



U.S. DEPARTMENT OF
ENERGY

Office of
Science

Office of Science / Office of Workforce Development for Teachers and Scientists (WDTS)

Opportunities for Undergraduates and Faculty at DOE Laboratories

Panel on STEM Opportunities for HBCUs – Leveraging Co-STEM
Partnerships “Workforce Development and Diversity Inclusion”

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Science Undergraduate Laboratory Internship (SULI)

The SULI program places undergraduate students (from 2 or 4 year institutions) in paid internships in science and engineering research activities at DOE Laboratories. Students work with laboratory staff scientists or engineers on projects related to ongoing research programs. This, or its predecessor programs, have been in operation since the early '90s.

- Appointments are for:
 - 10 weeks during the Summer Term (May through August) or 16 weeks during the Fall Term (August through December) and Spring Term (January through May).
 - Application process will open for the 2014 Summer Term on or about 10/9/2013.
- All interns have defined research projects that must be within the DOE mission space.
- All interns have required deliverables: A research report, an oral or poster presentation, a peer review, and a general audience abstract.
- Interns receive a \$500 weekly stipend, travel to and from the laboratory, and possibility for a housing allowance.
- Laboratories also provide an array of seminars and professional development opportunities.
- Undergraduates from 2 or 4 year colleges, in their sophomore through senior year or recent graduates are eligible to apply.
- Must be at least 18 years old; and a U.S. citizen or PRA.
- Must have a minimum cumulative GPA of 3.0.
- May participate as an intern a maximum of two times; May apply a maximum of three times.
- WDTS sponsors ~700 participants per year, majority in the Summer Term.

Please visit <http://science.energy.gov/wdts/suli/> for full details and how to apply.



Community College Internship (CCI)

The Community College Internship (CCI) places students from community colleges in paid internships in technology based projects supporting laboratory work under the supervision of a laboratory technician or researcher. This, or its predecessor program, have been in operation since 1999.

- Operates during a 10-week Summer Term (May through August) - applications open on or about 10/9/2013.
- All interns have defined technical projects that are within the DOE mission space.
- All interns have required deliverables: A research report and an oral or poster presentation.
- Interns are compensated as follows: \$500 weekly stipend, travel to and from the laboratory, and a housing allowance.
- Laboratories also provide an array of seminars and professional development opportunities.
- Must be at least 18 years old; and a U.S. citizen or PRA.
- May participate as an intern a maximum of two times; May apply a maximum of three times.
- Must have a minimum cumulative GPA of 3.0.
- WDTS supports ~70 participants each Summer Term.

Please visit <http://science.energy.gov/wdts/cci/> for full details and how to apply.



Visiting Faculty Program (VFP)

Faculty from academic institutions that are typically underrepresented in the DOE research community have the opportunity to engage in a jointly developed research project to be conducted at a DOE laboratory during the Summer Term. The scope of the projects should be robustly connected to ongoing host lab research project activities. This, or its predecessor program, have been in operation since 2003.

- Faculty may optionally invite up to two students to participate, one of whom may be a graduate student. VFP- Students must meet SULI requirements, apply separately, and only if invited.
 - Students must have a minimum cumulative GPA of 3.0.
 - Student interns have required deliverables matching those for SULI: A research report, an oral or poster presentation, a peer review, and a general audience abstract.
- Operates during a 10-week Summer Term (May through August) - applications open on or about 10/9/2013.
- Faculty receive stipend of \$13,000 for 10 week term, undergraduates receive stipend of \$500/week; all participants are provided travel to and from the laboratory, and possibility for a housing allowance.
- Must be a full-time faculty member at an accredited U.S. degree granting, postsecondary, institution of higher education historically underrepresented in the U.S. research community, in an area of physics, chemistry, biology (non-medical), mathematics, engineering, environmental sciences, materials sciences, or computer / computational sciences.
- Must be a U.S. citizen or PRA. Faculty may participate up to three terms.
- Faculty must, through their own efforts, establish a collaboration with a laboratory scientist to co-develop a 6-page research project proposal prior to applying to the program.
- WDTS supports ~ 50 faculty and ~25 students each Summer Term (this ratio is not prescribed).

Please visit <http://science.energy.gov/wdts/vfp/> for full details and how to apply.



Funding Opportunities – Access and Connections

Funding opportunities are available through SC's six research and SBIR/STTR program offices and generally not through WDTS:

- SC is a mission agency, and education is not within this scope (WDTS mission is workforce development)
- SC's funding opportunities are for basic research or activities supporting the mission
- WDTS funds 16/17 DOE laboratories to support its internship and visiting faculty programs
 - These DOE labs are Government Owned / Contractor Operated
 - Workers are contractors and not Federal employees, and this structure enables HQ operated national programs, using a WDTS managed application process
 - WDTS is not expected to be included in the 2014 SC Broad Area Funding Announcement
- **WDTS sponsored a recent SC funding webinar for its Visiting Faculty Program (VFP) faculty participants**
 - Faculty at HBCUs are eligible to participate in VFP (US citizens or PRAs only)
 - Representatives from SC research and SBIR/STTR program offices discussed funding opportunities
 - Detailed information on getting connected and gaining access
 - **This webinar is recorded, and available for viewing and download at:**

<http://orau.adobeconnect.com/p76g7f39qlh/>



WDTS Points-of-Contact

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<https://www.science.energy.gov/wdts>

- SULI:
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 - <http://science.energy.gov/wdts/suli/contact/>
 - sc.suli@science.doe.gov

- CCI:
 - Cindy White, Program Manager: cindy.white@science.doe.gov
 - <http://science.energy.gov/wdts/cci/contact/>
 - sc.cci@science.doe.gov

- VFP:
 - Brian O'Donnell, Program Manager: brian.o'donnell@science.doe.gov
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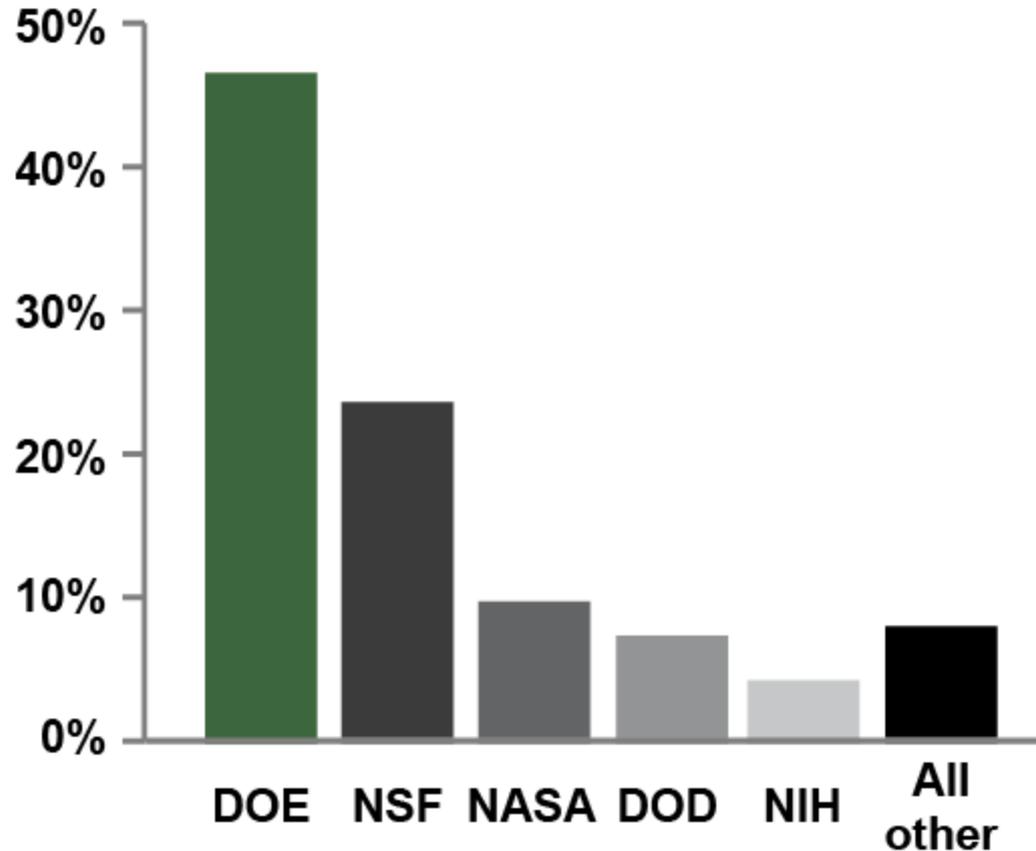
Office of
Science

The Office of Science

The slides that follow provide high level background information regarding the Office of Science

<http://www.science.energy.gov>

SC is the Largest Federal Supporter of Basic Research in the Physical Sciences



Source: NSF data tables on Federal Funds for Research and Development: Fiscal Year 2010.



The Office of Science Research Portfolio

Advanced Scientific Computing Research

- **Delivering world leading computational and networking capabilities to extend the frontiers of science and technology**

Basic Energy Sciences

- **Understanding, predicting, and ultimately controlling matter and energy flow at the electronic, atomic, and molecular levels**

Biological and Environmental Research

- **Understanding complex biological, climatic, and environmental systems**

Fusion Energy Sciences

- **Building the scientific foundations for a fusion energy source**

High Energy Physics

- **Understanding how the universe works at its most fundamental level**

Nuclear Physics

- **Discovering, exploring, and understanding all forms of nuclear matter**



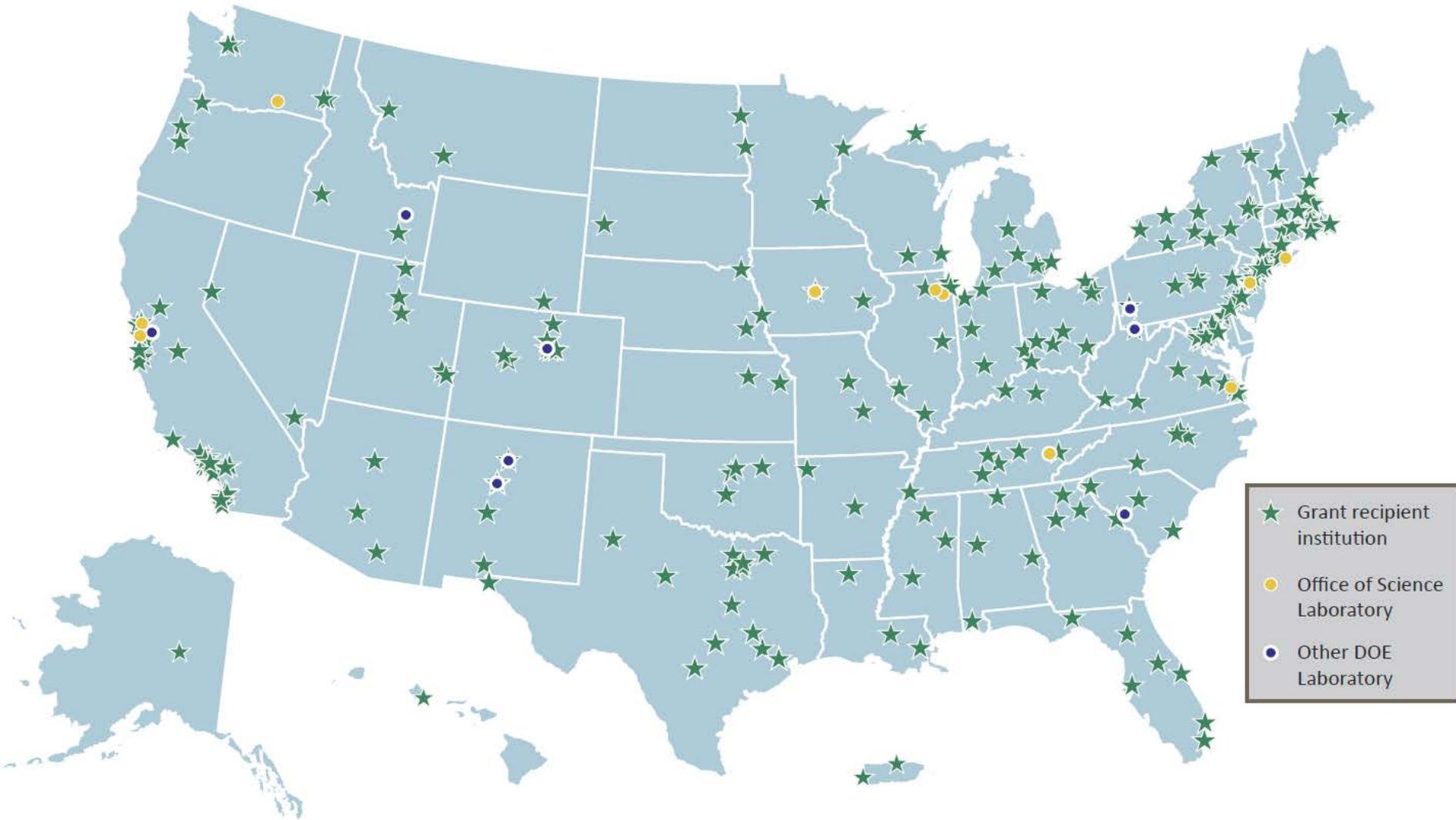
The DOE Office of Science (~\$5B/year)



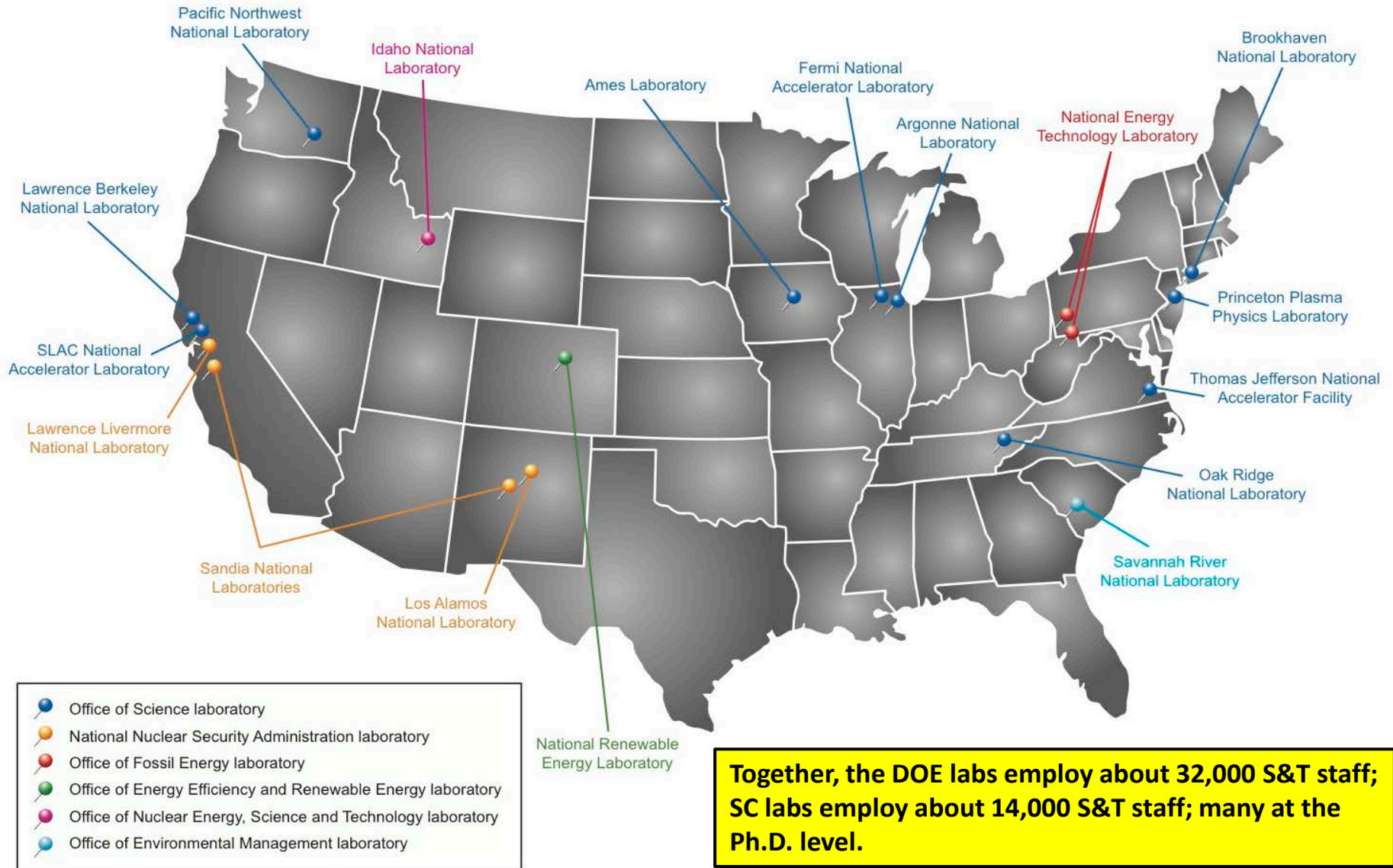
- Funds 25,000 Ph.D. scientists, graduate students, undergraduates, engineers, and technical staff supported at more than 300 institutions in all 50 States and DC through competitive awards
- 31 national user facilities serving more than 29,000 users each year
- 100 Nobel Prizes during the past 6 decades—more than 20 in the past 10 years

The undulator hall at the Linac Coherent Light Source (LCLS) , SLAC, 2011.

FY 2011 Funding Recipient Institutions



DOE Labs Employ >30,000 Scientists and Engineers



Where the user facilities are: DOE Laboratories (mostly)

