

Office of Science Workforce Development for Teachers and Scientists (WDTs)

Mission: WDTs program mission is to ensure that DOE has a sustained pipeline of highly skilled and diverse science, technology, engineering, and mathematics (STEM) workers.

Vision: To be the standard for workforce development programs in a mission agency in which “Science and Technology lie at the heart of the mission.”

Current WDTs programs:

At the DOE laboratories: Undergraduate student intern programs (one for 2/4-yr institutions and one for community colleges) and a visiting faculty program

Science Undergraduate Laboratory Internship (SULI)

Community College Internship (CCI)

Visiting Faculty Program (VFP)

Office of Science Graduate Fellowship

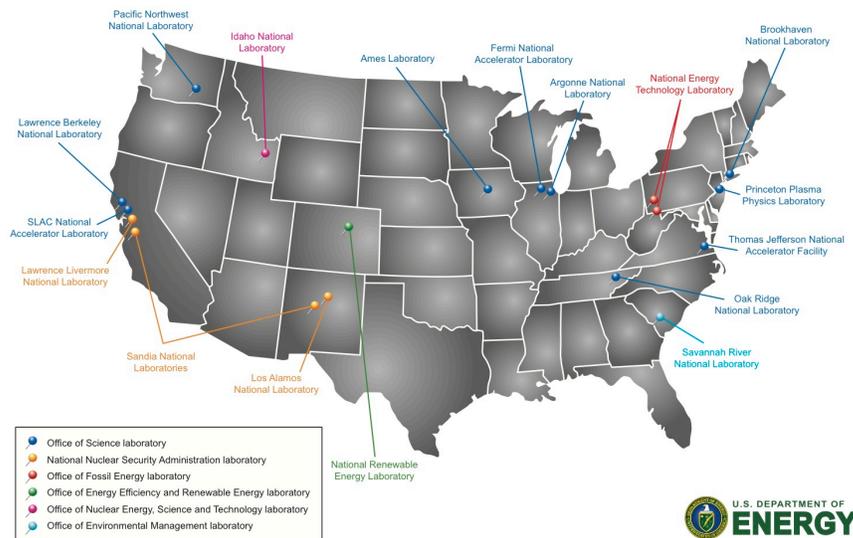
Albert Einstein Distinguished Educator Fellowship

National Science Bowl

Lab Equipment Donation Program

Research Internships and Fellowships Like No Other...

- Selected applicants are placed in paid internships or appointments at DOE host laboratories for 10 weeks (Summer Term) or 16 weeks (Semester Term - SULI only)
- DOE’s 16 laboratories provide a unique opportunity for science, technology, engineering, and mathematics (STEM) internships.
- The national laboratory system offers access to leading scientists; world-class scientific user facilities and instrumentation; and large-scale, multidisciplinary research programs unavailable in universities or industry.
- Enrichment activities include career professional development workshops, laboratory tours, scientific lectures and seminars.
- Student obligations/deliverables include pre- and post- participation surveys, presentation of results, and written reports.
- Student participants receive a stipend of \$500 per week, one round trip domestic travel to the host laboratory, and housing options that vary with the host laboratory.



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Visiting Faculty Program (VFP)

Goal: Increase the research competitiveness of faculty members and their students at institutions historically underrepresented in the research community in order to expand the workforce that addresses DOE mission areas.

Faculty application requires a co-developed (faculty and lab PI) research proposal (merit reviewed) robustly connected to ongoing host lab research project activities; restricted to 10-week Summer Term appointments. Faculty may invite up to two students to participate, one of whom may be a graduate student. Undergraduate students have same eligibility requirements as SULI students.

Faculty receive stipend of \$13,000, with possible housing allowance. ~ 50 faculty and ~25 student participants expected in FY2013.



Science Undergraduate Laboratory Internships (SULI)

Goal: Encourage undergraduate students to pursue science, technology, engineering, or mathematics (STEM) careers, especially relevant to the DOE mission, by providing research experiences at Department of Energy (DOE) Laboratories under the direction of laboratory scientific and technical staff, who serve as research advisors and mentors.

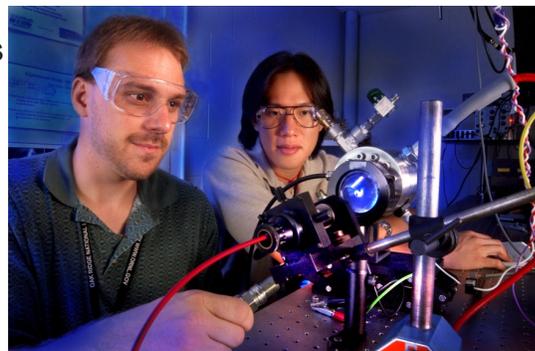


The SULI program places undergraduate students (from 2 or 4 year institutions) in paid internships (\$500/week) in science and engineering research activities at DOE Laboratories. Students work with laboratory staff scientists or engineers on projects related to ongoing research programs. Appointments are for: 10 weeks during the Summer Term or for 16 weeks during the Fall Term and Spring Term. ~ 700 participants expected in FY 2013.

Community College Internships (CCI)

Goal: Encourage community college students to pursue technical careers relevant to the DOE mission by providing technical training experiences at the DOE Laboratories under the direction of laboratory staff that serve as advisors and mentors.

CCI places students in paid internships (\$500/week) in technologies supporting laboratory work under the supervision of a laboratory technician or researcher. The CCI Program addresses technical workforce needs at the DOE Laboratories to maintain the DOE's capacity, and is presently restricted to a 10-week Summer Term. ~70 participants expected in FY 2013.



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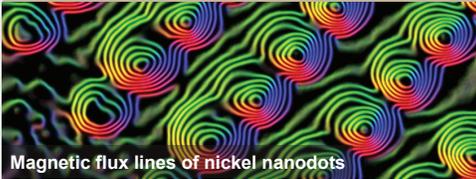
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For more information
visit science.energy.gov/wdts



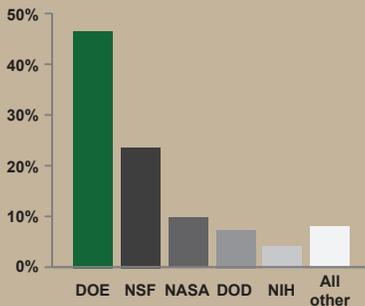
The DOE Office of Science is the Nation's largest supporter of basic research in the physical sciences.

Cutting-edge scientific research



The Office of Science supports 25,000 researchers—including Ph.D. scientists, engineers, graduate students, undergraduates, and technical and support personnel—through competitive awards each year at DOE laboratories and more than 300 universities and institutions of higher learning in all 50 States and the District of Columbia (see reverse).

Overall, the Office of Science provides 47% of federal funding for basic research in the physical sciences:



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

FY 2012 appropriations \$4.9 billion



Facility construction and major instrumentation

National scientific user facilities



The Office of Science provides the world's largest array of scientific user facilities—including supercomputers, large-scale x-ray light sources, neutron scattering sources, and sophisticated facilities for nanoscience and genomic sequencing—serving more than 26,500 researchers from universities, government laboratories, and industry each year.

The Office of Science User Facilities are key to U.S. leadership in research and have enabled U.S. industry to achieve breakthroughs in areas ranging from drug discovery to the design of vehicles, aircraft, and jet engines. Over forty Fortune 500 companies and dozens of small businesses use the facilities each year.

A culture of project management



Over the past ten years, the Office of Science has completed 40 projects each of total cost greater than \$10 million. 90% of these projects were delivered on time and on budget with cumulative cost growth across all projects held below 5%.

investment map on reverse



In the forefront of discovery

Office of Science-supported researchers probe the frontiers of physics, chemistry, materials science, and systems biology, unraveling mysteries ranging from neutrinos and dark energy to the behavior of matter at the nanoscale. This research has yielded over 100 Nobel prizes during the past six decades, including more than 20 Laureates in the past 10 years.

Science shaping our energy future

The Office of Science is the lead Federal agency supporting scientific research for energy. Office of Science-supported researchers have made key scientific advances related to solar energy, bioenergy, solid state lighting, and batteries, among many other areas of energy, and continue to press forward with science in the quest to achieve a secure and sustainable energy future.

Steward of ten world-class federal laboratories

The Office of Science is the steward of 10 of the 17 DOE laboratories (see reverse). The DOE laboratories comprise a preeminent federal research system, developing unique, often multidisciplinary, scientific capabilities beyond the scope of academic and industrial institutions, to benefit the Nation's researchers and national strategic priorities.




Berkeley, California
202 acres and 106 buildings
3,400 FTEs
1,084 students & postdocs
8,579 facility users
www.lbl.gov




Richland, Washington
600 acres and 101 buildings
4,180 FTEs
567 students & postdocs
2,414 facility users
www.pnnl.gov



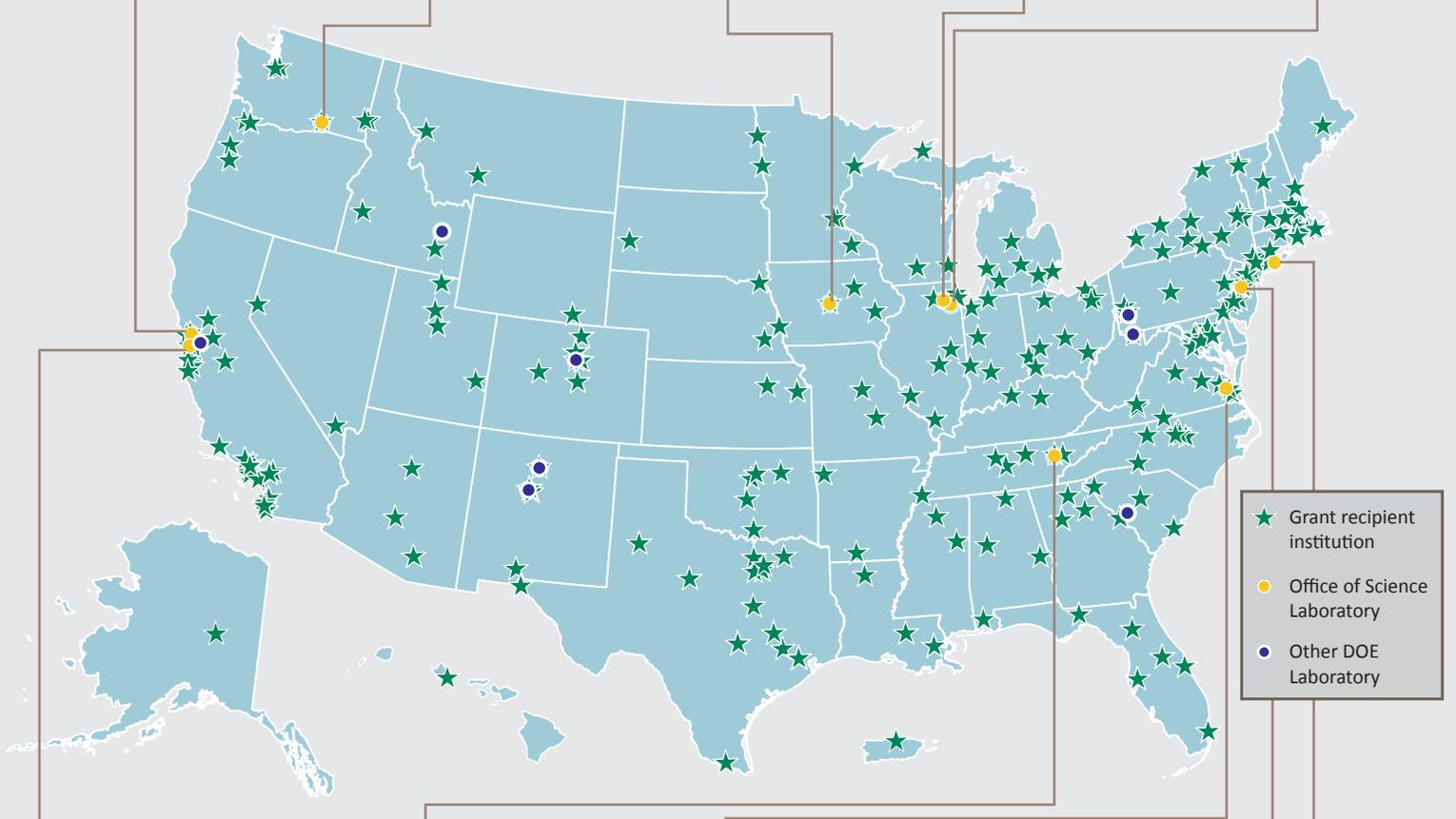

Ames, Iowa
10 acres and 12 buildings
315 FTEs
210 students & postdocs
www.ameslab.gov

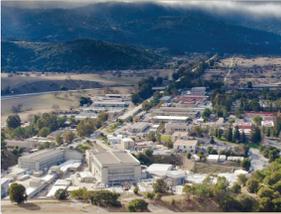



Batavia, Illinois
6,800 acres and 356 buildings
1,914 FTEs
1,090 students & postdocs
2,317 facility users
www.fnal.gov




Argonne, Illinois
1,500 acres and 99 buildings
3,375 FTEs
1,147 students & postdocs
4,289 facility users
www.anl.gov





Menlo Park, California
426 acres and 142 buildings
1,681 FTEs
300 students & postdocs
3,384 facility users
www.slac.stanford.edu




Oak Ridge, Tennessee
4,470 acres and 252 buildings
4,533 FTEs
1,753 students & postdocs
3,116 facility users
www.ornl.gov




Newport News, Virginia
169 acres and 63 buildings
769 FTEs
74 students & postdocs
1,376 facility users
www.jlab.org




Princeton, New Jersey
89 acres and 34 buildings
428 FTEs
66 students & postdocs
145 facility users
www.pppl.gov




Upton, New York
5,320 acres and 331 buildings
2,990 FTEs
593 students & postdocs
4,253 facility users
www.bnl.gov