

NSSC Quarterly Reporting Guide

Through your engagement with the Nuclear Science and Security Consortium (NSSC), you should be working in close collaboration with our partner national laboratories on research that is relevant to the nation's nuclear security and nonproliferation mission. To monitor these collaborations, the NSSC reports on our student's research to our sponsor: the National Nuclear Security Administration (NNSA). **You should be reporting this info in the quarterly reporting forms you are sent and required to complete every few months. Filling out this information correctly and completely is extremely important.**

To be sure you understand the terminology and are reporting correctly, here are the key reporting terms defined:

Focus Area: The NSSC has four focus areas and four crosscutting focus areas NSSC personnel perform research under. Please take the time to review the work of NSSC Focus Areas and be sure you are accurately reporting which focus/crosscutting focus areas you are reporting as working under. To see more details on focus areas please visit: <https://nssc.berkeley.edu/research/>

Mission Relevance: The NSSC performs research and development in support of the nation's nuclear security objectives. The NNSA nuclear security mission focuses on reducing global nuclear security threats through the innovation of technical capabilities to detect, identify, and characterize: 1) foreign nuclear weapons programs, 2) illicit diversion of special nuclear materials, and 3) global nuclear detonations. Proliferation detection includes the development of capabilities to detect special nuclear material and weapons production and movement, as well as for transparent nuclear reductions and monitoring. This may include supporting the development of technology to target the detection and characterization of foreign nuclear weapons program activities, including materials and weapons production, as well as development of novel, cross-cutting technologies like simulations, algorithms, and modeling applicable to nuclear security more broadly.

If you are unclear how your research relates to the NNSA nuclear security mission, let NSSC know (nssc_info@berkeley.edu)! We are happy to engage in conversations about your research and help make these links.

Lab Mentor: Every Fellow is REQUIRED to have a lab mentor. You should have a relationship with a scientist at one of our partner labs (LBNL, LLNL, SNL, ORNL, SNL). The nature of this relationship may vary from exchanging emails with the scientist on research advice or career opportunities to the scientist serving as the technical advisor on your dissertation research. This is not the same person as your academic advisor! If you do not know who your lab mentor is, ask your academic advisor! Be sure you are getting the most out of your fellowship and have a contact at the that lab you are working with.

Lab Directed Project: Check "yes" if your research directly or indirectly supports a project at a partner national laboratory. This includes funded projects at the national laboratories through any source (e.g., LDRD, DOE, NNSA, DHS, DTRA, etc.). If you don't know, ask your lab mentor.

In-residence research: Research is considered "in-residence" if you were physically present at the labs. If during a quarterly reporting period you were physically present at a partner national laboratory for research-related purposes (e.g., seminar relevant to your research, meeting with scientists to discuss

research, hands-on experimental activities), you need to report that you did in-residence research and list the lab you were present at. Most Fellows should be reporting that they have conducted in-residence research.

NSSC is here to facilitate meaningful connections between students and the labs, and support you in job placement after you finish your studies. If you're not aware of where NSSC alums end up after they graduate, check out some of our past students [here!](#)

If at any time you have any questions or would like more information about lab connections, feel free to reach out to us at nssc_info@berkeley.edu.

What data is NSSC tracking regarding its Fellows and Affiliates?

For human capital development, the primary metrics of success are: 1) the number of students, postdocs, and affiliates placed in positions (including postdoctoral or staff) at the US DOE National Laboratories or in other government positions, and 2) the number of students and postdocs conducting research in-residence or working on lab-directed projects at our partner national laboratories, reported by institution. Additional personnel performance metrics, reported and organized by institution and by year, include:

- Number of undergraduate students supported
- Number of graduate students supported
- Number of Postdoctoral Scholars
- Number of B.S.-Equivalent Degrees awarded
- Number of M.S.-Equivalent Degrees awarded
- Number of Ph.D.-Equivalent Degrees awarded

Personnel measures of excellence focus on national laboratory engagement:

- Undergraduate Students
 - Connection with a lab mentor at a National Laboratory
 - Conducting research in-residence at a National Laboratory
 - Contributing to a lab-directed project
 - Continuing to graduate school in relevant fields
 - Accepting a position at a National Laboratory or US government agency
 - Accepting a position in nuclear security related industry
 - Honors and Awards
- Graduate Students
 - Connection with a lab mentor at a National Laboratory
 - Participation in an NSSC-sponsored internship and/or summer school at a National Laboratory
 - Conducting research in-residence at a National Laboratory
 - Contributing to a lab-directed project
 - Accepting a postdoctoral position at a National Laboratory
 - Accepting a career position at a National Laboratory or US government agency
 - Accepting a position in academia, industry, or other nuclear security related field

- Honors and Awards
- Postdoctoral Scholars
 - Connection with a lab mentor at a National Laboratory
 - Conducting research in-residence at a National Laboratory
 - Contributing to a lab-directed project
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 - Honors and Awards

Strategic impact is further measured in terms of research successes (e.g., peer-reviewed publications, oral and poster presentations, etc.), training accomplishments, and infrastructure development:

- Number of oral presentations at conferences
- Number of poster presentations at conferences
- Number of consortium-wide webinars delivered
- Number of patents published
- Number of conference proceedings published
- Number of peer-reviewed publications
- Number of non-peer-reviewed publications
- Number of M.S. theses/reports
- Number of Ph.D. theses
- Funds towards new equipment
- Funds towards cyber infrastructure
- Number of students attending NSSC-sponsored summer schools
- Number of students attending NSSC-sponsored workshops
- Number of faculty, postdoctoral scholars and faculty-student teams participating in the NNSC Young Investigators Laboratory Rotation