Cycle 28 TAC Results

and

Cycle 29 Preparations

TAC Process in Cycle 28 (1)

- **Hybrid process**: proposals were split between external panels and virtual panels meeting by video-conference.
- **External panelists** provided the assessment and grading of a subset of Small GO proposals (1 – 15 orbits) including Snapshot and Archival proposals.
- **Virtual panels** reviewed the remaining Small GO, Medium, Archival Legacy, Large and Treasury proposals. Virtual panelists interacted virtually by video-conference.
- Exception – all Solar System proposals were reviewed by the virtual panel (due to the small proposal pool)

Revised Process (2)

Proposals reviewed by **virtual group panels**:

- There were eight panels, with 9 members, including Chair and Vice-Chair (no Vice-Chair in Solar System).
- Each panel was allocated a specific number of slots for Medium proposals and an orbit allocation for Small proposals based on the proportional proposal/orbit pressure.
- The panel Chairs and Vice-Chairs, together with the TAC Chair and three At-Large members, constituted the super-TAC that reviewed Large/Treasury/Legacy proposals.
- The super-TAC met by video-conference as well.

Cycle 28 TAC Summary Results

Category	Requested	Approved	Percentage Approved	ESA Approved	ESA Approved Percentage
GO Proposals	865	133	15.4%	32	24.1%
Snapshots	41	11	26.8%	2	18.2%
Archival	96	28	29.2%	0	0.0%
AR Legacy	27	3	11.1%	0	0.0%
Theory	51	12	23.5%	0	0.0%
Total	1080	187	17.3%	34	23.6%
Primary Orbits	**22,541**	**2,868**	**12.7%**	**557**	**19.4%**

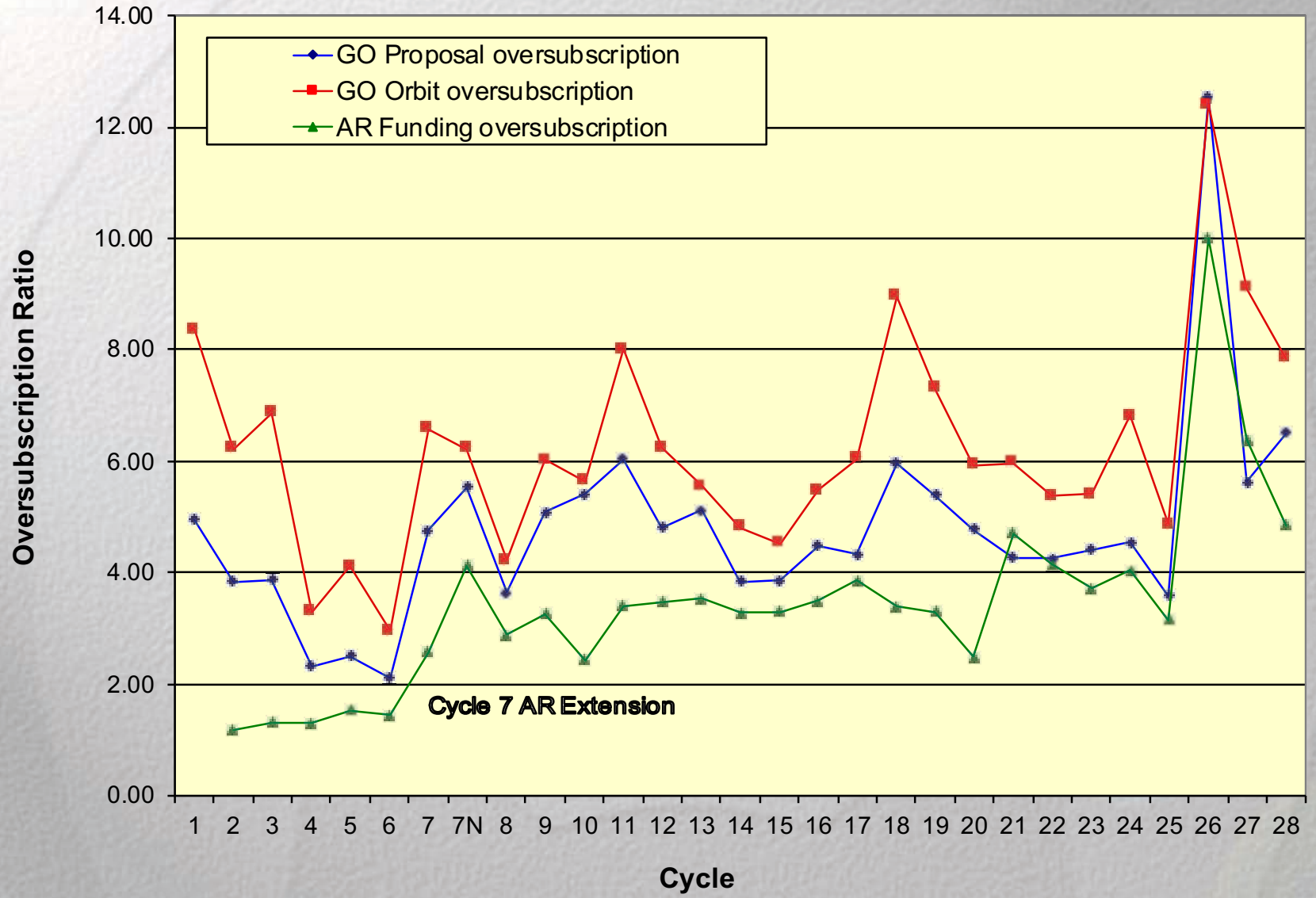
Programs Recommended by the TAC

ID	Resources	Science Category	Title
0076	88	Stellar Populations and the Interstellar Medium	GULP: Galaxy UV Legacy Project
0067		Stellar Physics and Stellar Types	Outflows and Disks around Young Stars: Synergies for the Exploration of Ullyses Spectra (ODYSSEUS)
0749	110	Large Scale Structure of the Universe	Tension at the Breaking Point: Uncovering New Physics Through a Two-Rung Distance Ladder Measurement of the Hubble Constant
0130	198	Supermassive Black Holes and AGN	Mapping Gas Flows in AGNs by Reverberation
0443	259	Galaxies	3D-DASH: A Wide Field WFC3/IR Survey of COSMOS
0399		Stellar Populations and the Interstellar Medium	A Comprehensive Investigation of Gas-Phase Element Abundances and Extinction by Dust in the Large and Small Magellanic Clouds
0852		Large Scale Structure of the Universe	Constraining the masses of galaxy overdensities at z > 1 in CANDELS and COSMOS through weak lensing in the NIR
0033	28 + 24	Large Scale Structure of the Universe	TREASUREHUNT: Hubble's UV-Visible treasury imaging of the JWST NEP Time-Domain Field

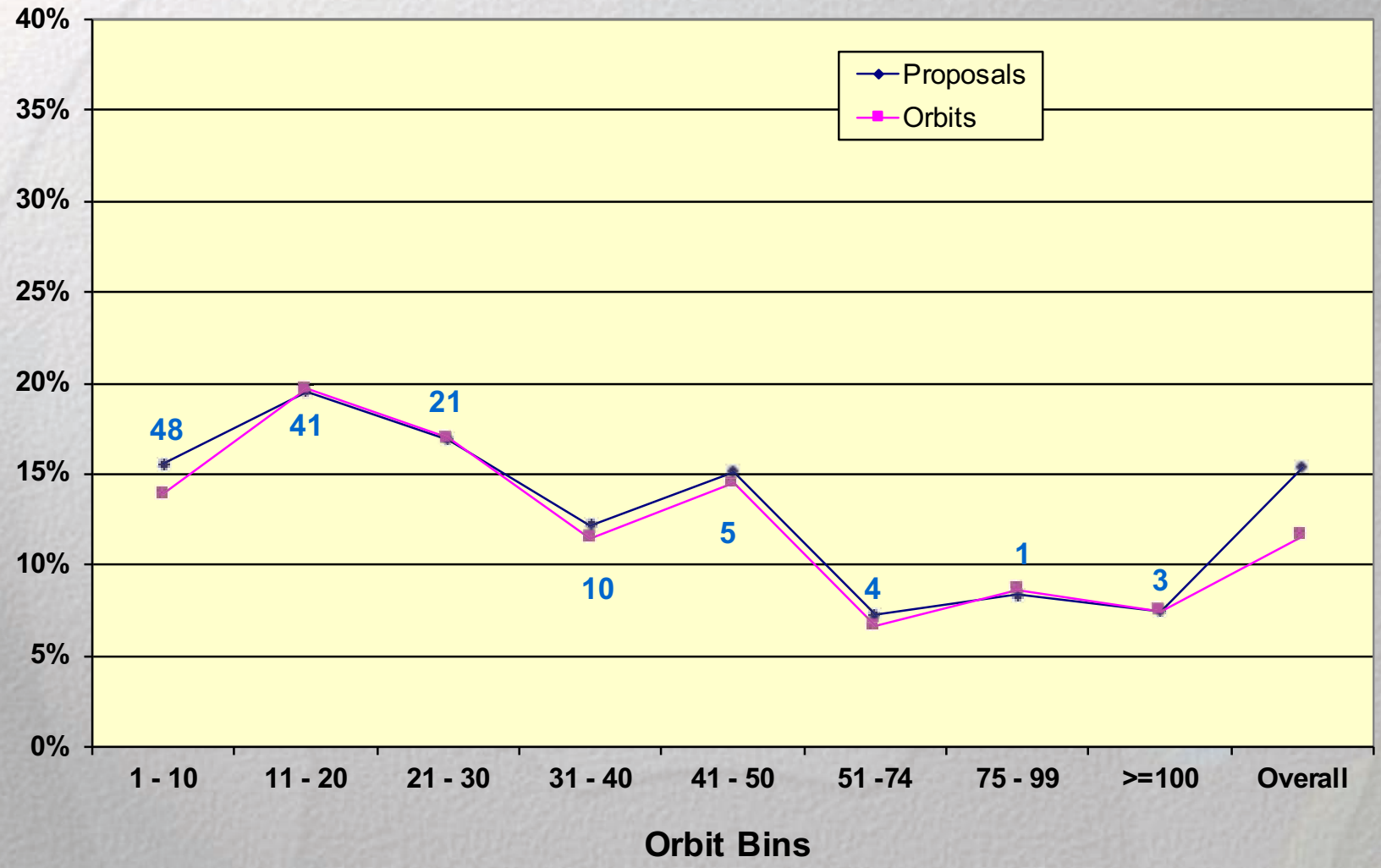
Medium Programs Recommended by the Panels

ID	Resources	Science Category	Title
0142	42	Large Scale Structure of the Universe	A Cool White Dwarf Network as a Precise Flux Reference for Dark Energy Surveys
0191	51	Stellar Populations and the Interstellar Medium	Solving the metallicity dependence of evolved star evolution and completing HST's near-IR legacy in the Local Volume
0260	57	Exoplanets and Exoplanet Formation	Essential Ultraviolet Stellar Characterization for Guaranteed JWST Transiting Planet Targets
0361	48	Stellar Populations and the Interstellar Medium	Andromeda and the Seven Dwarfs: M31 Mass, Satellite Orbits, and the Nature of the Satellite Plane
0434	36	Stellar Physics and Stellar Types	Pathways to compact white dwarf binaries
0459	45	Galaxies	WFC3 Spectroscopy of the Most Massive Galaxy Protoclusters at Cosmic Noon
0592	43	Intergalactic Medium and the Circumgalactic Medium	The Circumgalactic Medium at the Lowest Mass End
0600	58	Solar System Astronomy	Followup High-Precision Astrometry and Binary Searches of Potential New Horizons KBO Targets
0677	42	Supermassive Black Holes and AGN	High-redshift 3CR: witnessing the formation of the most massive galaxies, clusters and AGN in the Bright Ages
0872	36	Exoplanets and Exoplanet Formation	Probing mass loss from two mini-Neptunes orbiting a young solar analogue
1076	62	Stellar Physics and Stellar Types	Ultraviolet Spectroscopy of Extreme Standard Candles

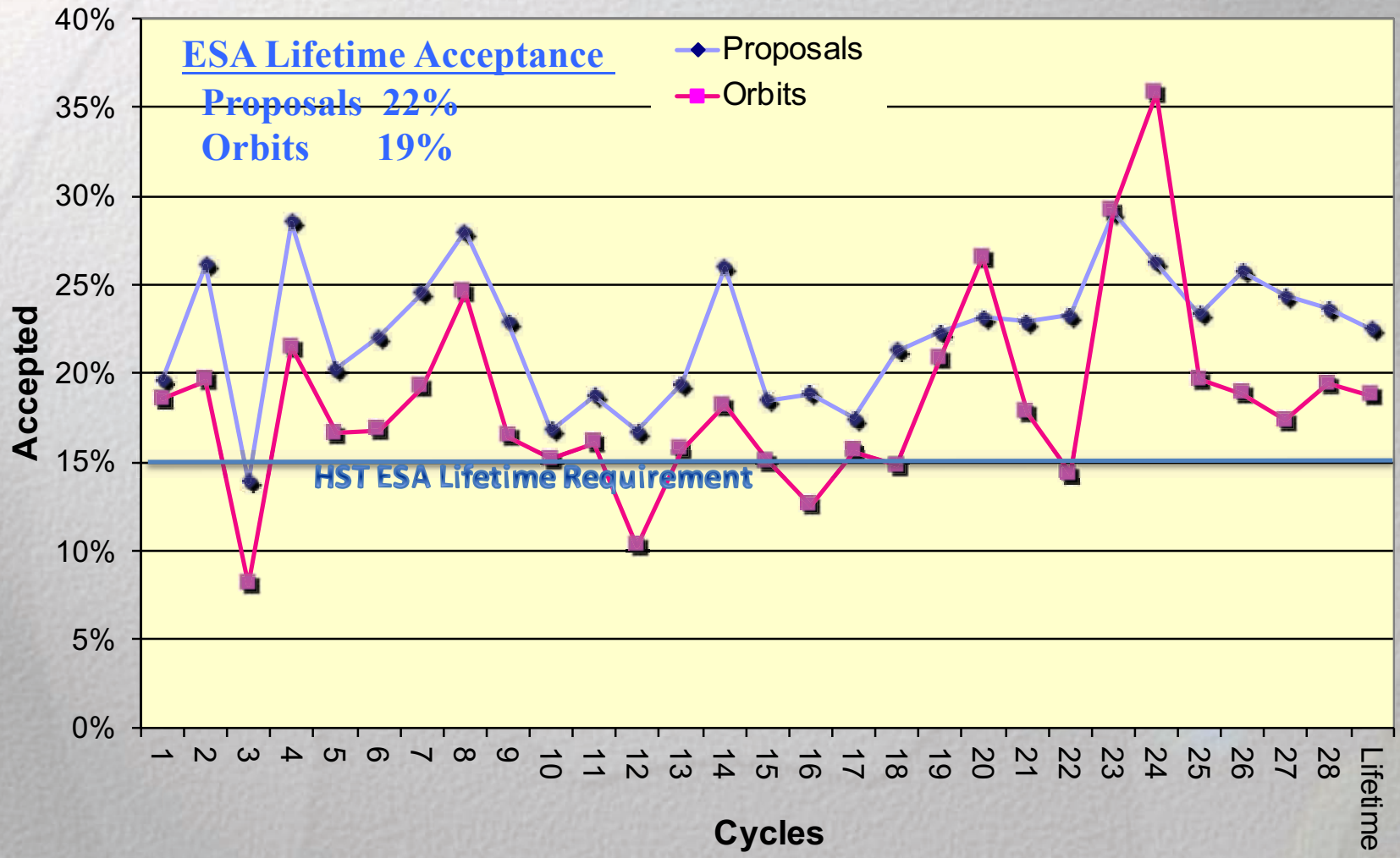
Over-subscription by Cycle



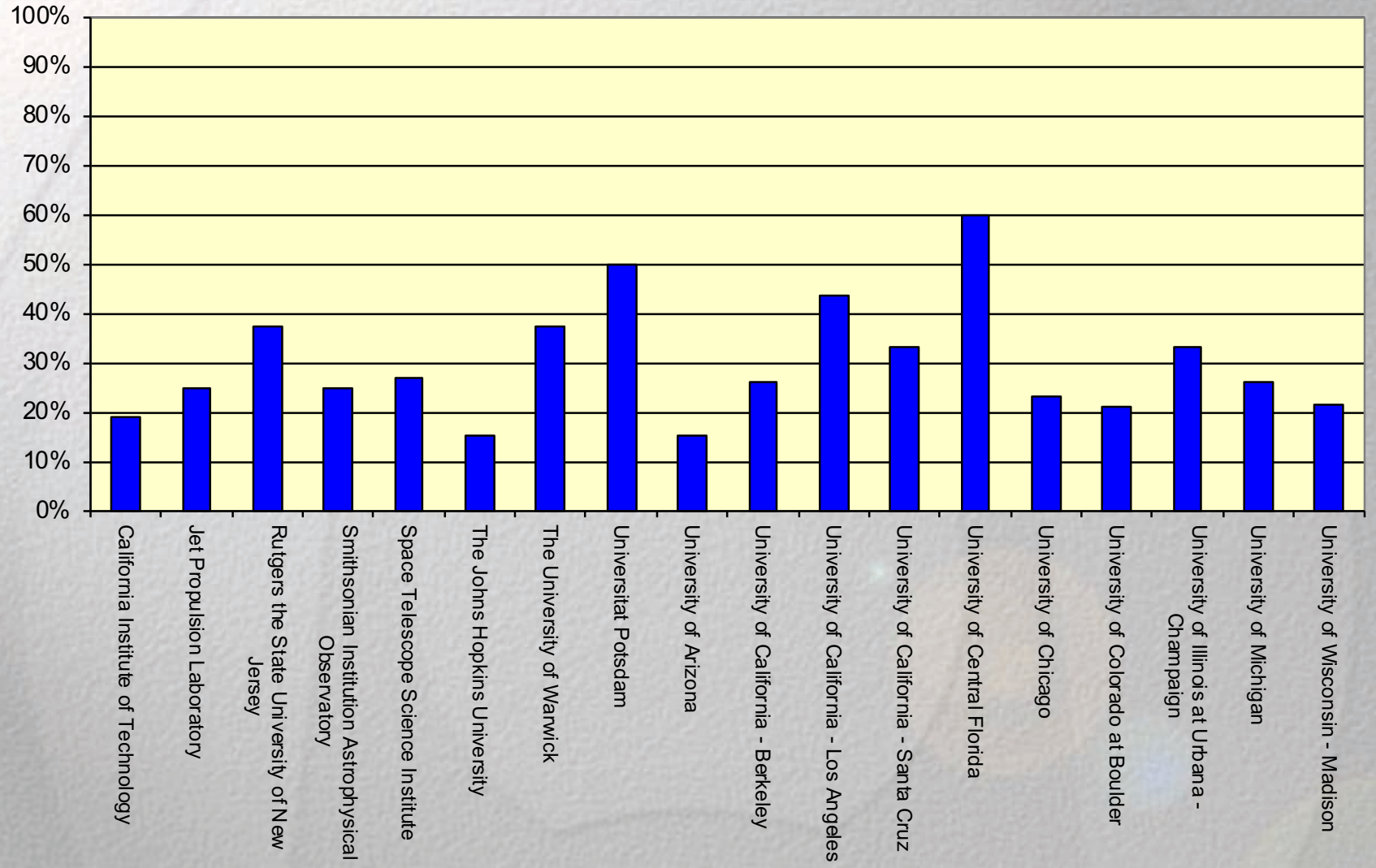
Acceptance Fraction by Size



ESA Acceptance Fraction

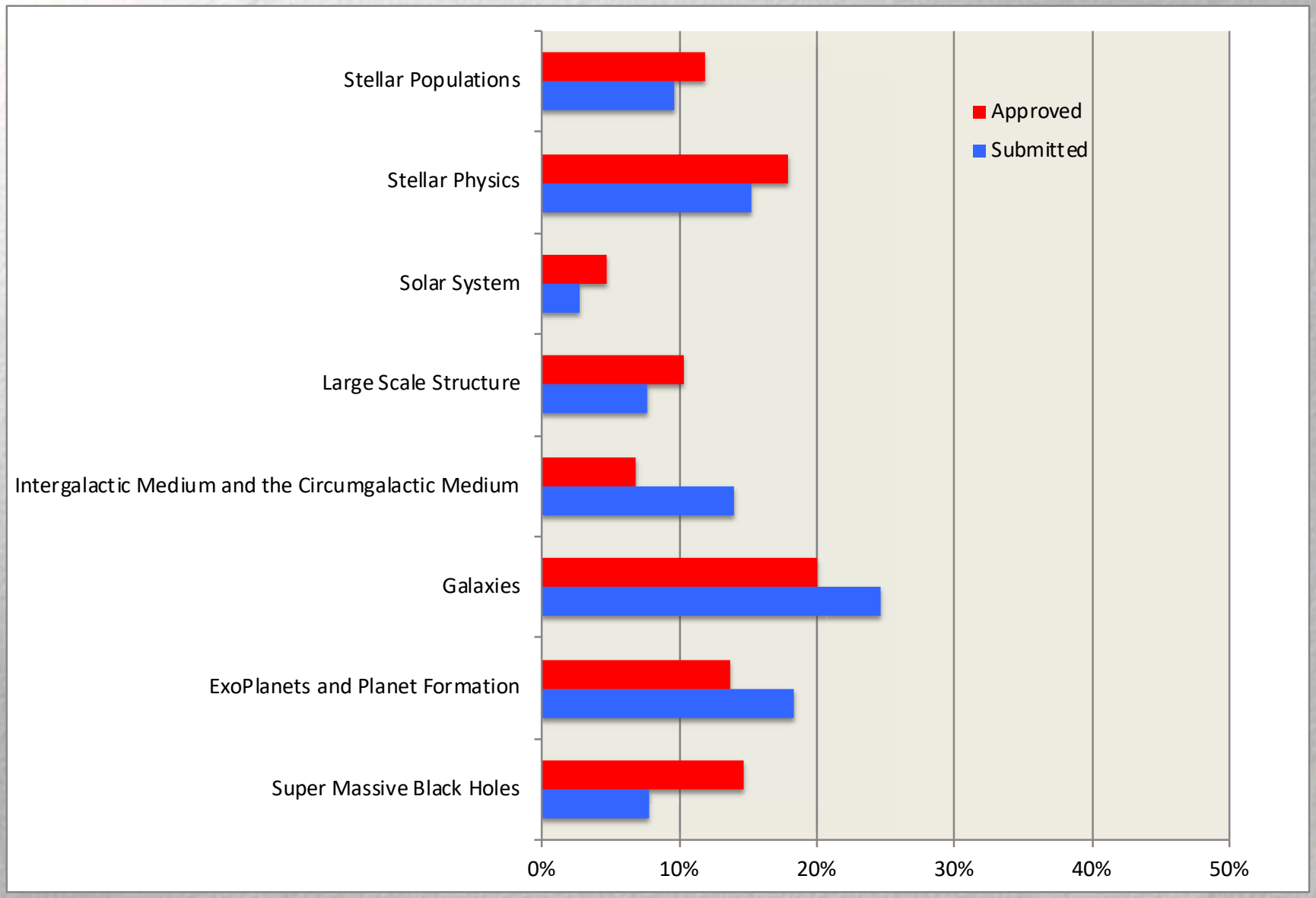


Proposal Institutional Acceptance Fraction

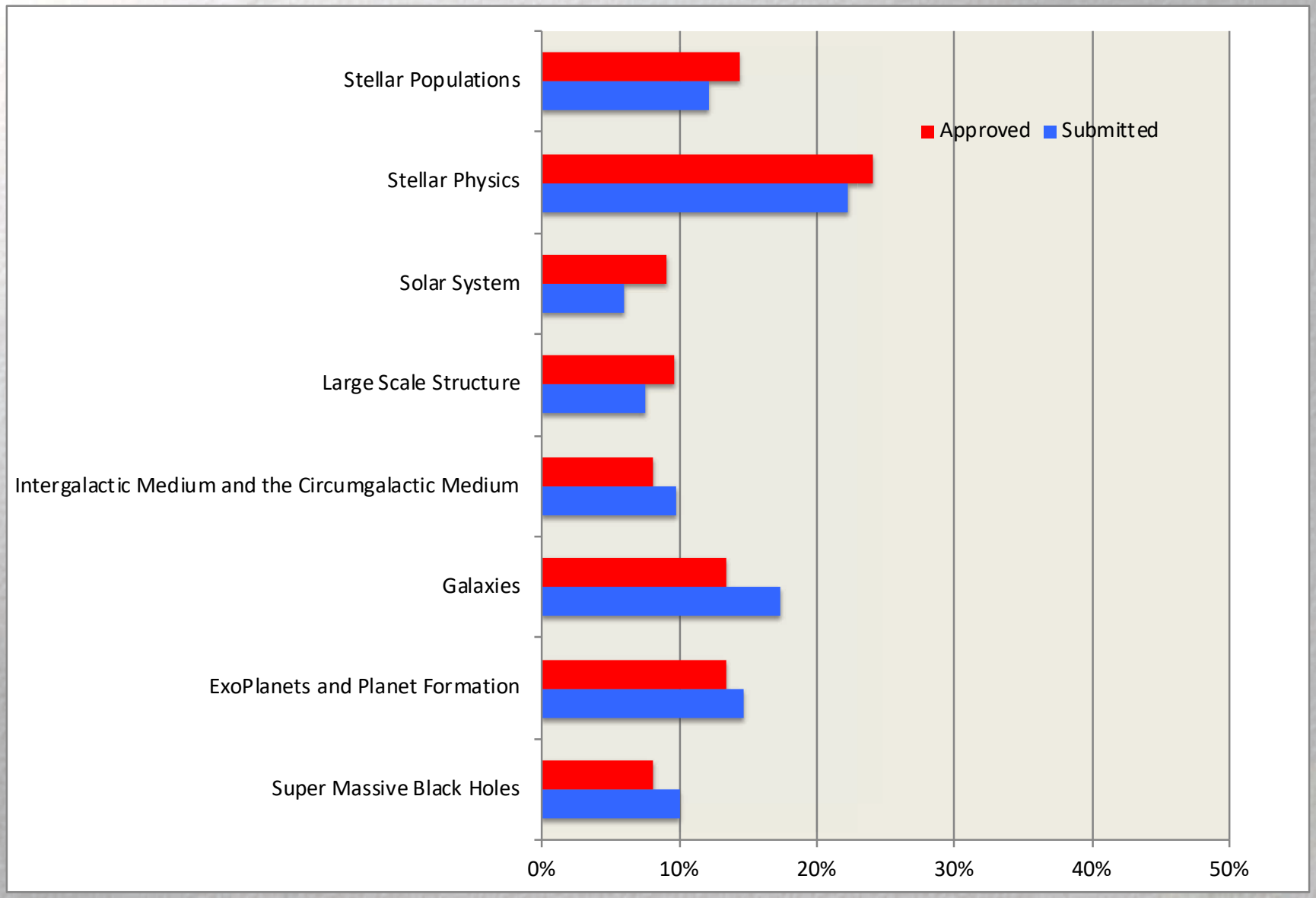


Only shows Institutions that have >=3 Proposals approved

Science Category Distribution for Orbits



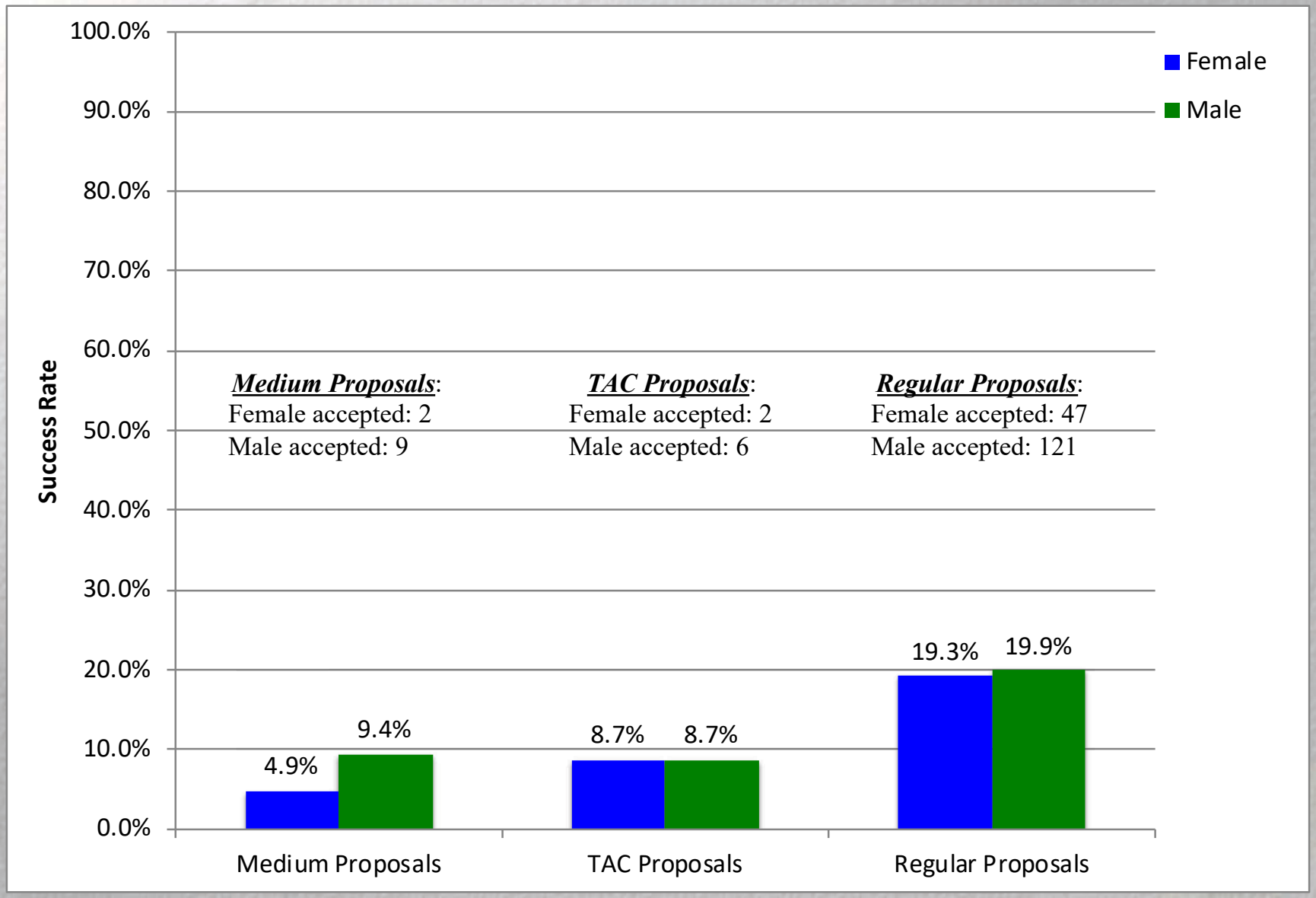
Science Category Distribution for Proposals



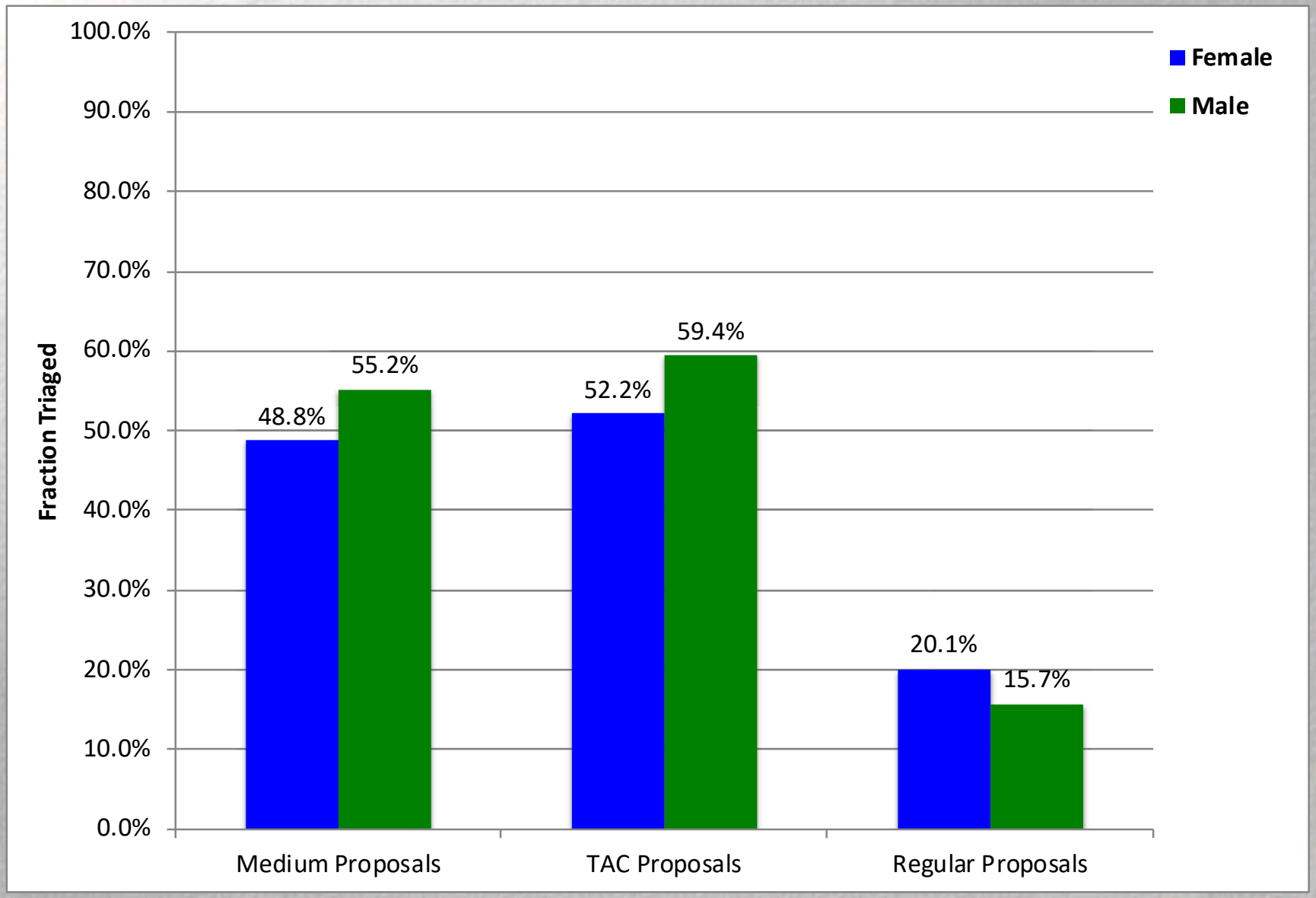
Instrument Summary

Configuration	Mode	Prime %	Coordinated Parallel %	Total	Instrument Prime Usage	Instrument Prime + Coordinated Parallel Usage	Pure Parallel Usage	Snap Usage
ACS/SBC	Imaging	4.2%	0.0%	3.8%			0.0%	0.0%
ACS/SBC	Spectroscopy	0.0%	0.0%	0.0%			0.0%	0.0%
ACS/WFC	Imaging	6.6%	41.6%	9.5%			0.0%	11.9%
ACS/WFC	Ramp Filter	0.1%	0.0%	0.1%	10.9%	13.5%	0.0%	0.0%
ACS/WFC	Spectroscopy	0.0%	0.0%	0.0%			0.0%	0.0%
COS/FUV	Spectroscopy	20.0%	0.0%	18.3%			0.0%	0.0%
COS/NUV	Imaging	0.0%	0.0%	0.0%	20.6%	18.9%	0.0%	0.0%
COS/NUV	Spectroscopy	0.6%	0.0%	0.5%			0.0%	0.0%
FGS	POS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FGS	TRANS	0.0%	0.0%	0.0%			0.0%	0.0%
STIS/CCD	Imaging	1.8%	0.0%	1.6%			0.0%	18.2%
STIS/CCD	Spectroscopy	5.2%	0.0%	4.7%			0.0%	0.0%
STIS/FUV	Imaging	1.0%	0.0%	0.9%	22.4%	20.5%	0.0%	0.0%
STIS/FUV	Spectroscopy	7.5%	0.0%	6.8%			0.0%	0.0%
STIS/NUV	Imaging	0.0%	0.0%	0.0%			0.0%	0.0%
STIS/NUV	Spectroscopy	7.0%	0.0%	6.4%			0.0%	8.6%
WFC3/IR	Imaging	12.9%	6.0%	12.3%			0.0%	13.8%
WFC3/IR	Spectroscopy	12.6%	0.0%	11.6%	46.1%	47.2%	0.0%	0.0%
WFC3/UVIS	Imaging	20.7%	52.4%	23.3%			0.0%	48.5%
WFC3/UVIS	Spectroscopy	0.0%	0.0%	0.0%			0.0%	0.0%
		100%	100.0%	100.0%	100.0%	100.0%	0.0%	100.0%

Gender Success Rates



Triage - Gender Distribution



Cycle 29 Preparations

- Cycle 29 will start on **10/1/21** and end on **9/30/22**
- The Cycle 29 HST TAC will have the same hybrid structure as the Cycle 28 TAC, with external panelists reviewing Small (< 16 orbits), SNAP and AR proposals.
- All other proposals will be exclusively reviewed by virtual panels.
- The reviews will again be dual-anonymous.
- All five instruments will be offered (if operational): ACS, COS, FGS, STIS, WFC3.
- The same proposal categories as in C28 will be offered.

Cycle 29 Panels (Small and Medium Proposals)

- *Solar System Panel* (major and minor planets and other bodies)
- *Planets and Planet Formation Panel* (Extra-solar Planets, Debris Disks)
- *Stellar Physics Panel* (Cool Stars, Hot Stars, Compact Stellar Objects, Resolved Star Formation, Circumstellar Matter)
- *Stellar Populations Panel* (Resolved Stellar Populations, ISM)
- *Galaxies Panel* (Unresolved Stellar Populations and Galaxy Structure, ISM in External Galaxies, Unresolved Star Formation)
- *CGM & IGM Panel* (CGM, IGM, QSO absorption lines)
- *Massive Black Holes and their Hosts Panels* (AGN/Quasars)
- *Large-Scale Structure of the Universe Panels* (Cosmology, Galaxy Clusters, Lensing, Distance Scale)

Cycle 29 Plans (cont.)

- The overall TAC Chair will be Ata Sarajedini (FAU).
- Chairs and Vice-Chairs for all 8 panels will be selected in October/November 2020.
- Each panel will have 7 – 8 Panelists and a Chair and Vice-Chair. Solar system will not have a Vice-Chair.
- The Panel Chairs and Vice-Chairs and three At-Large members will form the TAC.

Available Orbits in Cycle 29

- Roughly **2700** orbits available for Cycle 29 GOs. This is the same as in Cycle 28.
- Provisional break-down:
  - **600** orbits for the TAC (**Large** and **Treasury**)
  - **1400** orbits for the 8 Panels (**Small** GO with <35 orbits)
  - **700** orbits will be allocated for **Medium** proposals (35 – 74 orbits)
  - An additional 1000 Snapshot observations and 500 Pure-Parallel observations may be allocated.
  - Distribution may be adjusted based on proposal pressure.

Tentative Cycle 29 Proposal Review Schedule

- *01/13/21*: Call for Proposals release
- *04/09/21*: Phase I Proposal deadline
- *04/30/21*: Proposals made available to panels
- *05/28/21*: Grades and reviews due from panelists
- *06/04/21*: Triage results available to panels
- *06/14/21 – 06/18/21*: Panels and TAC meet
- *07/02/21*: Notifications sent out
- *07/30/21*: Phase 2 and budget deadlines

Backup: Details on the C28 Results

UV Initiative

- Target was 40% for panels and 50% for TAC
- Overall 42% for UV Proposals and 52% for orbits recommended
  - ⇒44% of TAC are UV Orbits
    - ⊃(total orbit request not all UV)
  - ⇒1500 of 2880 Orbits Recommended
  - ⇒11 of 44 ARs; 68 of 359 GOs

Targets of Opportunity

ID	Orbits	Disruptive Activations	Non-Disruptive Activations	Total Activations	Multi-Cycle	Type of ToO	Notes
0083	2		1	1	No	Active Asteriod	
0094	4	1		1	No	Next Interstellar Object	< 7 day activation
0121	17	1		1	No	Stripped Envelope Core Collapse SN	< 7 day activation
0146	15		1	1	Yes	Type IA with Dense CSM	
0149	9		1	1	No	Uranius Magnetosphere	
0293	22	1	2	3	Yes	Gravitationally Lensed Supernovae	3-5 day activation
0322	13	1		1	No	Ultra Rapid Tess Supernova	Rank 1
0357	10	1		1	Yes	Kilonova Short GRB	3-5 day activation
0502	12		8	8	No	Type Ia Supernova	
0889	18	1		1	No	Kilonova Short GRB	3-5 day activation
0935	6	1		1	No	Fast-Rising Luminous Transient	< 7 day activation
0968	14	2		2	Yes	Type Ia Supernova	< 10 day activation
1076	62	4		4	Yes	Type Ia Supernova	< 10 day activation
	204	13	13	26			

Chandra Coordinated Proposals

- 9 GO Proposals were submitted for 364 HST Orbits and 774 ksecs of Chandra time.
  - ⇒Panels recommend 4 for 293 HST Orbits and 275 ksecs of Chandra time
    - ⊃0091 Chromospheric and Coronal Activity in the Lowest-Mass Stars
    - ⊃0130 Mapping Gas Flows in AGNs by Reverberation
    - ⊃0260 Essential Ultraviolet Stellar Characterization for Guaranteed JWST Transiting Planet Targets
    - ⊃0385 Effects of recent periastron passage and eclipse in the symbiotic system R Aqr

XMM-Newton Coordinated Proposals

- 15 GO Proposals were submitted for 300 HST Orbits and 958.2 Ksecs of XMM-Newton time
  - ⇒Panels recommend 2 proposals 75 HST Orbits and 90 Ksecs of XMM
    - 0260 Essential Ultraviolet Stellar Characterization for Guaranteed JWST Transiting Planet Targets
    - 0889 Compact binary mergers: R-process kilonovae and ultra-relativistic jets

NOAO Coordinated Proposals

- 17 GO Proposals were submitted for 464 HST Orbits and 36.1 NOAO nights
  - ⇒Panels recommend 3 for 57 HST Orbits and 3.6 NOAO Nights
    - 0322 Early Ultraviolet Spectroscopy of a Nearby Supernova
    - 0502 Measuring the Effect of Progenitor Metallicity on Type Ia Supernova Distance Estimates
    - 0770 The First Measurement of the Distribution of Quasar Lifetimes with the HeII Proximity Effect

NRAO Coordinated Proposals

- 5 GO Proposals were submitted for 124 HST Orbits and 59.4 NRAO Hours
  - ⇒Panels recommend 2 for 17 HST orbits and 10.4 NRAO hours
    - ⊃0198 Exploring the origin of the M31-M33 filament
    - ⊃0385 Effects of recent periastron passage and eclipse in the symbiotic system R AQR

TESS Coordinated Proposals

- 2 GO Proposals were submitted for 56 HST Orbits and 2 TESS Targets
  - ⇒Panels recommend 1 for 26 HST orbits and 1 Target
    - ⊃1014 Digging deep into massive star variability: Do massive stars vary due to internal gravity waves or stellar winds?