

*BASIC ENERGY SCIENCES -- Serving the Present, Shaping the Future*

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# *SNS HFIR User Meeting*

*Pedro A. Montano  
Director  
Scientific User Facilities Division  
Basic Energy Sciences*

*October 11-13, 2005*

# *The Basic Energy Sciences Program ...*

- ... is one of the Nation's largest sponsors of basic research.*
- ... supports research in more than 150 academic institutions and 13 DOE laboratories.*
- ... supports world-class scientific user facilities.*
- ... is uniquely responsible in the Federal government for supporting research in materials sciences, chemistry, geosciences, and aspects of biosciences related to energy resources, production, conversion, efficiency, and use – all in an environmentally conscientious manner.*

# **BES Scientific User Facilities**

## **Light sources**

**Stanford Synchrotron Radiation Laboratory & SPEAR3 upgrade (SLAC)**

**National Synchrotron Light Source (BNL)**

**Advanced Light Source (LBNL)**

**Advanced Photon Source (ANL)**

**Linac Coherent Light Source (SLAC) (*under construction*)**

## **Neutron sources**

**Intense Pulsed Neutron Source (ANL)**

**Manuel Lujan, Jr. Neutron Scattering Center (LANL)**

**High Flux Isotope Reactor (ORNL)**

**Spallation Neutron Source (ORNL)**

## **Electron beam sources**

**Electron Microscopy Center for Materials Research (ANL)**

**National Center for Electron Microscopy (LBNL)**

**Shared Research Equipment Program (ORNL)**

## **Nanoscale Science Research Centers**

**Center for Nanophase Materials Sciences (ORNL)**

**Molecular Foundry (LBNL)**

**Center for Integrated Nanotechnologies (SNL/A & LANL)**

**Center for Functional Nanomaterials (BNL)**

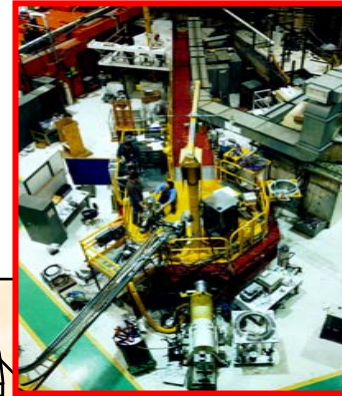
**Center for Nanoscale Materials (ANL with State of Illinois contribution)**

# BES Facilities for X-ray and Neutron Scattering

Advanced Photon Source



Intense Pulsed Neutron Source



National Synchrotron Light Source

Advanced Light Source



Manuel Lujan Jr. Neutron Scattering Center



Spallation Neutron Source



Stanford Synchrotron Radiation Laboratory



High-Flux Isotope Reactor



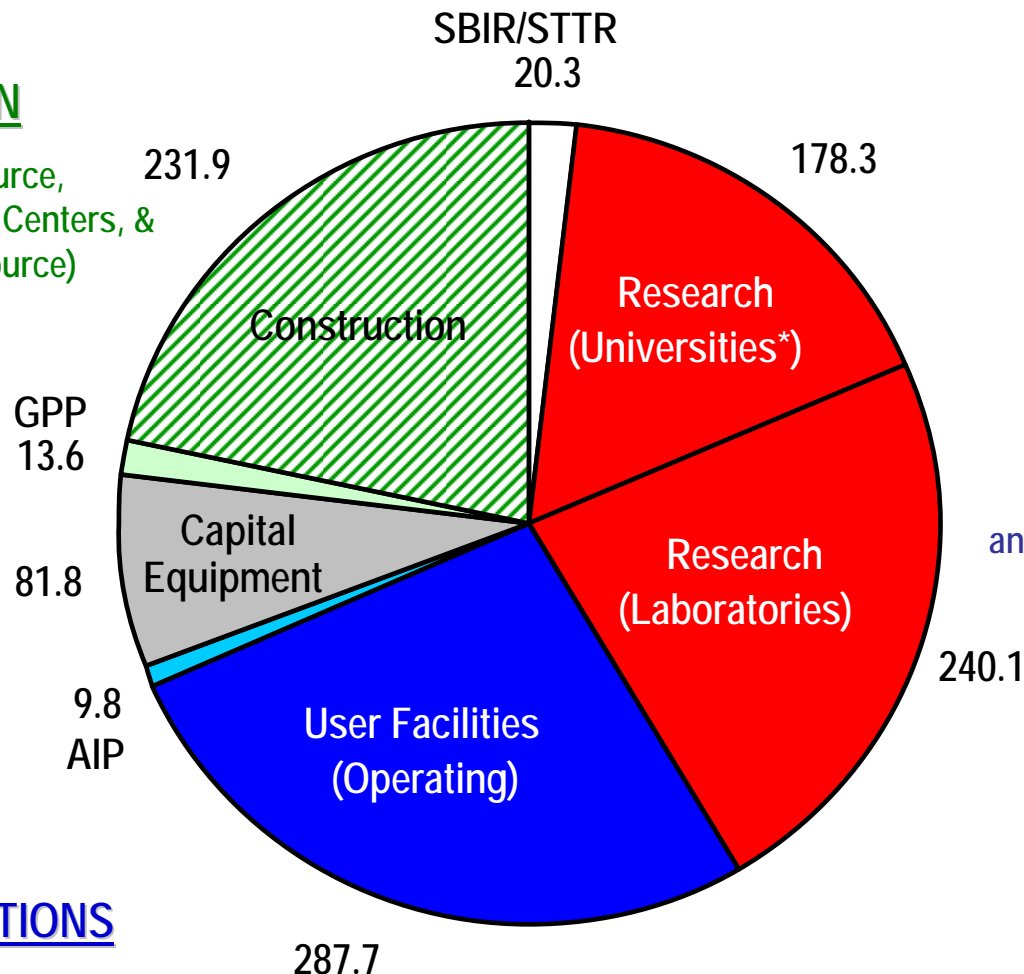
# BES FY 2005 President's Budget Request

## CONSTRUCTION

(Spallation Neutron Source,  
Nanoscale Science Research Centers, &  
Linac Coherent Light Source)

## RESEARCH

(Materials Sciences and  
Engineering Subprogram  
&  
Chemical Sciences,  
Geosciences,  
and Biosciences Subprogram)



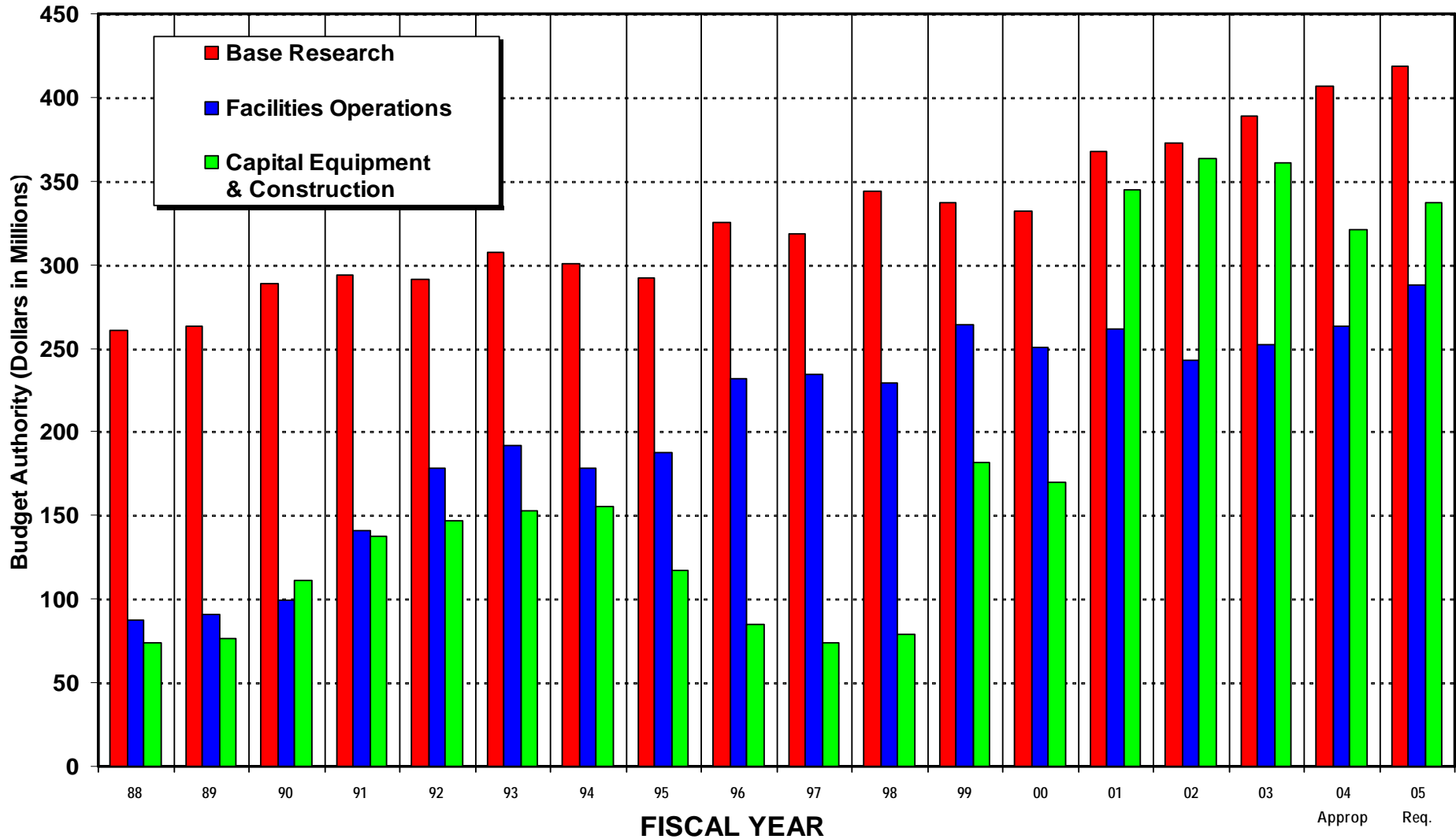
## FACILITY OPERATIONS

(X-ray and Neutron Scattering Facilities &  
the Combustion Research Center)

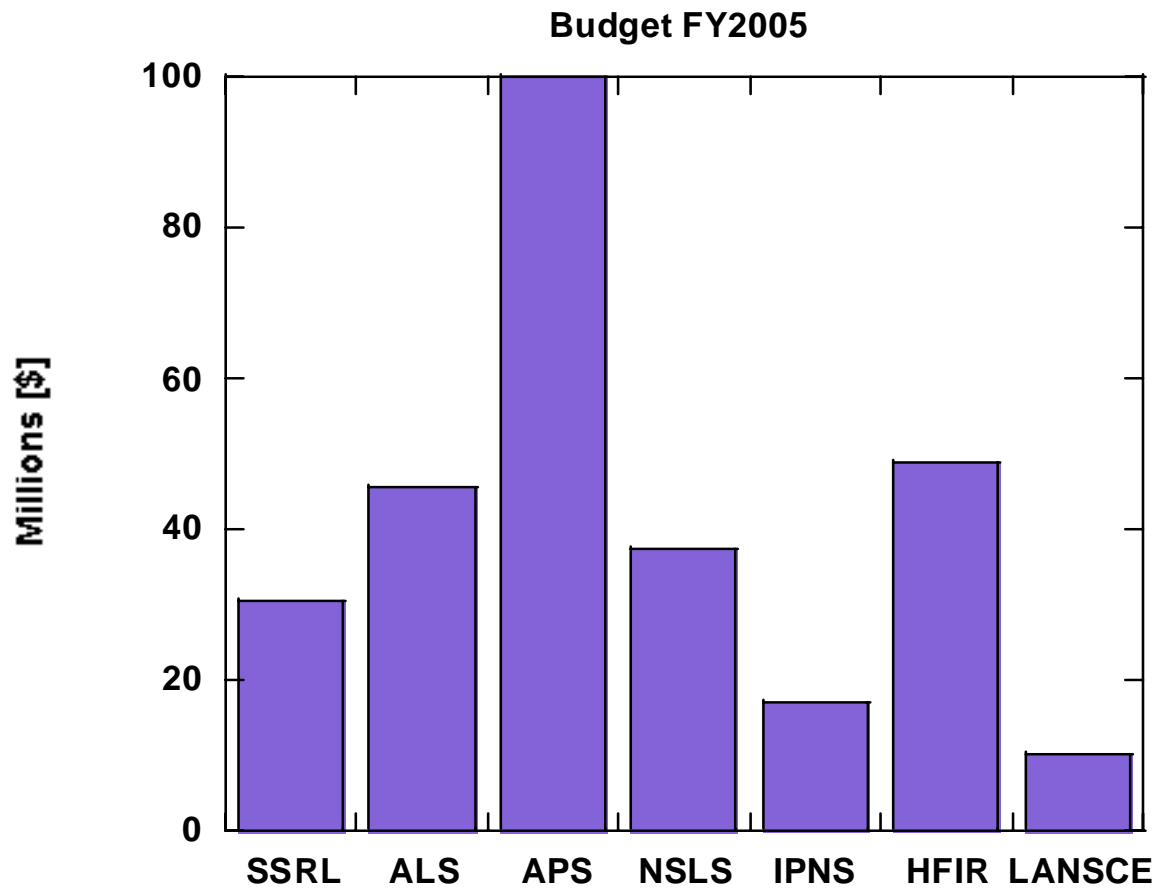
B/A in millions of dollars

\$ 1,063.5

# BES Funding Profile 1988-2005

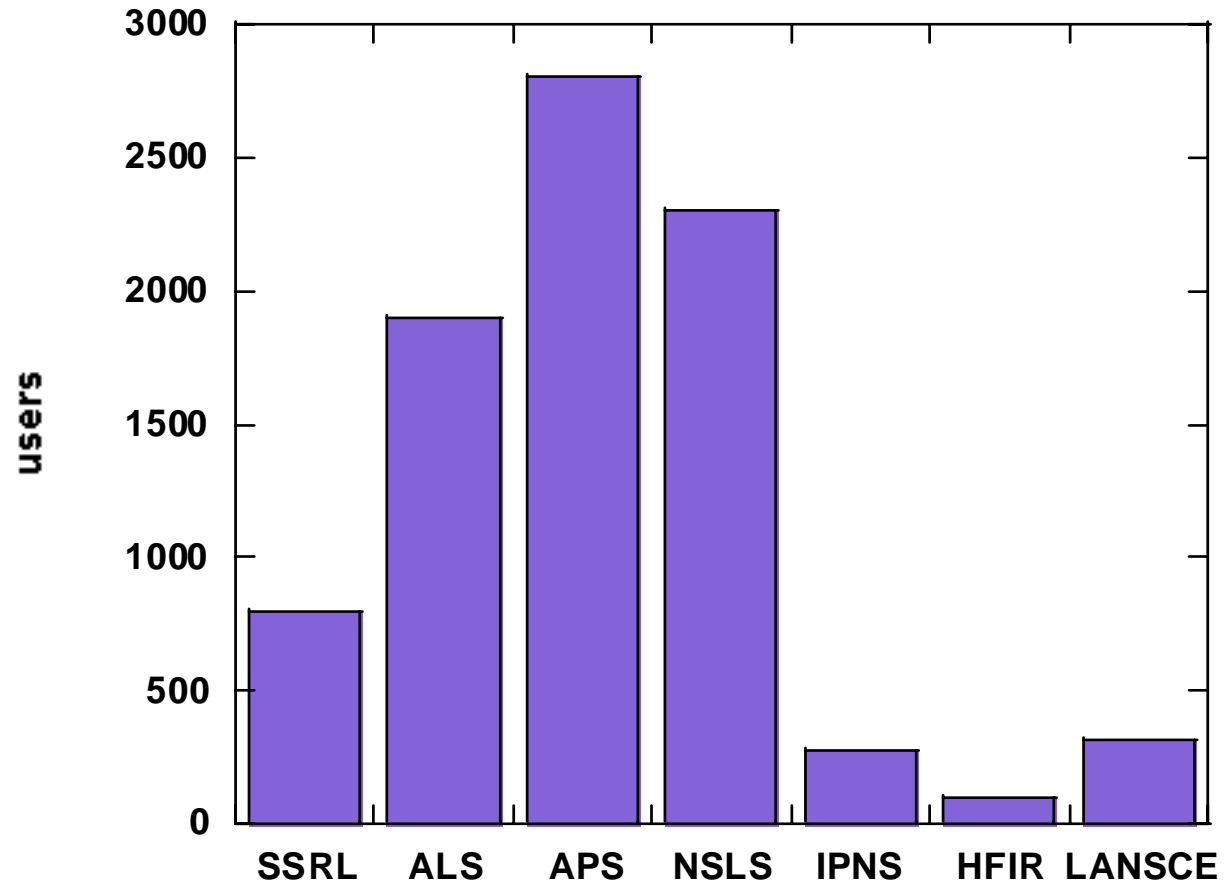


# *BES FY 2005 Facilities Operation Budgets*





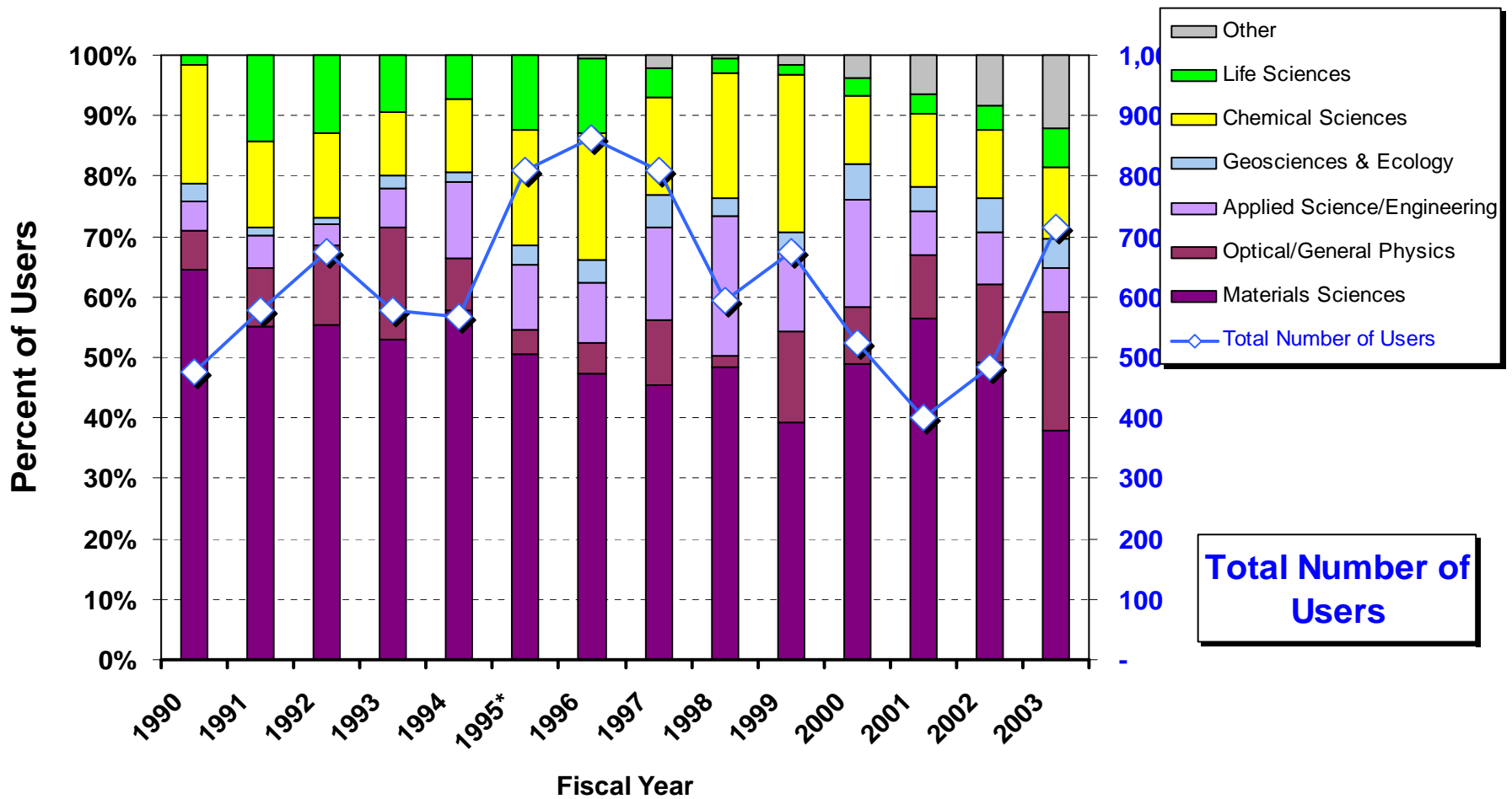
# *Number of Users by Facility in 2004*





# 4 BES High-Flux Neutron Sources (HFBR, HFIR, IPNS and LANSCE)

## User Profile by Discipline of Experiments



# Number of Users at DOE Neutron Scattering Facilities

