iCER SERVICE REPORT

RESEARCHERS USED ICER SERVICES

807

— Compute 76%

— Support 23%
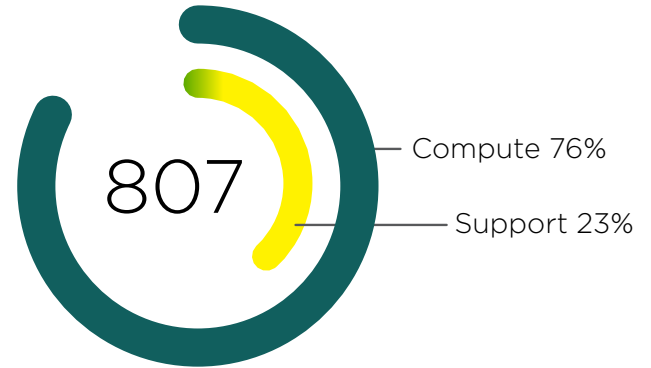
Developer/Login Nodes   **Batch Queue**   **Mapped Home Drive/Samba**
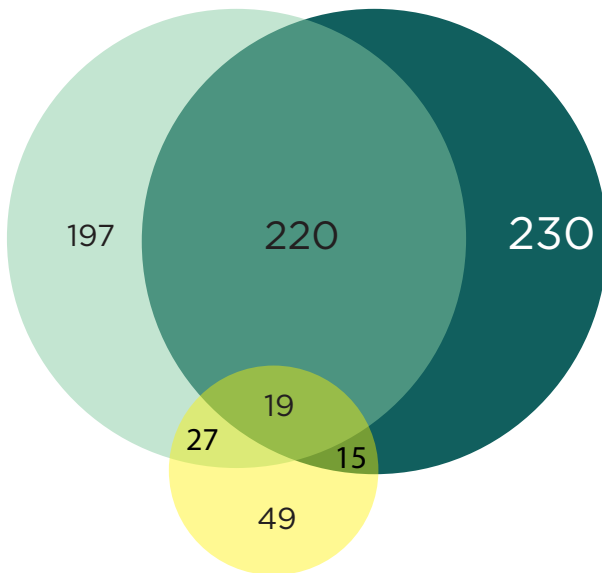
NUMBER OF USERS USING iCER COMPUTE SERVICES

197

220

230

19

27

15

49

This figure shows a breakdown of users that use iCER compute services:
239 users (220+19) use the developer nodes to submit jobs to the queue.

245 interactive users (230+15) only use iCER developer nodes to do their work. This includes users:
> Only need access to software (ex. Matlab, mathematica)
> Still in software development process and have not submitted a job
> Find development nodes are sufficient for their research.

49 users only used the iCER file systems to store their files.

294 researchers (230+15+49) used iCER hardware outside of the batch queue.

*Due to the system issue, the data from directory 12-a is missing for June's report. Therefore, the Samba data is smaller than the actual.

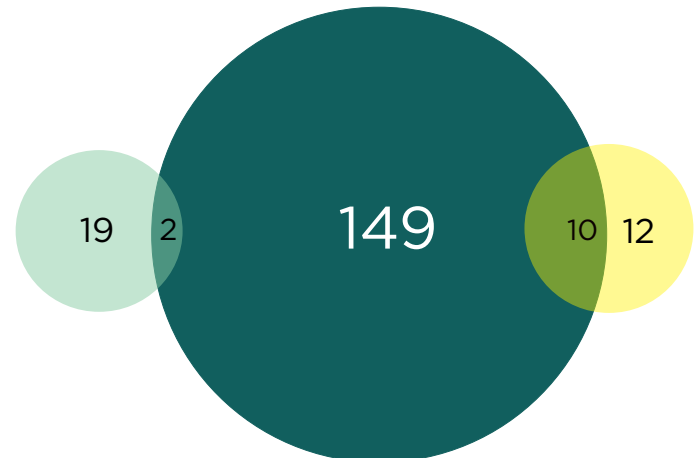**Tickets**   **Workshops**   **Office Hour**

NUMBER OF USERS USING ICER SUPPORT SERVICES

This figure shows a breakdown of users that use iCER support services. These support services include support tickets, iCER workshops and office hours.
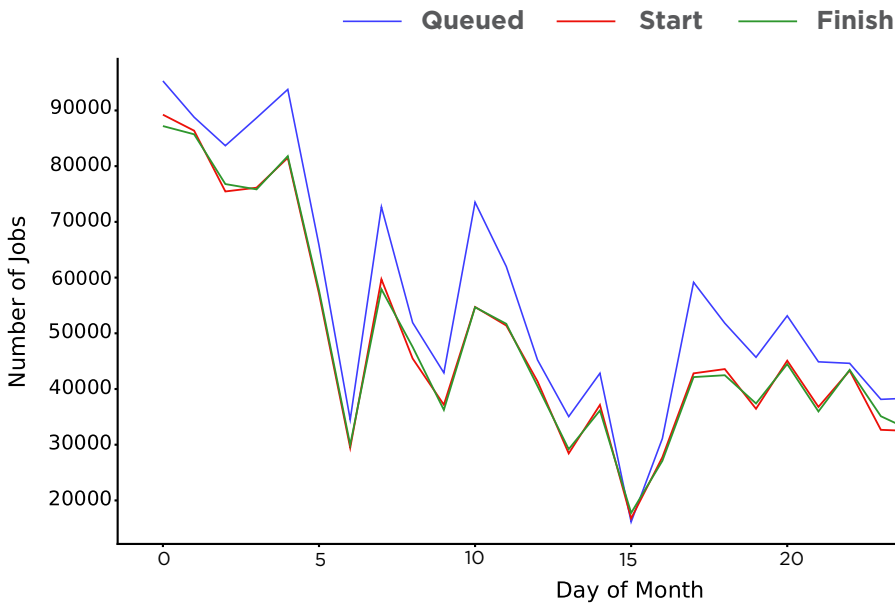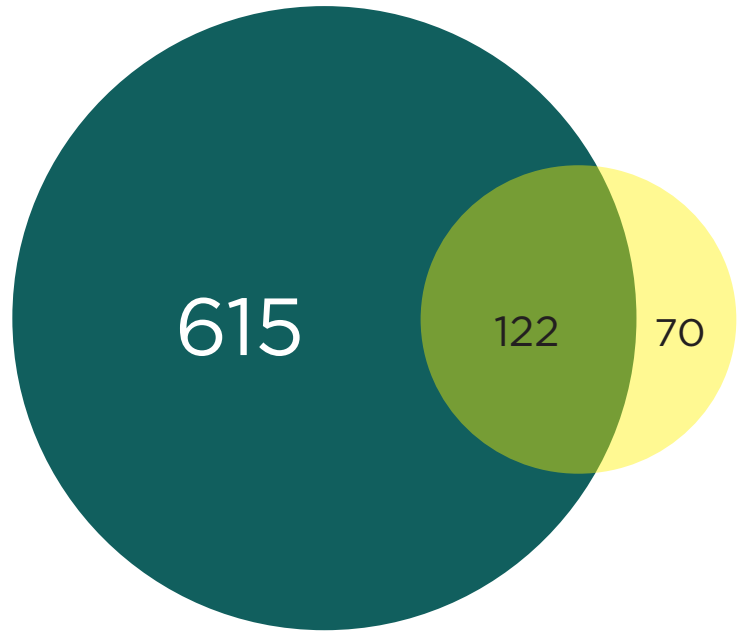
List of iCER workshops in June:

> Introduction to HPCC
> Software Carpentry Instructor Training

19   2

149

10   12

COMPARISON BETWEEN NUMBER OF USERS USING ICER SUPPORT AND COMPUTE SERVICE

**615**   **122**   **70**

- **Compute**
- **Support**

DAILY SCHEDULER ACTIVITY

— **Queued** — **Start** — **Finish**

Number of Jobs

Day of Month

On a typical day, the scheduler processes approximately 130,766 jobs. This includes jobs that are queued, jobs that start and jobs that end. Put in another way, the scheduler manages approximately 91 jobs per minute.

NUMBER OF MAPPED HOME DIRECTORIES PER SERVER

ufs-11-b   ufs-13-a   ufs-13-b   ufs-11-a   ufs-12-b
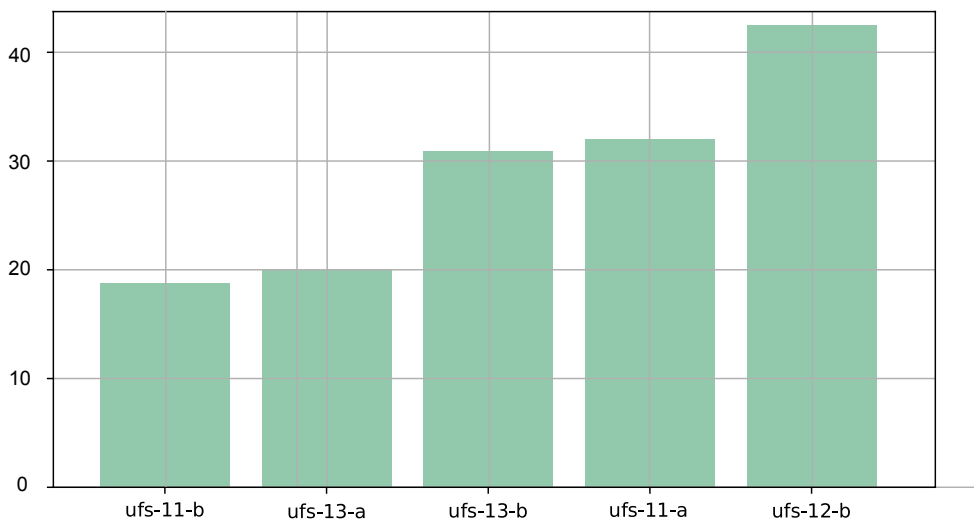
*Due to the system issue, the data from directory 12-a is missing for June's report

TICKET ACTIVITY SUMMARY

261

443

328

20

Tickets **Created**

Tickets **Updated**

Tickets **Resolved**

Open Tickets
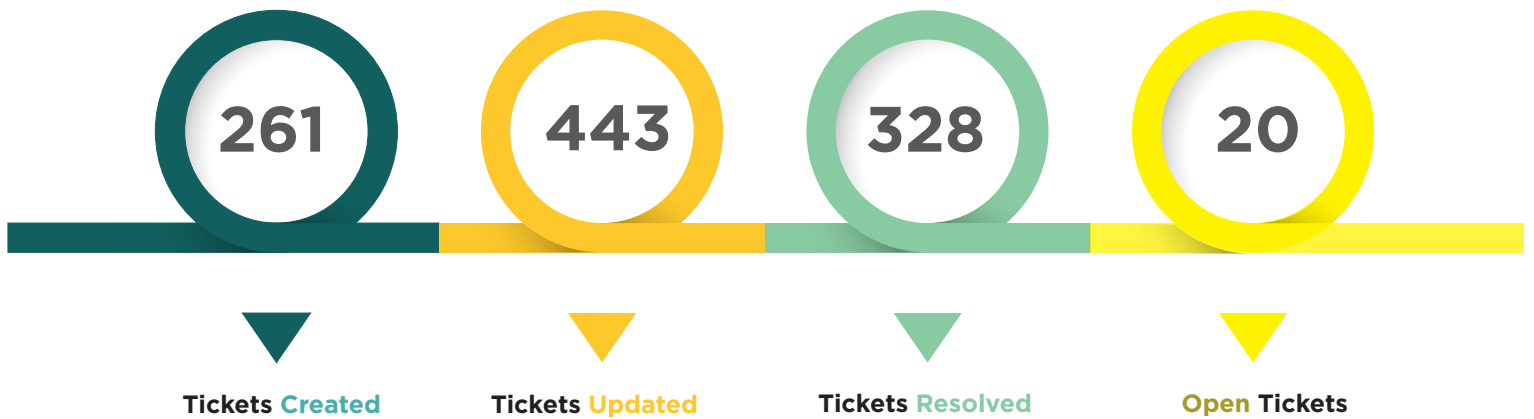
TICKET MESSAGE SUMMARY

582
Total Users' Messages

1047
Total iCER's Messages

MARCH TICKET HIGHLIGHTS

CHUN-MIN CHANG
Research Consultant
TIPS FOR SOFTWARE INSTALLATION

TICKET RESOLUTION STATISTIC

13.22%

9.92%

51.65%

19.21%

5.99%

447
Messages answered in June
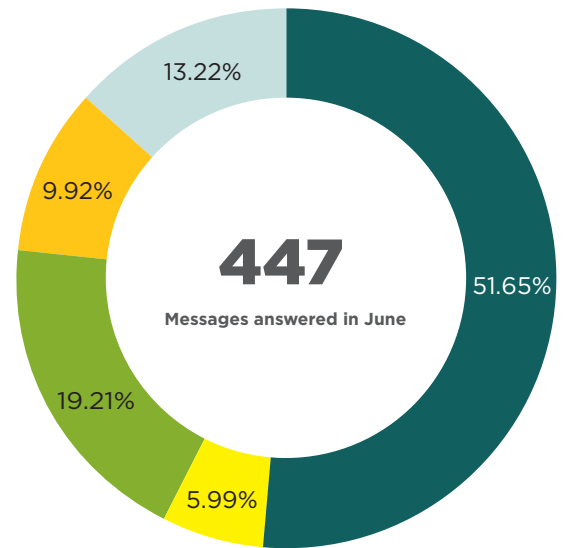
- Messages answered within 5 hours
- Messages answered within 5 - 12 hours
- Messages answered within 12 hours - 24 hours
- Messages answered within 24 hours - 2 day
- Messages answered in more than 2 days

67
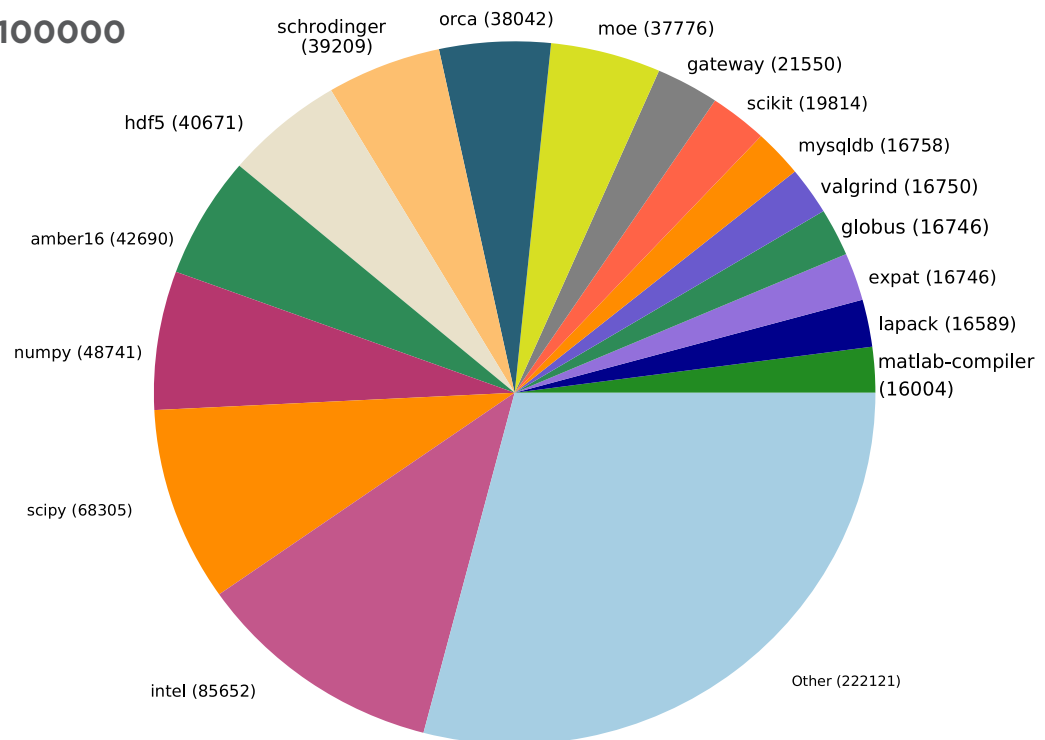**New User Accounts created**
in June

In an effort to better serve our users, we have been analyzing the software that is being used on the HPC by recording which software modules are being loaded using the "module load" command. Clearly this is not a complete view; many users install their own software in their home directories, some modules are automatically loaded as part of a user profile and there will be a bias toward pleasantly parallel codes which will load their required modules every time a job runs (as compared to bigger jobs which would only load the modules once). However, we find this data interesting and wanted to share it with you.

ALL MODULE LOAD COUNTS <10000000
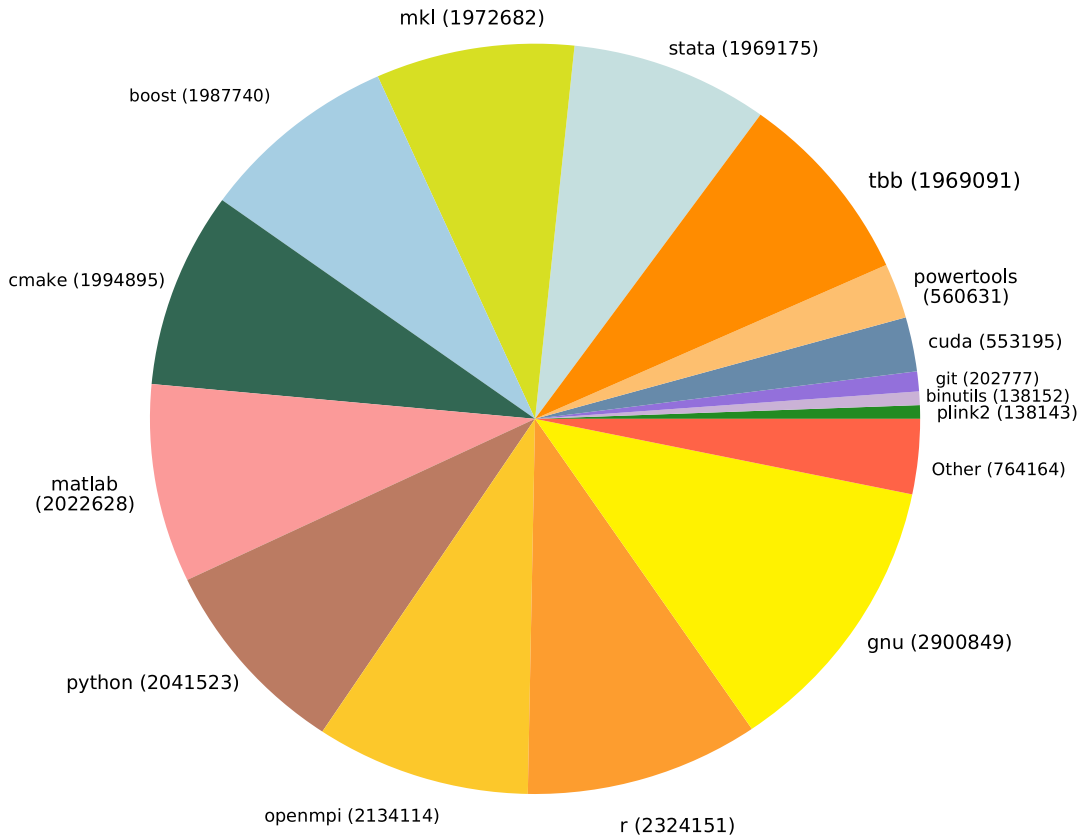
The pie chart shows the most commonly loaded modules. Note again that the biggest ones are the ones included in a user's default profile such as MATLAB, Python, and R. These modules get loaded every time they log in or run a job. As can be seen clearly, the default modules get loaded in an order of magnitude more than many of the other modules.

Pie chart labels:
- mkl (1972682)
- stata (1969175)
- boost (1987740)
- tbb (1969091)
- cmake (1994895)
- powertools (560631)
- cuda (553195)
- git (202777)
- binutils (138152)
- plink2 (138143)
- matlab (2022628)
- Other (764164)
- python (2041523)
- gnu (2900849)
- openmpi (2134114)
- r (2324151)

ALL MODULE LOAD COUNTS <100000

After taking out the default modules, the pie chart on the right shows more modules that users are choosing to include in their .bashrc files and being submitted on a lot of jobs.

Pie chart labels:
- schrodinger (39209)
- orca (38042)
- moe (37776)
- gateway (21550)
- hdf5 (40671)
- scikit (19814)
- mysqldb (16758)
- valgrind (16750)
- amber16 (42690)
- globus (16746)
- expat (16746)
- numpy (48741)
- lapack (16589)
- matlab-compiler (16004)
- scipy (68305)
- Other (222121)
- intel (85652)

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