

# **2019 Large Facilities Workshop & Envisioning the Future of Facility Science and Cyberinfrastructure**

Texas Advanced Computing Center (TACC)

Austin, Texas

April 2-5<sup>th</sup>

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# Overview

- 2019 Workshop Session Highlights
- Quick Status of Projects in Design and Construction
- Developments & Priorities since the 2018 Workshop
- Budget & Lapse (Teresa Grancorvitz, CFO)



# 2019 Workshop Session Highlights

- Major Facilities Guide
- Recipient Core Competencies
- Communication, Education & Outreach
- Data, Privacy and Cyber
- Project Transitions – Design and Operations
- Cost & Risk
- Knowledge Management

**Special Thanks to the Workshop Planning Committee!**

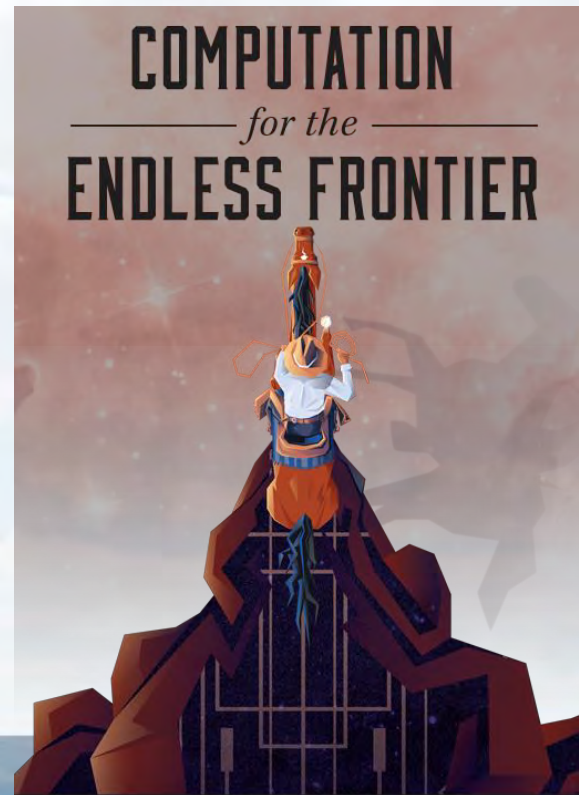


# Quick Status of Project in Design & Construction



# Approved Projects in the NSF Design Stage

- Large Hadron Collider High Luminosity Upgrade – Final Design
- **Leadership-Class Computing – Conceptual Design (March 2019)**



# Approved Projects in the NSF Construction Stage

- National Ecological Observatory Network (NEON) – **Complete!**
- Large Synoptic Survey Telescope (LSST)
- Daniel K. Inouye Solar Telescope (DKIST)
- Region Class Research Vessel (RCRV) – **3 ships**
- **Antarctic Infrastructure Modernization for Science (AIMS) – Feb 2019**



## Authorized Projects in the NSF Construction Stage

	% Complete (Actual)	Cost Performance Index (CPI)		Schedule Performance Index (SPI)		EVM Data
DKIST	88%	1.02	==	0.97	==	Nov-18
LSST	63%	0.97	==	0.97	==	Nov-18
NEON	98%	1.02	==	0.97	==	Nov-18
RCRV	9%	-		-		Nov-18



# Developments and Priorities since the 2018 Workshop





# NSF Branding

- Supplemental T&C's - *Article 28. Acknowledgement*
- ***(e) Signage & Markings - Reach out to your Program Officer!***
  - Funding
  - Timeline
  - Design
- Future naming opportunities (NSF Guidance)



# Harassment

- CA T&C's - *Article 47. Notification Requirements*
  - Any finding/determination/action for PI or Co-PI
  - [www.nsf.gov/harassment](http://www.nsf.gov/harassment)
- Considerations:
  - Safety & security of personnel funded on award
  - Overall impact on activity/investment
  - Actions taken
- Potential actions:
  - Removal of PI/Co-PI
  - Reduction or termination of award

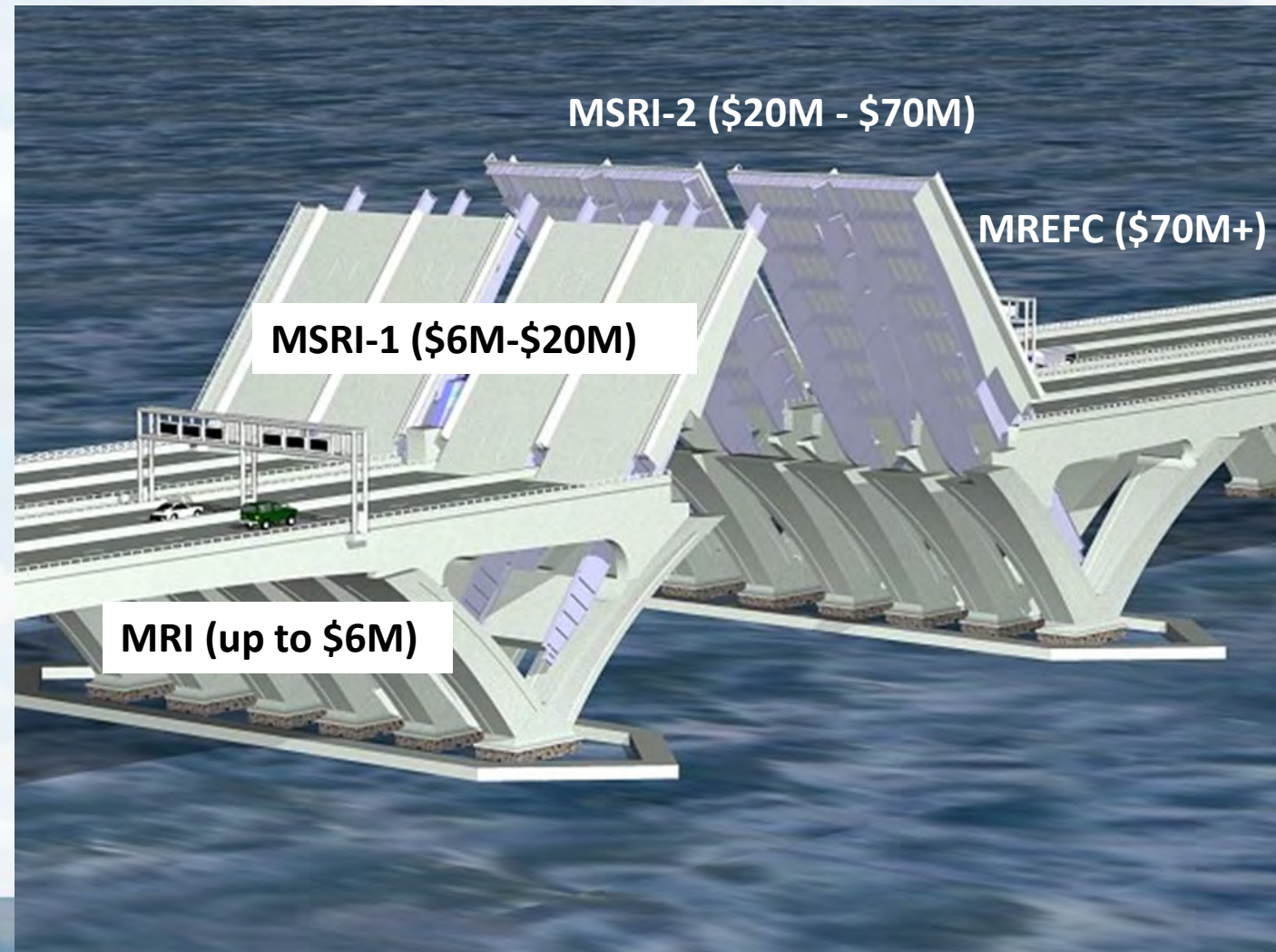


# Mid-scale Research Infrastructure (MSRI)

- New Centralized Programs
- **MSRI-1** – FY 2019 (R&RA)
- **MSRI-2** - FY 2020 (MREFC)
- New **Section 5** of the MFG

**10 BIG IDEAS:** “Lowering the threshold for MREFC expenditures, with appropriate modification of processes, would increase the flexibility for excellent science to be done across the agency.”

Dr. Córdoba



# GAO Reviews of NSF Major Facilities

## GAO-18-370

- Revise NSF policies to better meet GAO good practices on cost & schedule
- **NSF's interpretation of GAO Guides & documentation:**
  - New Scheduling Section of MFG [Reserved]
  - Up-dates to Section 4.2 of MFG
  - Document and align internal NSF practices

## GAO-19-227

- Assess NSF's Large Facility Oversight Workforce (**PMIAA Next Steps**)
- Recipient Project Management Expertise (**Key Personnel Core Competencies**)
- Recipient Lessons-Learned/Best Practices (**Requirement or "other means"**)
- Ensure LSST schedule meets GAO good practices (**Interpretation/Documentation**)



# Socio-Economic Impact

- **R**esearch **I**nfrastructure im**P**act **A**ssessment pa**TH**way**S**
- H2020 project
- 2019 Impact Assessment (IA) Model Report:
  - Categorization of impacts
  - Charting impact pathways
  - Assigning relevant impact indicators
  - Choosing the most appropriate measurement methods
- 2020 deliverables for RI operator use

<https://ri-paths.eu/>



# G7 Group of Senior Officials (GSO)

## Global Research Infrastructures (GRI)

- U.S. hosted 11<sup>th</sup> meeting – May 2018 (MagLab)
- **MagLab, NEON & LBNF-DUNE** case studies to inform revisions to the GRI “good practice” Framework
- U.S. Objectives:
  - **Reciprocity (Access & Data)**
  - **Interoperability**

<https://ec.europa.eu/...>



# Federal Budget



# FY 2019 House and Senate Actions

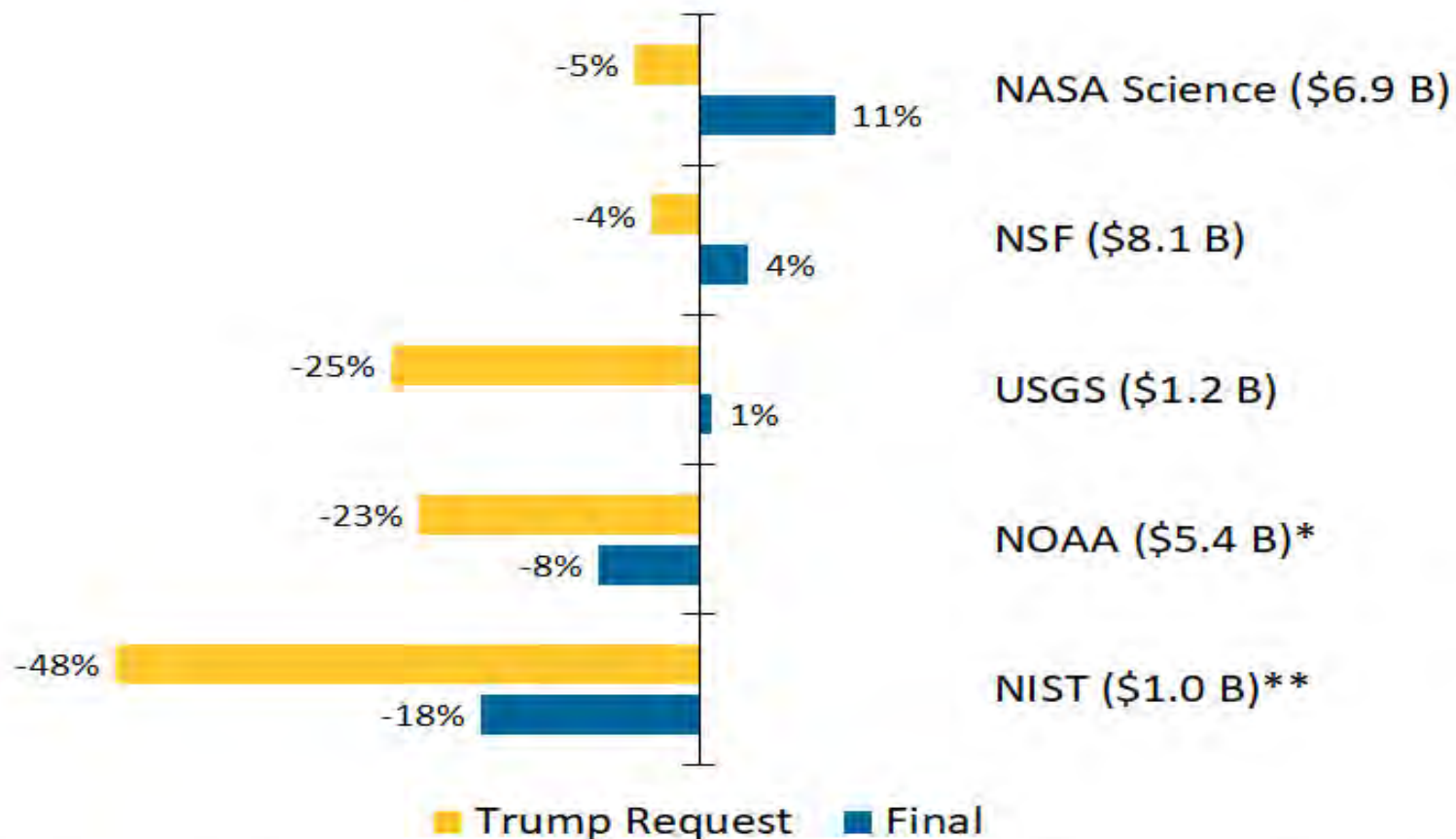
	Amount	Change from FY 2018 Enacted	Change from FY 2019 Request
House Committee Mark	\$8.175B	\$408M (5%)	\$703M (9%)
Senate Committee Mark	\$8.069B	\$301M (4%)	\$597M (8%)
Final Appropriation	\$8.075B	4%	8%





# FY 2019 Appropriations for Selected Agencies

% Change from FY 2018 Enacted

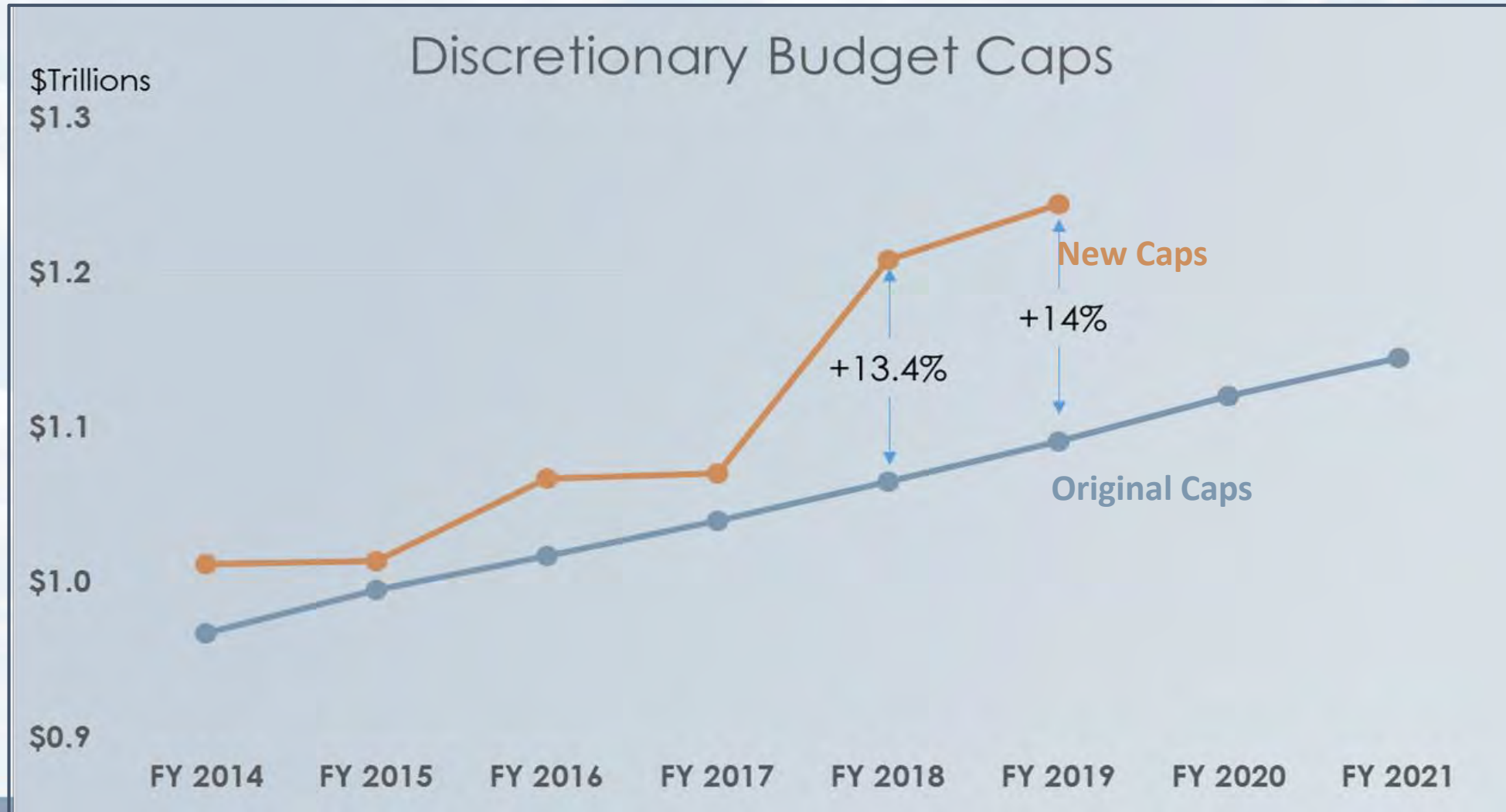


\* The decrease for NOAA is largely due to a planned ramp down in funding for satellite acquisition programs. NOAA's Office of Atmospheric and Oceanic Research is slated to receive a 3% budget increase.

\*\* The decrease for NIST is due to a large drop in funding for the facility construction account, which Congress funded at an elevated level last year. The overall budget for NIST's research programs will stay steady at \$725 million.



# Bipartisan budget act of 2018



# FY 2020 Request

- \$7.066B
- \$752M (10%) below FY 2019 Enacted



<https://www.nsf.gov/about/budget/fy2020/index.jsp>



# Lapse Lessons-Learned for Major Facilities

- Administration's guidance to agencies varies with each lapse
- Amount of funding obligated to Major Facilities:
  - Clearer understanding of obligations, draws and cash flow requirements
  - Agency-wide practice on obligations to support sustained operations



QUESTIONS?

