Executive Summary:

Since its founding in 1989, the James Martin Center for Nonproliferation Studies (CNS) at the Middlebury Institute of International Studies (MIIS) has strived to combat the spread of weapons of mass destruction (WMDs) by training multiple generations of nonproliferation specialists and raising public awareness about relevant issues. Graduate students of MIIS’ Nonproliferation and Terrorism Studies program are a major part of these efforts that include both formal course work and on-the-job training. Further, CNS experts spearhead numerous research projects and training programs, aiming to build the capacity of newer voices in the field. CNS has increased its use of various online learning tools and new technologies to reach out to more diverse communities. CNS uses open-source tools to track and analyze nuclear- and missile-related developments in key countries around the world. CNS continues to enhance Diversity, Equity, and Inclusivity (DEI) through education and training activities. Learn more here.
CNS’ disarmament and nonproliferation education activities over the past two years are listed below.

**Graduate School-Level Formal Education:**

1. As part of its efforts to improve the capacities of students and scholars, the James Martin Center for Nonproliferation Studies (CNS) provides its expertise to the Middlebury Institute of International Studies at Monterey (MIIS) Master of Arts in Nonproliferation and Terrorism Studies (MANPTS) program. Launched in 2010, the program replaced the Certificate in Nonproliferation Studies. Its curriculum provides students with in-depth knowledge and specialized professional skills critical to understanding weapons of mass destruction (WMD)-related and other security threats posed by both state and non-state actors, enabling them to develop effective strategies to address them. The curriculum includes courses, seminars, workshops, and simulations taught by academicians and policy, scientific, and technical specialists. It is designed to prepare graduates for careers in governmental, international, non-governmental, and private-sector organizations that are dedicated to nonproliferation, disarmament, arms control, and counterterrorism. Since 1997, over 900 students have graduated from nonproliferation studies programs. More than 80% of these graduates are now active professionals involved in nonproliferation and disarmament-related work. In the past two academic years, 86 students from around the world earned their MANPTS degrees. Learn more about the program [here](#).

2. In Fall 2016, MIIS launched a new dual-degree program with the Moscow State Institute of International Relations (MGIMO), one of Russia’s most prestigious educational institutions in the field of nonproliferation studies. Under this dual-degree program, students enroll in both the MA program in Nonproliferation and Terrorism Studies at MIIS and the MA program in International Affairs at MGIMO as a steppingstone to professional career advancements in the global spheres of nonproliferation and disarmament. In the past two academic years starting Fall 2022, more than 10 students have earned degrees through this program. Find out more about the program [here](#).

**Simulation, Participatory Learning:**

3. One of the most important planks of CNS’ training efforts is the NPT Simulation course that Director, CNS, Dr. William Potter, has been teaching for the past 3 decades. During this course, students simulate the roles of delegates of States Parties at Preparatory Committee (PrepCom) Meetings, which are a key part of the Review Process of the Treaty on the Nonproliferation of Nuclear Weapons (NPT). The Simulation centers on training students to act as diplomats of their chosen countries, enabling them to present and defend their positions on nonproliferation, disarmament, and peaceful uses of nuclear energy. However, the main purpose of the Simulation is to enhance students’ diplomatic, negotiations’, and consensus-building skills. A focus on these aspects has made the Simulation a breeding ground for scholars and diplomats. Further, the Simulation has paved the way for students to attend both PrepComs and Review Conferences (RevCons) Over the years, hundreds of students have taken this course and gone on to make a name for themselves in the realm of nonproliferation-related nuclear diplomacy. During this
reporting period, approximately 30 students from across the world have taken this course and, subsequently, been part of the Review Process of the NPT.

**Education for High School Students and Teachers:**

4. The high school outreach and exchange program of CNS, the Critical Issues Forum (CIF), has long been instrumental in bringing together and training high school students from around the world on issues pertaining to nuclear disarmament and nonproliferation. During the past two years, students from Japan and the United States have enthusiastically participated in CIF’s activities, enhancing their understandings of nonproliferation, disarmament, international peace and security, and cross-cultural communication. Learn more about CIF [here](#).

5. During the reporting period, CIF transitioned back to the in-person sphere after a lapse of almost 3 years. The COVID-19-induced online operations were a great learning curve for CIF as they enabled it to explore and use the online space to increase its outreach to diverse groups of high school students. These developments and experiences will continue to positively impact the project going forward. During the past two years, CIF hosted conversations as part of its Speakers Series, held two Spring Students Conferences, and organized a number of outreach, networking, and informational activities.

6. During the pandemic, CIF launched the online Speakers Series that allowed experts to deliver talks to high school students on relevant issues. Given the success of the Series, CIF decided to continue with it even after the resumption of in-person activities. In the past two years, CIF conducted four online Speakers’ Series events, inviting some of the top-notch, authoritative voices to discuss nuclear issues from multiple vantage points. The topics covered in the Series included the role of colorized photography in generating empathy for the Hiroshima bombing victims, the impact of VR and storytelling on nuclear disarmament, intersection of racial justice and nuclear disarmament, and decolonizing nuclear studies.

7. In April 2023, CIF hosted its flagship Spring Students Conference online. Featuring over 120 high school students and teachers, the Conference centered its discussions on the theme “Bringing Intersectional Approaches to Youth Education for Nuclear Disarmament and Nonproliferation.” It included select schools’ presentations, and panel discussions between both high school students and CIF alumni. The highlight of the Conference was the keynote speech by the author of “Atomic Steppe How Kazakhstan Gave Up the Bomb,” Dr. Togzhan Kassenova. Her talk was entitled “The Continued Legacy of Soviet Nuclear Tests in Kazakhstan.”

8. In July 2023, CIF hosted its first in-person Students Conference since the end of the pandemic. Five high schools from the U.S., and three from Japan gathered to discuss nuclear disarmament issues. These lively, enriching in-person discussions among the participants were the biggest success of the Conference. The keynote speaker, Charles Mahaffey, Deputy Assistant Secretary (Acting) for Nonproliferation Policy, U.S. Department of State’s Bureau of International Security and Nonproliferation, and a MIIS alumnus, highlighted the importance of youth education and cross-cultural communication. Participating students presented their semester-long research projects.
In April 2024, the first full-scale in-person Spring Students Conference was held in Monterey. Eight schools from around the U.S., and five Japanese schools gathered in Monterey to present their research and action plans on the theme “Advancing Nuclear Disarmament and Nonproliferation through Youth Education.” CNS works closely with the UN Office for Disarmament Affairs, and therefore, the keynote speaker was a representative from the Office, Mr. Henrik Dale. His participation was significant given that he is focusing on youth education to promote disarmament. Students also engaged in small group discussions, during which they developed action plans to promote disarmament education.

Apart from all this, CIF has been committed to building the capacities of high school teachers, too. In December 2022, CIF hosted a small group of teachers who have been working with it as well as new teachers so as to increase their knowledge of nuclear nonproliferation and disarmament issues. During the workshop, participating teachers had a chance to get an overview of global nuclear weapons, listen to presentations about recent nuclear disarmament challenges, and assess the effectiveness and feasibility of possible solutions to those challenges. This event created the building blocks for subsequent CIF activities.

Education to Expand Regional Perspectives:

During the period covered by this report, CNS conducted a number of courses and training programs aimed at building capacities of academicians, government officials, and members of the media fraternity in matters relating to nonproliferation and arms control. As part of its collaboration with the Mexican Foreign Ministry, the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL), and the Matheas Romero Institute in Mexico, CNS runs a short course for Caribbean diplomats every summer. Entitled “Nuclear Disarmament and Nonproliferation Summer School for Latin America and Caribbean diplomats,” it has trained a number of diplomats from the region. The School’s 8th iteration was held from July 11 until July 15, 2022 in Mexico City. It was the first in-person edition since the COVID-19 pandemic, and featured 23 participants from 22 countries, including the 8 Caribbean Islands. Encouragingly, 70% of the participants were women, speaking to CNS’ commitment to Diversity, Equity, and Inclusivity (DEI). Read more about the 2022 Summer School here. The 9th course was held from July 10 until July 15, 2023 in Mexico City. 20 out of the 31 participants in the course were females. The School has become an important platform for diplomats from the region to expand their horizons on key nuclear issues.

Launched in 2021, the Black Sea Women Network (BSWN) has been actively establishing global linkages aimed at creating conducive environments for an exchange of ideas among women scholars. During the reporting period, BSWN hosted a number of events. In October 2022, for example, the Network hosted its first annual meeting in Valetta, Malta. Featuring experts and practitioners from the Black Sea and other regions, the meeting discussed the work the Network had done with regard to defining its mission, objectives, and vision. Further, the meeting included discussions on nuclear safety and security, and ways to increase opportunities for women in the nuclear field.
13. With a view to increasing its outreach, BSWN engaged various stakeholders in separate meetings held in Tbilisi and Vienna. The aims of these meetings were to explore avenues for expanding both the Network and Diversity, Equity, Inclusion, and Accessibility (DEIA) for women scholars and practitioners. Emphasis was, however, laid on streamlining communication strategies and mentorship programs so as to adequately train mid-career cadres of women in the field.

14. The success and growth of the Network can be gauged by the fact that, in March 2023, its members visited CNS, the Lawrence Livermore National Laboratory (LLNL), and Stanford University. These visits allowed for a free exchange of ideas between women nuclear leaders from the U.S. and Black Sea region, something which has always been one of the leitmotifs of the Network. These efforts also speak to the Network’s and CNS’ commitments to bridging the gaps between academic, think tanks, and policy communities.

15. In addition to all this, BSWN has done a bevy of activities aimed at amplifying women’s perspectives on key nuclear-related issues. Moreover, the Network has also expended time on identifying shared learning and mentorship opportunities for women from the Black Sea region. One of the foci of all these activities has been to bring gendered perspectives in the study of nuclear issues. All these events were aimed at promoting opportunities to enhance nonproliferation and disarmament education among Black Sea women involved in the nuclear field.

16. As part of its commitment to enabling women from different regions to become credible voices in the nuclear disarmament and nonproliferation space, in October 2023, CNS established an all-women professional network in Central Asia. Named “Women in Nuclear in Central Asia (WINCA),” it was launched at an event CNS co-hosted with the International Science and Technology Center (ISTC) in Almaty, Kazakhstan. The idea of establishing WINCA stemmed from the importance of Central Asian Republics (CARs) both historically and contemporaneously, in nuclear nonproliferation and disarmament. This, coupled with the fast-growing nuclear infrastructure and workforce in CARs, necessitates the need for solidifying linkages between women scholars, thought leaders, and practitioners. WINCA will facilitate engagements between this burgeoning group of women, allowing for learning from best practices in fields like nuclear security and safety. This initiative also aims to promote disarmament and nonproliferation education among Central Asian women who are working in the nuclear domain. WINCA will also work toward capacity-building of young women nuclear scholars, not least through its connections with the U.S. Department of Energy (DOE) and Los Alamos National Laboratory (LANL).

17. CNS’ Director of the Middle East Nonproliferation Program, Dr. Chen Kane, established the Middle East Next Generation of Arms Control Specialists Network (MENACS) in 2010 in order to develop and promote region-based approaches to arms control, nonproliferation, and disarmament in the Middle East. These approaches include capacity building, training, regional dialogue, knowledge dissemination, and teaching by example. The Network has also developed a website with the objective of expanding nonproliferation knowledge and academic teaching in the region and promoting the establishment of Weapons of Mass Destruction-Free Zone in the Middle East. The Network conducts annual meetings for reviewing its research and educational
activities. Dr. Chen Kane has carried out these activities under the auspices of the United Nations Institute for Disarmament Research (UNIDIR).

Education to Promote Gender Diversity:

18. In 2018, CNS launched its Young Women in Nonproliferation Initiative (YWINI). This program aims at increasing gender diversity in nonproliferation, arms control, and disarmament by introducing more women and non-binary undergraduate students at U.S. colleges and universities to these issues. As part of this Initiative, CNS conducts outreach events at U.S. higher education institutions, not least the all-women ones, to promote greater awareness of WMD issues among young women and historically underrepresented groups in the nonproliferation field. CNS also maintains a website featuring articles, learning tools, and relevant resources for young women who want to learn how to professionalize their interest in the field.

19. To raise awareness of nonproliferation and disarmament issues amongst these younger audiences, CNS also regularly hosts events on emerging issues featuring analyses and advice from leading female experts in the field. In 2023, these events included topics such as a conference on Emerging Voices for Global Security Challenges, a seminar on the law, ethics, and defense applications of AI, and panel discussions on career opportunities in the field. Additionally, CNS leads and coordinates a mentorship program, which offers participants support, networking opportunities, and tools to pursue careers in nonproliferation, arms control, and disarmament. The mentorship program is a yearlong commitment open to undergraduates at colleges and universities where the Initiative has already held outreach events. Each student participant is matched with a mentor who shares her/his interests. Mentees are mentored by world-renowned experts, practitioners, and outstanding emerging leaders in the field, including current and former diplomats, United Nations (UN) officials, and scholars from leading research institutions and non-governmental organizations (NGOs). In 2024, CNS welcomed a class of 24 students to the mentorship program.

Online Educational Resources:

20. CNS has increasingly leveraged various forms of online learning, including lectures to students in different countries, via video conference applications such as Zoom. Other forms include dissemination of timely information and analyses via list-serves and an online preparation module for the International Nuclear Safeguards Policy course, the Critical Issues Forum teachers’ workshop,). CNS also actively promotes its educational events on social media platforms. During this reporting period, CNS has added to the discourse on key nonproliferation, disarmament and relevant strategic issues through conversations on its online platforms featuring experts in the nuclear field. For more information about CNS’ online education resources here.

21. Cognizant of the increasing salience of emerging technologies, CNS has long been committed to inducting them in its training and educational programs. Therefore, it happens to be ahead of the curve in using powerful open-source information and new technical tools to track
nuclear-related developments around the world, providing better, actionable policy input to stakeholders.

Satellite imagery, 3-dimensional (3D) modeling, geospatial data, big data analysis, and virtual reality applications are some of the keys of this program. Using these techniques enhances the ability of non-governmental organizations to identify and determine the capabilities of proliferation-related activities, verify reductions in nuclear weapons, point to illicit transfers of technology, and break new ground in verification research. All this adds to our overall capacity to verify compliance with international arms control treaties. Both MIIS and CNS are committed to leveraging the open-source revolution. This is evidenced by the elevation of Open Source Tools for Nonproliferation Studies as one of the core courses of MANPTS. Since 2020, the course has been offered in every semester. During this reporting period, the course has been offered 4 times, leading to the training of more than 60 students in open-source intelligence. In addition, CNS also offered a short-term course and workshop on Open-Source Intelligence Analysis. Learn more about the project here.

22. CNS continues to prepare nonproliferation- and disarmament-related resources for the Nuclear Threat Initiative (NTI). These include Country Profiles, a Global Incidents and Trafficking Database, and highly-enriched uranium- and disarmament-related resources. CNS, in partnership with the NTI, developed a new set of educational tutorials on modern-day nonproliferation challenges. These tutorials are designed to provide new entrants to the field, including students and young professionals, with a basic level of understanding of these issues. They can also act as refresher courses for experienced professionals. Currently, CNS has developed nine tutorials. CNS has also developed a variety of 3D models for the NTI website, including on missiles, nuclear weapons, and nuclear facilities. To access educational resources that CNS has created for the NTI, please visit the Education Center website.

Fellowship and Internship Programs:

23. One of CNS’ most recognized and academically rewarding initiatives is the Visiting Fellows Program. Launched in 1991, the Program is designed to help young and mid-career professionals from various foreign ministries, national export control bodies, media outlets, and research/academic institutions develop skills that are necessary in making a positive impact on arms control, nonproliferation, and disarmament policies in their respective countries. Originally targeted toward specialists from the former Soviet Union and then People’s Republic of China, the Program has expanded its scope, training approximately 400 Visiting Fellows from other regions, including South Asia. In 2007, CNS opened the Program to junior diplomats from countries part of the Non-Aligned Movement (NAM). Since June 2022, CNS has hosted and trained 18 Fellows from Congo, Kenya, Pakistan, Nigeria, Ukraine, South Africa, Bahamas, Belize, Namibia, Mexico, Georgia, China, Mali, Cameroon, and Tajikistan. Learn more about the Program here.

24. CNS, in collaboration with the State University of New York's Center for Policy Research (CPR), conducted its fellowship training program for export control officials and scholars in the summers of 2022 and 2023. The program, held each summer since 2004 and funded by the U.S.
Department of Energy’s International Nonproliferation Export Control Program, features both virtual programming and an in-person short course held at CNS’ Monterey office, followed by a week at CNS’ Washington, D.C. location. The program aims to enable participants to develop both the broader perspectives on the critical importance of nonproliferation-related trade controls for international security, and the essential elements of effective national export controls, from legislation to the monitoring and enforcement of national regulations and multilateral/international commitments.

Participants of the fellowship are selected from national authorities implementing various aspects of national export control systems. Across 2022-2023, CNS trained fellows from Latin America, including officials from Argentina, Brazil, Chile, Mexico, and Panama, and also those from Southeast Asia, including officials from Philippines, Thailand, Vietnam, Indonesia, and Malaysia.

25. CNS, in collaboration with the State University of New York's Center for Policy Research (CPR), conducted a workshop in the United Arab Emirates (UAE) in August 2023, which focused on strategic trade control measures specific to unmanned aerial vehicles (UAVs). Government officials from the UAE participated in the 2-day event, which examined current trends in cross-border trade involving UAVs and considered strategic trade control-focused strategies to counter illicit diversion of UAVs’ components and technologies to proliferation-supportive end-uses.

26. CNS, in collaboration with the State University of New York’s Center for Policy Research (CPR) conducted the Security and Strategic Trade Management Academy (SSTMA) in May 2024. Sponsored by the U.S. Department of State’s Export Control and Related Border Security Program, the SSTMA features a 2-week short course that covers best practices at all phases of strategic trade control development and implementation. Participants in the program included government officials from Southeast Asia, South Asia, the Middle East, and Africa. The best practices examined included strategies for developing: 1) nonproliferation-focused, strategic trade control legal-regulatory frameworks; 2) licensing mechanisms for export transactions involving nonproliferation-relevant dual use goods and technologies; 3) strategic trade compliance-focused educational programs for private sector enterprises and universities operating under such frameworks and mechanisms; and 4) enforcing trade controls to counter and deter illicit networks seeking to divert exports of dual-use goods and technologies to proliferation-supportive end-uses.

27. CNS, in cooperation with the Civilian Research and Development Foundation (CRDF) Global, chaired a nonproliferation sanctions awareness virtual workshop for export control compliance officials from Malaysia in August 2021. Government officials from Malaysia also participated. This event was a follow-on to a similar workshop conducted in November 2019, and provided updates on nonproliferation and related sanctions developments while strengthening relationships among industry practitioners responsible for compliance with export controls and related laws. The workshop featured an overview of nonproliferation sanctions, their international legal foundations (UN Security Council Resolutions), examples of circumvention of sanctions, and strategies companies can use to detect ‘red flags’ of illicit sanctions-evasion efforts.
28. CNS initiated an intensive one-week course on international nuclear safeguards in 2008. The course is offered in June in cooperation with the Lawrence Livermore National Laboratory (LLNL) and with support from the U.S. Department of Energy’s Next Generation Safeguards Initiative (NGSI). The course is for graduate students and young professionals, and it provides background knowledge and analytical tools and techniques useful for careers in nuclear safeguards. Lecturers include nonproliferation policy analysts from CNS, technical experts from LLNL and the private sector, and International Atomic Energy Agency (IAEA) current and former staff members. The course is conducted for approximately 40 students. For more on this intensive course please see here.

29. CNS offers part-time, paid Graduate Research Assistantships, giving MANPTS students an opportunity to supplement coursework with on-the-job training and experiential learning. As Graduate Research Assistants (GRAs), students contribute to databases, website publications, factsheets, and analytical briefs. Every semester, CNS senior staff members mentor approximately 20 students as GRAs. Over the past two years, CNS has trained 57 graduate students and 7 undergraduate students as part of this initiative.

30. CNS provides graduate students from MIIS with nonproliferation expertise via positions as staff members at nonproliferation international organizations, for periods of four to six months. The overall objectives of the internship program are to augment the educational experiences of MIIS students by providing practical experience in dealing with nonproliferation issues and to enhance the capability of international organizations in performing tasks and providing analyses relating to nonproliferation. Organizations include the United Nations Office for Disarmament Affairs, United Nations Institute for Disarmament Research, International Atomic Energy Agency, Comprehensive Nuclear Test Ban Treaty Organization, Vienna Center for Disarmament and Nonproliferation, and Czech Technical University in Prague. During the past two years, MIIS MANPTS students worked at UN organizations, such as UNIDIR and UNODA in Vienna Office, and UNODA in New York. For more information, please see here.

31. CNS, in partnership with Lawrence Livermore National Laboratory (LLNL) and with support from the NGSI, has provided ten-week paid summer internships at LLNL, California, since 2008. The internship is designed to provide US citizens who have completed the international nuclear safeguards course with the experience of working on nuclear nonproliferation and safeguards policy issues in the national laboratory environment. The centerpiece of the internship is a safeguards policy research project, which a student completes in consultation with an LLNL staff mentor. Additionally, students see firsthand the intersection of nuclear safeguards policy and technology issues by touring LLNL facilities and consulting with technical and policy staff. Typically, the internship is awarded to 4 to 6 students. During the summers of 2022 and 2023, several students worked with LLNL. For further information on the internship see here.

32. Since 1997, CNS has offered on-the-job training during the summer for undergraduate students in nonproliferation studies. Students conduct research on issues related to the spread and control of WMDs including nuclear, chemical, and biological weapons and on regional security issues in the former Soviet Union, Eurasia, East Asia, South Asia, and the Middle East. They are also involved in projects related to open-source tools for nonproliferation, export controls, and
Chemical, Biological, Radiological, and Nuclear (CBRN) terrorism. In addition to working on ongoing projects at CNS, students work on their own research projects under the guidance of senior CNS staff. CNS offers specialized lectures on nonproliferation and disarmament, and training for all undergraduate participants throughout the summer. Undergraduate participants are also invited to all CNS seminars and other events. During the summers of 2022 and 2023, the program was conducted in a hybrid format and fully in-person, respectively. The program engaged 12 fellows each year. All the participants were able to experience unique and academically rewarding activities. For more information, please see here.