

The Results of the Cycle 19 Peer Review

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The programs approved for *Chandra*'s 19th observing cycle are now underway. The Cycle 20 Call for Proposals (CfP) was released on 14 December 2017 and the proposal deadline was 15 March 2018 but delayed by one day due to weather. Cycle 18 observations are nearing completion.

Cycle 19 Proposal Statistics

Cycle 19 proposal statistics can be found in Figures 1–7 and on the CXC website at: http://cxc.harvard.edu/target_lists/cycle19/cycle19_peer_results_stats.html

The distribution of science panels is shown in Table 1 and Joint Program statistics in Tables 2 and 3.

Cycle 19 included a call for Very Large Proposals (VLP), a category requiring > 1 Ms of observing time. VLPs were last solicited in Cycle 12. The total amount of time allocated in Cycle 19 was 16.7 Ms including 3.9 Ms to 7 approved LPs and 2.7 Ms to two VLPs. The overall oversubscription in observing time was 5.8, slightly higher than in the past few cycles (Figure 5). The increase in the oversubscription was driven primarily by an enthusiastic response to the VLP call. We received 15 VLPs requesting a total of 27.7 Ms. The oversubscription in time for VLPs was 10.2, compared to 5.9 for the LP oversubscription and 4.9 for the GO oversubscription.

Table 1: Panel Organization for Cycle 19

Topical Panels	
Galactic:	
Panels 1,2	Normal Stars, WD, Planetary Systems and Misc
Panels 3,4	SN, SNR + Isolated NS
Panels 5,6	WD Binaries + CVs, BH and NS Binaries, Galaxies: Populations
Extragalactic	
Panels 7, 8, 9	Galaxies: Diffuse Emission, Clusters of Galaxies
Panels 10, 11, 12	AGN, Extragalactic Surveys
Big Project Panel	
BPP	Large and Very Large Proposals

The funding available for Archival proposals increased from \$1,050K in Cycle 18 to \$1,500K in Cycle 19. This one-time increase was possible because an unusually large number of TOO programs in recent years were not triggered. Funds allocated to these proposals were recycled into the Cycle 19 GO budget. The total number of submitted proposals increased in Cycle 19 relative to Cycle 18 (574 vs. 546). This upswing was due to an increase in the number of submitted Archival proposals (possibly motivated by increased available funding) and proposals submitted in response to the VLP call.

Plagiarism Screening

The CXC policy regarding plagiarism was clarified in the Cycle 19 CfP as follows:

“It is not acceptable to use plagiarized text in a *Chandra* proposal. Any material reproduced from another source must be contained within quotes and complete references given. Text that is “recycled” from papers authored by the PI or CoIs is acceptable in the context of a *Chandra* proposal” (Section 3.5 of the CfP).

The text of all submitted science justifications was screened using commercial plagiarism software (iThenticate). A handful of proposals had small amounts of text that appeared to be lifted from published sources and/or had incomplete references. Most of the flagged proposals contained text derived from one of the coI's publications, and these are not in violation of our policy. Some flagged proposals used a short phrase that was contained in multiple different source documents. In the few instances where there were slight violations along those lines, PIs were informed so they could correct the issues in future papers/proposals, and no further action was taken.

Timeline for Peer Review Results

Prior to Cycle 19, the approved target list was posted on the CXC website about 2 weeks after the Peer Review, and official emails sent to PIs (containing approved targets, Peer Review comments and budget allocations) later in the summer. In Cycle 19, NASA-HQ requested that we decrease the time between proposal submission and official notification of the results. In response to this request we split the notification emails into “accept/reject” and “budget”. The accept/reject emails were sent on 17 July 2017, one week after the target list was posted. The accept/reject emails for observing proposals contained approved targets and Peer Review comments. The accept/reject emails for archive and theory proposals contained information on whether the proposal had been approved (yes or no) and Peer Review comments. Emails containing budget information for all proposals were sent on 7 August 2017. We anticipate sending separate accept/reject and budget emails for the foreseeable future.

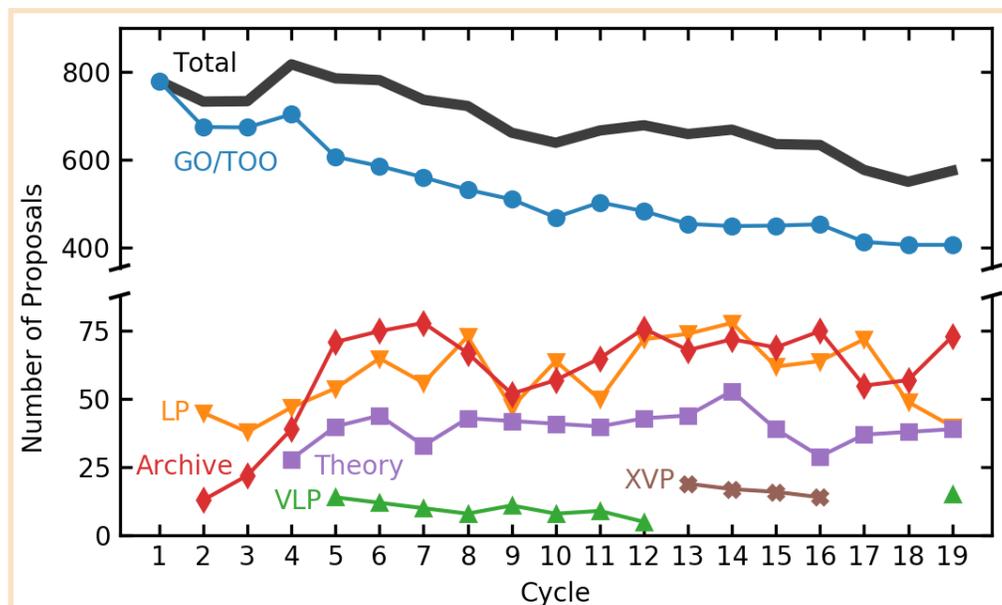


Figure 1: The number of proposals submitted in each proposal category (e.g., GO, LP, Archive etc.) as a function of cycle; note the vertical axis is broken at ~400 proposals to better show the individual proposal categories. Since more proposal categories have become available in each cycle, the number classified as GO has decreased as others increased. The total number of submitted proposals (solid black line) is remarkably constant.

Table 2: Time awarded by the Chandra Peer Review on other facilities

Observatory	# Accepted Proposals	Total Time
Hubble	7	37 orbits
NuStar	3	210 ks
NRAO	7	50.5 hours
Swift	3	157 ks
XMM-Newton	2	248 ks
NOAO	4	6.03 nights

Cost Proposals

PIs of proposals with US collaborators were invited to submit Cost Proposals, due in Sept 2017 at SAO. Each project was allocated a budget based on the details of the observing program (see *CfP* Section 10.4). Awards were made at the allocated or requested budget levels, whichever was lower. The award letters were e-mailed in December, in time for the official start of Cycle 19 on 1 Jan 2018. ■

Table 3: Chandra Time Awarded by other facilities

Observatory	# Accepted Proposals	Total Time
Hubble	4	254.0
XMM-Newton	1	22.0
NRAO	4	136.2

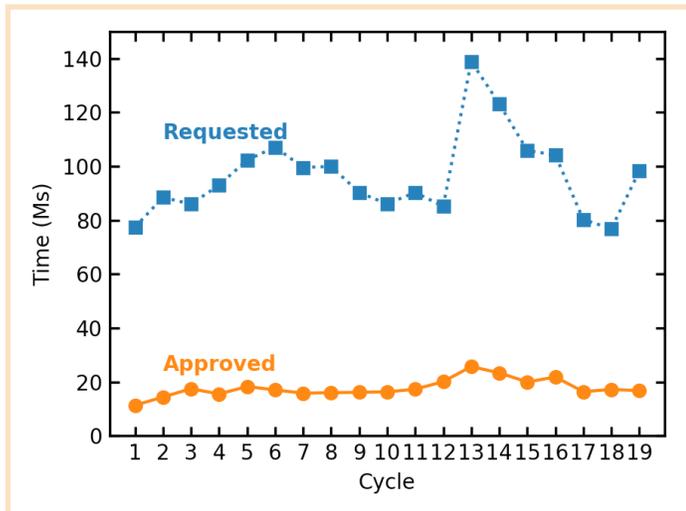


Figure 2: The requested and approved time as a function of cycle in Ms including allowance for the probability of triggering each TOO. The available time increased over the first three cycles, and in Cycle 5 with the introduction of Very Large Projects (VLPs). The subsequent increase in time to be awarded due to the increasing observing efficiency and the corresponding increase in requested time in response to the calls for X-ray Visionary Projects (XVPs) in Cycles 13-16 is clear.

Table 4: Requested and Approved Proposals by PI Country

Country	Requested		Approved	
	#Prop	Time	#Prop	Time
Argentina	1	50.00	1	50.00
Australia	1	61.00	1	61.00
Belgium	3	710.00	1	10.00
Bulgaria	1	40.00		
Canada	8	1921.00	1	170.00
Chile	2	120.00		
France	4	770.00	1	150.00
Germany	18	4202.00		
Greece	3	444.40		
Hungary	1	100.00		
India	4	350.00	1	30.00
Israel	1	450.00		
Italy	33	9188.00	7	639.00
Japan	11	2185.00		
Korea	1	80.00		
Mexico	2	670.00		
Netherlands	8	940.00	2	205.00
Poland	1	75.00	1	75.00
Russia	1	160.00		
Spain	6	1044.00		
Sweden	2	350.00		
Switzerland	1	350.00		
Taiwan	3	627.00		
Turkey	4	540.00		
UK	25	8425.00	9	3314.00
USA	429	67885.69	130	14126.00
Total Foreign	145	33852.40	25	4704.00

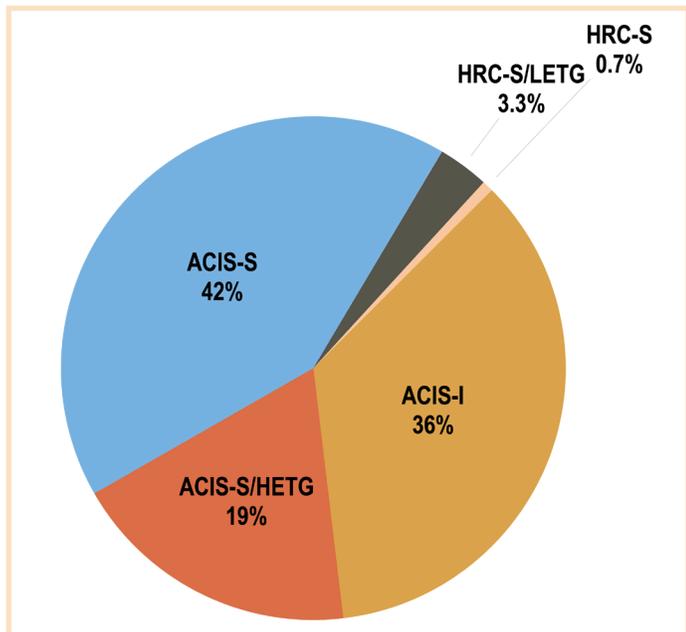


Figure 4: A pie chart showing the percentage of Chandra time allocated to observations for each instrument configuration.

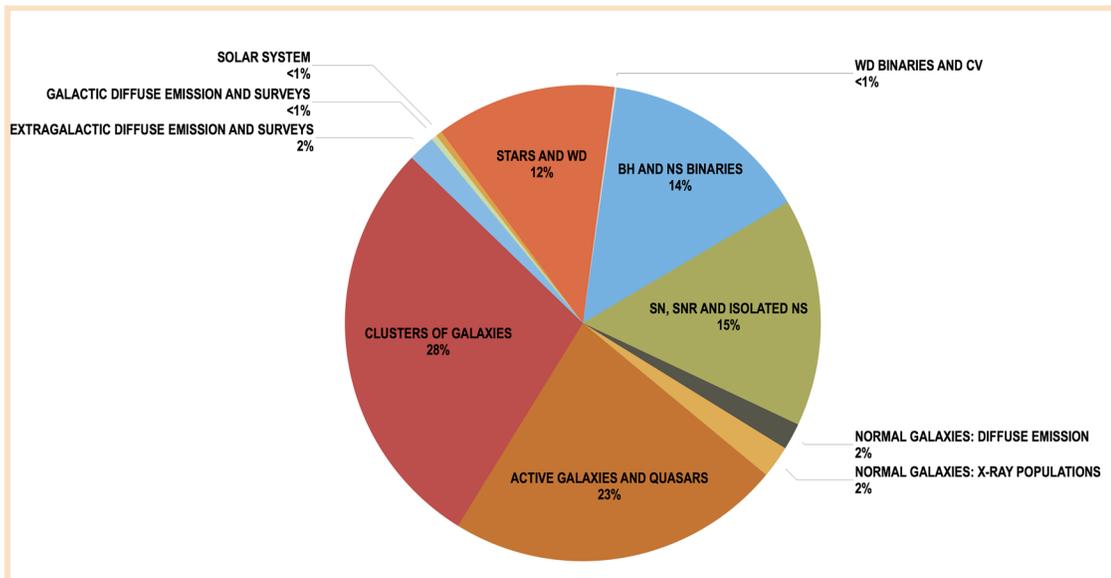


Figure 3: A pie chart indicating the percentage of Chandra time allocated in each science category. Note that the time available for each science category is determined by the demand.

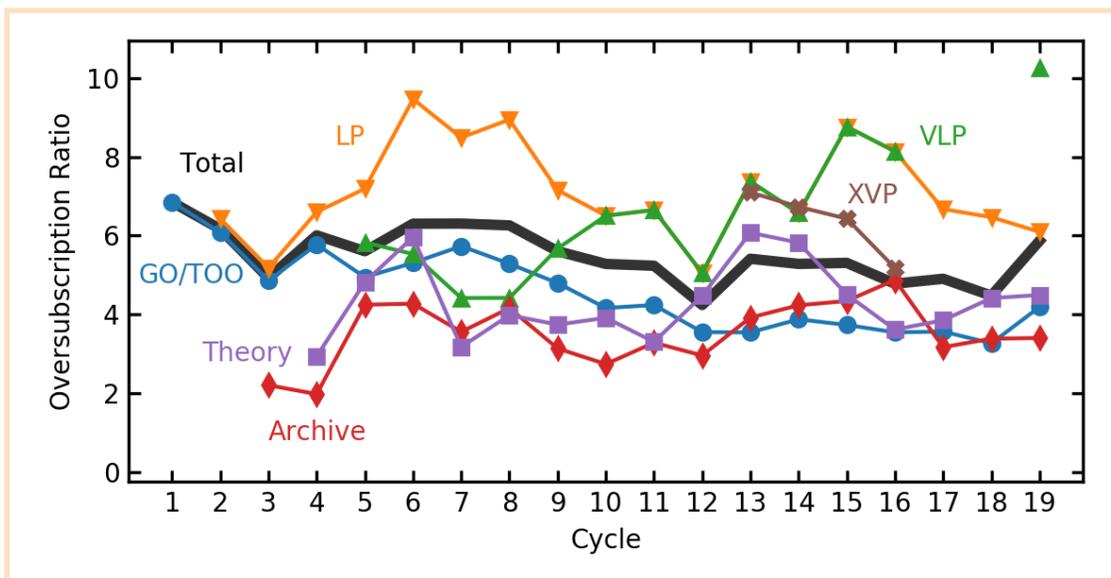


Figure 5: The effective oversubscription ratio in terms of observing time for each proposal category as a function of cycle. The total oversubscription numbers are remarkably constant. Note that some of the fluctuations are due to small number statistics (e.g., Theory proposals).

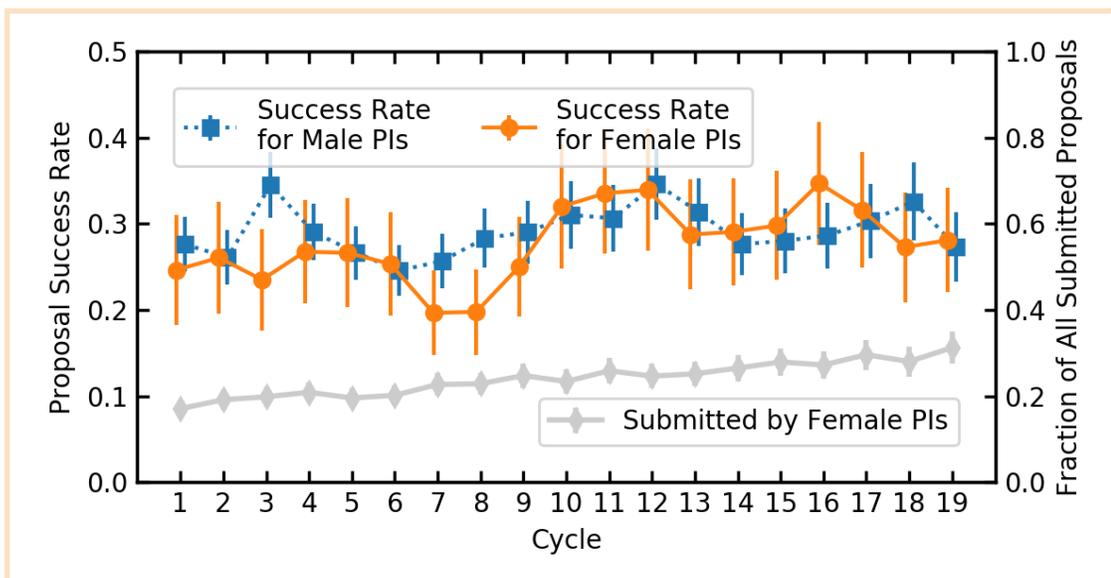


Figure 6: The success rate of male (blue squares) and female (orange circles) PIs as a function of cycle and the overall fraction of female PIs (grey diamonds). Since Cycle 10, the success rate for female and male PIs has been statistically indistinguishable.