FY16 User Survey Report
for the
SC Lattice QCD Computing Project Extension II
(LQCD-ext II)

Unique Project (Investment) Identifier: 019-20-01-21-02-1032-00

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FY15 LQCD-ext II User Survey Report Change Log

Version	Description	Date
0.5	Initial draft for review by IPT	4/20/2017
0.9	Revised draft with feedback from USQCD All Hands Meeting	5/11/2017
1.0	Final version with feedback from broader LQCD/USQCD team	*Planned: June 1017*

Table of Contents

1 Executive Summary

In order to serve the USQCD user community in the best possible manner, anonymous online surveys are conducted on an annual basis by the LQCD-ext II Project to quantify the level of user satisfaction with the services provided by the LQCD computing project facilities. The LQCD-ext II Integrated Project Team (IPT) uses the results of these surveys to identify ways to improve and optimize services using the limited resources available to the project. Annual user surveys have been conducted by the LQCD, LQCD-ext, and LQCD-ext II projects since 2007. This report presents the results of the FY16 LQCD-ext II User Survey.

The FY16 LQCD-ext II User Survey was officially open from December 16, 2016 to March 10, 2017. The survey was designed to measure user satisfaction during the period from October 2015 through September 2016, inclusive. The online survey consisted of 29 questions designed to measure the level of satisfaction with: (a) the compute facilities operated and managed by the LQCD-ext II project team, and (b) the annual resource allocation process conducted and managed by the USQCD Scientific Program Committee.

The survey was distributed to all scientific members of the USQCD collaboration, with a focus on obtaining responses from USQCD Principal Investigators (PI's) and from the most active users at LQCD computing facilities during the year. The FY16 survey was distributed to a total of 187 individuals; of these, responses were received from 73 individuals. 26 out of 27 PI's completed a survey for a response rate of 96%, compared to 86% in FY15. 33 of the 50 most Active Users completed a survey for a response rate of 66%, compared to 50% in FY15.

Questions related to facility operations were designed to quantify the level of satisfaction on a per-site basis. Results were then aggregated to obtain an overall score for the project. Table 1 shows the aggregate scores for the key facility measurement areas over time. The overall satisfaction rating, a KPI defined in the Project Execution Plan, was 93% in FY16, exceeding the target goal of 92%. Satisfaction ratings for Compute Facility Operations in FY16 were about the same as FY15, with a modest decrease in ratings for User Documentation. User comments suggest that while overall satisfaction is very high, users would like to see some improvements in documentation and simplification of the task of moving projects from one site to another.

Table 1. Satisfaction Ratings for Compute Facility Operations

Category	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Overall Satisfaction	82%	91%	96%	81%	87%	93%	94%	97%	97%	93%
User Documentation	78%	92%	81%	73%	81%	89%	90%	88%	93%	87%
User Support	86%	100%	92%	88%	92%	94%	98%	96%	99%	96%
Responsiveness of Site Staff	89%	97%	98%	90%	90%	92%	98%	96%	99%	98%
System Reliability	74%	90%	84%	76%	91%	89%	96%	96%	93%	93%
Ease of Access	73%	74%	77%	76%	83%	92%	91%	91%	93%	91%
Effectiveness of Other Tools	77%	72%	83%	86%	88%	92%	97%	97%	95%	94%

Questions related to the annual allocation process operations were designed to gauge the level of satisfaction with several aspects of the allocation process, from the clarity of the Call for Proposals, through the transparency and fairness of the allocation process, to the extent to which the process maximizes scientific output. Table 2 shows the aggregate scores for the key measurement areas over time. The Overall Satisfaction rating for the Allocation Process in FY16 fell to the FY14 level, but ratings improved modestly in all other areas. Some users expressed concern over the turn-around time for Class B and Class C proposals.

Table 2. Satisfaction Ratings for the Resource Allocation Process

Category	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Overall Satisfaction w/Allocation Process	69%	81%	84%	86%	84%	83%	97%	84%	91%	85%
Clarity of Call For Proposals	79%	91%	93%	93%	93%	94%	99%	88%	88%	93%
Transparency of Allocation Process	61%	64%	79%	86%	74%	86%	93%	83%	81%	87%
Fairness of Allocation Process	63%	73%	88%	86%	93%	86%	96%	81%	84%	87%
Proposal Process Helps Maximize Scientific Output	70%	78%	85%	79%	88%	80%	91%	85%	89%	87%

2 Survey Methodology

The target audience for the LQCD-ext II User Survey includes members of the USQCD collaboration (e.g., Principal Investigators, faculty members, researchers, students and post-docs) who submit jobs to the LQCD Computing Facility at any of the three host sites, BNL, FNAL, and JLab; and/or whoever participates in the annual USQCD resource allocation process. Technical staff who are directly involved with operations at one of the LQCD host sites are excluded from survey participation. The survey was distributed to all known scientific members of the USQCD collaboration, with a particular focus on obtaining input from Principal Investigators and from active users who had submitted compute jobs to one of the three host facilities during the year.

The FY16 User Survey questions were defined by the project team in collaboration with the USQCD Executive Committee and the Scientific Program Committee. The same questions were used in the 2016 survey were used in the 2013, 2014, and 2105 surveys. The survey consisted of 29 questions arranged into 4 sections designed to measure the level of satisfaction with the compute facilities operated and managed by the LQCD project team, and with the annual resource allocation process conducted and managed by the USQCD Scientific Program Committee. The survey sections are:

- Demographic Information: Questions 1-5
- User Satisfaction: Questions 6-13, 28
    - Question 6 measures the "Customer Satisfaction rating" KPI defined in the Project Execution Plan. The goal is to meet or exceed a rating of 92%.
- Helpdesk Evaluation: Questions 14-19
    - This evaluates the users' impression of Helpdesk services to ensure it is consistent with the separate measurement of the "% tickets closed within 2 business days" KPI defined the Project Execution Plan.
- Allocations and Call for Proposals: Questions 20-27, 29

For satisfaction rating questions, responses of "very satisfied" and "satisfied" were considered as satisfaction responses. The questions, responses, and verbatim user feedback are in Section 6.

The survey was executed using the SurveyMonkey online service (surveymonkey.com). General requirements for the survey are that the online survey be easily accessible by members of the collaboration for a finite length of time, and that user responses remain anonymous to those analyzing and using survey results.

The 2016 User Survey was officially open from December 16, 2015 to March 10, 2016. Email announcements and reminders were sent from the survey tool as well as directly by project and collaboration leaders during this time to USQCD members who had not yet completed a survey.

- Of the 187 identified USQCD members, 73 non-technical members completed a survey. The USQCD email lists have grown to include many people who are not actively using LQCD Compute facilities, so the total response rate is not considered.
    - Of the 201 members sent a survey invitation, 128 opened the invitation email, 65 did not, and 7 invitations bounced. Each bounced email was investigated and the invitation resent if a more recent email address was found for the user.
- 26 of 27 PI's completed the FY16 survey for a PI response rate of 96%, compared to 86% in FY15.

- 33 of the 50 most Active Users completed the FY16 survey for an Active User response rate was 66%, compared to 50% in FY15.
- The 73 survey responses in 2016 was a little more than the 66 responses in 2015.

Results of this survey are shared with the Integrated Project Team for further analysis and to identify areas for potential improvement and to implement corrective actions. Items with satisfaction rating less than 80% are considered issues requiring further analysis and attention. Since the total population of users is relatively small, as is the sample size of survey respondents, outliers may significantly affect the results of the survey. We also depend heavily on the small number of free-form text responses from users to identify potential opportunities for improvement, even in areas where the related satisfaction rating is high.

3 Survey Results Summary and Analysis

3.1 Demographics

These questions are designed to collect demographic data of the user community. The demographics in the FY16 survey are similar to past surveys. Among the total of 73 respondents:

- 49 users are employed by a university or a college and 24 by laboratories.
- 31 users are faculty members. Research scientists and post docs make up most of the rest.
- 23 users submit jobs daily. 29 users submit jobs occasionally or never.
- The most common submission rate by active users is in the 1 to 9 jobs per week range.
- 38 users have submitted jobs at FNAL, 31 users have submitted jobs at JLab, 10 users have submitted jobs at BNL. Users also reported submitting jobs to Titan and Hyak.

3.2 Computing Facilities Operations

3.2.1 User Satisfaction Evaluation

Ratings associated with these questions assessed the overall user satisfaction with the LQCD facility and related satisfaction levels related to documentation, user support, system reliability, responsiveness of site support, accessibility, and tools support. Overall satisfaction rating for Compute Facility Operations in the FY16 survey is 93%, which exceeds our target rating of 92%. Detailed satisfaction ratings are in Table 3 below.

Table 3. User Satisfaction Ratings for Computing Facilities

Computing Facilities	FY16 Ratings
Overall Satisfaction	93%
Documentation	87%
User support	96%
Responsiveness	98%
Reliability	93%
Ease of access	91%
Other Tools	94%

The following figures shows the overall rating score trend over recent years. Figure 1 shows the Overall Satisfaction has remained at a high level in the past several years. Figures 2a-f show that the specific areas surveyed for the Compute Facilities likewise have remained at a high level in the past several years, and the satisfaction with User Documentation perhaps improving in FY15.

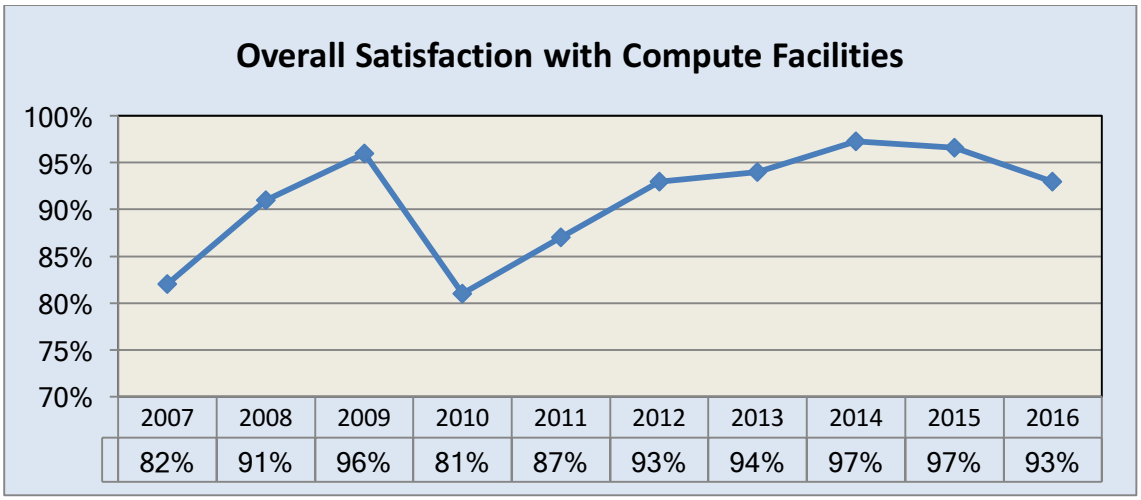
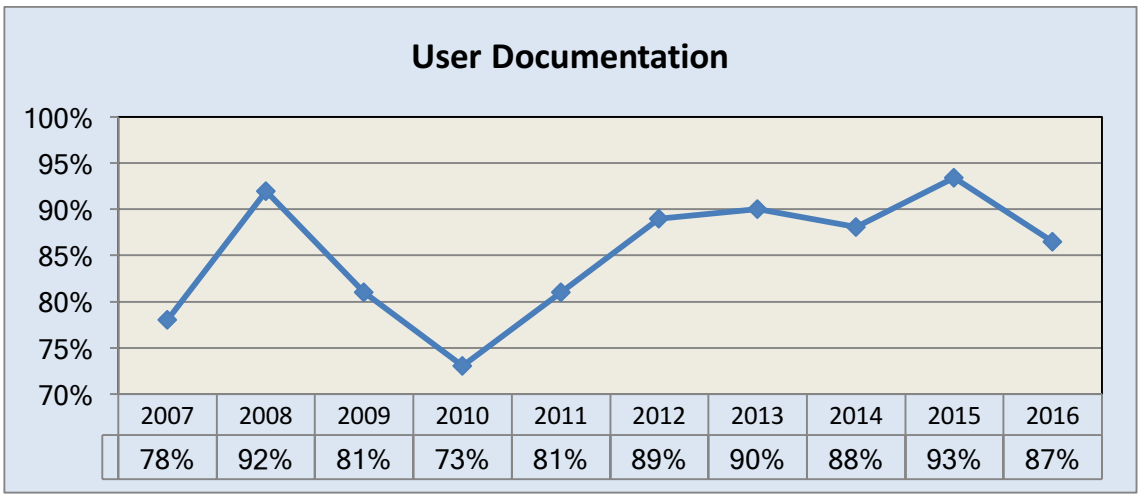
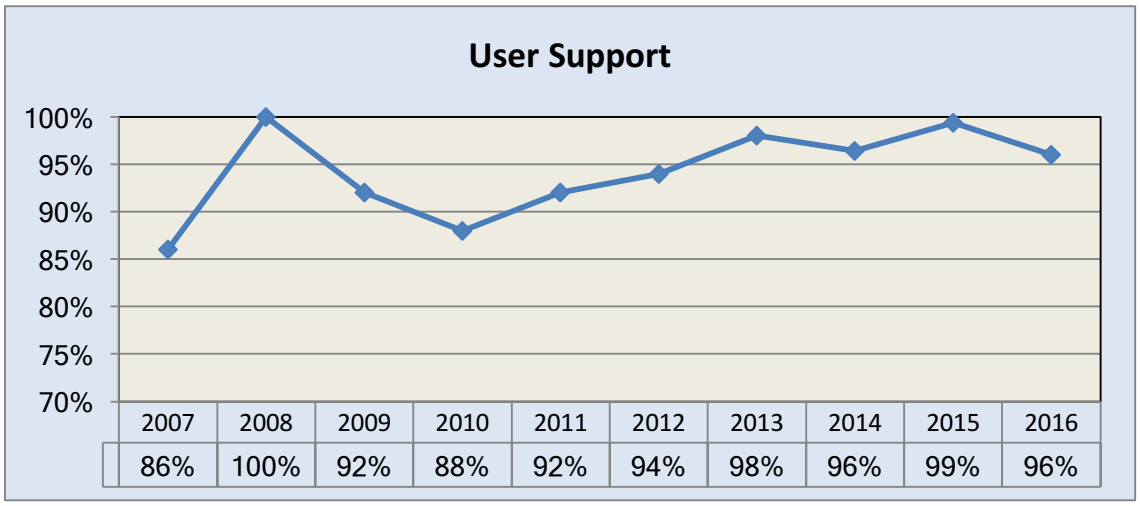
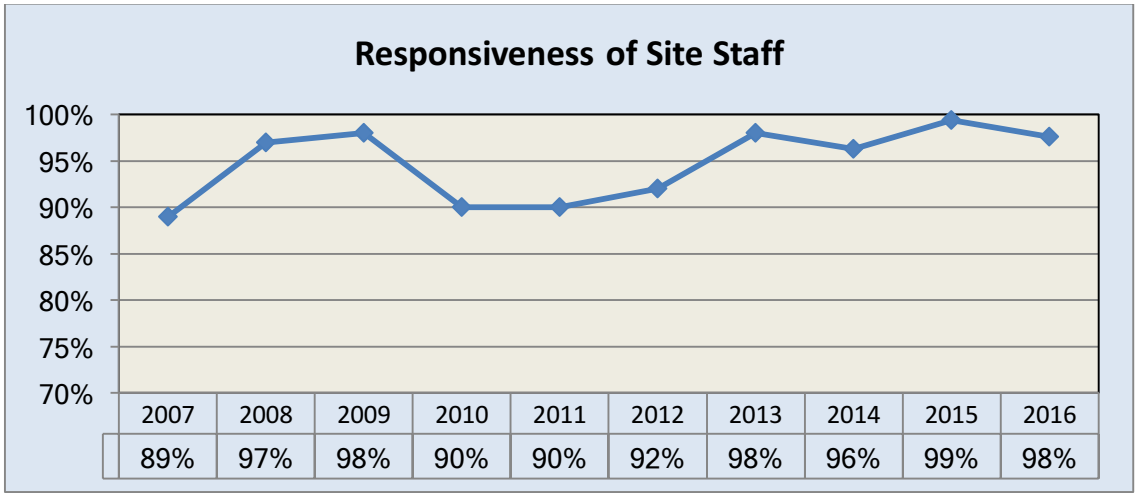


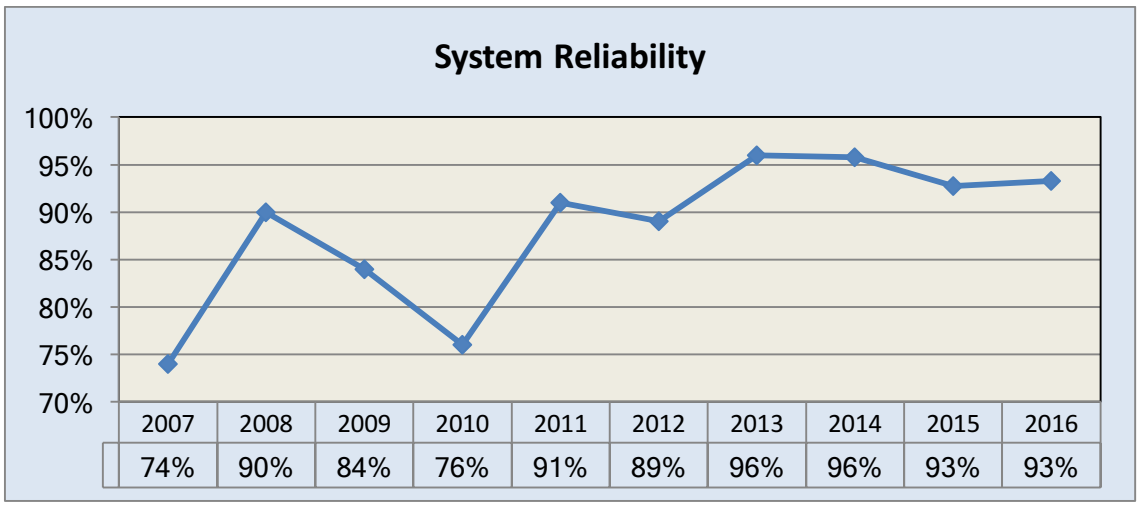
Figure 1. Overall Satisfaction Rating with LQCD Compute Facilities

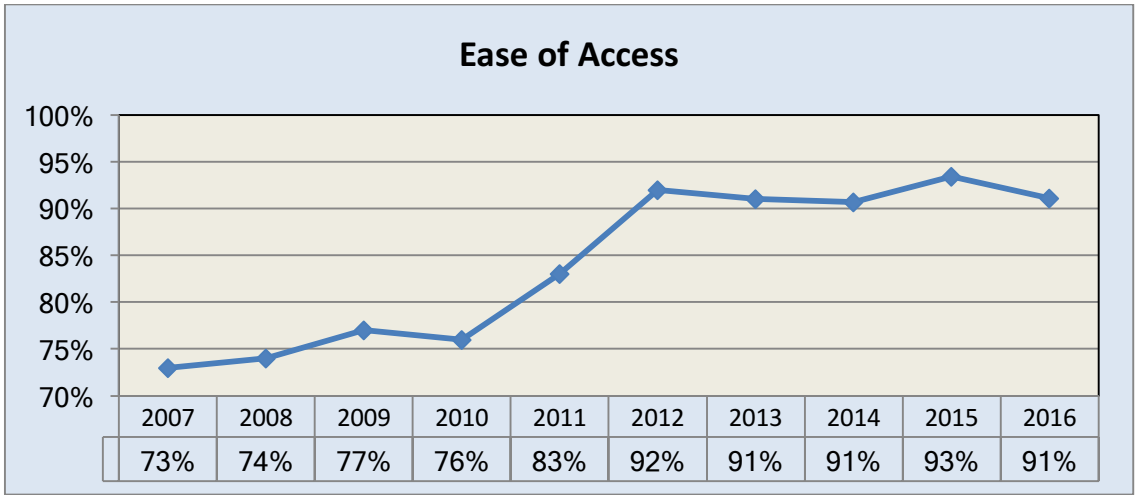


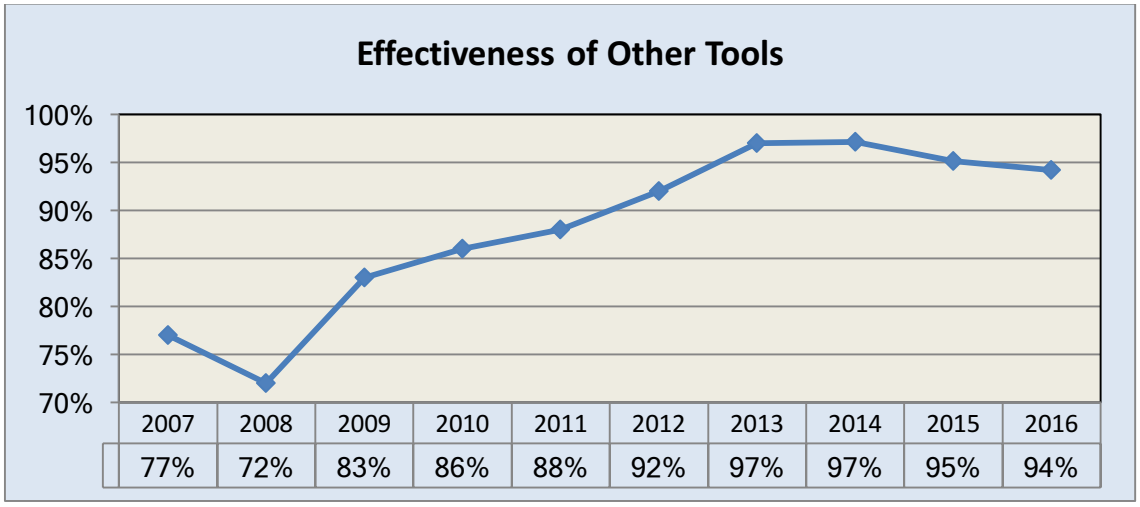




Figures 2a-c. User Documentation, User Support, and Site Staff Responsiveness







Figures 2d-f. System Reliability, Ease of Access, Effectiveness of Other Tools

Table 4. Satisfaction Ratings for Compute Facilities by Site

FY16 Computing Facilities	All Sites	BNL	FNAL	JLab
Overall Satisfaction	**93%**	86%	100%	86%
Documentation	87%	74%	93%	82%
User Support	96%	94%	100%	92%
Responsiveness	98%	86%	100%	98%
Reliability	93%	100%	96%	87%
Ease of Access	91%	94%	95%	83%
Other Tools	94%	94%	97%	90%

Table 4 presents the satisfaction ratings broken down by site. The shaded regions indicate low values this year (yellow < 85%, red < 70%). A KPI for the project is to receive an Overall Satisfaction rating >= 92%, which was accomplished (green highlight).

BNL: The satisfaction rating for Documentation at BNL fell to 74%. The BNL LQCD site during this time period transitioned from one part of the lab organization to another and deployed a new system (BNL-IC) on which USQCD has an allocation, which has strained LQCD site resources and delayed addressing documentation concerns.

FNAL: FNAL received satisfaction ratings of at least 92%, including the overall satisfaction rating.

JLab: The satisfaction rating for Documentation at JLab fell to 82%. The satisfaction rating overall dropped from 92% to 86% which may be related to the challenge of the deploying of a large system (16p) using a new architecture (KNL) as well as some required facility transitions.

3.2.2 Helpdesk Evaluation

Questions were posed to determine the usage and efficacy of the helpdesk and support at each site. Users were asked to consider the last problem report they submitted:

- The most recent help needed was at site:
  - BNL: 10%
  - FNAL: 47%
  - JLab: 31%
  - None: 12%
- 96% of users responding knew how to ask for help.
- 75% received an initial response to their help request within 1 working day.
- 81% of problems were resolved by that initial response.
- 45% of problems were resolved within one working day and about 88% of the problems were solved within 3 working days.
- The mean resolution time for 95% of the problems is 1.88 working days.
  - The Helpdesk-related project KPI is: 95% of tickets are resolved within 2 business days. While we measure this directly, this serves as a cross-check of experience and perception by the users. In this case, perception slightly exceeds the KPI.

3.3 Allocation Process and Call for Proposals (CFP)

Questions associated with the allocation process are designed to assess different aspects of the resource allocation process. The questions address the Allocation Process itself, clarity of Call for Proposals (CFP), allocation transparency and fairness, and the goal of maximizing the scientific output through the Allocation Process. Detailed satisfaction ratings by topic are in Table 5 below.

Table 5. User Satisfaction Ratings for the Allocation Process

Allocation and CFP Processes	**FY16 Ratings**
Overall Satisfaction with Proposal Process	85%
Clarity of the Call for Proposals	93%
Transparency of Allocation Process	87%
Fairness of Allocation Process	87%
Allocation Process Helps Maximize Scientific Output	87%

The overall satisfaction rating for the allocation process was 85%, returning to a level seen in 2012 and 2014, as shown in Figure 3 below.

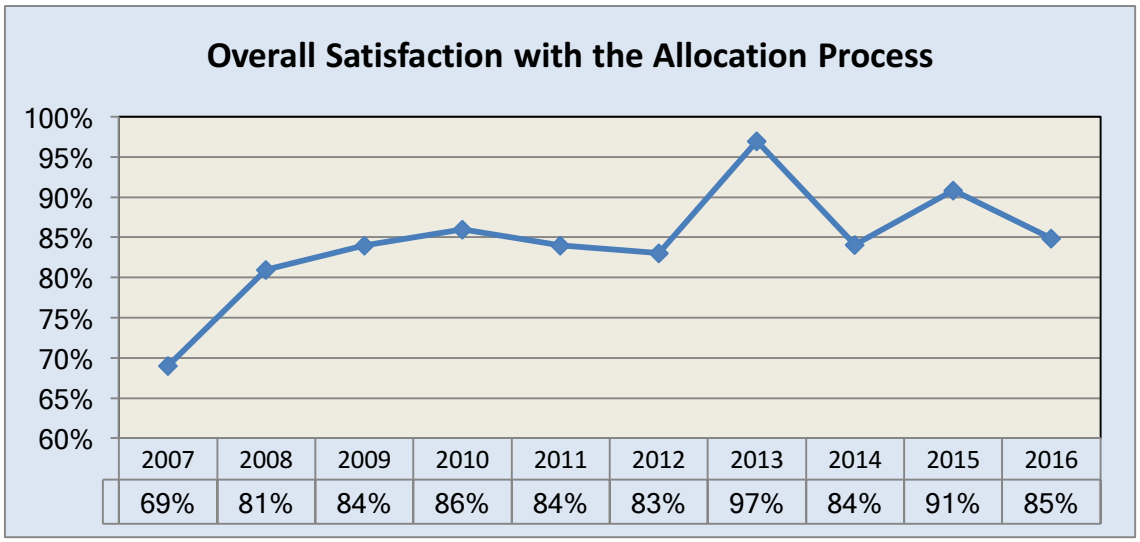


Figure 3. Overall User Satisfaction with the Allocation Process

This time profile for the other areas of the allocation process explored by the survey are presented in Figures 4a-d.

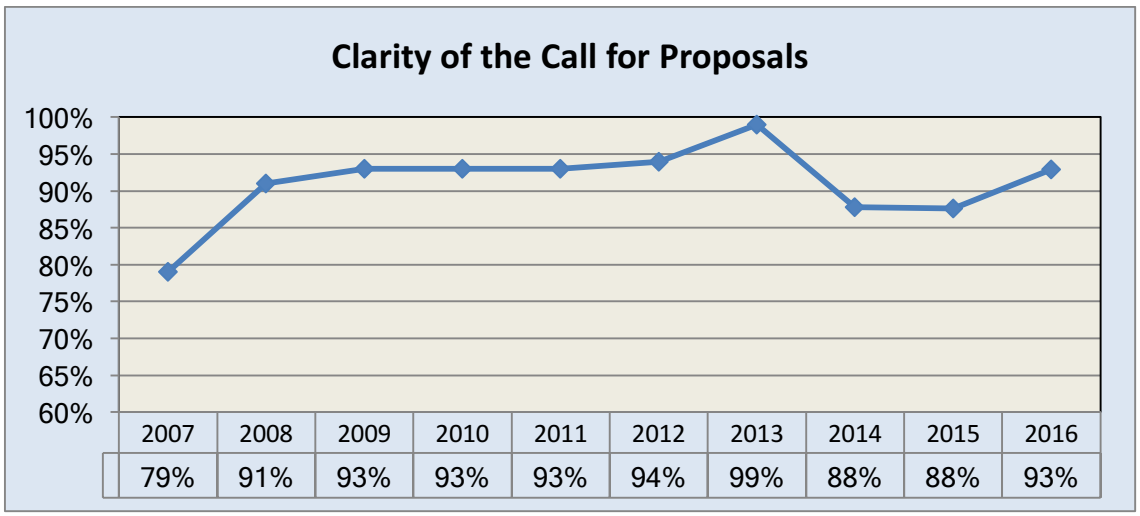
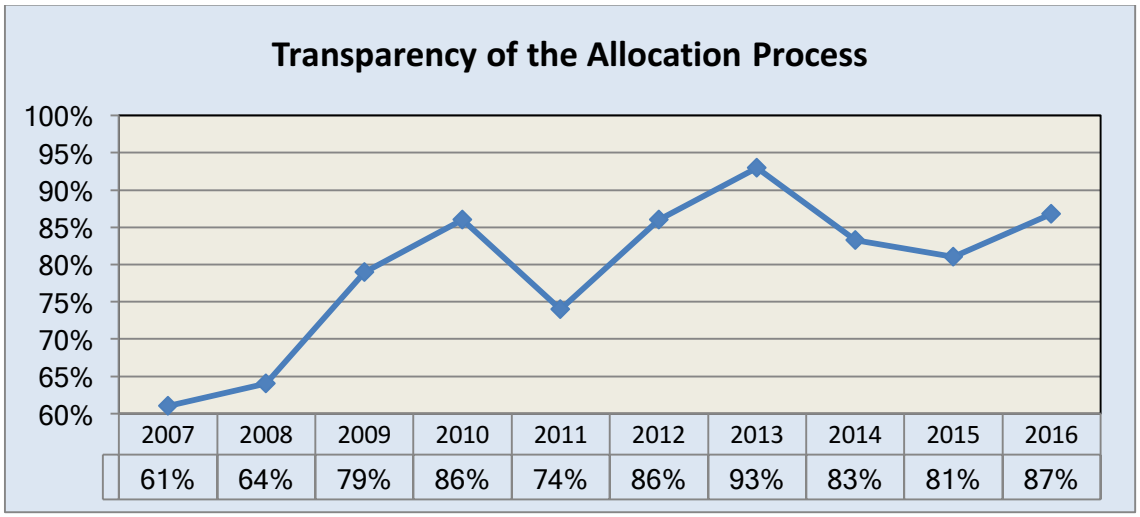
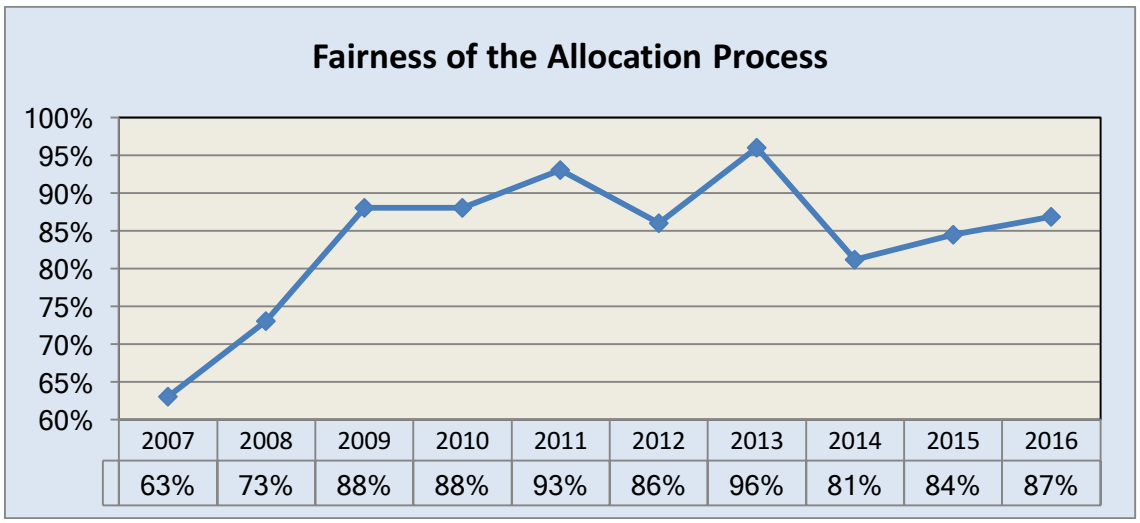


Figure 4a. Clarity of the Call for Proposals





Figured 4b-c. Transparency and Fairness of the Allocation Process

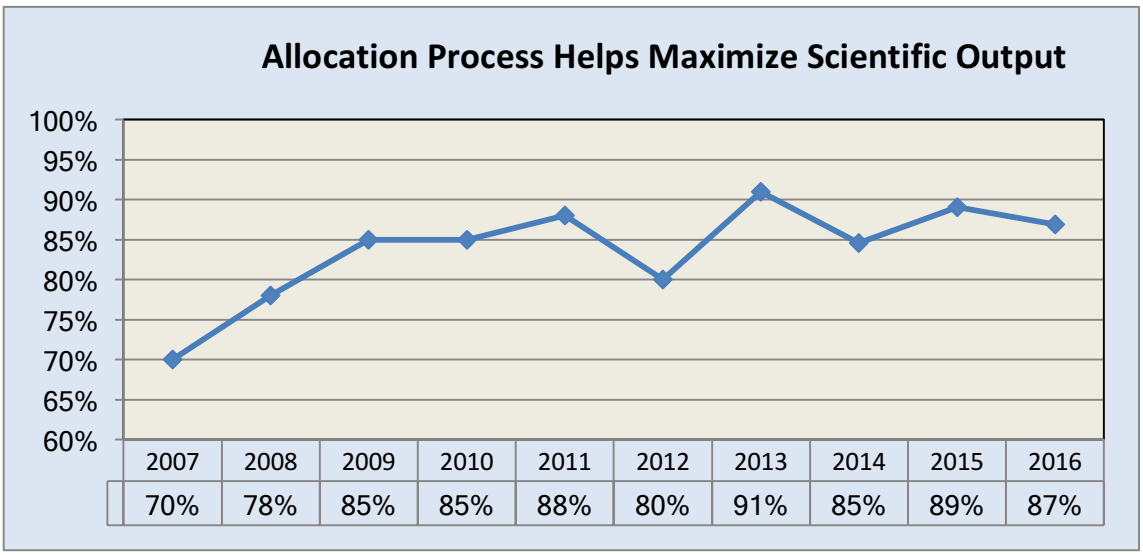


Figure 4d. Allocation Process Maximizes Scientific Output

Related user feedback included:

- Some users expressed concern over the turn-around time for Class B and Class C proposals.

While the overall satisfaction with the allocation process was essentially dipped in FY16, falling to 2012 and 2014 levels, the satisfaction rating in most specific areas related to the allocation process and call for proposals increased. The lone exception was Maximizing Scientific Output which was essentially unchanged within error.

4 Action Plan in Response to Survey Results

While the overall results of the user survey in FY15 are very positive, we have identified from the survey results a few areas that may be opportunities for improvement in the future. In addition, we describe the results of the FY14 Action Plans.

4.1 User Survey Methodology

FY15: We had PI response rate of 86% and an Active User response rate of 50% which is typical of or better than recent years. We believe we can still do more to encourage Active Users and PIs to complete the survey though.

Past Action Plan for the 2016 User Survey:

- Consider why barely ½ of sent invitations are read. Is there a more pervasive problem with the online survey tool invitations being interpreted by email readers as junk mail?
- Since mid-career scientists tend to change institutions, and email addresses, frequently, the user survey invitation list may be made more consistent with less long-term effort by creating a portal for users to adjust their preferred contact information in one place for USQCD and LQCD rather than having support staff react to bounced emails or detecting email inboxes no longer being read.
- Add another answer to Questions 16 and 18 to cover the response/resolution time period between 1 and 2 days, since the response times are not ordinal numbers. There is an answer for <= 1 day and an answer for 2-3 days. If we had a complete spectrum of answers, then we could compare the users' perception of the resolution time to the directly measured resolution time (on which a project KPI depends) to detect a significant inconsistency.

Action and Results for the 2016 User Survey:

- FY16: We had PI response rate of 96% and an Active User response rate of 66%, both a noticeable improvement over past years.
- We sent both the standard emails through the survey tool (which have a spoofed header) as well as normal emails person to person. While this helped a few people notice that the survey tool email had been marked as junk, this did not appreciably increase the overall survey response rate.
- We continued to manage the user survey list as we have before. After some additional clean-up, we reduced the number of bounced and incorrect emails (that we could detect) this year, though this too did not appreciably increase the overall survey response rate.
- We sent a survey reminder person-to-person from the head of the USQCD Executive Committee, which did improve the PI response rate and the Active User response rate to the observed level.
- Questions 16 and 18 did have the finer-grained answers added as suggested to allow comparison to our measured value and our KPI.

Future Action Plan for the 2017 User Survey:

- We will continue to find ways to integrate the message that this is a civic duty for USQCD members into USQCD processes.

4.2 User Documentation

The satisfaction rating for Documentation for the BNL site, while improved, is somewhat low.

Past Action Plan for 2016 User Survey:

- BNL Site Staff: Setup an LQCD documentation site at BNL which can be used both for the BG/Q and for potential future LQCD clusters at BNL. Survey the BG/Q user community to identify their basic BG/Q documentation needs and supply that on the LQCD doc site, but direct users to the BG/Q experts for more detailed information.
- One user noted that documentation is generally out-of-date, and suggests maintaining explicit build examples for each site that are verified to currently work. This would reduce the support load on the facility staff. The IPT will look into this… perhaps we might better serve users by providing a documentation core that is regression-tested.

Action and Results for the 2016 User Survey:

- Created a web site for LQCD documentation. Content for that site has not been completed.

Future Action Plan for 2017 User Survey:

- BNL:
    - BG/Q documentation is moot since the BG/Q will be shutdown in September 2017.
    - The BNL-IC is already documented for general use, and we can link to that.
    - LQCD will create a website to collect together specifics about LQCD computer use and link to the appropriate general documentation.
        - How the LQCD BNL-IC allocation is managed.
        - How to run in the queues as an USQCD user.
        - Storage Policy governing the staging of data off to disk.
        - LQCD/USQCD specifics for new users getting accounts for BNL-IC, to address criticisms from early users.
    - Time goal:
        - We will have the basic page for new users by mid-May 2017.
        - The Storage Policy will be documented after that.
- JLab:
    - The documentation maintenance did lag while there was much change with KNL cluster being installed. We believe the JLab LQCD doc has largely caught up now. We will add documentation of the Storage Policy.

4.3 Simplify Moving Projects from Site to Site

Past Action Plan for 2016 User Survey:

- As suggested in a few comments, the project may consider how to simplify the task of moving projects from site to site. This would help users be more flexible about which sites they are using during periods where resources may be more available on a different site than they are accustomed to using.

Action and Results for the 2016 User Survey:

- Independently of the project, this was considered by the USQCD Software Committee in 2016. They found this to be very challenging, with different policies at different sites and different expectations about home areas and scratch space.

Future Action Plan for 2017 User Survey:

- On a USQCD page, we will summarize the current situation.
    - The web page will have the 8-10 most important things to get code to compile and run, which file system to use, and other site specific features.
    - Then, the page will link to individual site documents for the details.
    - Users may share migration experience on this page too. We could solicit suggestions from users known to have migrated recently.
    - The goal will be to reduce the frustration level for the basics, then rely on users to familiarize themselves with the site details.
- Direct action: While the project could do more to hide some small differences, and arrange to sync up some software stack product versions every so often, we do not believe that the project can remove all differences between sites. We will look at what can be done economically and without disrupting current users

4.4 USQCD Collaboration: Better Use of Resources, Elected EC Members

Past Action Plan for 2016 User Survey:

- USQCD is considering how to better make use of resources when major allocations are not yet ready to run.
    - For instance, in the 2016 Call for Proposals, the SPC is instituting allocation management ideas used at NERSC to reduce allocations in future quarters if they are not consumed in the current quarter and no prior arrangements for a delay in consumption have been made.
- USQCD is considering the issue of elected members on the EC and SPC.

Action and Results for the 2016 User Survey:

- Allocation penalties were implemented if projects did not use some portion of their allocation per quarter unless prior arrangements are made.
- The first election of a member of the EC took place.

Future Action Plan for 2017 User Survey:

- Allocation penalties will continue.
- The elected member EC seat will be filled via election when the current elected member's term expires.

4.5 USQCD Collaboration: Class B and C Proposal Process

Action Plan for 2017 User Survey:

- USQCD is considering how to improve the Class B and Class C Proposal process, to reduce the actuality and/or perception that proposals are not acted upon in a timely fashion. We are focusing on standardizing the means to:
    - Acknowledge receipt of the proposal by the decision-making role,
    - Set the turn-around time expectations of the proposer,
    - Document and communicate the decision on the proposal.

5 Detailed Survey Results

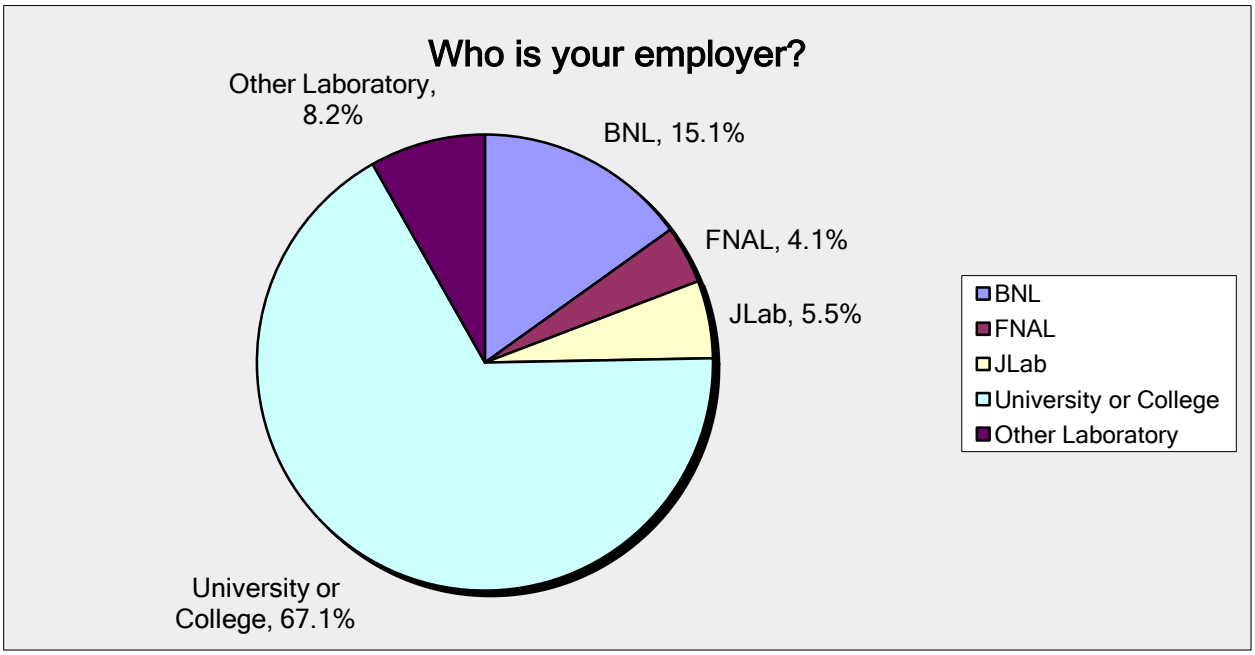
The questions, results, and user free-form feedback are presented below, organized one question per sub-section. Question N is in report sub-section 6.N. User free-form feedback is reproduced verbatim. These comments are extremely useful in providing additional insight into areas in which we are performing well and into potential areas for improvement.

5.1 Respondent Affiliations

Survey Question 1. Who is your employer?

- BNL
- FNAL
- Jlab
- University or College
- Other Laboratory

Other Employer (please specify): [*text entry box*]



Employed by	Count
BNL	11
FNAL	3
JLab	4
University or college	49
Other Laboratory	6
Answered Question	73
Skipped Question	0

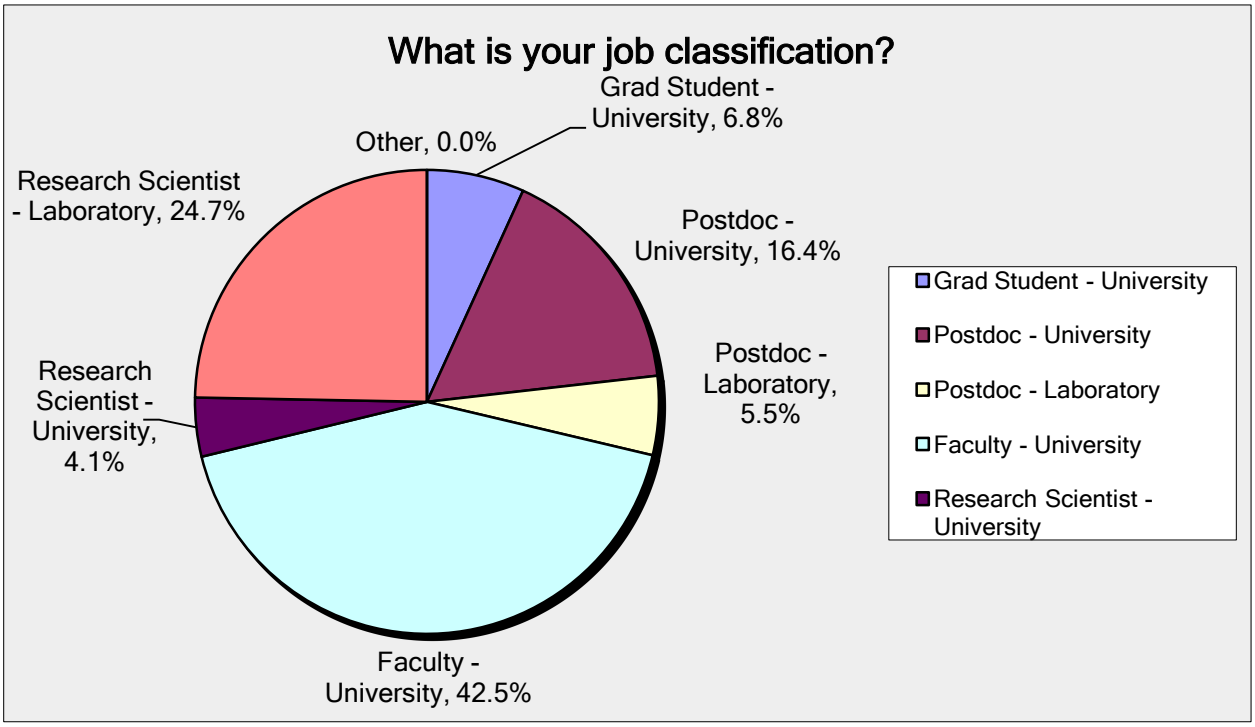
Number	Other Employer (please specify):
1	Boston University
2	LBNL
3	KEK
4	Syracuse University
5	Thomas More College, Crestview Hills, KY
6	RBRC
7	Indian Institute of Science - Bangalore
8	Los Alamos National Lab

5.2 Respondent Job Classifications

Survey Question 2. What is your job classification?

- Grad student – University
- Postdoc – University
- Postdoc – Laboratory
- Faculty – University
- Research Scientist – University
- Research Scientist – Laboratory
- Other

Other Job Classification (please specify): [*text entry box*]



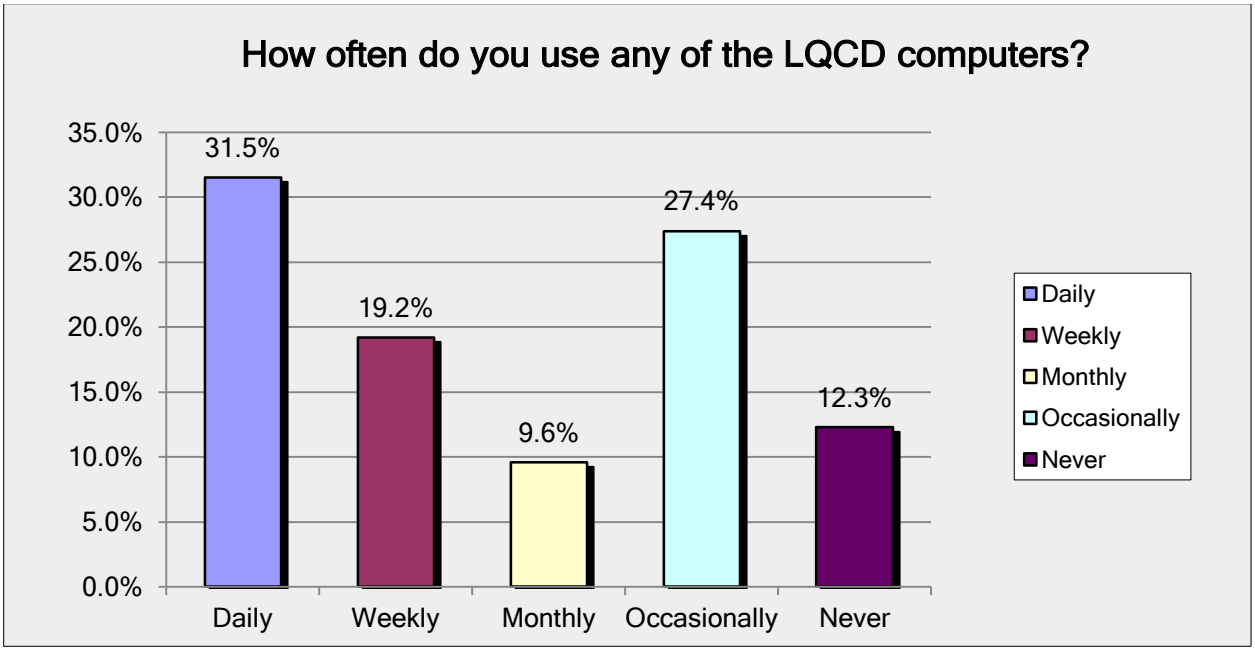
Job Classification	Count
Grad Student - University	5
Postdoc - University	12
Postdoc - Laboratory	4
Faculty - University	31
Research Scientist - University	3
Research Scientist - Laboratory	18
Other	0
Answered Question	73
Skipped Question	0

Number	Other Job Classification (please specify):
1	Assistant Professor
2	Senior Scientist

5.3 Frequency of LQCD Computer Usage

Survey Question 3. How often do you use any of the LQCD computers?

- Daily
- Weekly
- Monthly
- Occasionally
- Never

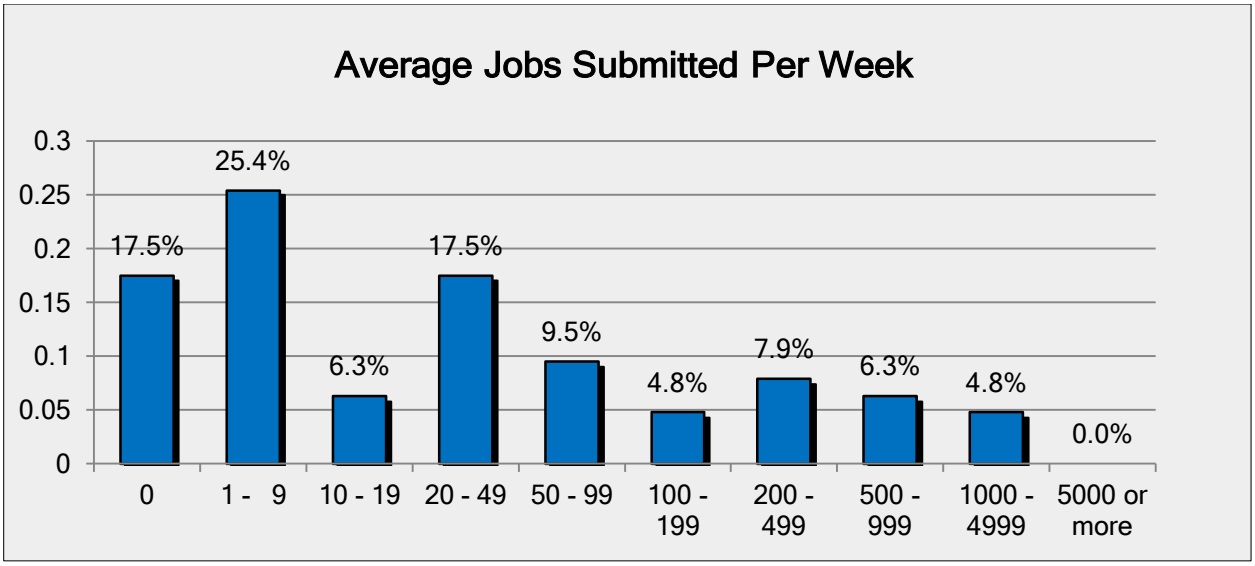


Usage	Freq.
Daily	23
Weekly	14
Monthly	7
Occasionally	20
Never	9
Answered Question	73
Skipped Question	0

5.4 Average Job Submission Rate

Survey Question 4. During periods when you are using the LQCD facilities, please enter the approximate number of jobs you submit on average in a given week.

- 0
- 1-9
- 10-19
- 20-49
- 50-99
- 100-199
- 200-499
- 500-999
- 1000-4999
- 5000 or more



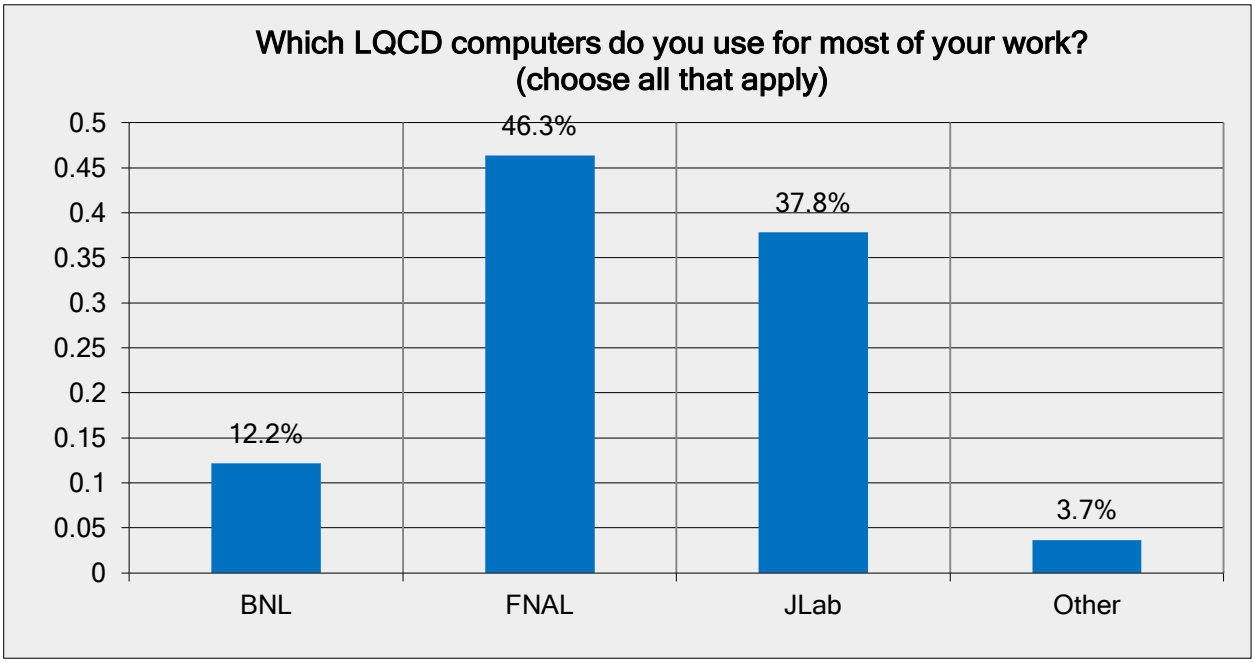
Avg. Jobs (<)	Freq.
0	11
1	16
10	4
20	11
50	6
100	3
200	5
500	4
1000	3
5000	0
Answered Question	63
Skipped Question	10

5.5 Facility Usage

Survey Question 5. Which LQCD computers do you use for most of your work?

- BNL
- FNAL
- JLab

Other LQCD Computers (please specify): [*text entry box*]



Facility	Users
BNL	10
FNAL	38
JLab	31
Other	3
Answered Question	63
Skipped Question	10

Number	Other LQCD Computers (please specify):
1	BNL
2	Titan
3	Hyak

Analysis Notes:

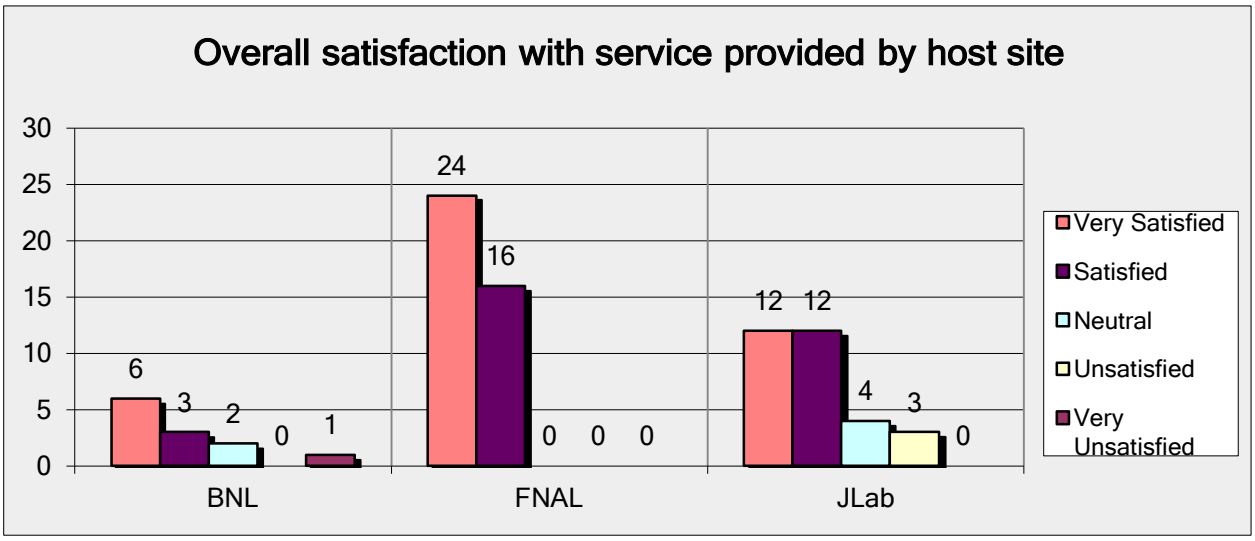
- Respondents could list more than one site in their response.
- Percentages shown in plot are the fraction of all selections made, and sum to 100%.

5.6 Overall User Satisfaction

Survey Question 6. If you have used LQCD computers in the past year, please rate your overall satisfaction with the level of service provided by the host site.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	Not Applicable
BNL	o	o	o	o	o	o
FNAL	o	o	o	o	o	o
JLab	o	o	o	o	o	o

Comments: [*text entry box*]



Overall User Satisfaction	Users
Answered Question	55
Skipped Question	11

User Comments:

1. Machines are always easy to use and have little issue.
2. I access only output data.
3. The Ds cluster was unsupported starting from August last year, which meant that only the Pi0 cluster at Fermilab was available. The throughput through the Pi0 is slower than through the Ds, since there is a 1000 job limit which isn't there on Ds. This meant fewer jobs and longer wait times, making it a little difficult to keep up with the quarterly USQCD allocation targets. In the year before, both Ds and Pi0 had been available, therefore meeting targets was not so difficult. I have also had a bit of difficulty with the availability of storage space at Fermilab, although the support staff was extremely helpful and they eventually solved my problem for me.
4. The BNL BlueGene facility is set up for only a few expert users. Outages are often missed by the system administration.
5. The BNL guest user office did their best to provide no remote access to the GPU cluster. At this time, though the issues appear to be resolved, the computational resources at the Lab still can not be accessed.
6. issues with the infiniband queue, nodes not responding, jobs hanging ...
7. The JLab systems were incredibly poorly maintained, maybe because they're older. The FNAL systems are very stable, with very good technical support to make it a pleasure to use.

Analysis Notes:

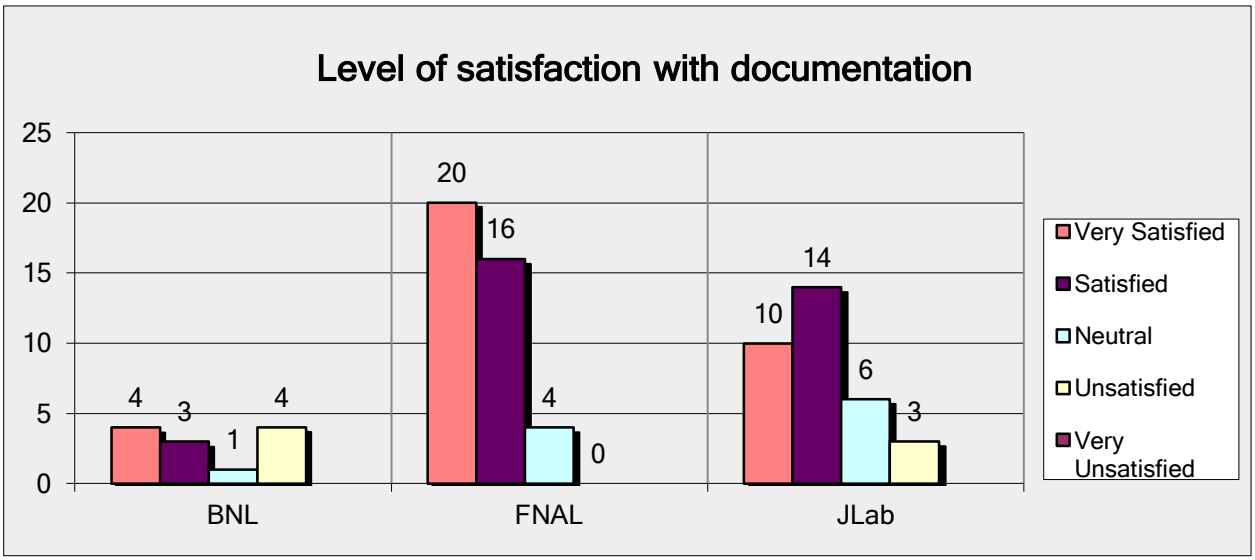
- Overall User Satisfaction rating = 93.0%, which exceeds the goal of 92%.
- This is the “Customer Satisfaction rating” KPI defined in the Project Execution Plan.

5.7 Documentation

Survey Question 7. Please rate your level of satisfaction with documentation, such as: web pages, job status reports, guidance.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	Not Applicable
BNL	o	o	o	o	o	o
FNAL	o	o	o	o	o	o
JLab	o	o	o	o	o	o

Comments: [*text entry box*]



Documentation	Users
Answered Question	61
Skipped Question	12

User Comments:

1. Documentation is always clear, job status reports are very useful.
2. Great responses from those at the computing support when help needed. Documentation on the JLab scientific computing needs updating in places and there are some pages missing.
3. Jlab webpages have several outdated information.
4. There is not much documentation at all for the BNL BlueGenes
5. http://www.usqcd.org/fnal/accounting/py17/current.html is quite useful -- I only became aware of it during the summer
6. nice website, concise

Analysis Notes:

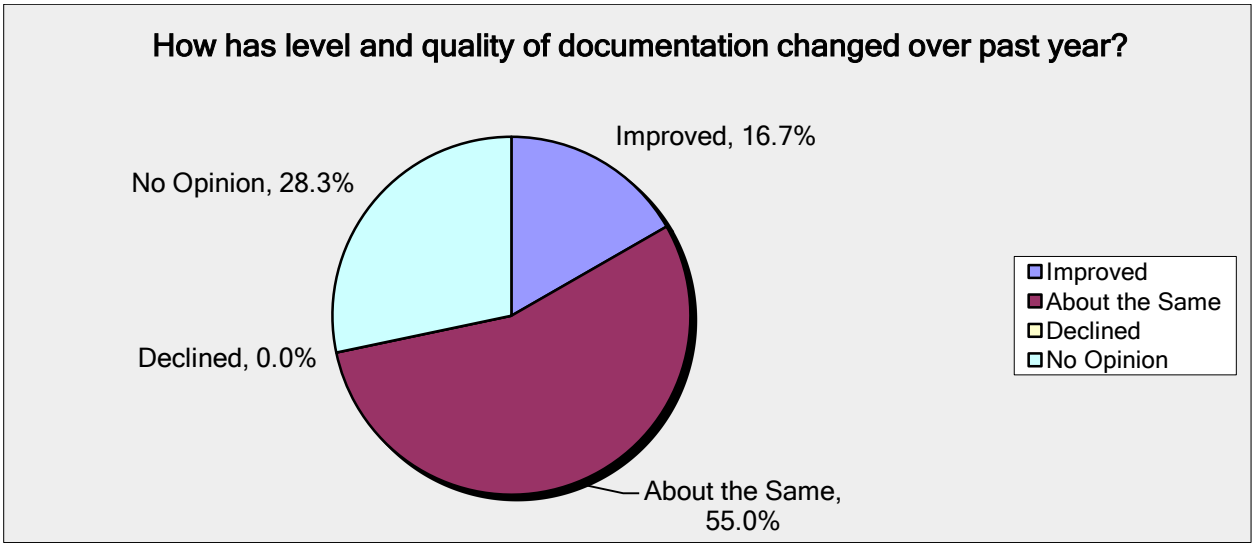
- Documentation User Satisfaction rating = 93.5%

5.8 Documentation Improvement over Past Year

Survey Question 8. In your opinion, how has the level and quality of documentation changed over the past year?

- Improved.
- About the same.
- Declined.
- No opinion.

Please provide feedback to help us better understand your answer: [*text entry box*]



Documentation Improvement	Users
Improved	10
About the same	33
Declined	0
No Opinion	17
Answered Question	60
Skipped Question	13

User Comments:

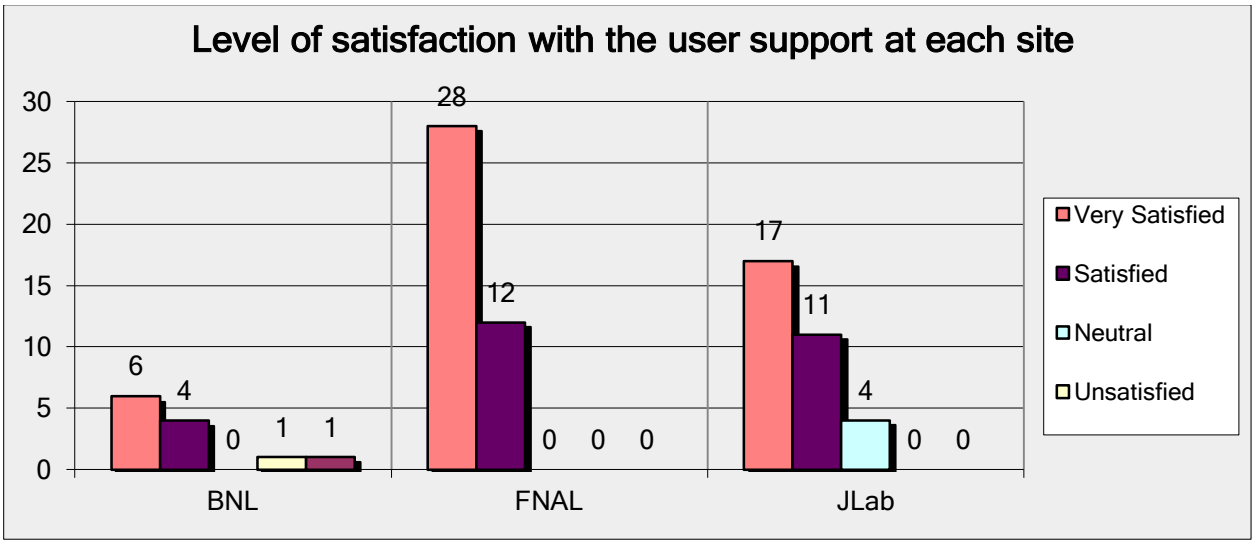
1. It was already very good, so it staying about the same is not a criticism.
2. Several changes to the documentation, most notably at JLab. Different to what I was used to, but otherwise good.
3. Documentation on the JLab scientific computing needs updating in places and there are some pages missing for example the KNL overview page.
4. The new webpage works better.
5. Maybe I am wrong about this, but I thought the user pages have been the same over the past twelve months. Perhaps it was because I have only looked at the basic pages i.e. setting up an account, submitting jobs, etc.
6. Once documentation is clear, it should not be changed, unless the subject being documented requires it to be. So "about the same" is preferred to "improvements that make it hard to find something you knew how to find". Cf. recent "improvements" to iTunes.
7. started this year
8. More up to date MOTD would be helpful.

5.9 User Support

Survey Question 9. Please rate your level of satisfaction with the user support at each site.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	Did Not Use
BNL	o	o	o	o	o	o
FNAL	o	o	o	o	o	o
JLab	o	o	o	o	o	o

Comments: [*text entry box*]



User Support	Users
Answered Question	61
Skipped Question	12

User Comments:

1. Always quick to respond and helpful.
2. Help desk support is fantastic and the staff are very helpful and clear. Really positive experience with the computer support.
3. I haven't used the Jlab machines, but I have used it to store data and carry out analyses. I need to call up user support whenever I have to renew my password. One thing I wish could happen would be if Jlab users could be notified that their password was about to expire. In my case, what happens is that I find I cannot log in, then realize that six months have probably elapsed...
4. My BNL experience this year borders on unbelievably bad. The lab external computer user access policies changed at some point in the past and became a major hurdle. It took more than a month and involvement of a lot of people to sort out problems with ill-designed user access process. This is a drastic change from the past when the process of obtaining access was reasonable and unobtrusive. Effectively, the new policies and procedures at the lab made the computational resources at BNL unusable.
5. admins are nice and helpful, but it feels they maybe sometimes do not know the answer to my problems (which is acceptable)

Analysis Notes:

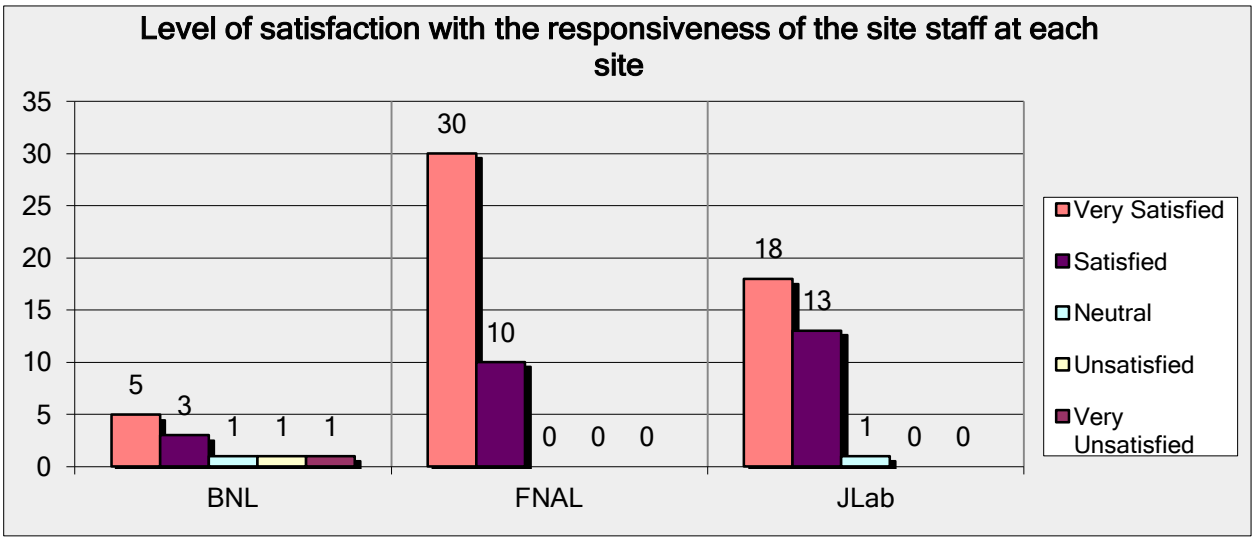
- User Support User Satisfaction rating = 96.0%

5.10 Responsiveness

Survey Question 10. Please rate your level of satisfaction with the responsiveness of the site staff at each site.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	Did Not Use
BNL	o	o	o	o	o	o
FNAL	o	o	o	o	o	o
JLab	o	o	o	o	o	o

Comments: [*text entry box*]



Reliability	Users
Answered Question	61
Skipped Question	12

User Comments:

1. Always quick to respond and helpful.
2. I was particularly impressed with FNAL's response to my need for considerably greater storage than requested.
3. Help desk support is fantastic and the staff are very helpful and clear. Really positive experience with the computer support.
4. So far, the interaction with the site staff at BNL was limited to personnel at Guest, User, Visitor center and their IP counsel stuff. The level of rudeness and lack of professionalism experienced are unparalleled.

Analysis Notes:

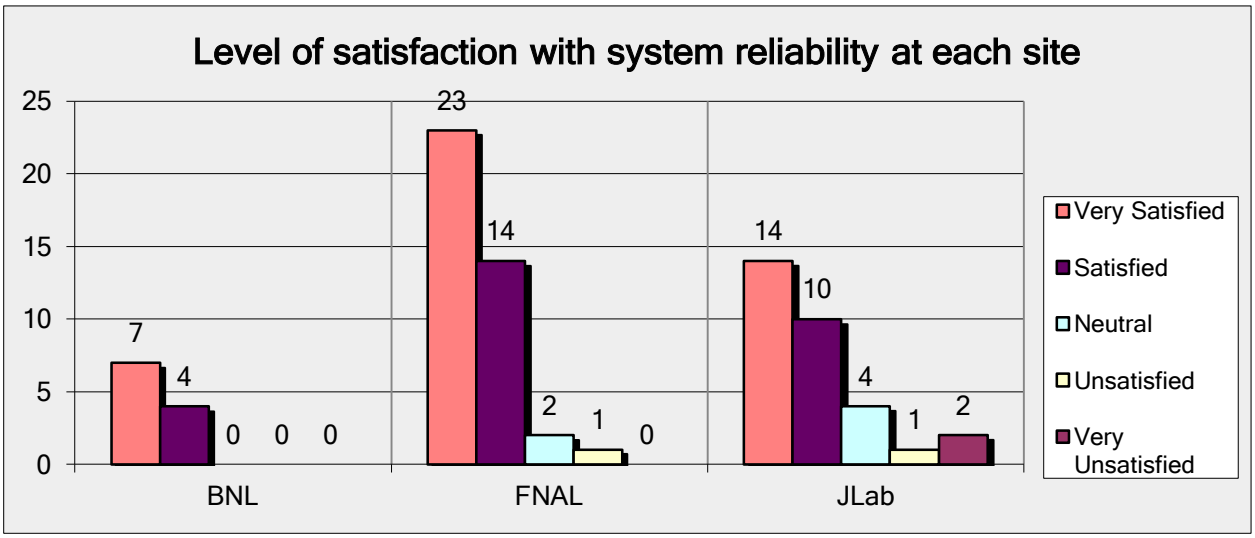
- Responsiveness User Satisfaction rating = 97.6%

5.11 Reliability

Survey Question 11. Please rate your level of satisfaction with the reliability (e.g., uptime, job failure rates) at each site.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	Did Not Use
BNL	o	o	o	o	o	o
FNAL	o	o	o	o	o	o
JLab	o	o	o	o	o	o

Comments: [*text entry box*]



Responsiveness	Users
Answered Question	55
Skipped Question	11

Comments:

1. Haven't run into any system reliability issues, any job failures have always been my own fault.
2. For the majority of the time the system is reliable and jobs get on the cluster quickly. There have been problems occasionally with disk issues and teething problems when the 16p's came along with cache_cp functions for example. Also, different interactive nodes having different versions of linux and different compilers (an array of many modules very similarly named gcc-4.8.2 and gcc_4.8.2 for example) and makes it difficult for the non-expert in these areas to understand the subtle difference that matter here.
3. Lustre failures have been annoying
4. sometimes jobs would fail with no error output. It's not clear if this was due to my inexperience (probable) or something else that could be fixed
5. There is a lot of IO error happening at JLab.

Analysis Notes:

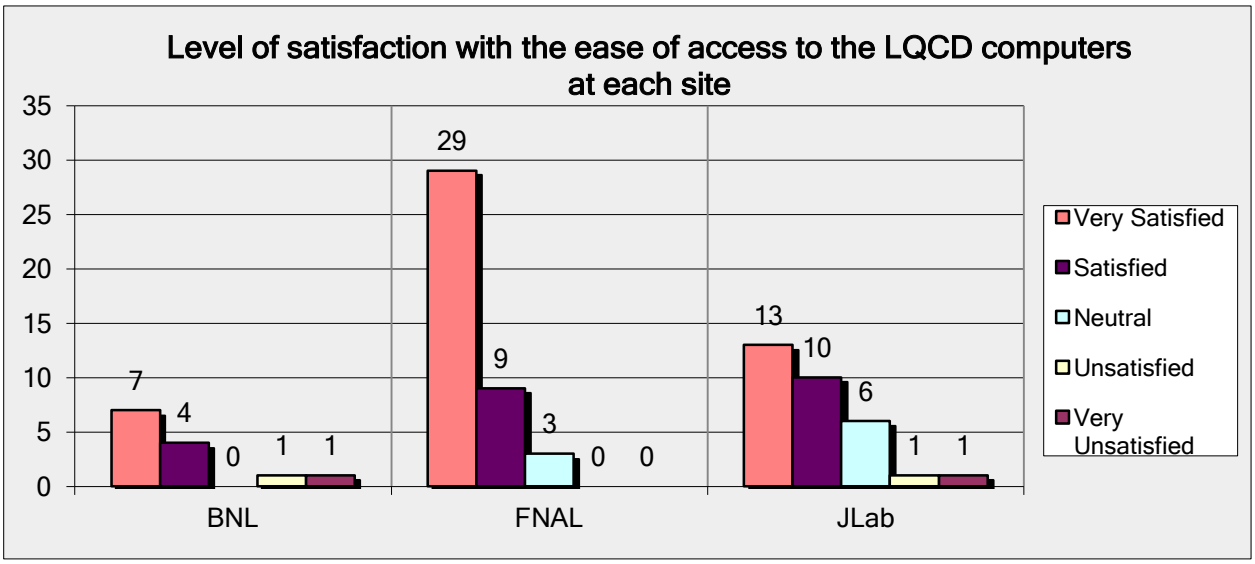
- Reliability User Satisfaction rating = 93.3%

5.12 Ease of Access

Survey Question 12. Please rate your level of satisfaction with the ease of access to the LQCD computers at each site.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	Did Not Use
BNL	o	o	o	o	o	o
FNAL	o	o	o	o	o	o
JLab	o	o	o	o	o	o

Comments [*text entry box*]



Ease of Access	Users
Answered Question	61
Skipped Question	12

Comments:

1. Never had any issues.
2. Why is not possible to easily transfer (small) files between Jlab and Fermilab? qcdgw.jlab.org does not see /volatile, or /work; from the interactive nodes ssh to Fermilab is not possible. Can't lqcdsrm.fnal.gov be white-listed and kerberos made available?
3. The BNL facility is behind a gateway and firewall, which makes it difficult to move in an out.
4. Not being able to create a direct ssh connection to compute nodes is horrible. This makes transferring small amounts of data from other clusters 'a real pain in the ass'. Why?
5. I'm not a fan of the required double login to access JLab clusters.
6. See comments above. [re: BNL experience]

Analysis Notes:

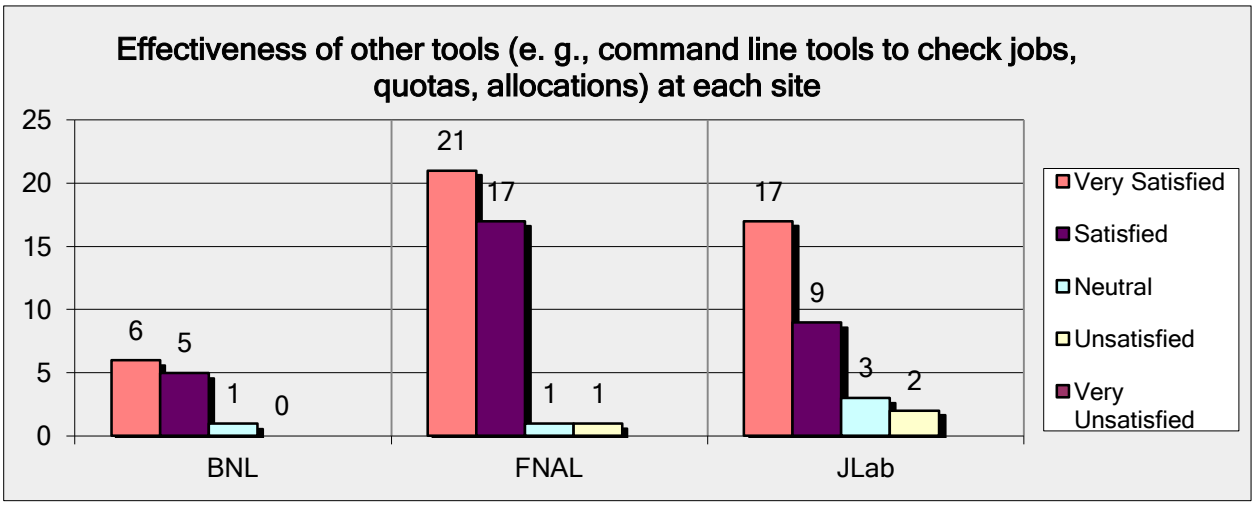
- Ease of Access User Satisfaction rating = 91.1%

5.13 Effectiveness of Other Tools

Survey Question 13. Please rate the effectiveness of other tools (e. g., command line tools to check jobs, quotas, allocations) at each site.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	Did Not Use
BNL	o	o	o	o	o	o
FNAL	o	o	o	o	o	o
JLab	o	o	o	o	o	o

Comments [*text entry box*]



Other Tools	Users
Answered Question	55
Skipped Question	11

Comments:

1. Never had any issues.
2. The visual ability to look at jobs at JLAB is particularly useful
3. FNAL: Due to the large allocations / job sizes, special queue setting are nowadays standard for certain users. It'd be good to make those transparent -- in particular if this reduces the available nodes 'any user' may consume.
4. A minor, yet frequent concern: I wish there was a way to qdel a range of jobs e.g. qdel 1234*. I have a script that batch submits jobs and if a parameter was wrong then I have to cancel all the jobs I submitted.
5. unclear which cluster would be best to submit to; could be improved
6. It would be nice if FNAL has module load.

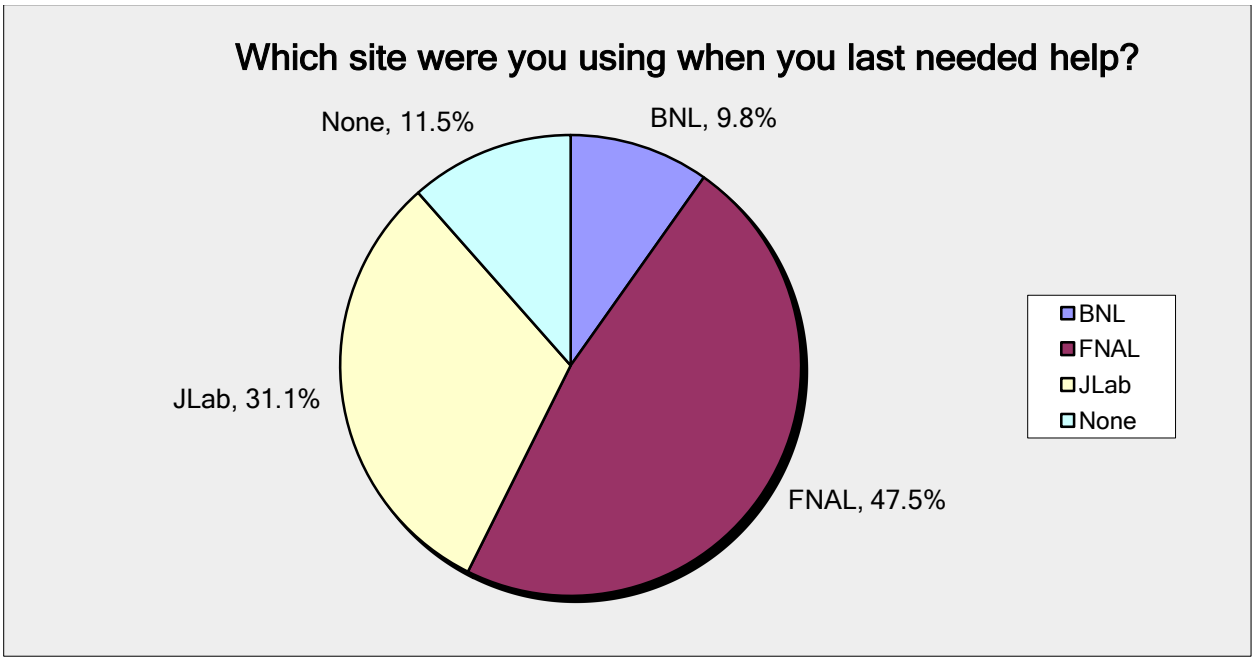
Analysis Notes:

- Other Tools User Satisfaction rating = 94.2%

5.14 Site Used when Help Last Needed

Survey Question 14. Which site were you using when you last needed help?

- BNL
- FNAL
- JLab
- None



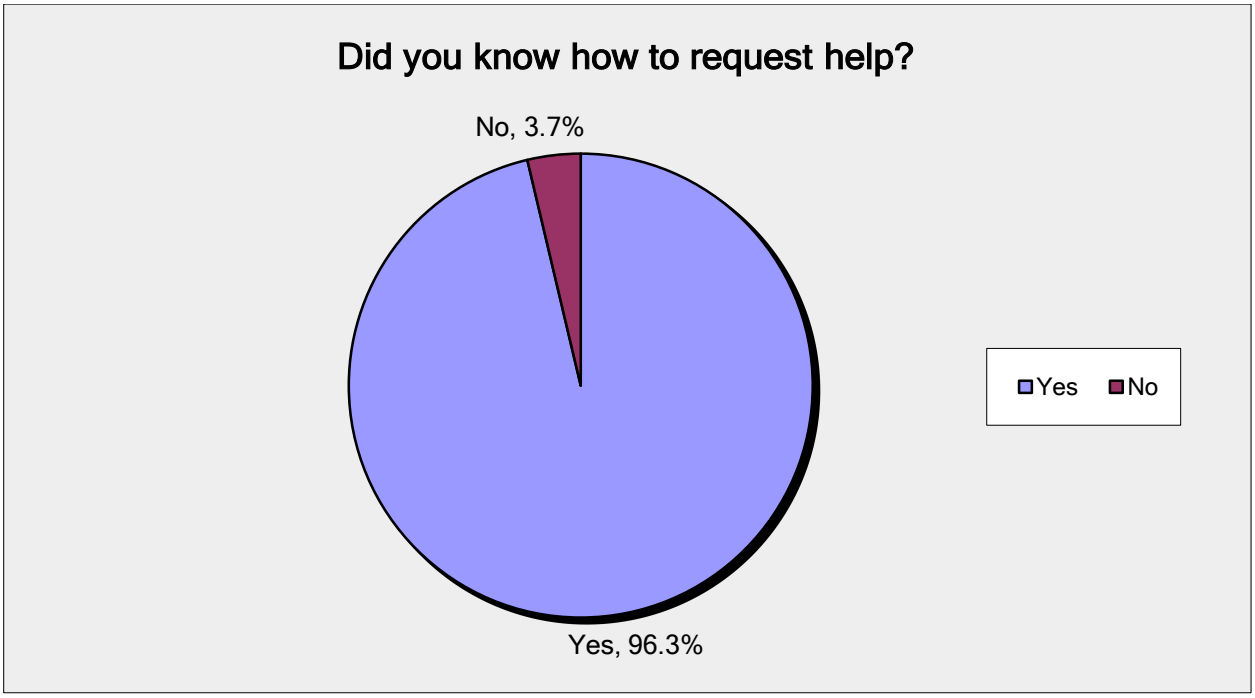
Help asked	Count
BNL	6
FNAL	29
JLab	19
None	7
Answered Question	61
Skipped Question	12

5.15 Requesting Help

Survey Question 15. Did you know how to request help?

- Yes
- No

Please provide feedback to help us better understand your answer: [*text entry box*]



Knows	Count
Yes	52
No	2
Answered Question	54
Skipped Question	19

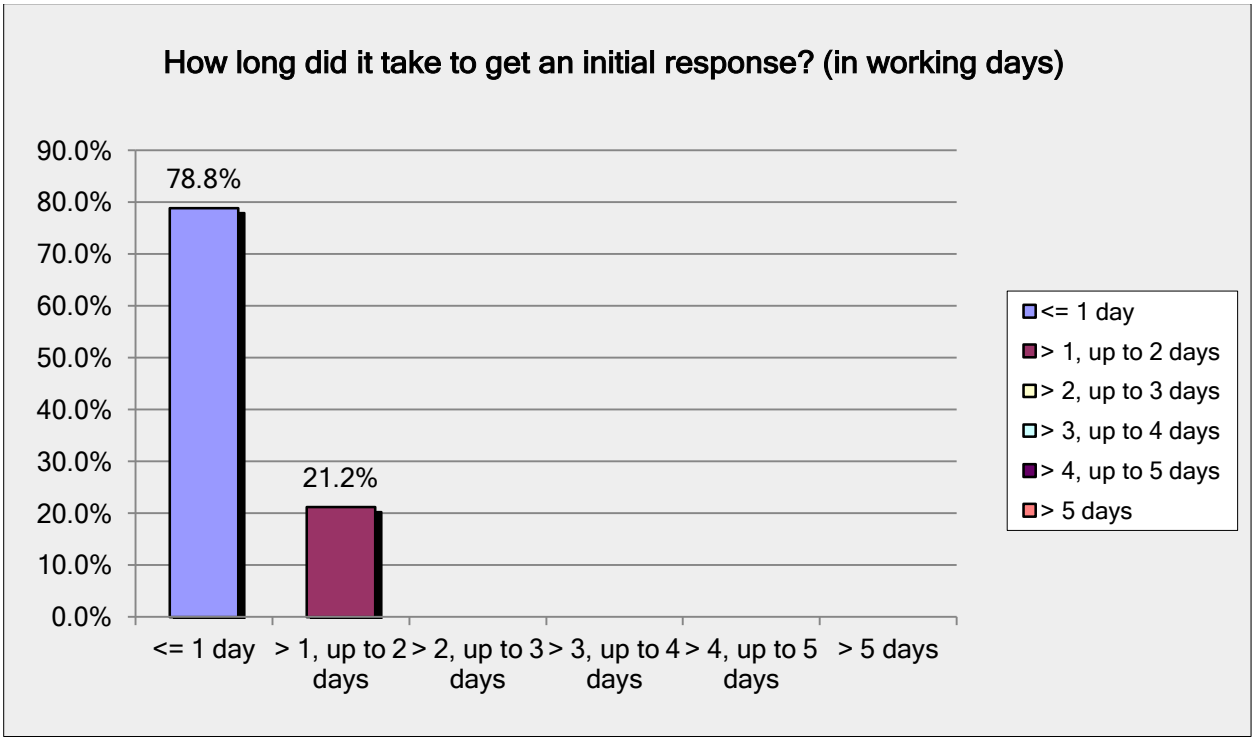
User Comments:

1. There's a standard e-mail to send questions to; it's always been very clear.
2. It was an annual routine of resetting passwords.
3. Submit a ticket from the LQCD portal, JLab Lattice Portal
4. I still don't understand why there is no option to 'report a problem' from Jlab's New User's Guide
5. I wrote to user support and they were prompt in replying.

5.16 Initial Response Time

Survey Question 16. How long did it take to get an initial response? (in working days)

- <= 1 Day
- 2 – 3 Days
- 4 – 5 Days
- > 5 Days



Days	Freq.
<= 1 day	41
> 1, up to 2 days	11
> 2, up to 3 days	0
> 3, up to 4 days	0
> 4, up to 5 days	0
> 5 days	0
Answered Question	43
Skipped Question	23

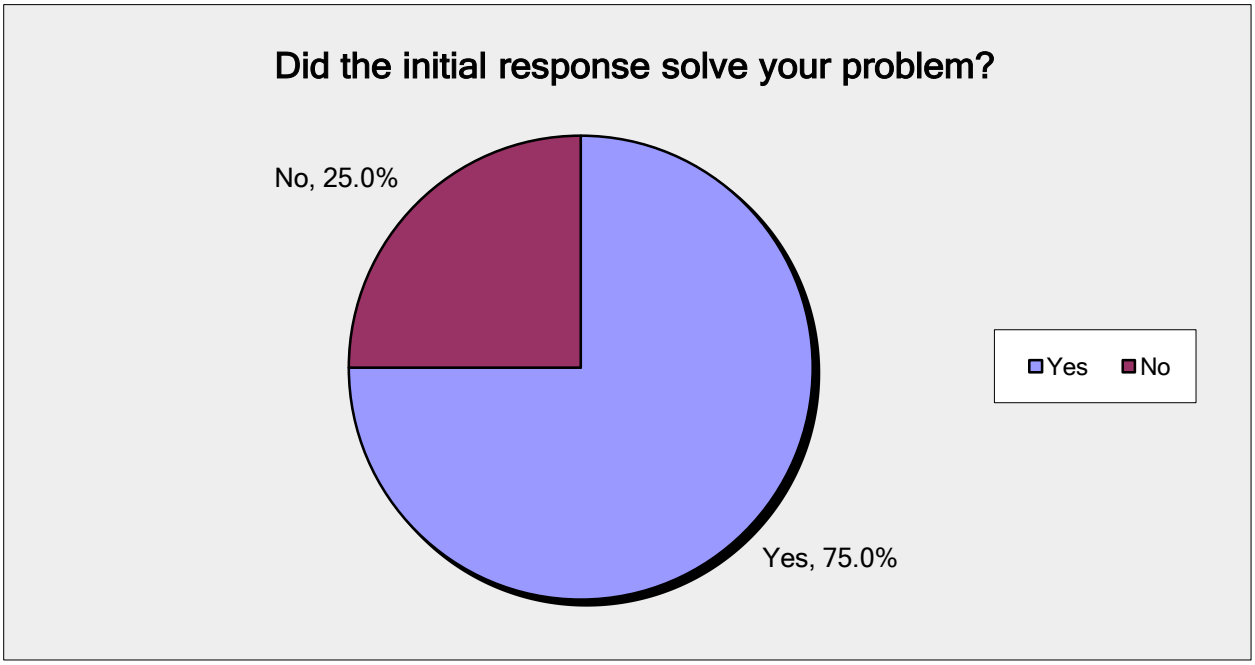
Analysis Notes:

- The weighted mean of response times reported in this survey question is 0.71 days.
    - This assumes the following durations for the selections: 0.5 day, 1.5 days, 2.5 days, 3.5 days, 4.5 days, 10 days.

5.17 Closing Tickets on Initial Response

Survey Question 17. Did the initial response solve your problem?

- Yes
- No

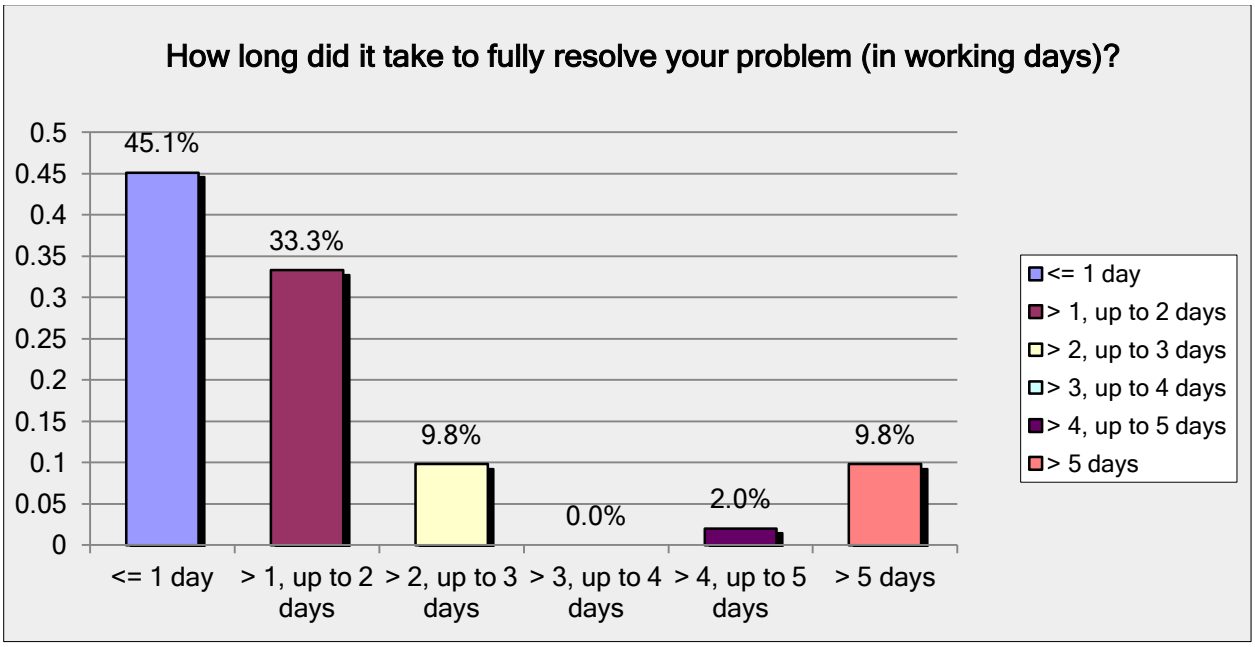


Closed?	Count
Yes	39
No	13
Answered Question	52
Skipped Question	21

5.18 Time Needed to Resolve a Ticket

Survey Question 18. How long did it take to fully resolve your problem (in working days)?

- <= 1 day
- >1, up to 2 days
- >2, up to 3 days
- >3, up to 4 days
- >4, up to 5 days
- > 5 Days



Days	Freq.
<= 1 day	23
> 1, up to 2 days	17
> 2, up to 3 days	5
> 3, up to 4 days	0
> 4, up to 5 days	1
> 5 days	5
Answered Question	51
Skipped Question	22

Analysis Notes:

- The weighted mean of resolution times reported in this survey question is 2.0 days.
  - This assumes the following durations for the selections: 0.5 day, 1.5 days, 2.5 days, 3.5 days, 4.5 days, 10 days.
  - The mean resolution time for 95% of the tickets is 1.9 days, less than the project KPI goal of 2 days.

5.19 Feedback on Helpdesk

Survey Question 19. Regarding helpdesk services, do you have any comments or suggestions for improvement? If so please specify. [*text entry box*]

Helpdesk feedback	Users
Answered Question	6
Skipped Question	67

User Comments:

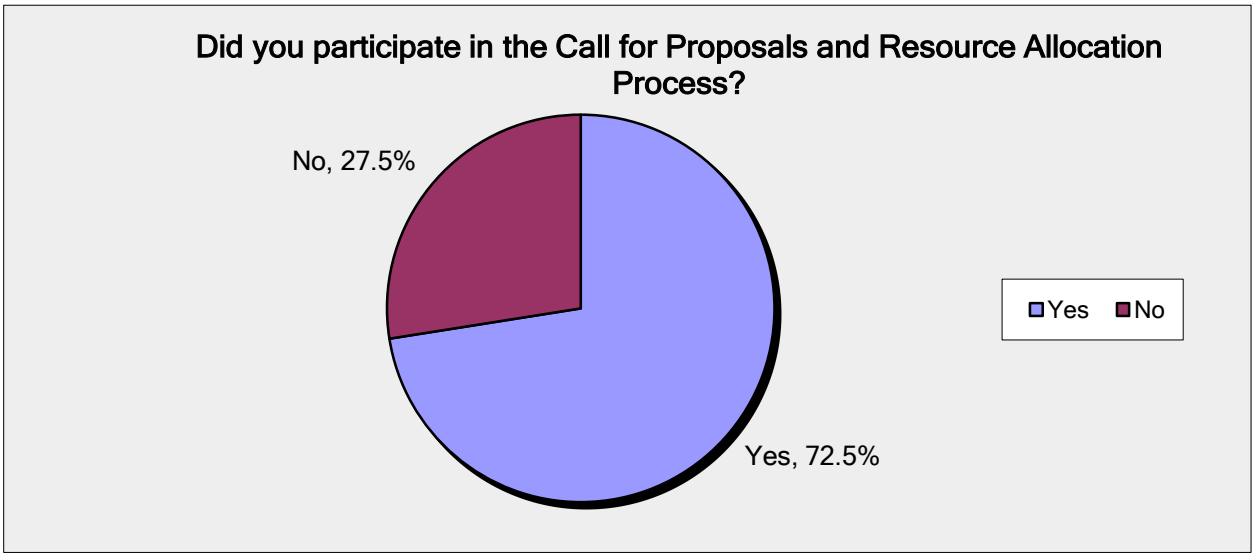
1. Keep doing the great job you always do!
2. I am very satisfied with the help - usually I hear back within a couple of hours.
3. FNAL USQCD user services is outstanding!
4. The problem is still pending, but needs help from Mellanox. This is not the fault of FNAL staff.
5. I was e-mailing lqcd admin. I'm not sure if this was the help desk. Overall very helpful.
6. problem still isnt resolved.

5.20 Participation in the Call for Proposals and Resource Allocation Process

Survey Question 20. Did you participate in the Call for Proposals and Resource Allocation Process?

- Yes
- No

Comments: [*text entry box*]



Time to prepare CFP	Users
Yes	50
No	19
Answered Question	69
Skipped Question	4

User Comments:

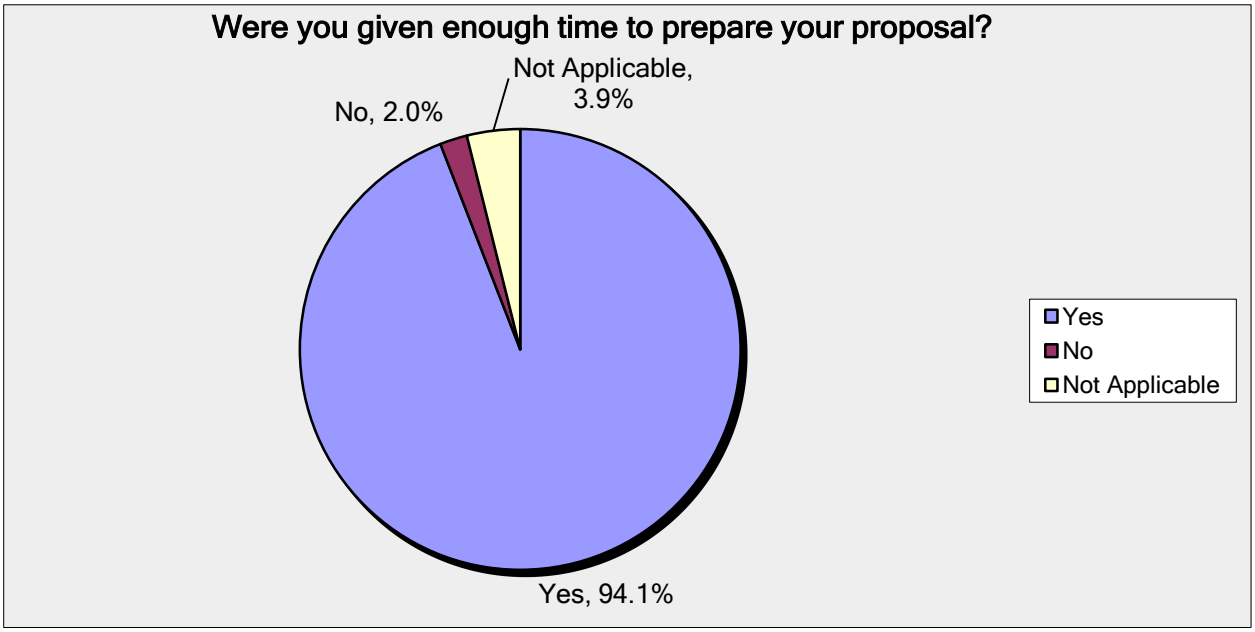
1. I submitted a class A on behalf of the LSD collaboration last year.
2. I am not a member of USQCD this year.
3. The unspecified Jlab machine made it difficult estimate resources and ensure software readiness.
4. Note that in response to the previous question, I said that I do not personally use the LQCD computers. Members of my group do, and I participate in writing proposals for that time, and in analyzing the physics that comes out.
5. I submitted a Class C proposal for a new idea at the end of the year to FNAL.

5.21 Sufficient Time to Prepare Proposal

Survey Question 21. Were you given enough time to prepare your proposal?

- Yes
- No
- Not Applicable

Comments: [*text entry box*]



Time to prepare CFP	Users
Yes	48
No	1
Not Applicable	2
Answered Question	51
Skipped Question	22

User Comments:

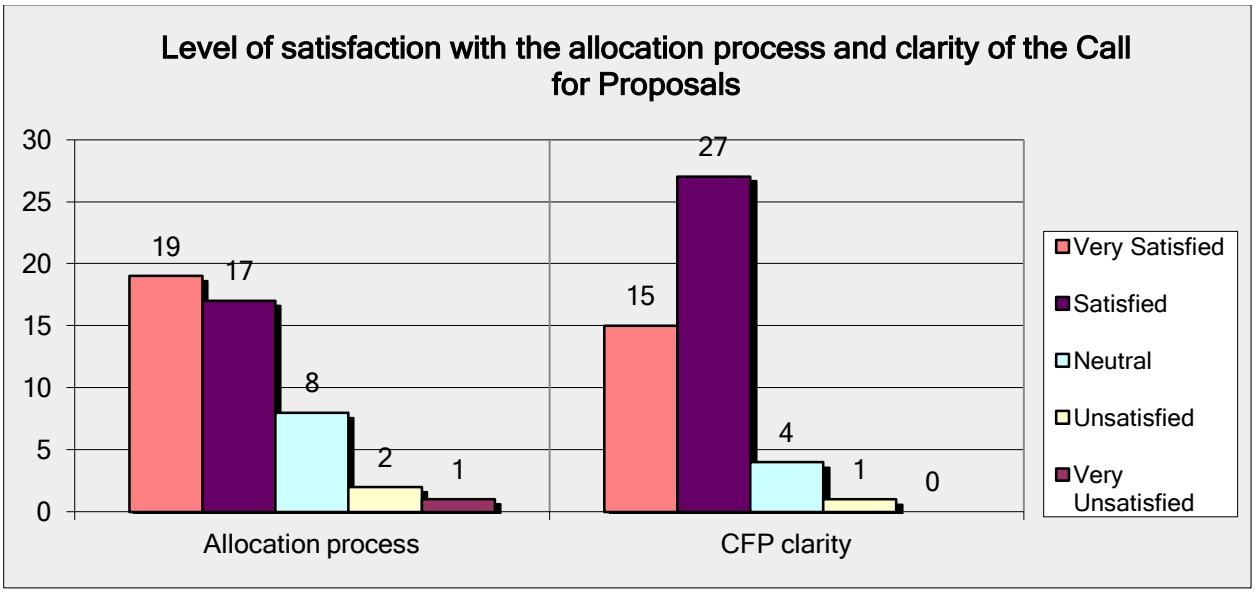
1. No issues!
2. I believe Class C proposals are informal and requires an e-mail to Paul Mackenzie detailing the proposed calculation.

5.22 Overall Satisfaction with the Allocation Process and Clarity of CFP

Survey Question 22. Please rate your overall satisfaction with the allocation process and clarity of the Call for Proposals (CFP).

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	No Opinion
Allocation process	o	o	o	o	o	o
CFP clarity	o	o	o	o	o	o

Comments: [*text entry box*]



Allocation, CFP Clarity	Users
Answered Question	48
Skipped Question	25

User Comments:

1. Process is clear, there always seems to be some correction to the call for proposals but it's never a big issue.
2. Confusion over allocation of zero priority time at ANL. CFP indicated 0-priority time would be available but many were not aware that this was the case, and ultimately the confusion led to - as far as I'm aware - no zero priority time being allocated at all.
3. The CFP accumulates a lot of things from the past that are not really needed in the CFP but could better be linked to the USQCD home page.
4. Despite clearly stating that our project request time at Fermilab, we got only time at Jlab. Despite trying for more than 6 month we have not been able to start production running at Jlab. qcd12s has insufficient memory to run efficiently and the performance on the KNLs is poor. Right now my jobs for MDWF propagator inversion compile and run on 1 KNL node but stall on 2 KNLs which are unfortunately needed for 48c.

Analysis Notes:

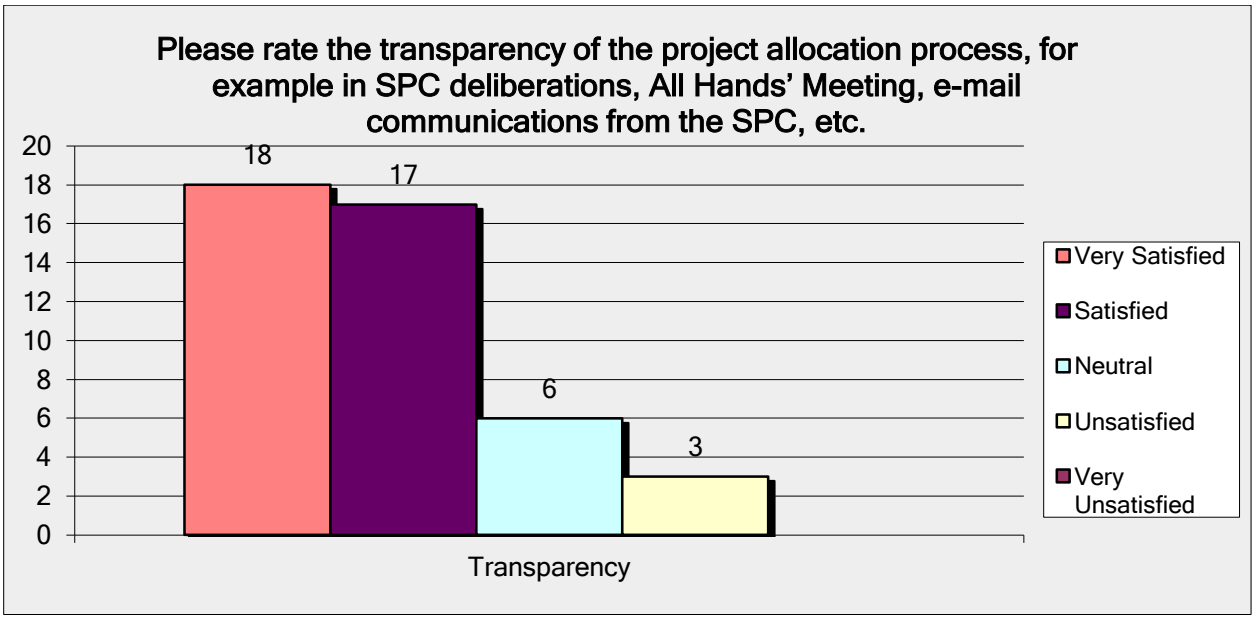
- Allocation Process User Satisfaction rating = 84.9%
- Clarity of Call For Proposals User Satisfaction rating = 92.9%

5.23 Transparency of the Allocation Process

Survey Question 23. Please rate the transparency of the project allocation process, for example in SPC deliberations, All Hands' Meeting, email communications from the SPC, etc.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	No Opinion
Transparency	o	o	o	o	o	o

Comments: [*text entry box*]



Transparency of Alloc. Process	Users
Answered Question	45
Skipped Question	21

User Comments:

1. Always clear.
2. It would be great if SPC can give some overall remark on the top-5 or 10 allocations and give the community a sense of why these proposals deserve the majority of the USQCD resources. It helps the young people to shape up their proposals for the future.
3. Allocation of INCITE time is a little more confusing, but driven by the fact it is not only reviewed by SPC but also by external reviewers
4. I cannot reproduce official conversion rates for the different cluster nor did I find the benchmarks documented. Right now I suspect that the available memory per core is not factored in. This can have a huge impact between runs on pi0 vs. qcd12s. Given the growing differences in the machines, I think it'd be more sensible to allocate specific machines and have users name preferences. Already now some users with sufficiently large jobs can only run on pi0 although they have time allocated at Fermilab and Bc may be idle at the same time.
5. Current chair is less responsive than several predecessors. On the other hand, a temporary "transfer of power" during a family crisis was handled well.

Analysis Notes:

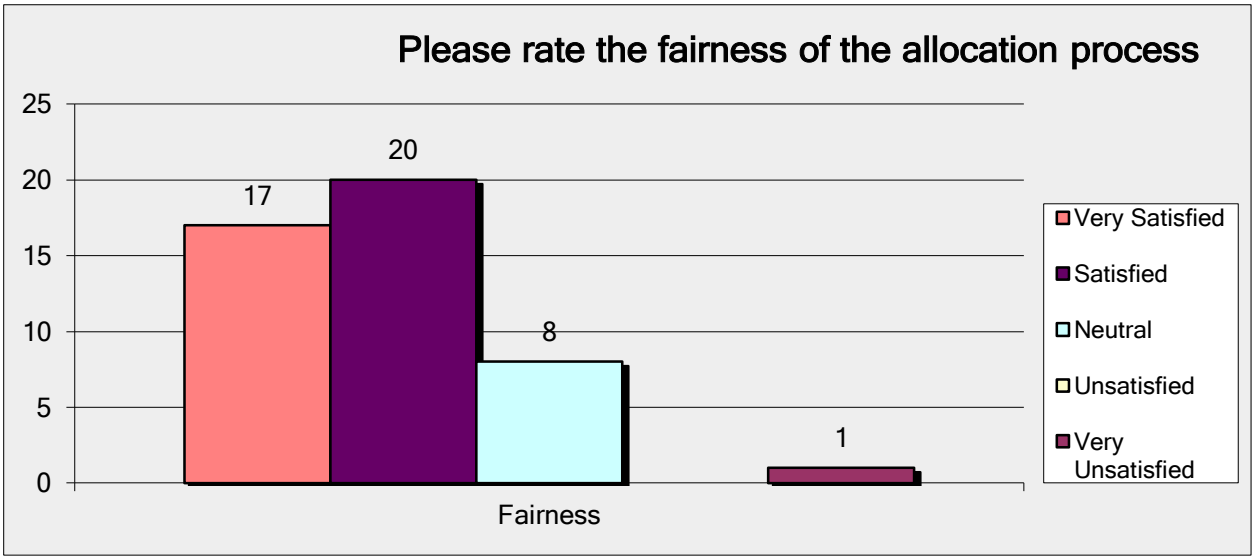
- Transparency of Allocation Process User Satisfaction rating = 86.8%

5.24 Fairness of the Allocation Process

Survey Question 24. Please rate the fairness of the allocation process.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	No Opinion
Fairness	o	o	o	o	o	o

Comments: [*text entry box*]



Fairness of Alloc. Process	Users
Answered Question	45
Skipped Question	21

User Comments:

1. I wish more resources were given to BSM proposals---we're a small percentage in terms of quantity, and it would be nice to be cut somewhat less than other proposals that tend to have more time elsewhere.

Analysis Notes:

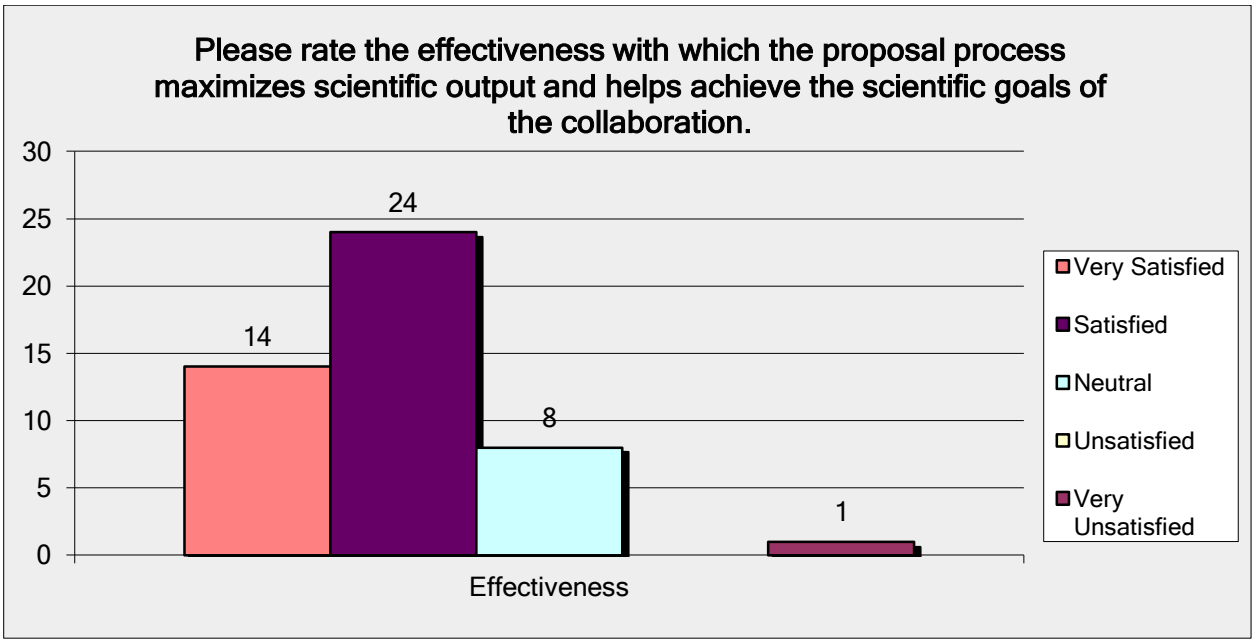
- Transparency of Allocation Process User Satisfaction rating = 86.8%

5.25 Effectiveness of the Allocation Process in Maximizing Scientific Output

Survey Question 25. Please rate the effectiveness with which the proposal process maximizes scientific output and helps achieve the scientific goals of the collaboration.

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	No Opinion
Effectiveness	o	o	o	o	o	o

Comments: [*text entry box*]



Effectiveness of Alloc. Process	Users
Answered Question	45
Skipped Question	21

User Comments:

1. It's helpful as it helps us formalize our plans for the coming year.
2. Again, it would be useful to have the remarks from SPC or executive committee to share and keep track of the output delivered for top-allocated projects for us to know the "effectiveness". This is not transparent to me.
3. In principle, the "all-hands meeting" could be regarded as perhaps too demanding as a means of allocating time. However, it has become increasingly a "strategy" meeting rather than one focused on individual proposals, which is a good change.
4. The SPC does a good job of meeting the goals spelled out by the Executive Committee.

Analysis Notes:

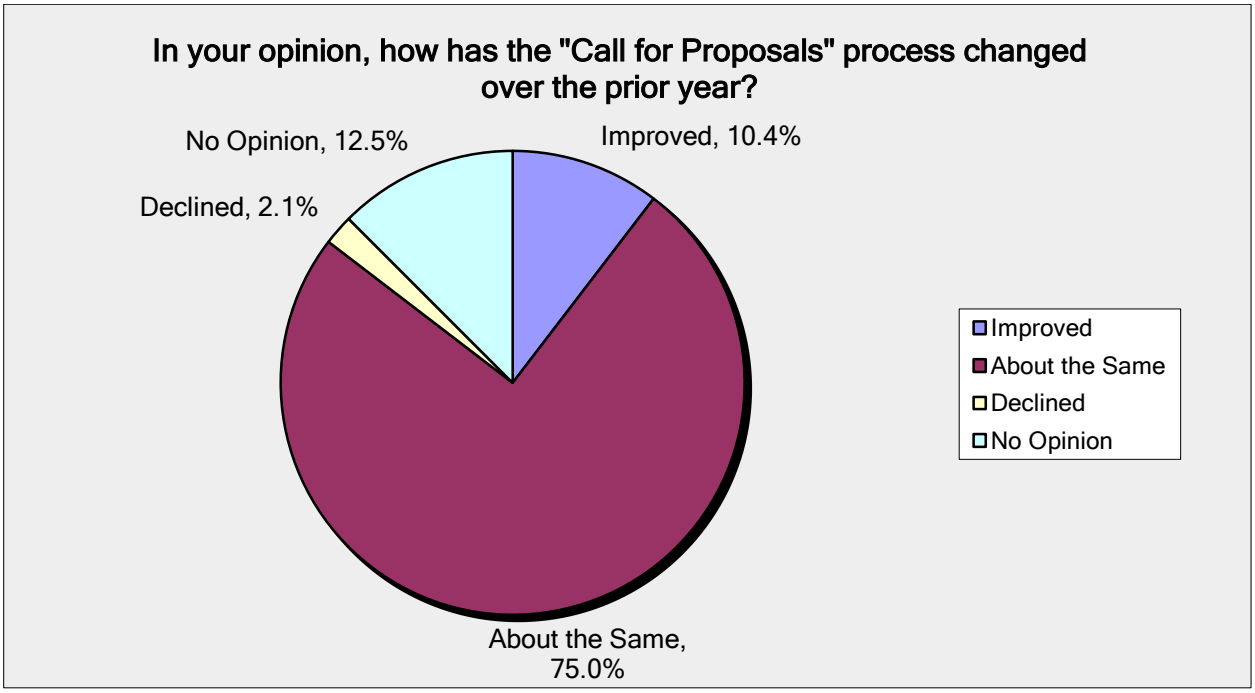
- Transparency of Allocation Process User Satisfaction rating = 89.1%

5.26 Call for Proposals Process Improvement Over Past Year

Survey Question 26. In your opinion, how has the "Call for Proposals" process changed over the prior year?

- Improved
- About the Same
- Declined
- No Opinion

Please provide additional information to help us better understand your answer: [*text entry box*]



Call for Proposals Process Improvement	Users
Improved	5
About the same	36
Declined	1
No Opinion	6
Answered Question	48
Skipped Question	25

User Comments:

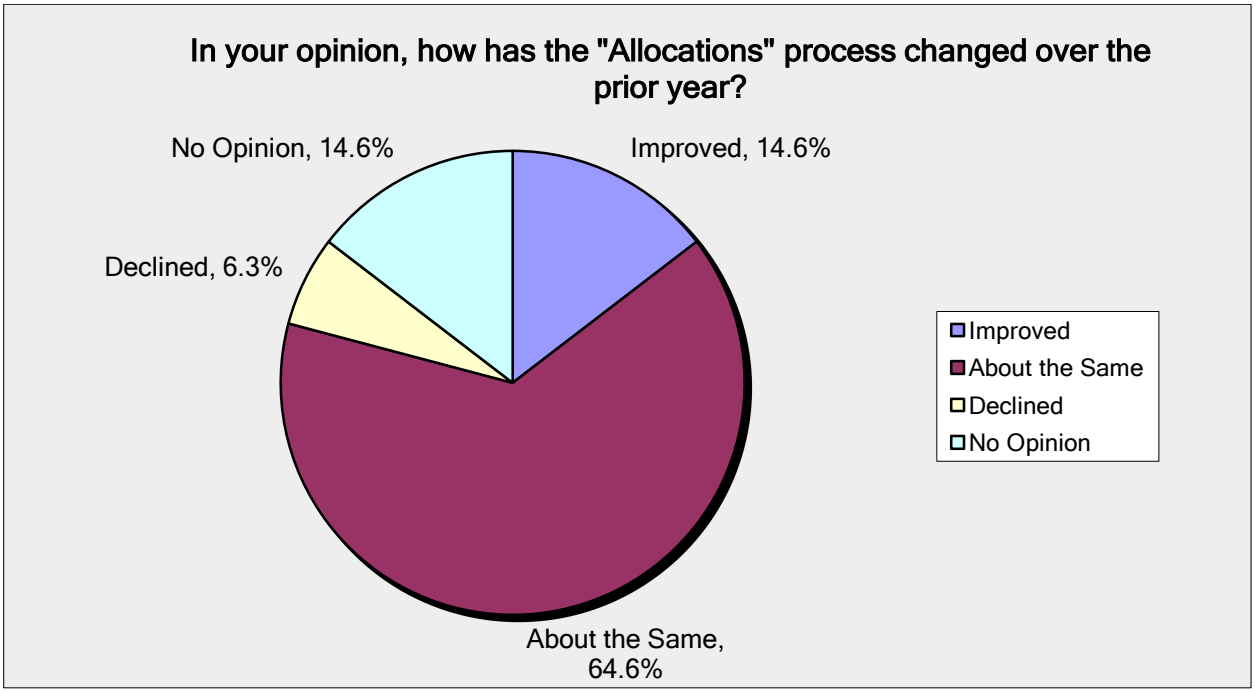
1. Less clarification has been needed than previous years.
2. I would suggest to add some descriptions related to what physics are the top priority for SPC fo fund in each call.
3. The heterogeneous hardware has made the procedures more complicated and, correspondingly, the CFP is harder to understand.

5.27 Allocation Process Improvement Over Past Year

Survey Question 27. In your opinion, how has the "Allocations" process changed over the prior year?

- Improved
- About the Same
- Declined
- No Opinion

Please provide additional information to help us better understand your answer: [*text entry box*]



Allocations Process Improvement	Users
Improved	7
About the same	31
Declined	3
No Opinion	7
Answered Question	48
Skipped Question	25

User Comments:

1. Again, it was clearer than past years.
2. it appears that the notion of reviewing class Bs contunuously has fallen by the wayside

5.28 Comments on Operation of LQCD Facilities

Survey Question 28. We value your opinion greatly. Please share with us any additional comments or suggestions regarding the operation and use of the LQCD computing facilities. [*text entry box*]

General Comments	Users
Answered Question	16
Skipped Question	57

User Comments:

1. No issue, as a suggestion I hope there are new resources at FNAL in the coming years.
2. I would appreciate if we can unify the queue/library system so that when one moves from one LQCD facility to another it will be a smooth transition. The dramatically change in environments benefit big collaborations to get bigger and do more, while smaller and startup projects do not have the man-power to afford to spend months just to switch to another facility. I also do not like the general assignment of NP projects going to JLa, HEP-related going to FNAL, and DWF goes to BNL. Until the uniform environment is established and fully correct operational documents in place, I don't think we should encourage people to spending months of their life on to learn how to operate one particular system, especially for non-top-allocation projects.
3. The staff have been very helpful and quick to respond when problems crop up. They've also been very good about extending e.g. queue time limits when specific jobs have required longer running time. The systems (I've used Pi0g most heavily) have been very stable and well run. It's a very well run system.
4. The different infrastructure at FNAL and JLAB does mean scripts cannot be moved without some modification between the two sites. What aspect that I do now like is having different home directories for the different architectures at FNAL - because you can put architecture-dependent binaries and libraries in the same location on each machine, e.g. $HOME/bin, and the scripts will work without modification.
5. Every time I use a third-party computing facility, I wish I could be running on the FNAL lattice clusters instead. Keep up the great work!
6. I really want to thank the help desk staff for quick responses and clear explanations of solutions to problems no matter the number of problems or questions I ask.
7. The LQCD computing facilities work very well. I am an active researcher and the PI on one of the projects awarded computer time. I do not use the resources personally, not for lack of computing expertise, but because the computations for this project are done by younger collaborators. The LQCD computing facilities have played and continue to play a crucial role in my research
8. 1) It would be better if a very large tape system can be available for backing up all the generated data.
9. In FNAL there are a maximum quota to job submission per user. Is there a possibility to relax that when the number of users are few and the machines are not heavily used?
10. All great apart from the lustre problems. The new phi hardware at JLab is very nice.
11. The SPC committee workflow could get better organized.
12. It would be nice to have a common software environment across the different sites, though having to agree to one may be time consuming and practically impossible. Container technologies such as Docker may help alleviate the need to get familiar with different software environments. It is something worth looking into...
13. I'm troubled to understand why the KNL system was bought in 2016. Given the very few users and the significant amount of trouble / little support I got, I can only conclude not all codes were/are ready for this machine. What was the purpose of the SPC questions, if all user input got ignored? Only the zero-priority running at Fermilab during the summer compensated for the fact that we have been effectively zeroed out but wasted an awful amount of time on the KNL machine. Moving an established project from Fermilab to Jlab is not trivial and I don't understand why the setups are so different. The file systems at Jlab do *not* meet my needs:

/work is not mounted on the cluster nodes (outdated documentation!) thus installing software becomes non trivial. On lustre filesystems there are known issues with autoconf, /home is rather limited. Finally, what is the purpose of a volatile filesystem where data get deleted without any warning? I have no use of a fictitious quota with only 50% being 'protected' but not 100% safe against deletion if the filesystem runs full due to others. /dcache is not an option because my setup from Fermilab is to archive verified and packaged files which moreover should remain at one site. Certainly I'd prefer having a hard quota but full control when my data get deleted.

14. The LQCD computing facilities are extremely valuable for providing easy access for capacity computing, experimentation, and project development.
15. As can be seen from my answers to your specific questions, I am quite satisfied with the the allocation process.
16. see comments at specific questions

5.29 Comments on the Call for Proposals and Resource Allocation Processes

Survey Question 29. Please share with us any additional comments or suggestions regarding the Call for Proposals and Resource Allocation processes.
[*text entry box*]

General Comments	Users
Answered Question	11
Skipped Question	62

User Comments:

1. No comments!
2. We should revisit how USQCD regulation on the INCITE proposal. This year, ETMC, with 2 investigators from Cyprus, received 1/7 of what USQCD got. Even though there are some cases of German collaboration obtaining US resources in the past, they do so through a US PI. This is a completely different scope of problems than the hotQCD case! Not only ETMC is proposing a project following works by USQCD members, but now they obtained substantially large amount of time from DOE resources to defeat the USQCD project. The current regulations provide loopholes for more future foreign competitors to invade US resources that we need to be in lead in LQCD community (USQCD clusters along is not enough)..
3. While I am not a member of USQCD, one of the postdocs who works with me is. This postdoc expressed their frustration to me with USQCD regarding an allocation they applied for. This postdoc applied for a small amount of time for a new idea they had to do an independent project with a few collaborators (not including me). They applied through the regular channels for a class B or C proposal at FNAL. After the postdocs initial request was ignored, they sent to my knowledge, two follow up emails attempting to get a response regarding the request for time. The postdoc did not receive any response at all from USQCD. USQCD makes a big deal about supporting young people, especially motivated young postdocs with new ideas. However, this postdoc could not even get a response to their request, let alone a small allocation to try out the idea.
4. need to improve turnaround on class B's. This was very fast a couple of years ago but that has slowed down dramtically recently
5. The policy of reducing allocations based on unused time, which I believe is sound, might benefit from some tweaks in the coming year. First of all, I think it would make sense for it to be prorated based on the amount actually run; my project was at 19.7% usage vs. the 20% threshold, so the full penalty felt a little harsh. Also, my students complained about having difficulty getting jobs through due to competition with larger allocations at times, which may have contributed to our slow start. I don't mean to complain about the queueing system, since I know that's a hard problem and the issues I've seen are generally minor. But it raises the question that with the usage penalty now in place, whether there's a potential problem if the big allocations run over their annual pace early on in the year, and make it hard for smaller allocations to keep up. I suppose you'll know at the end of the year, but I just wanted to mention it.
6. Continue with the excellent work!
7. It would be great if we had more USQCD Type B proposals and it was sanctioned locally by the local in-charge so that the process of allocation of Type B proposals is as fast as Type C proposals.
8. The benchmarking of the different clusters should be better documented and more transparent. I'd favor to have on a website information on how to compile the benchmark software and corresponding results. Thus one can check how the own performance compares.
9. no comment; thought it was good
10. I wrote a Class C proposal to FNAL and never gotten a response back, even after sending a follow up e-mail to Paul reminding him of the proposal that was sent. I am a young postdoc trying to test out this new idea that has been presented at the 2016 Lattice conference, with proceedings from the conference discussing the validity, details, and challenges regarding this method. The

idea, if it works will be extremely interesting for FNAL since it will be applied to calculating the nucleon axial form factor, which is Lattice QCD's main contribution to DUNE. However, I never received a response. Not even something rejecting the proposal. This is a bit frustrating to say the least.

11. I never received a response to a class B proposal that I submitted. I was forced to change it to a class C project so that I could get approval directly from the Jlab manager and proceed with my numerical project.