

US Nuclear Data Program Overview

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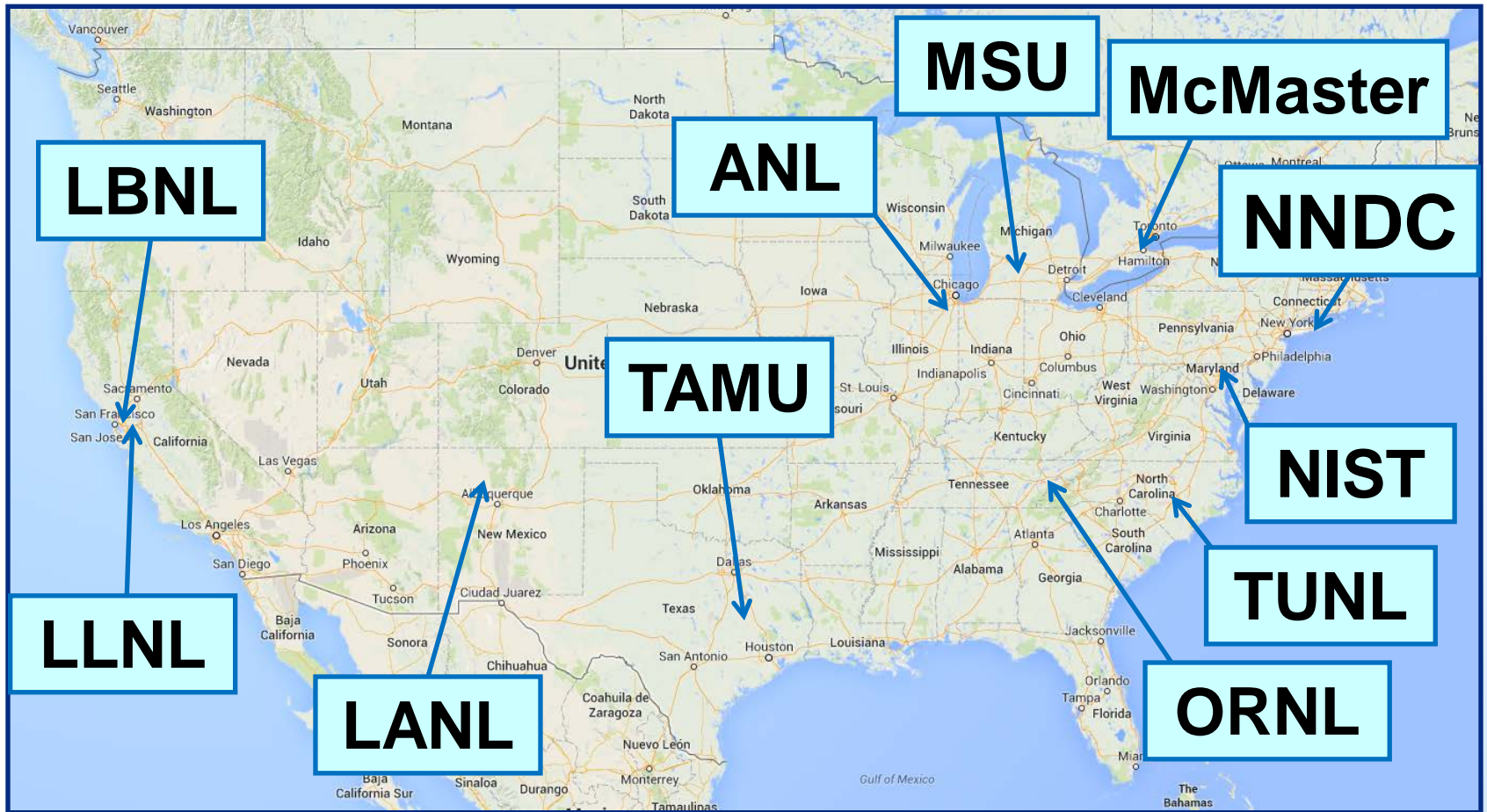
National Nuclear Data Center



U.S. DEPARTMENT OF
ENERGY

Office of
Science

US Nuclear Data Program Groups



US Nuclear Data Program Main Products

Nuclear Science References (NSR)

Articles indexed according to content

EXFOR

Compiled nuclear reaction data

XUNDL

Compiled nuclear structure and decay data

Evaluated Nuclear Structure Data File (ENSDF)

Recommended nuclear structure and decay data

ENDF

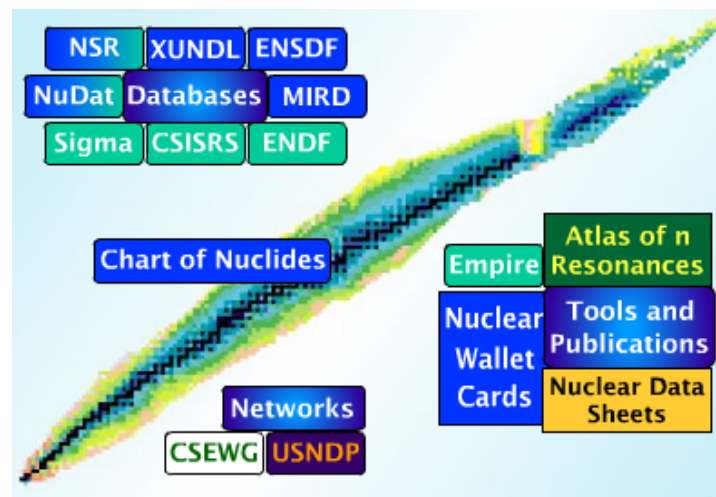
Recommended particle transport and decay data, with a strong emphasis on neutron-induced reaction data

Nuclear Data Sheets

Journal devoted to the publication of nuclear data articles

Web dissemination

www.nndc.bnl.gov

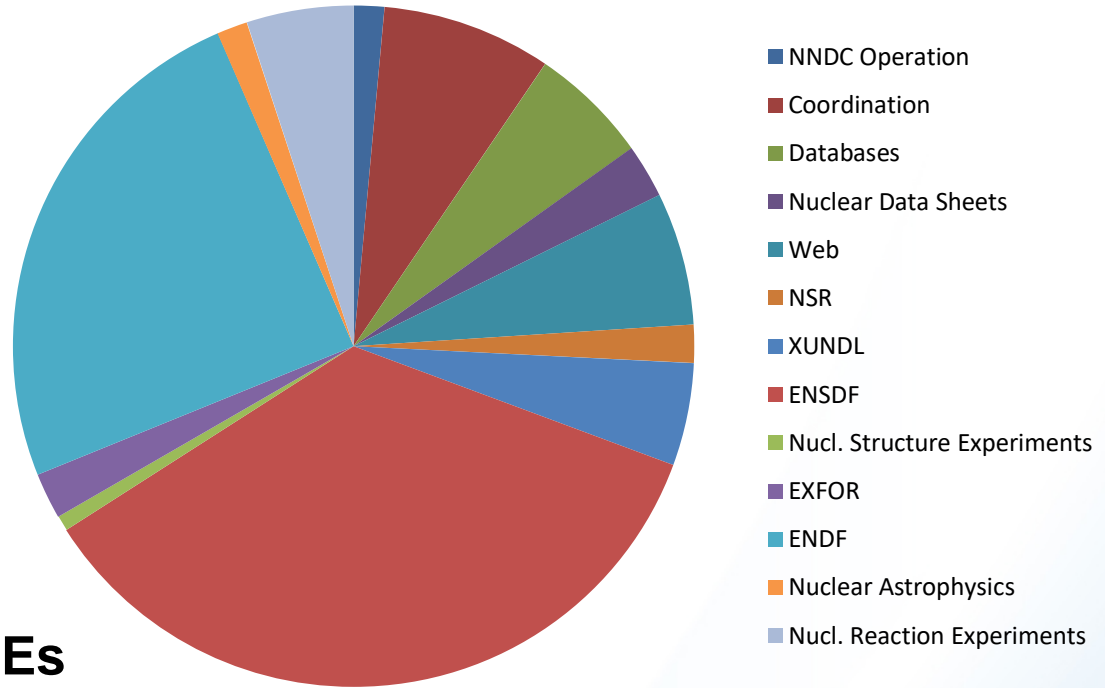


Changes

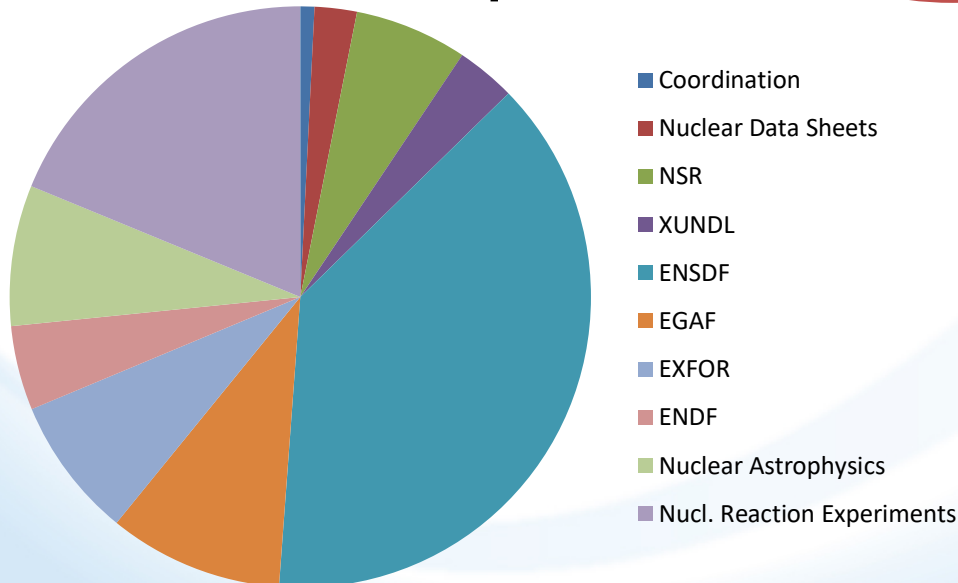
- Eddie Brown BNL contract expired on 12/31/16, and now is under contract with LBNL.
- Jag Tuli under contract with LBNL starting June 2017.
- TAMU is now receiving funds directly.
- Hiro Iwasaki and Jun Chen are co-PIs of the MSU grant starting on September 1st 2017.
- FIRE collaboration receiving USNDP funds starting in FY17. More details on Nicolas Schunck presentation.

FY2017 FTE Distribution

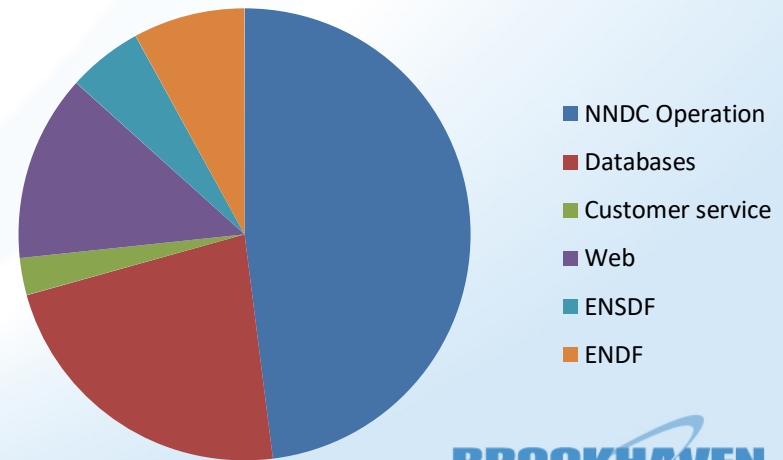
13.85 Scientific Perm FTEs



6.39 Scientific Temp FTEs



3.75 Tech/Admin FTEs



Compilation metrics

- NSR: 3,277 articles and 1825 key-worded
- EXFOR: 98 articles.
- XUNDL: 314 articles and 710 datasets
- Compilation activities are in a healthy stage.
- More details in Pritychenko and McCutchan's talks

XUNDL Compilations

| Laboratory | # Articles | # Datasets |
|---------------|------------|------------|
| ANL | 13 | 115 |
| BNL+McMaster | 168.5 | 342 |
| LBNL | 18 | 34 |
| MSU | 60 | 130 |
| ORNL | 11.5 | 15 |
| TAMU | 0 | 0 |
| TUNL | 38 | 60 |
| International | 5 | 14 |
| Total | 314 | 710 |

XUNDL is in a very healthy situation.

ENSDF Evaluations

| Laboratory | # Mass Chains | # Nuclides | # Adopted Levels | # Adopted Gammas | # ENSDF Reviews |
|-------------------|---------------|------------|------------------|------------------|-----------------|
| ANL | 0 | 60 | 125 | 70 | 1 |
| BNL & McMaster | 6 | 117 | 850 | 986 | 6 |
| LBNL | 1 | 15 | 1,043 | 1,788 | 1 |
| MSU | 2 | 22 | 1,456 | 2,727 | 1 |
| ORNL ⁺ | 0 | 0 | 0 | 0 | 2 |
| TAMU [*] | 0 | 9 | 0 | 0 | 0 |
| TUNL | N/A | 9 | 42 | 9 | 0 |
| International | 1 | 14 | 667 | 845 | 0 |
| Total | 11 | 246 | 4,183 | 6,425 | 11 |

⁺: Murray Martin e-mailed A=242 two weeks after deadline.

^{*}: Ninel Nica e-mailed the full A=160 three weeks after deadline.

ENSDF Evaluations

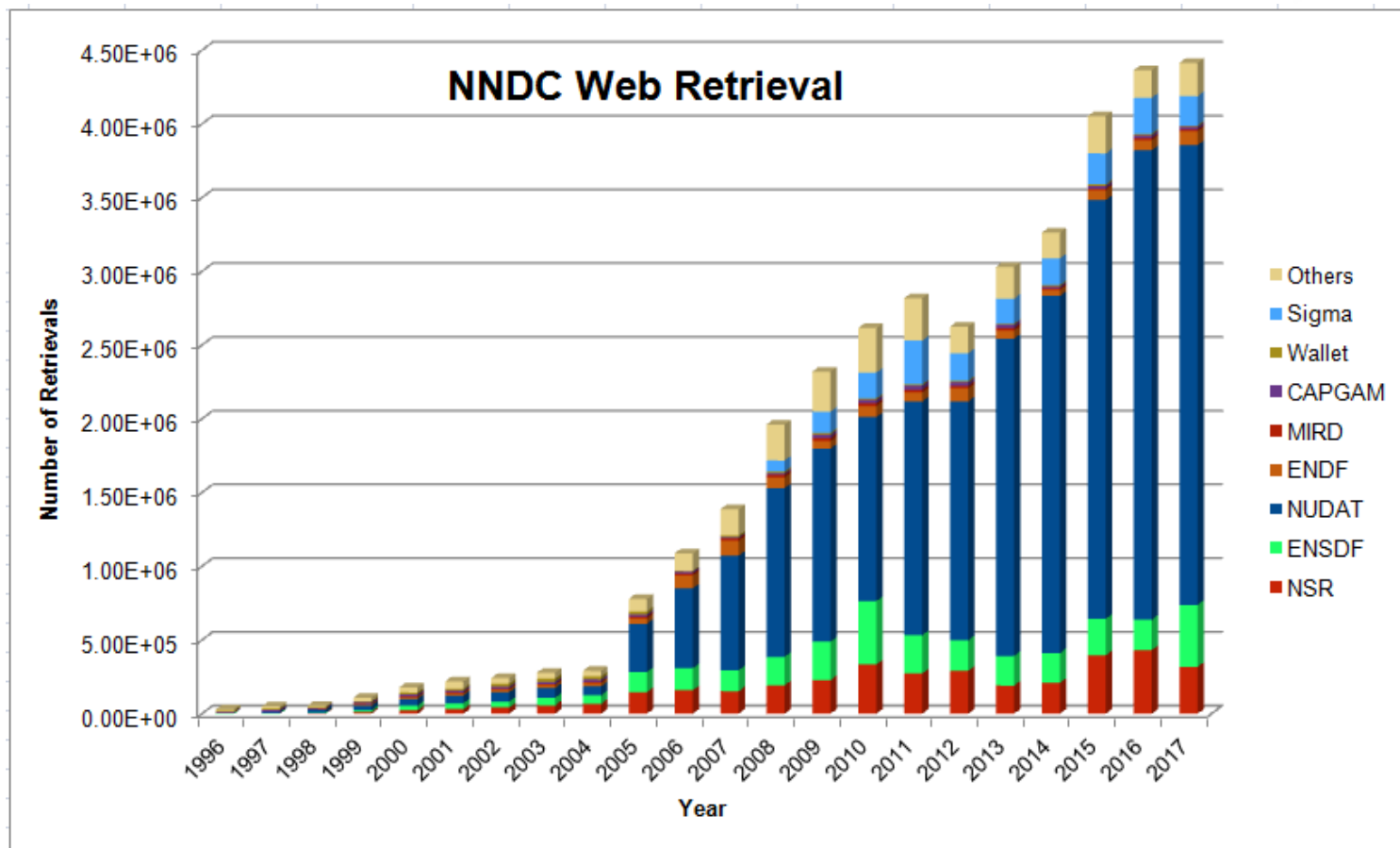
- Number of evaluations still very low
- Submission policy has changed. Authors must submit a clean FMTCHK and Pandora report as well as having incorporating all datasets in XUNDL.
- We need to get a realistic estimate of our productivity.
- More on Libby's talk.

ENDF/B Evaluations

- ENDF/B-VIII.0 will be released soon.
- NDS issue detailing library will be published in January.
- Previous major release was in 2011
- More on D. Brown, T. Kawano, G. Nobre and I. Thompson talks

Web Disseminations

BNL: 4,413 (+1.1%), ORNL: 200? (+67%?), TUNL 117 (+13.6%)



- We plan to replace some of servers in 2018 using NNDC funds.
- More in T. Johnson's talk.

USNDP white paper:

- ❑ Vision for the next 10 years
- ❑ Priorities, new ideas, goals
- ❑ Strategy and plans
- ❑ Interaction with users

Progress has been slow due to PIs overwhelmed by:

- Release of ENDF/B library
- FOA proposals
- Other proposals
- End of fiscal year activities
- Meetings...

Haven't been able to finalize FY17 USNDP for similar reasons.

We will discuss white paper later in more detail.

USNDP budget

Communicate budget concerns for FY18 assuming CR ASAP

Communicate any other concerns about DoE.