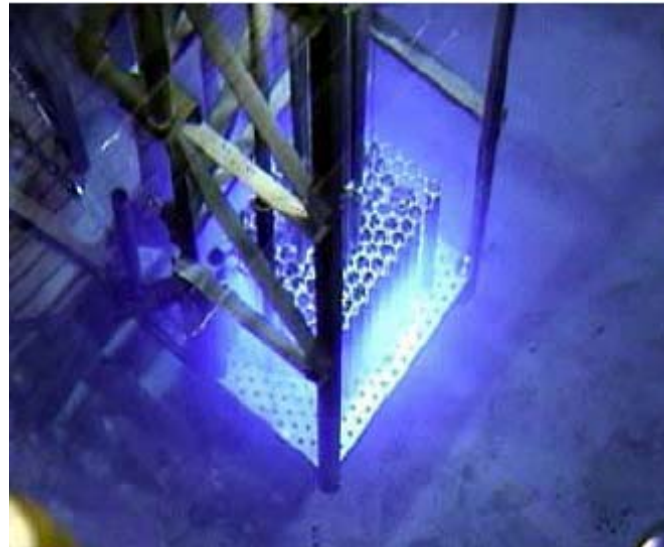

BigTen Mini-Grant Program

An Outreach Program About Nuclear Science & Technology



2006

Mini-Grant Program Overview

Presentation May 2006

John R. Vincenti, Coordinator

Governance Committee Membership

University	Industry	National Laboratory
Penn State University	Dominion	Argonne
Ohio State University	Energy Solutions	INL
Purdue University	Exelon	LLNL
University of Illinois at Urbana-Champaign	Framatome ANP	S&ia National Lab
University of Michigan	Waste Control Specialists	
University of Wisconsin-Madison	Westinghouse Electric Company	

Objective of INIE Task 4.

Basis for Big-10 Consortia Mini-Grant Program

- Develop a multi-disciplinary, multi-university research grant program to enable collaborative research between the four consortium university programs, other schools & colleges as well as our industrial & laboratory partners.
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Specific intent of the Mini-Grant Program

- 1. Provide a funding mechanism that would enable faculty & student teams to engage in joint research activities that utilize our University/Virtual Research and Training Reactors (URTR/VRTR) facilities;
 - 2. Provide funding to groups in support of our proposed outreach programs. This effort would go beyond the current reactor-sharing program;
 - 3. Be administered by the consortium via a governance committee structure, which would award these mini-grants on a semiannual basis. The governance committee would consist of a representative from each consortium school as well as a representative from our industrial partners & a representative from our national laboratory partners;
 - 4. Defray expenses for the use of the URTR/VRTR facilities as well as provide graduate student research support;
 - 5. Be an incubator for exploratory research with our industrial & laboratory partners - i.e., faculty-student research activities could involve industrial &/or national laboratory collaborators in the form of seed-grants that could become part of larger research, such as the DoE NERI research initiatives.
-

Nearly 40 Independent reviewers

Diverse & Qualified

■ Types:

- College & University
- Electric Power Industry
- High School Teachers
- High School Administrators
- Industry managers non-power
- HP Consultants
- Medical Institutions
- State Government
- US DOD

■ Locations:

- Connecticut
 - Delaware
 - Illinois
 - Maryland
 - Pennsylvania
 - South Carolina
 - Tennessee
 - Texas
 - Virginia
-

■ Review Process of Applications

- URTR/VRTR primary review
 - Security issues (Homeland Security & Institutional Rules)
 - Cost/Benefit issues related to URTR/VRTR costs shown in proposal

 - (3) Independent reviewers per application
 - Strengths & Weakness & Ranking of each section
 - Scientific & Technical merit ranking (0-50 points)
 - Appropriateness of proposed method of research/application (0-50 points)
 - Cost/Benefit – does proposal merit funding

 - Governance Committee review

 - Governance Committee recommendation to DOE

 - DOE review & final approval

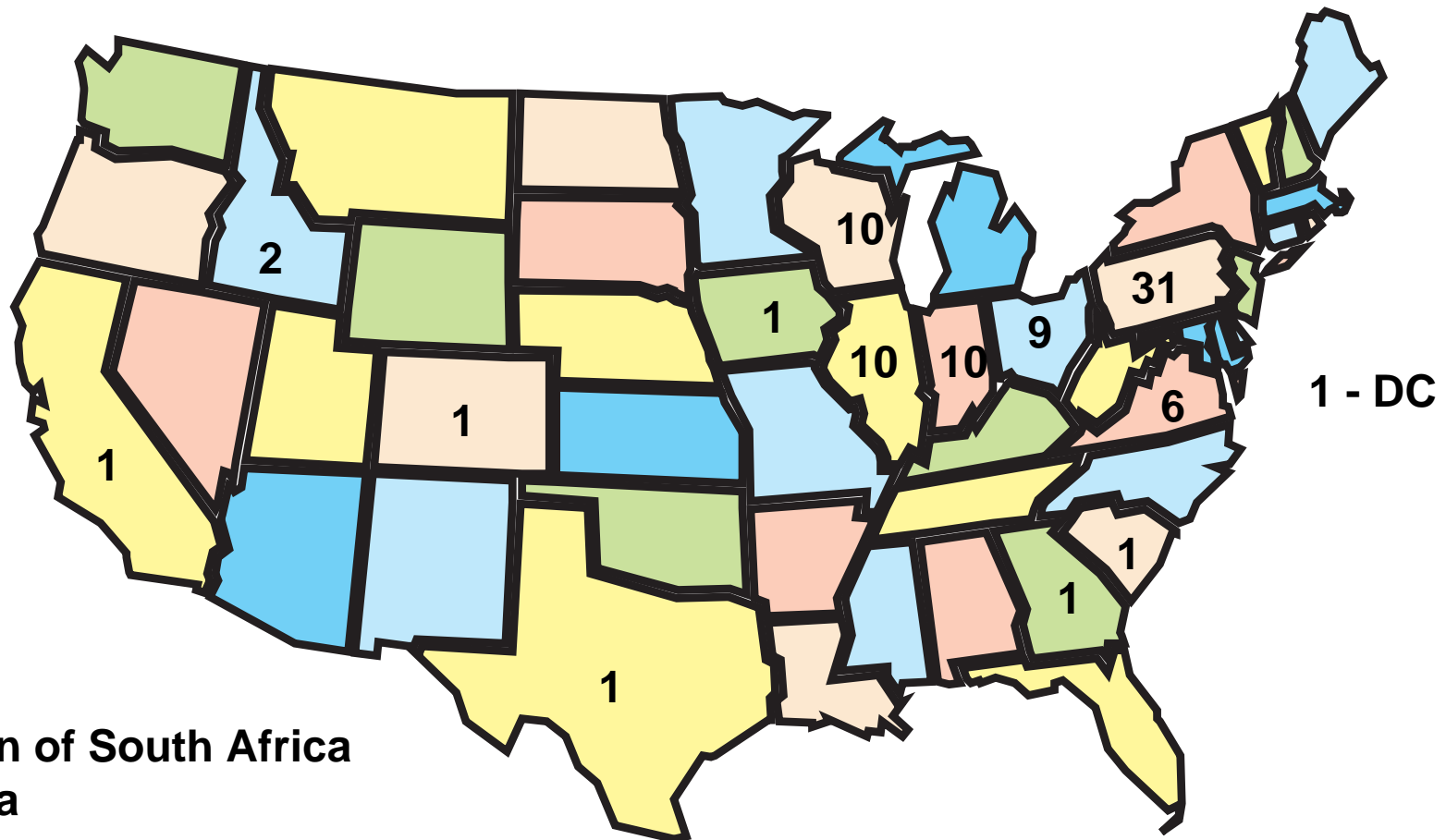
 - Award process and oversight:
 - Grants from \$1,000 to max of \$25,000 per application
 - Grant application entry lasts from December through February
 - Four part review from March through June
 - Grants are one-year long from receipt of PSU OSP documentation
 - Control and oversight by PSU Office of Sponsored Program (OSP), Mini-Grant Financial Officer, and Coordinator
 - Mid-year and Final Reports are required
-

Mini-Grant post-grant award system

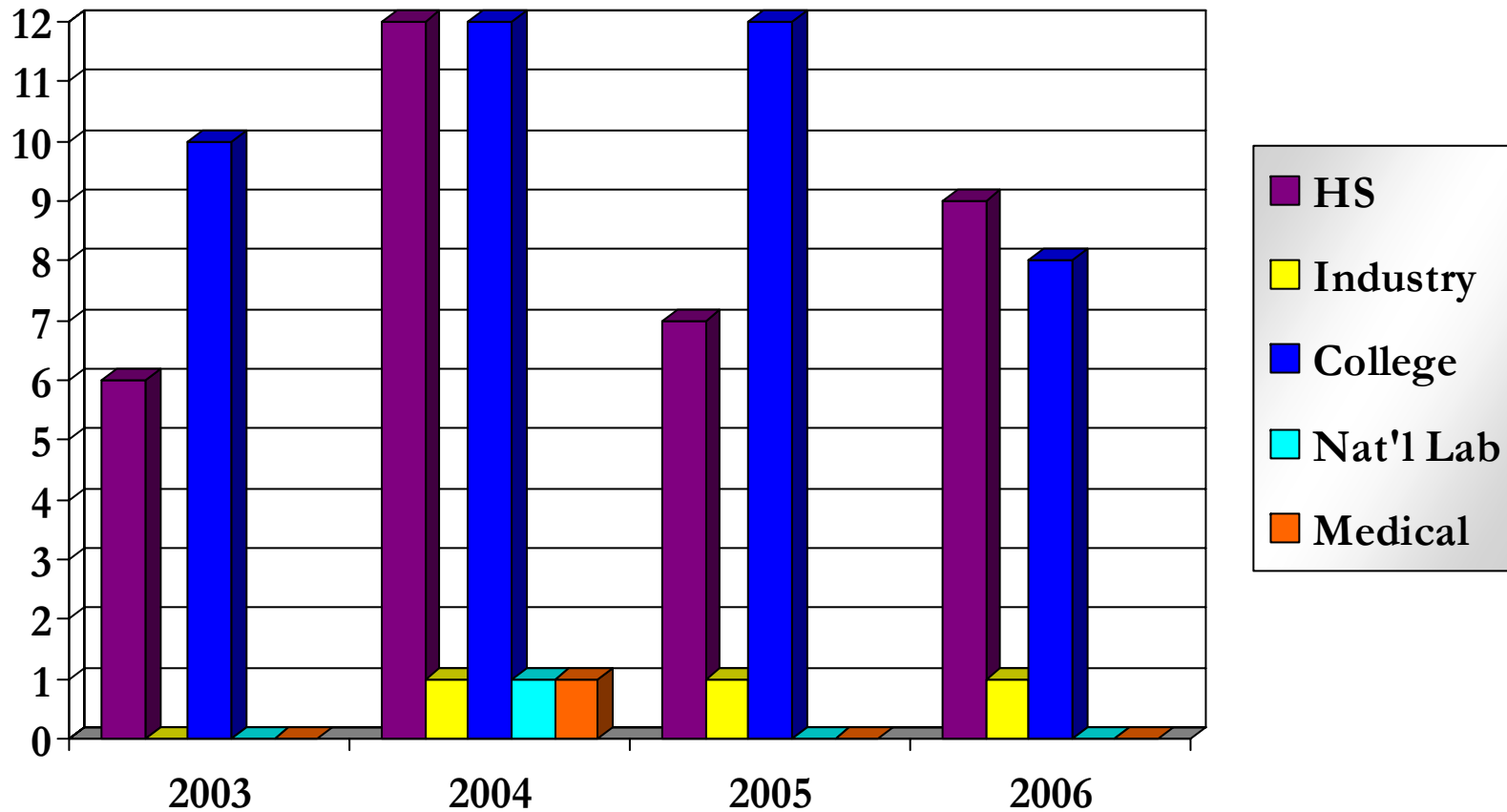
- Grant Award Follow-up
 - All funds go to institutions, not individuals
 - Request mid-year or status reports
 - All grants over \$5,000 must have billable invoice with receipts to receive reimbursement
 - Final Report required before final payment of grant monies are released
-

2003-2006 Mini-Grant applications

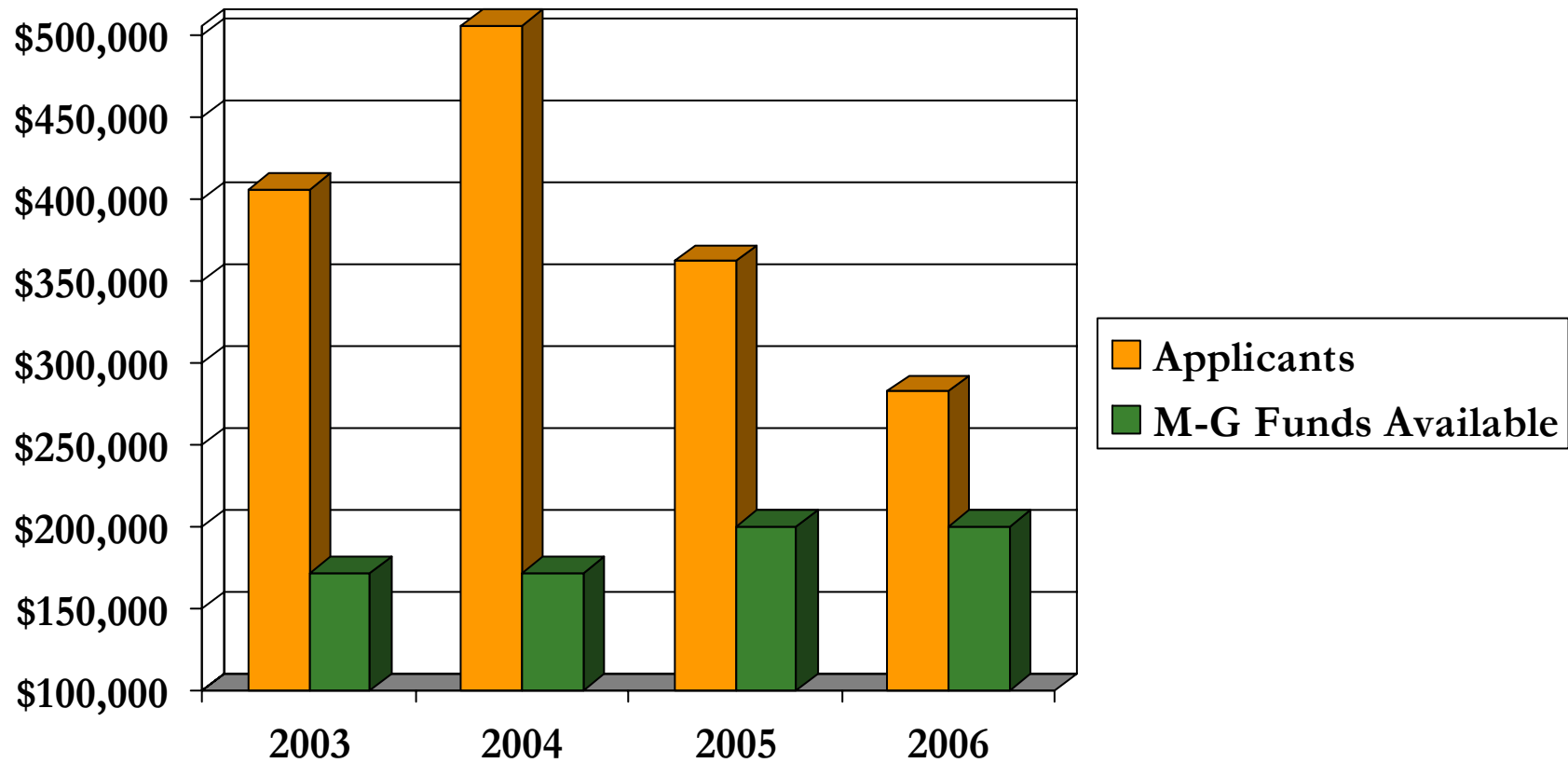
Program has received 87 total applications



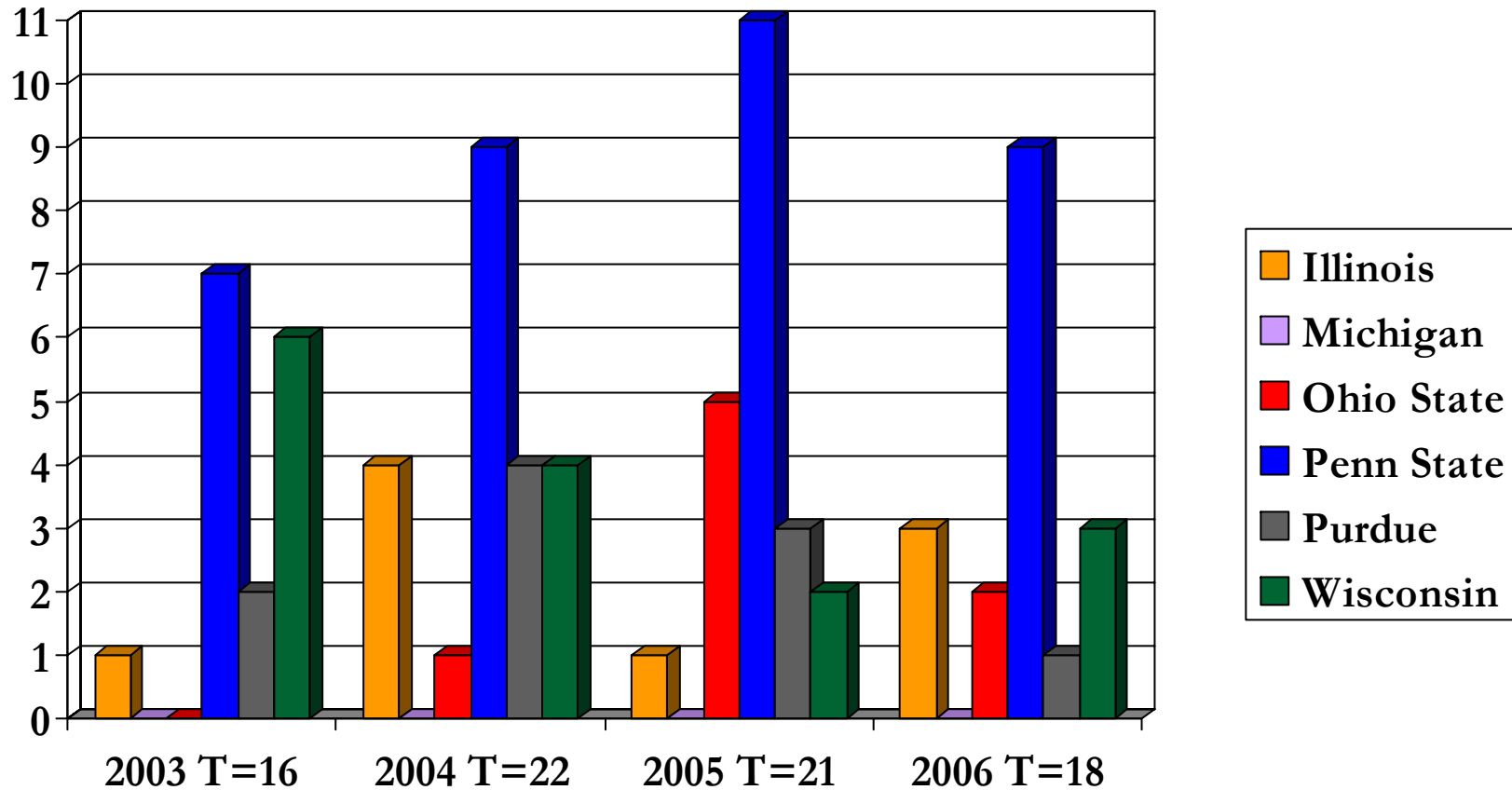
Qualified applicants by category



Total funds requested & availability

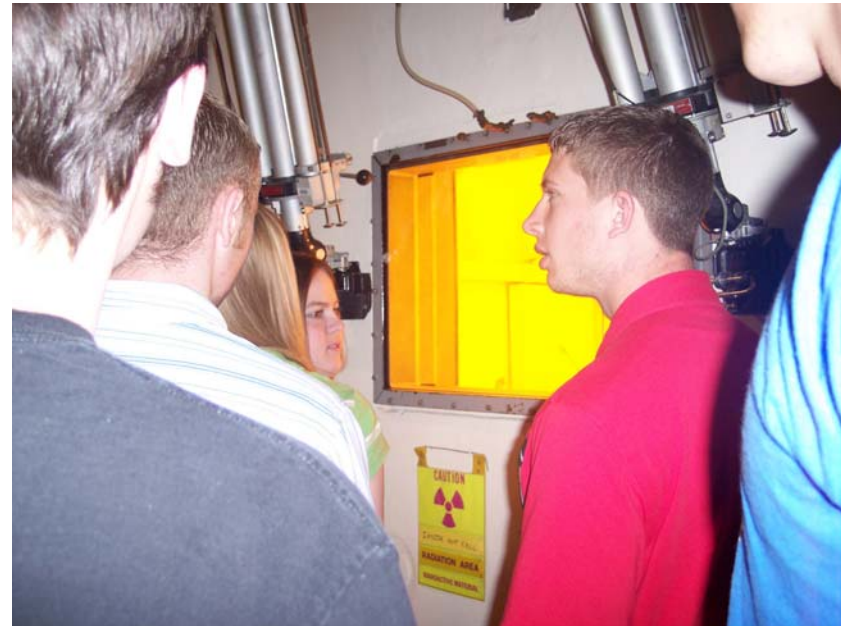


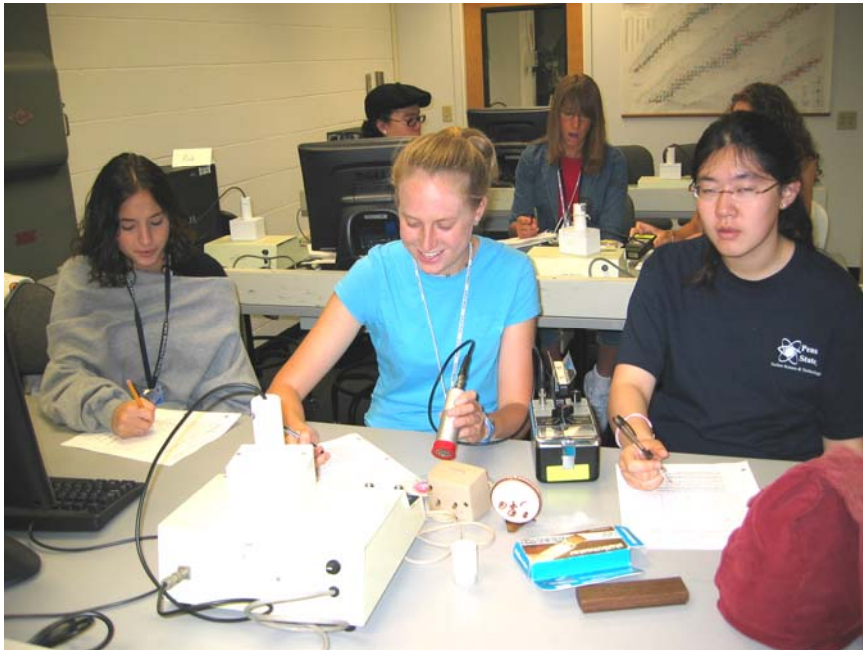
URTR/VRTR Facility by University



Learning about reactors and how they work is one thing, but actually sitting in a control room learning how the staff run a reactor is a great way to absorb information about nuclear science and technology. Mini-labs such as the cloud-chamber, the half-life of radioactive materials, irradiating seeds and studying the update of an isotope are things you can not do in a high school classroom easily. In addition, our students were taught about safety and other radiation procedures while using radioactive materials. This was a key to learning today and in the future.

[Central Virginia Governor's School](#)





The week-long, live in the dormitory workshop was a wonderful follow-up to our fall Saturday trip to Penn State research reactor. I really appreciated being with the PSU ANS Chapter of undergraduate and graduate students in our program. Got a sense of what being a student is really like. We saw and did many interesting experiments and now I really appreciate what nuclear engineering is about more than ever before.

[Young Engineers and Scientists \(YES\) Program](#)
[Comments from a summer Workshop WHI student](#)

Program resources and successes

- Governance Committee oversight
 - Web-based program
 - On-time/calendar focused program
 - Mature program review, minimizes problems
 - Low overhead program: Examples
 - Individual Big Ten URTR/VRTR support
 - Volunteer reviewers
 - Electronic message boards
 - Teleconferencing
-

Mini-Grant Program

Advertising & Program Development

- University PR resources
 - ANS & HPS meetings
 - Reactor Sharing activities
 - Reactor tours
 - National Science Teachers Association meetings
 - In-service programs
 - How-to: Grant writing
 - New collaborations within and outside BigTen
 - Targeting Chemistry & Physics teachers
 - Articles in general news & science media
 - Teacher programs
 - Summer or after-school programs for youth
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