*, (January 14, 2021), <https://thebulletin.org/2021/01/a-threat-to-confront-far-right-extremists-and-nuclear-terrorism/>.

<sup>36</sup> Nair, *Diversity, Equity, and Inclusion in Nuclear Security Culture*, 9.



because practitioners who have a preconceived notion of a threat as “other” or “foreign” are less likely to consider individuals who look like them or have similar lived experiences as security risks.

Ensuring diversity of nuclear security personnel can help mitigate bias to prevent elements like race, gender, or sexuality from being used as the deciding factor when identifying potential threats or risks.<sup>37</sup> This can refocus the nuclear security regime on behaviors rather than falling back on confirmation biases rooted in assumptions about race, gender, or other characteristics.<sup>38</sup> Because the goal of nuclear security is to protect nuclear materials, weapons, facilities, technology, and knowledge from unauthorized use, nuclear security culture as a whole benefits from a more diverse, equitable, and inclusive understanding of who or what could pose a threat.

### Ensuring International Buy-In

The international community has begun taking the right steps to position DEI as a tool for strengthening nuclear security implementation at the highest levels. The 2020 International Conference on Nuclear Security’s (ICONS) Ministerial Declaration called for a commitment to “promote geographical diversity and gender equality, in the context of IAEA’s nuclear security activities, and encourage Member States to establish an inclusive workforce within their national security regimes, including ensuring equal access to education and training.”<sup>39</sup> Furthermore, at the March 2023 IAEA Board of Governors meeting, the U.S. statement delivered on Agenda Item 3—Nuclear Security Review highlighted the need for diversity in nuclear security, stating: “[developing] States’ human resources is necessary to prevent nuclear terrorism and strengthen nuclear security...no field or profession should be out of reach to women—including nuclear security and the entire nuclear sector. Diverse teams and workforces are not only important in achieving the fifth United Nations (UN) Sustainable Development Goal but are essential if we are to have the necessary talent and resources to tackle complex nuclear security challenges before us.”<sup>40</sup>

These high-level statements are important steps in making the nuclear security field more inclusive, but often fall victim to criticism, given perceptions of DEI as an issue largely exclusive to Western states. This is because these states have been leaders on gender parity issues in the broader nuclear field. The International Gender Champions initiative serves as an example of this as a leadership network made up of heads of international organizations, permanent missions, and civil society organizations that brings together decision makers determined to break down gender barriers and make gender equality a working reality in their spheres of influence—

---

<sup>37</sup> Mike German, *Disrupt, Discredit, Divide: How the New FBI Damages Democracy*, (New York: The New Press, 2019), 65–88; Nair, *Diversity, Equity, and Inclusion in Nuclear Security Culture*, 9.

<sup>38</sup> German, *Disrupt, Discredit, Divide*, 65–88; Nair, *Diversity, Equity, and Inclusion in Nuclear Security Culture*, 9; Piquado, Beaghley, Colabella, and Beyene, *Assessing the Potential for Racial Bias in the Security Clearance Process*.

<sup>39</sup> IAEA, “Ministerial Declaration,” *2020 International Conference on Nuclear Security*, n.d., 2, <https://www.iaea.org/sites/default/files/20/02/cn-278-ministerial-declaration.pdf>.

<sup>40</sup> U.S. Mission to the International Organizations in Vienna, “U.S. Statement as Delivered by Ambassador Laura S.H. Holgate” at *IAEA Board of Governors Meeting—Agenda Item 3—Nuclear Security Review 2023* (Vienna, Austria: March 6, 2023), <https://vienna.usmission.gov/agenda-item-3-iaea-board-of-governors-meeting-march-2023/>

including a nuclear impact group.<sup>41</sup> Of the 32 current Gender Champions who are permanent representatives to the Vienna-based international organizations, 17 represent states classed as Western Europe or North America.<sup>42</sup> This dynamic is further emphasized in the Charter for the International Gender Champion’s Impact Group on Gender Equality in Nuclear Regulatory Agencies. Approximately two-thirds, or 12 of 21, of the State signatories and acknowledgers of the Charter represent North America and Western Europe.<sup>43</sup> The high representation of these regions creates a perception of Western dominance and agenda-setting on the priorities identified. Furthermore, most literature exploring DEI in organizational culture and the unique experiences of underrepresented demographics in the workplace focuses on North American or Western European socio-political environments.<sup>44</sup>

Biases, discrimination, and inequality exist everywhere, and are situated, not only culturally or geographically, but also within the context of different specializations within the nuclear field.<sup>45</sup> Mainstreaming DEI as a global concern for nuclear security is essential for securing widespread support and developing international momentum for implementation. Continued work, attention, and research focusing on the merits of DEI in the nuclear security field is needed at all levels, and in the context of different cultural environments.

## Recommendations for Increasing DEI in Nuclear Security

The commonalities between the goals of DEI initiatives and nuclear security implementation demonstrate that the intersections between the two areas create opportunities for collaboration, rather than conflicting missions. Integrating DEI into nuclear security culture requires long-term and sustainable plans for implementation. The nuclear security field needs to take significant steps for the two initiatives to efficiently work in tandem and the following recommendations can help support implementation of DEI to strengthen nuclear security. Some of the necessary steps are already underway and high-level efforts require sustained attention.

### Stronger Public Statements from International Leaders

Although the 2020 ICONS Ministerial Declaration called for a commitment to geographical diversity and gender equality, stronger language is essential ahead of the 2024 conference.<sup>46</sup> International nuclear security stakeholders should develop language around workforce composition, fairness, and participation that is globally applicable and relevant. The Declaration should include a strong statement supporting DEI and its relevance in nuclear security culture. It should also include clearer targets for Member States to diversify their nuclear security workforce, as opposed to national security regimes; inclusive approaches to hiring for the nuclear

---

<sup>41</sup> International Gender Champions, *Impact* (2023), <https://genderchampions.com/impact>.

<sup>42</sup> International Gender Champions, “Leadership Network” in *Champions* (2023), <https://genderchampions.com/champions?id=&chapter=5&role=0&sortBy=>.

<sup>43</sup> International Gender Champions, “Leadership Network.”

<sup>44</sup> Luthra, “Do Your Global Teams See DEI as an American Issue?”

<sup>45</sup> Luthra, “Do Your Global Teams See DEI as an American Issue?”

<sup>46</sup> IAEA, “Ministerial Declaration,” *2020 International Conference on Nuclear Security*.

security workforce; and equitable approaches to education, training, and advancement for historically marginalized members of the nuclear security workforce—expanding the focus beyond the initiatives that focus on women alone.

### International Guidance

The IAEA should develop guidance on implementing diversity, equity, and inclusion within Member States’ nuclear security regimes. Such guidance can be essential to creating benchmarks for progress and clear paths for DEI integration for nuclear security. The IAEA has launched implementation initiatives through programs to advance women in the field at several levels, such as the Marie Skłodowska-Curie Fellowship and the Lise Meitner Program for early-mid career professionals. Similarly, Member States have provided generous investment in programs and opportunities to advance women in nuclear science, policy, nonproliferation, and security to support the growth of human resources in the field. However, these initiatives, resources, and tools disproportionately focus on the largest minority in the nuclear field—women—which often functionally means white women, especially in Western Europe and North America.<sup>47</sup> The IAEA and Member States need to continue their work on initiatives that support hiring, retention, and advancement of diverse candidates for nuclear security roles, but with a more intersectional understanding of diversity beyond the lens of gender.

### Developing an Inclusive Dialogue

Broader dialogue on the intersection of DEI and nuclear security is needed throughout the wider international community. Current efforts disproportionately center Western values, cultural contexts, and baselines for inclusion, which may not apply outside of the Global North. More intersectional understandings of both DEI and initiatives for implementation are essential for diversifying the nuclear security field to account for not only women, but also people of color, members of LGBT+ community, people with disabilities, and other historically marginalized groups. Such initiatives should be flexible enough to apply outside of the Western cultural context. Further research is also needed on the intersection of DEI and nuclear security in diverse operating environments outside of the Global North, such as India, Indonesia, or South Africa, to develop guidance and recommendations on DEI implementation for nuclear security that are applicable globally.

### Implementing DEI to Strengthen Nuclear Security at the State and Facility Level

National legislation and state-developed guidance for nuclear security culture programs that emphasize the role of DEI in strengthening nuclear security can help support implementation of high-level state commitments. Drawing on the experience of integrating safety culture into nuclear facilities, high-level endeavors must be supplemented by a broad range of stakeholders in the security culture regime, including regulators, nuclear facility managers, and members of the nuclear security workforce.<sup>48</sup> National and facility-specific initiatives to improve DEI for

---

<sup>47</sup> Snowden, “One Size Does Not Fit All.”

<sup>48</sup> American Nuclear Society, “NEA Report Quantifies Need to Attract and Retain Women in the Nuclear Sector,” in *Nuclear Newswire* (March 8, 2023), <https://www.ans.org/news/article-4805/nea-report-quantifies-need-to-attract-and-retain-women-in-the-nuclear-sector/#:~:text=While%20these%20women%20make%20up,20%20percent%20of%20STEM%20positions.>

nuclear security can help develop efforts that are tailored to each state and facility's cultural context and unique challenges in a way that high-level efforts are unable to effectively do. Further, integrating DEI into nuclear security culture can help reimagine how each state's nuclear security regime understands "threat" to ensure a comprehensive assessment of the security risks facing a facility. Creating nuclear security culture programs that emphasize the role of DEI in nuclear security implementation creates accountability for DEI efforts at facilities by integrating it into the regime's security priorities.

### Data Collection

Another essential step in improving DEI in nuclear security is building a more complete and accurate understanding of the state of the field. Most analyses use proxy data, such as women in the nuclear sector, to estimate the number of women in nuclear security.<sup>49</sup> A 2021 survey estimates overall number of women in the nuclear energy sector at 24.9%.<sup>50</sup> However, as of 2020, only 5% of the security forces responsible for securing weapons-grade nuclear material within the U.S. National Nuclear Security Administration were women, suggesting that relying on the proxy data may underrepresent the number of women in nuclear security.<sup>51</sup> Reliable public data on other demographic traits for nuclear security practitioners, such as race or sexuality, is virtually nonexistent. Obtaining these data is essential for monitoring progress, determining if initiatives are working, and gauging how demographic changes in the nuclear security field yield positive results. To complement this, questions about DEI should be integrated into organizational culture surveys, exit interviews, and performance assessments at organizations that deal with nuclear security to support continuous evaluation of the composition of the field.<sup>52</sup> Data transparency is an essential aspect of building trust within the nuclear security workforce as to how data are being used, measuring progress, and holding organizations accountable.

### Conclusion

Considerable progress has been made in advancing DEI in the nuclear field, but the largest obstacle remains in ensuring that nuclear security practitioners understand how DEI can serve as a tool to strengthen nuclear security. Greater focus on the intersections between nuclear security and DEI is essential.

---

<sup>49</sup> Bufford, "Nuclear Security: The IAEA Faces the Future."

<sup>50</sup> Nuclear Energy Agency, *Gender Balance in the Nuclear Sector*, (Paris: Organisation for Economic Co-operation and Development, March 2023), [https://www.oecd-nea.org/jcms/pl\\_78831/gender-balance-in-the-nuclear-sector](https://www.oecd-nea.org/jcms/pl_78831/gender-balance-in-the-nuclear-sector); IAEA, "Toward Closing the Gender Gap in Nuclear Science" in *IAEA Bulletin* (February 11, 2019), <https://www.iaea.org/newscenter/news/toward-closing-the-gender-gap-in-nuclear-science>.

<sup>51</sup> Government Accountability Office, *Sexual Harassment: NNSA Could Improve Prevention and Response Efforts in Its Nuclear Security Forces* (Washington, DC: GAO, April 2021), <https://www.gao.gov/assets/gao-21-307.pdf>.

<sup>52</sup> Snowden, "One Size Does Not Fit All."

## About the Author

Sneha Nair is a Research Analyst with the Nuclear Security Program and Partnerships in Proliferation Prevention Program at the Stimson Center and Coordinator for the International Nuclear Security Forum. Her work focuses primarily on nuclear security and nonproliferation, insider threats, CBRN disinformation, emerging technologies, and domestic violent extremist threats to national security and critical infrastructure. Her portfolio captures a wide range of chemical, biological, radiological, and nuclear issues relating to nonproliferation and security at the state, regional, and international level. Ms. Nair's work has been published with New America, Women of Color Advancing Peace and Security, Homeland Security Today, and the Institute for Nuclear Material Management.

Prior to joining the Stimson Center, Ms. Nair worked at the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) in Vienna. She has also worked for the Organisation for the Prohibition of Chemical Weapons (OPCW) in The Hague, supporting Public Affairs and External Relations activities, primarily focusing on open-source investigations into chemical-weapons related disinformation campaigns. She has further experience conducting fieldwork and engaging with a broad range of stakeholders to implement capacity-building workshops in Bolivia and support post-conflict reconciliation work in Bosnia and Herzegovina. Ms. Nair holds an MA (Honours) in Geography and International Relations from the University of St Andrews in the United Kingdom. She speaks English and Spanish fluently. Contact her at [snair@stimson.org](mailto:snair@stimson.org).