

Proposal Cycle: Updates and Plans

Andrea Prestwich,
Peer Review Team Lead

- Highlights of CDO activities
- Report on Cycle 18
- Plans for Cycle 19 and beyond

Highlights

Cycle 18 Peer Review

- 27 June- 1 July 2016, Hilton, Logan Airport
- Target List posted 18th July
- E-letters, including reports and budget allocation mailed 17th Aug
- Cost proposal deadline: 27th Sept 2016

Annual Chandra Science Workshop:

- Chandra Science for the Next Decade, held 16-19 Aug 2015

AAS Meeting, 12-16 June, San Diego

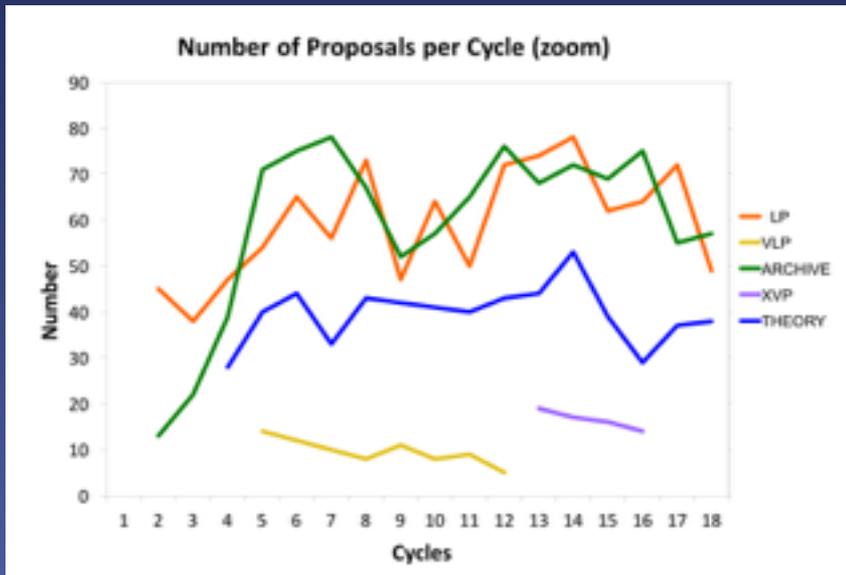
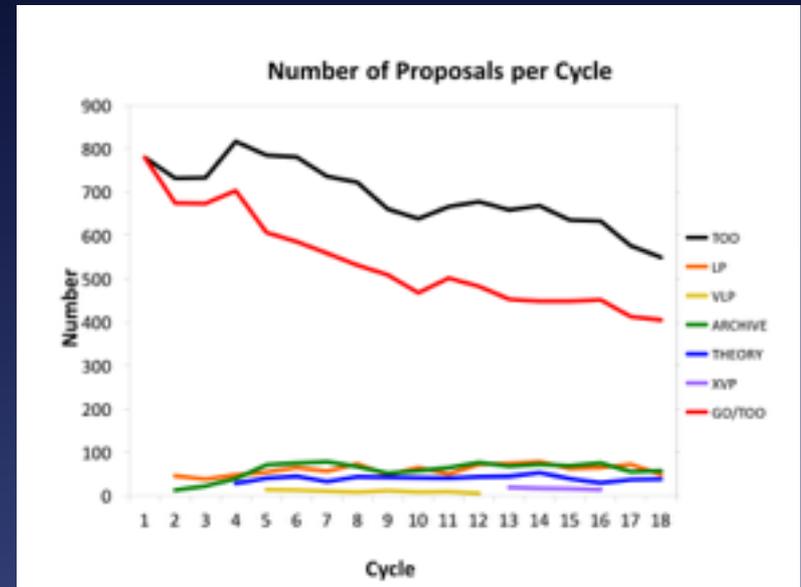
Einstein Fellows

- Symposia to be held CfA, 18-19 October
- 2017 competition: Deadline: 3 Nov 2016

Cycle 18 Proposal Statistics

547 proposals submitted:

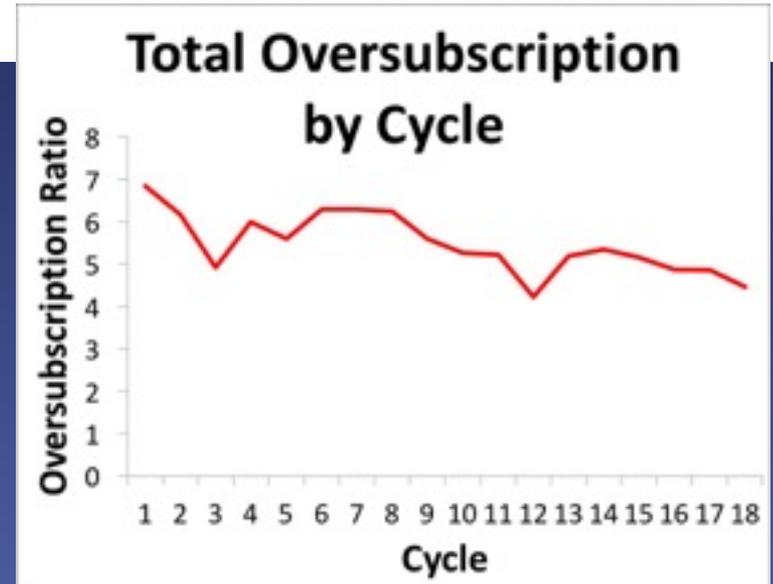
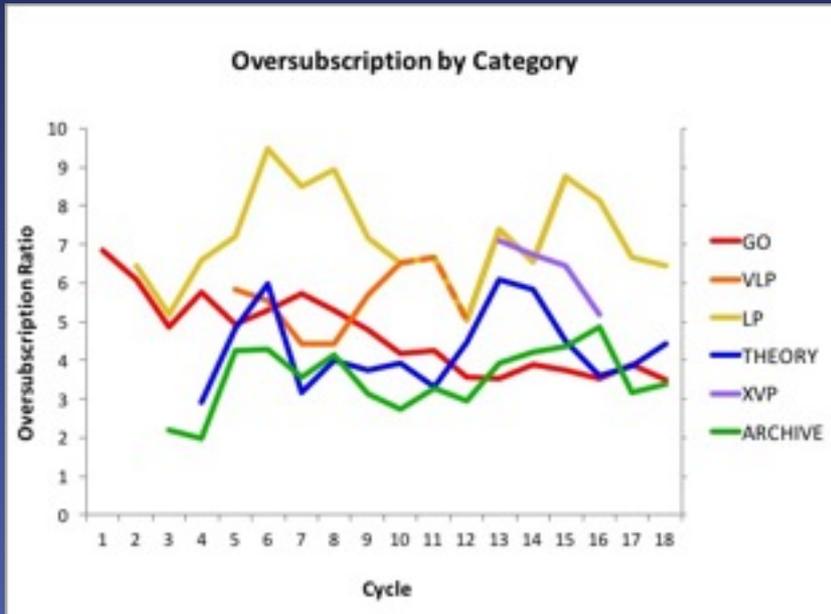
- GO 403 (inc. TOO, 413 Cyc 17)
- LP 49 (72 Cyc 17)
- Archive 56 (55 Cyc 17)
- Theory 38 (37 Cyc 17)



174 approved

Cycle 18 Proposal Statistics

- Total Time: 16.3 Ms
- Oversubscription in time: 4.6
- LP: initially 4.0 Ms, increased to 5.7 Ms. Decreased oversubscription from 9 to 6.3.



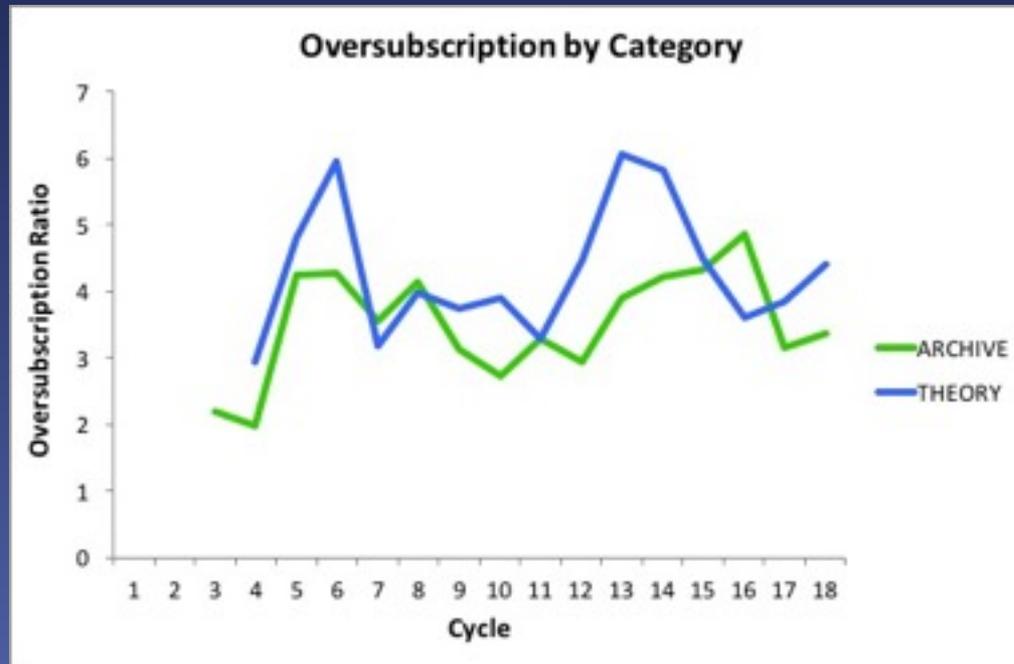
Cycle 18 Proposal Statistics

Archive:

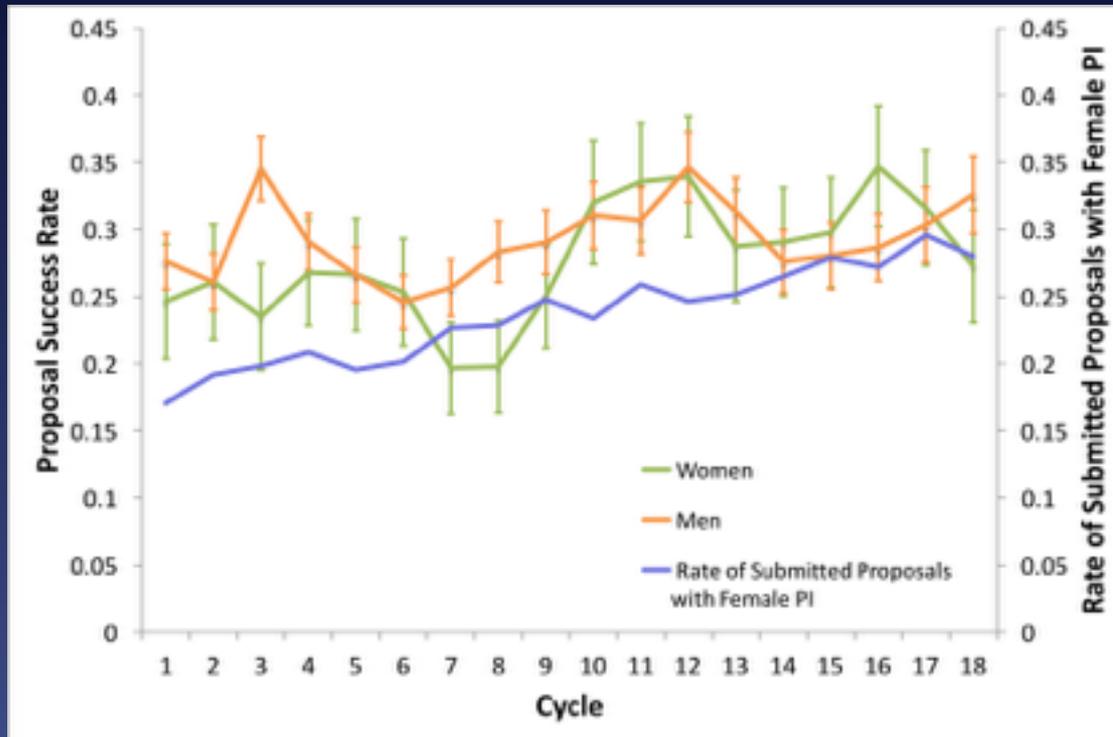
- Budget: \$1050K
- Allocated \$1060K (16)
- Over-subscription: 3.4

Theory:

- Budget: \$600K
- Allocated: \$650K (8)
- Over-subscription: 4.8



Cycle 18 Gender Statistics



Acceptance rates for males and females statistically indistinguishable in recent years.

Effect of Moving the LP Boundary

Goals in moving the LP boundary 300 → 400ks

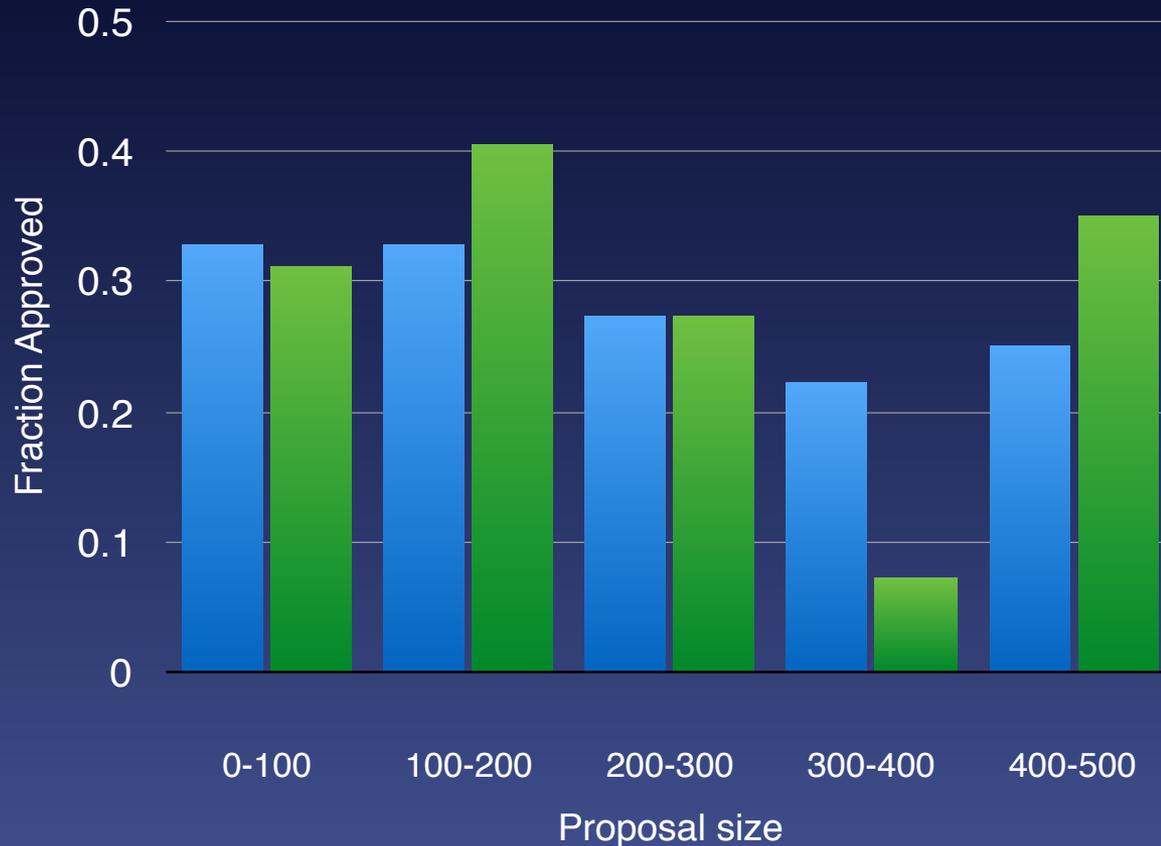
1. Decrease the burden on the peer review panels

Number of LPs dropped from 72 → 49

2. Decrease the LP over subscription

- For 4 Ms of available time, oversubscription dropped from 10.0 → 9.0 - not quite as much as we hoped!
- Time added to LP budget from unused Joint time, refined calculation of available science time and last minute donation from one of the topical panels. Eventual oversubscription=6.3

Effect of Moving the LP Boundary



Blue=Cycle 17, Green=Cycle 18

300-400 ks approval low, but small number statistics (got 1, expect 2-3)

Schedule for Cycle 19

- Call for Proposals and associated software and documentation 15th Dec 2016
- GO Proposal Deadline, 15th March 2017
- Peer Review 19-23 June 2017
- Cost Proposal deadline 26th Sept 2017

Schedule for Cycle 19

- NASA Guidelines specify max 150 days between proposal submission and official notification
- We typically take 140-150 days, have been asked to shorten considerably
- Split notification emails into “accept/reject” and “budget”
- Accept/reject week of 17th July 2017 (124 days).
 - These will now go to all listed Cols as well as the PI.
- Budget allocation email will follow
- Further reduction will require changing proposal submission date and/or peer review dates

Proposed Cycle 19 significant changes

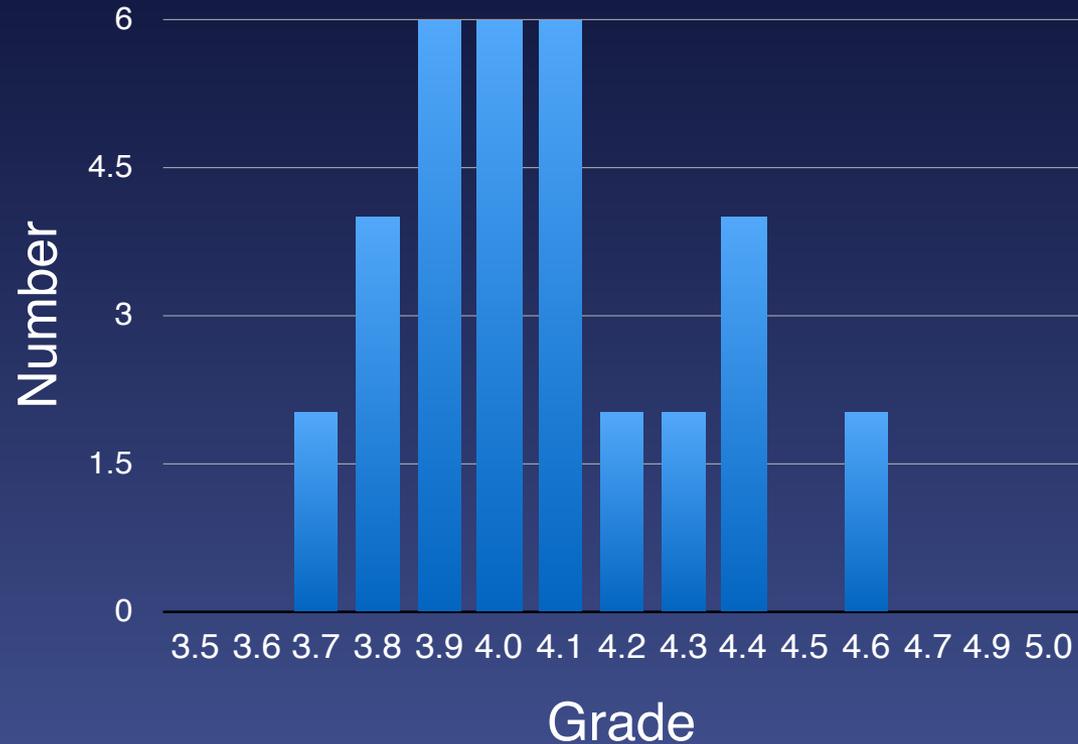
- Use plagiarism software (possibly iThenticate)
 - develop clear policy regarding plagiarism
- Include ALMA in the NRAO Joint Programs - still under negotiation
- Increase Archive funding
- Fund DDT at 1 Msec to allow for high profile/short turn around non-transient science
- Facilitate large/legacy programs, with emphasis on multi-observatory
 - Increase Big Project Panel allocation to a minimum of 5 Msec
 - Re-introduce a Msec+ program (either XVPs or VLPs)
 - Allow Joint Large Projects

Increase archival funding?

- There is a substantial archive & we want to promote archival research
- Although the dollar oversubscription is not high (~3) archival proposals more competitive than regular GO proposals
- Many archival proposals above the pass/fail line that are not funded
 - 9 in Cycle 17
 - 11 in Cycle 18

Increase archival funding?

Grades for Cycle 17 & 18 approved archival proposals. The “effective” pass/fail= 3.7, as opposed to 3.5 for GO



Increase from \$1050K to \$1500K, but at expense of GO budget?

If implemented, we will publicize the increase

Increase scope of DDT Program

- DDT program cut from 1 Msec to 700 ks to allow for VLPs in Cycle 5.
- Propose increasing DDT to 1 Msec
- allow high profile and/or short turn around non-transient science.
- Further reduce load on the peer review
- Similar in concept to HST “mid-cycle” proposals
- Use our DDT team plus one other outside expert to review non-transient
- In Cycles 20+, any unused Joint time “tops up” DDT to 1 Msec

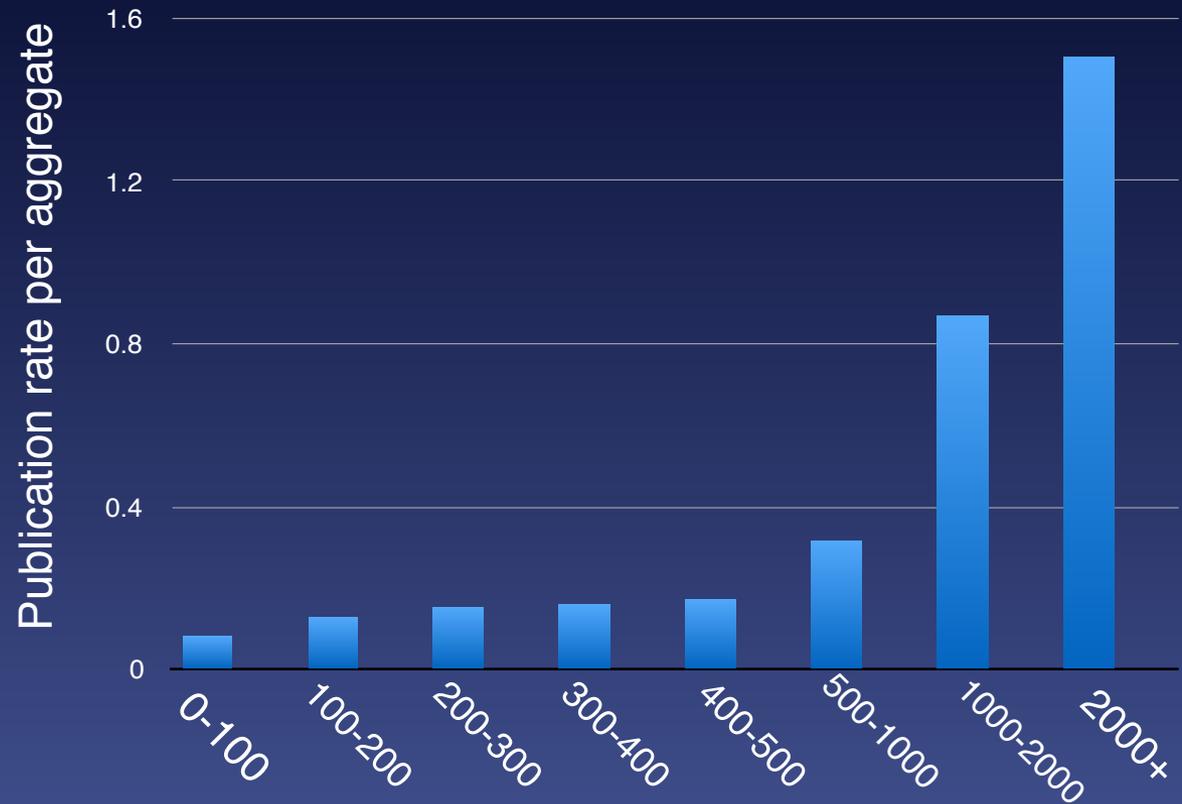
Why the Focus on Large Programs?

- Consensus from the “Next Decade” to focus on Legacy Programs, a “golden opportunity” to do multi-wavelength/multi observatory science
- Persistent oversubscription ~ 10 in the Big Project Panel, despite moving the LP boundary
- Feedback from Cycle 18 chairs
 - excellent LP science not funded
 - one panel moved 250 ks into the Big Project Panel
 - Comment from chair “would favor a ‘higher stakes’ competition using VLPs/XVPs to encourage people to ask for what they really need to achieve a goal, rather than truncating it to fit into a LP which doesn’t always work.”
- Historically, large programs return excellent science

Effectiveness of LPs and XVPs: Publication statistics

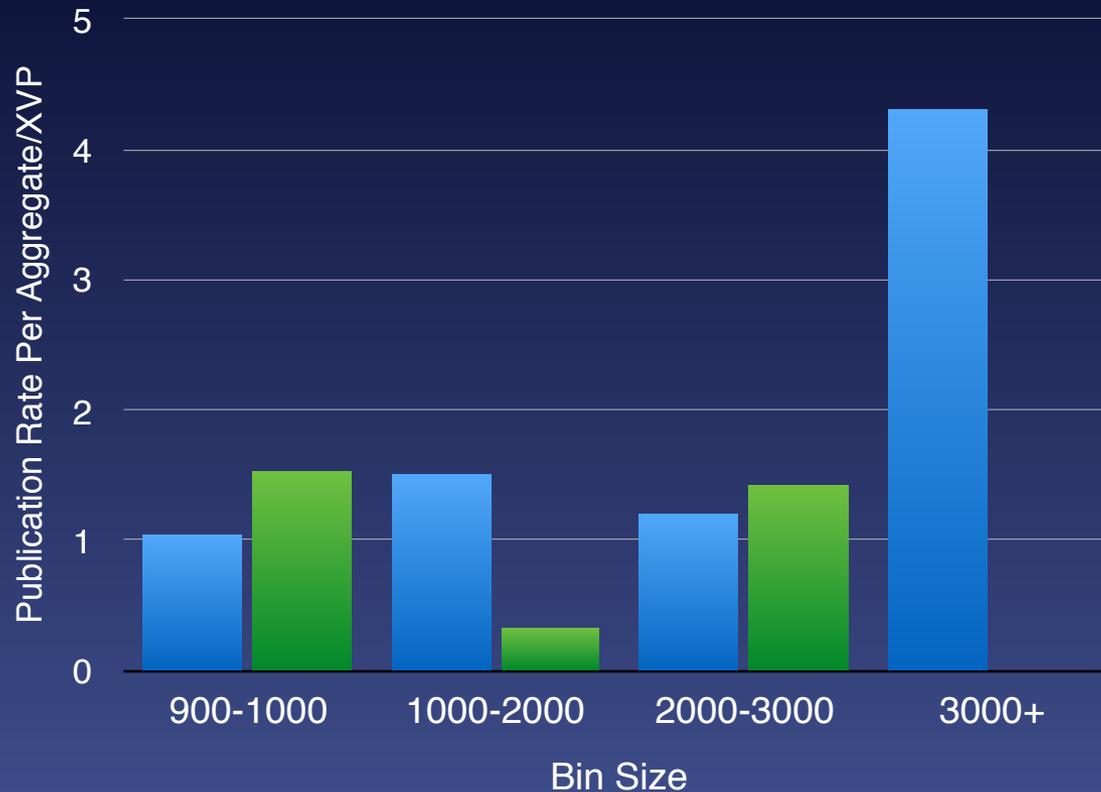
Aggregate: stitch together obsids into “programs”

Rate: weighted CSP/ age of aggregate



Publication rate per aggregate as a function of bin size. Major caveat: most “Type 2” Chandra science papers have not been tied back to the original data sets.

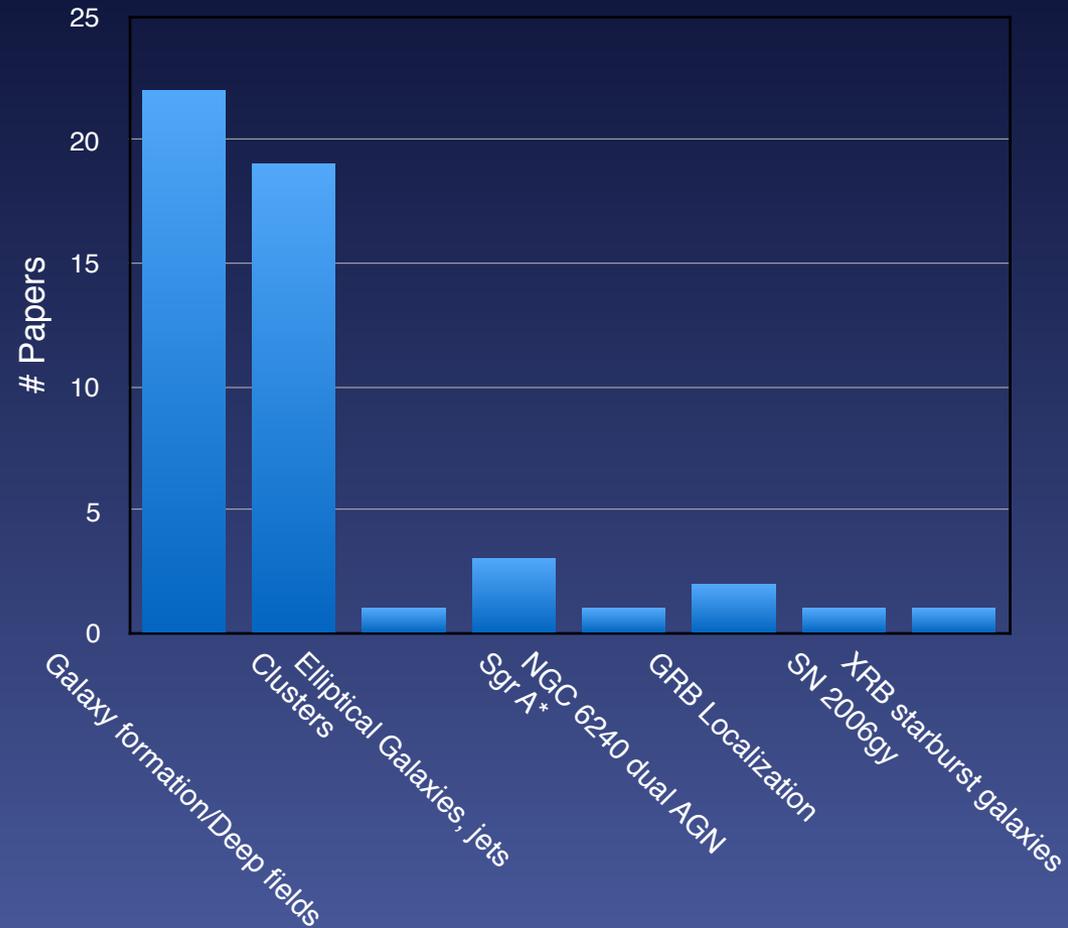
Effectiveness of LPs and XVPs: Publication statistics



Blue=All Aggregates, Green=Cycle 13 XVPs
No Cycle 13 XVP in 3000+ bin

Effectiveness of LPs and XVPs: highest impact papers

- Top 50 cited CSPs (no weighting!)
- spans years 2000-2010
- top paper has 803 citations, published in 2006
- 22 of the top 50 are galaxy formation/deep fields, with roots in one of the deep surveys
- 19 are cluster related science, 3 of which are cosmology papers from the 400d survey (others include shocks, cold fronts, cooling flows and the Bullet Cluster)
- Conclude: 50% of top 50 papers associated with XVP-sized aggregates!



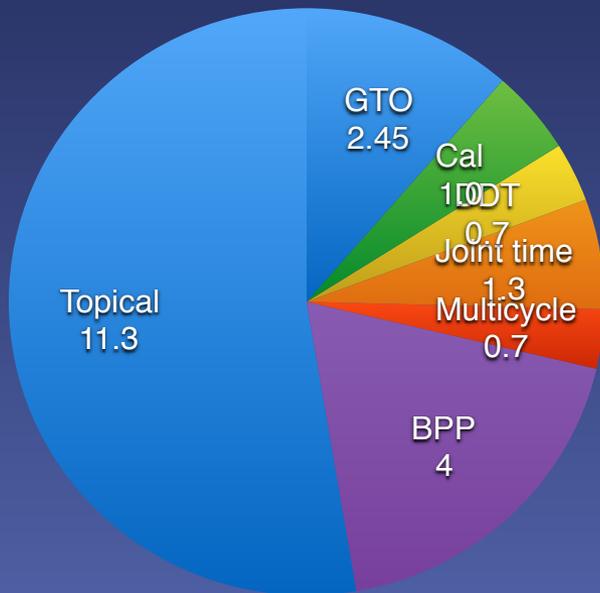
Cycle 19 Large Joint Programs

- Reciprocal agreement with XMM and HST:
 - Their Chandra allocation increases from 400 ks to 1 Msec
 - Our Joint allocation increases
 - 400 ks to 1 Msec for XMM
 - 100 to ~250 orbits for HST
 - At least 600 ks must be used for Large programs
 - Include slow TOO's
- Observatory directors on board, requires consent of Users' Committees
- Explore possibility NuStar time: NuStar director has been very accommodating when we ask for more time.

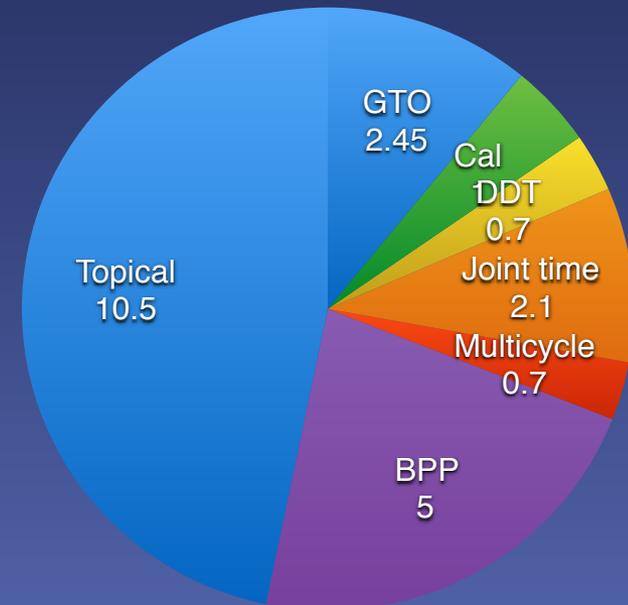
Increase BPP Allocation and re-introduce Msec+ Programs

- Increase Big Project Panel allocation to a minimum of 5 Msec
- Any unused Joint time will
 - (1) top up DDT to 1 Msec
 - (2) be allocated to the BPP

Cycle 18
Total=21.45



Cycle 19
Total=22.45



Cycle 19 Large Programs: questions

- Increase Joint allocation for Large Projects?
- Increase Big Project Panel Allocation?
 - If yes, is 5 Msec about right?
- Introduce Msec+ Programs?
- If YES to Msec+, XVP or VLP?
- XVP will need to be funded in part from future cycles
- One or 2 VLPs could be funded in a single cycle

Suggestions for Cycle 20+

- Complete re-write of RPS (Remote Proposal Software) for Cycle 20.
- Continue to increase the scope of Joint Programs
 - What other Large Joint Programs should we investigate? currently we have Joint Programs with NRAO, NOAO, Swift, as well as XMM, HST & NuStar. How much time from these JPOs is required to fund large projects? Any others?
- Initiatives to exploit Chandra's strengths, legacy, or prepare for future missions
 - Low energy science
 - Sample completion
 - X-ray Surveyor preparatory science