



EXPLORE SOLAR SYSTEM & BEYOND

A History of R&A Funding in PSD

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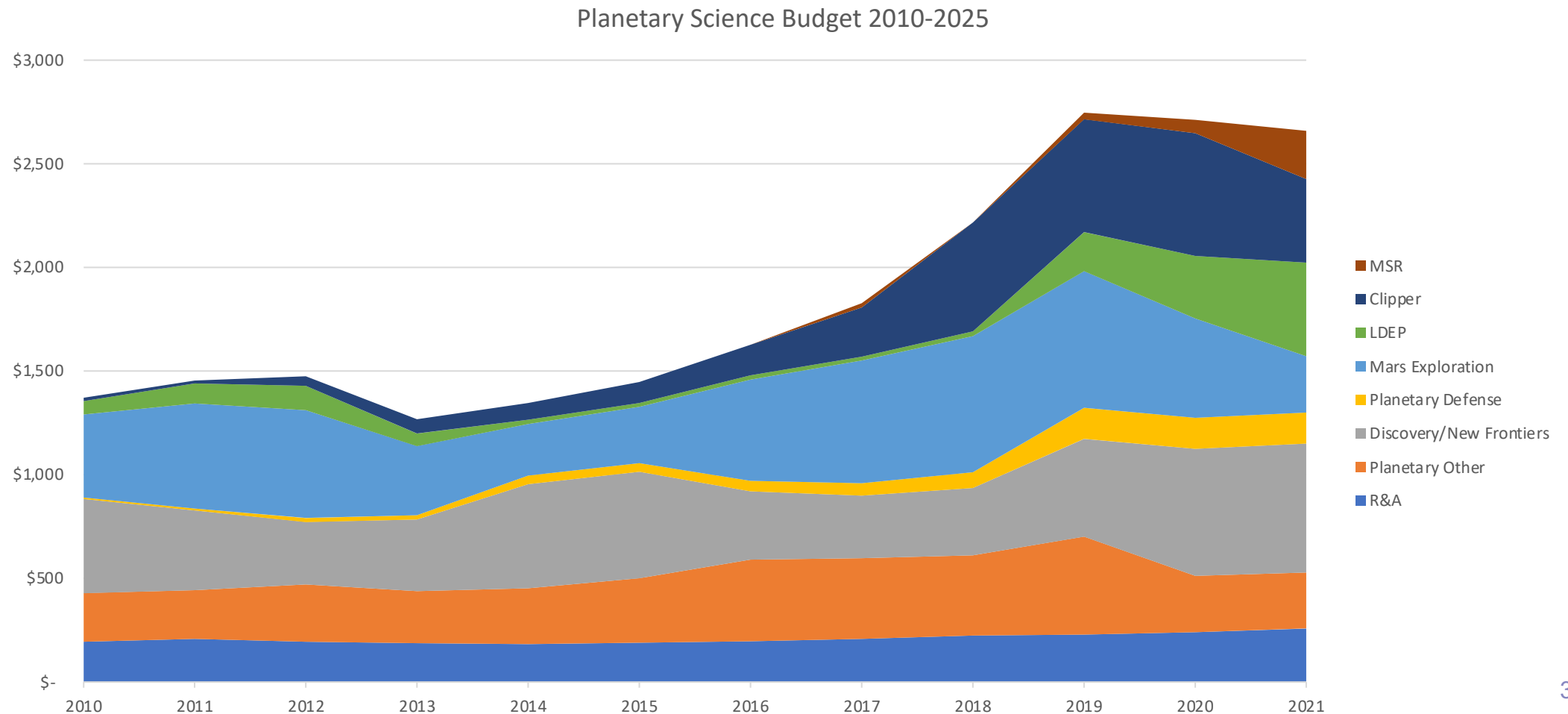
January 22, 2021



Big Picture View



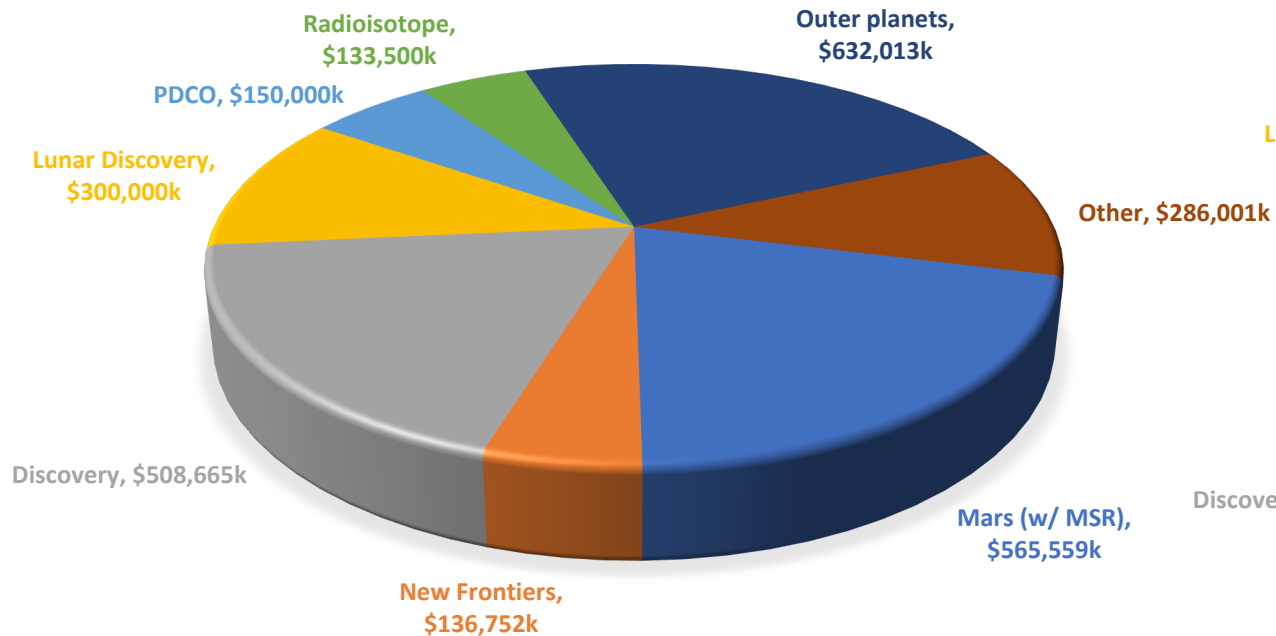
PSD Budgets over the last decade



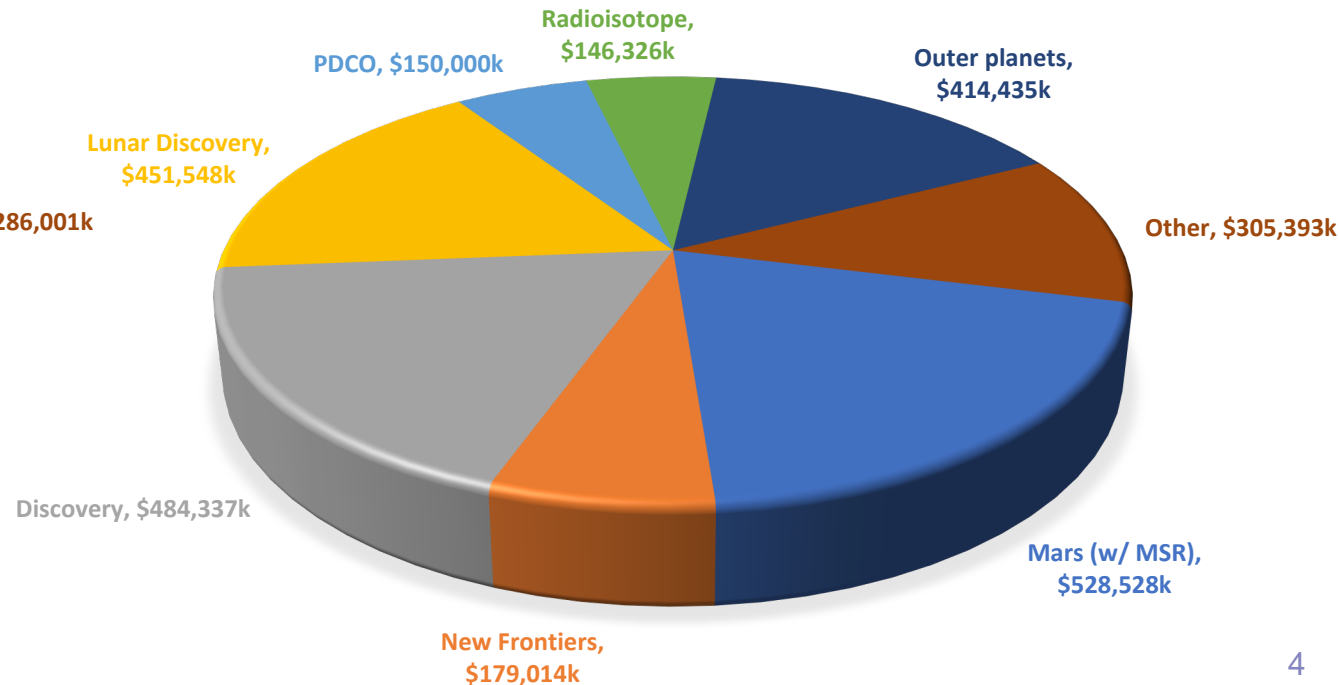
Budget for FY21

NASA's FY21 Appropriation has been passed: HQ is working on developing an operating plan now.

FY20 PSD BUDGET



FY21 PRESIDENT'S BUDGET REQUEST





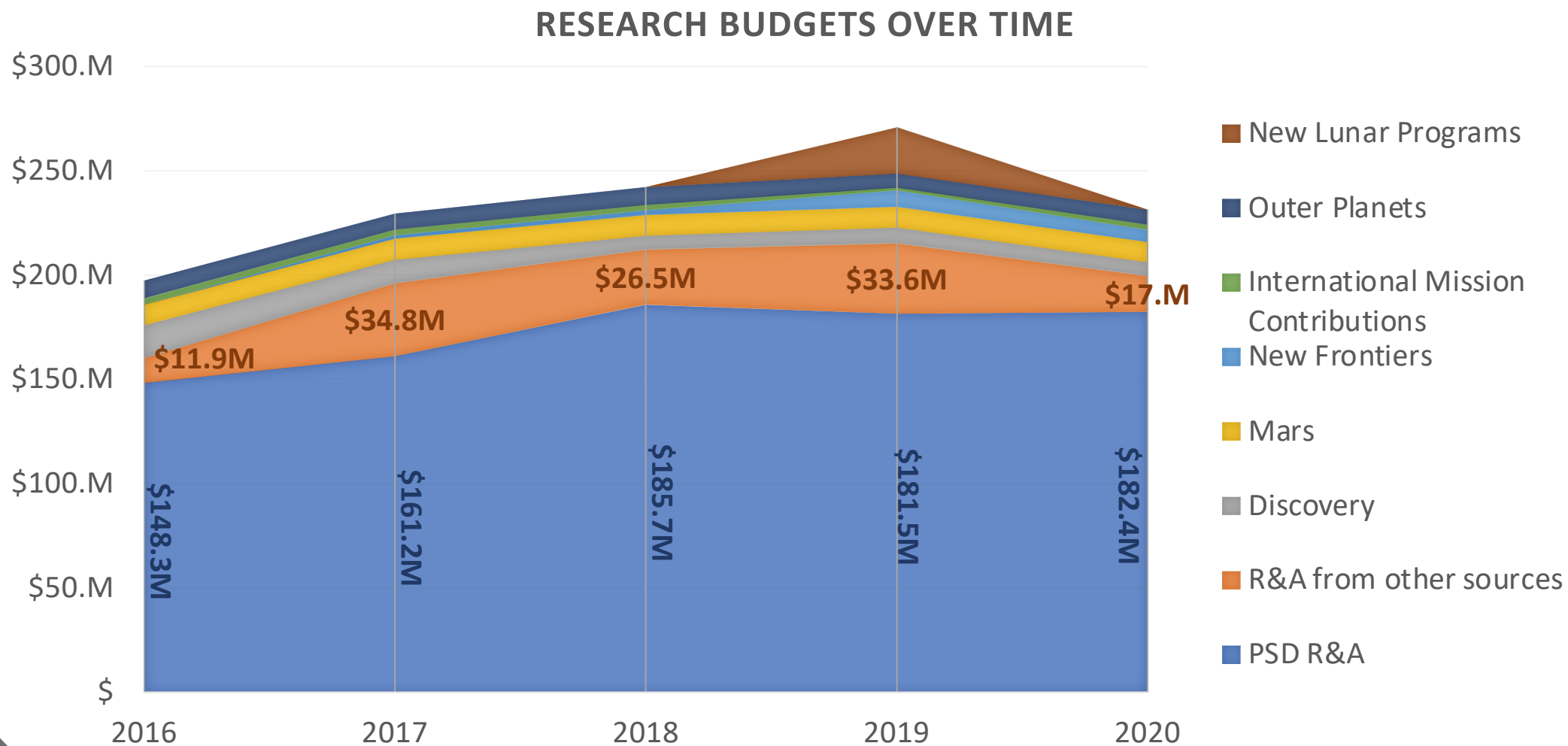
R&A Recommendation from Visions and Voyages

“the committee recommends that NASA increase the research and analysis budget for planetary science by 5 percent above the total finally approved FY2011 expenditures in the first year of the coming decade, and increase the budget by 1.5 percent above the inflation level for each successive year of the decade.”

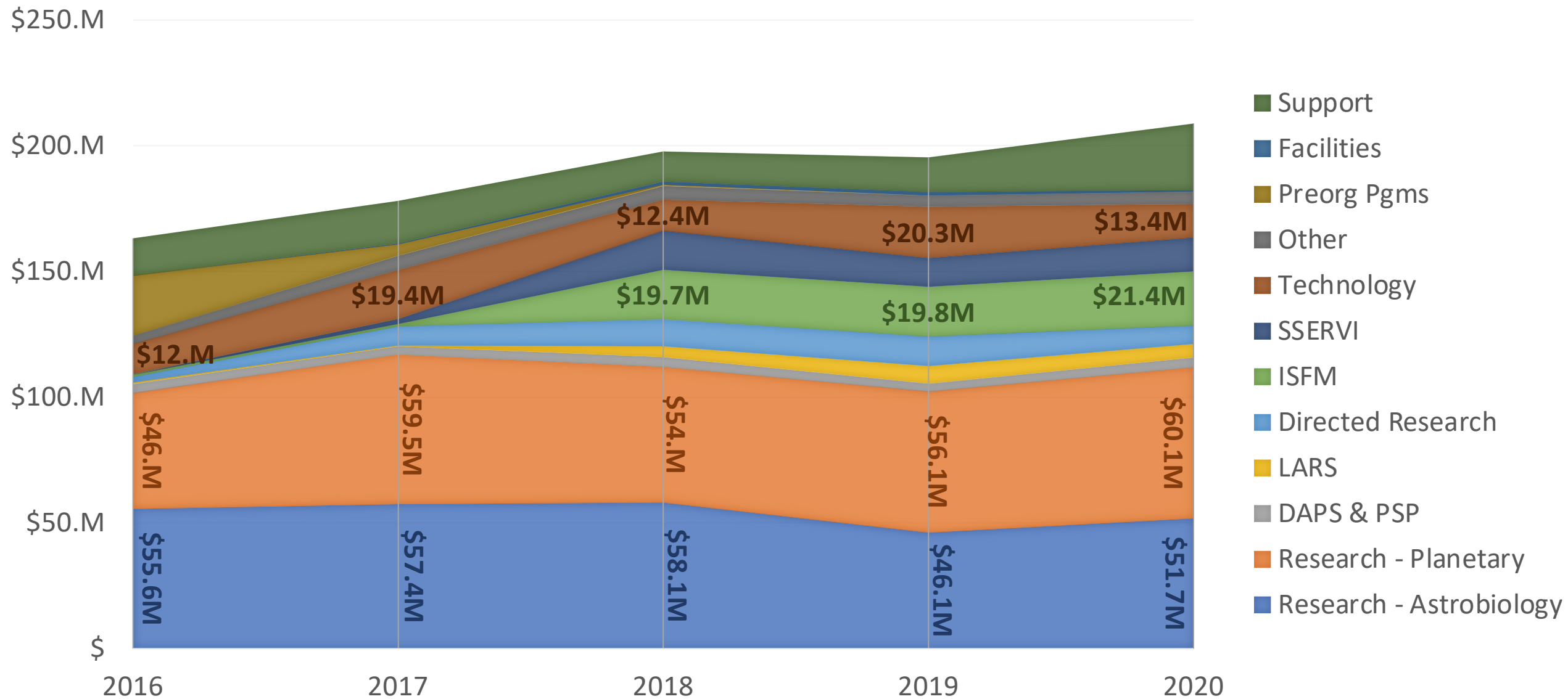
The overall growth of R&A (integrated over all years) exceeds this recommendation. Growth year-by-year exceeded this recommendation in all years except 2019 and 2020.

At present, R&A is 8.8% of the total PSD budget.

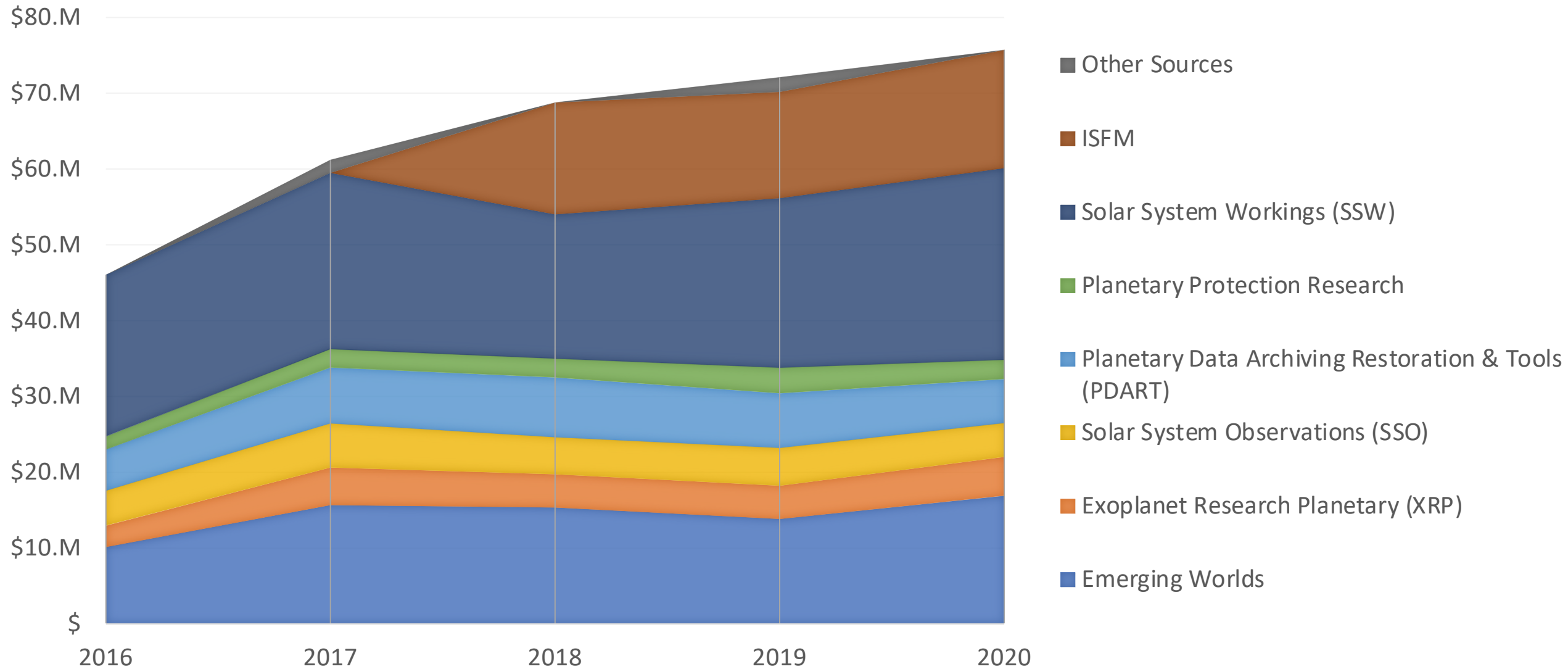
The Last Five Years



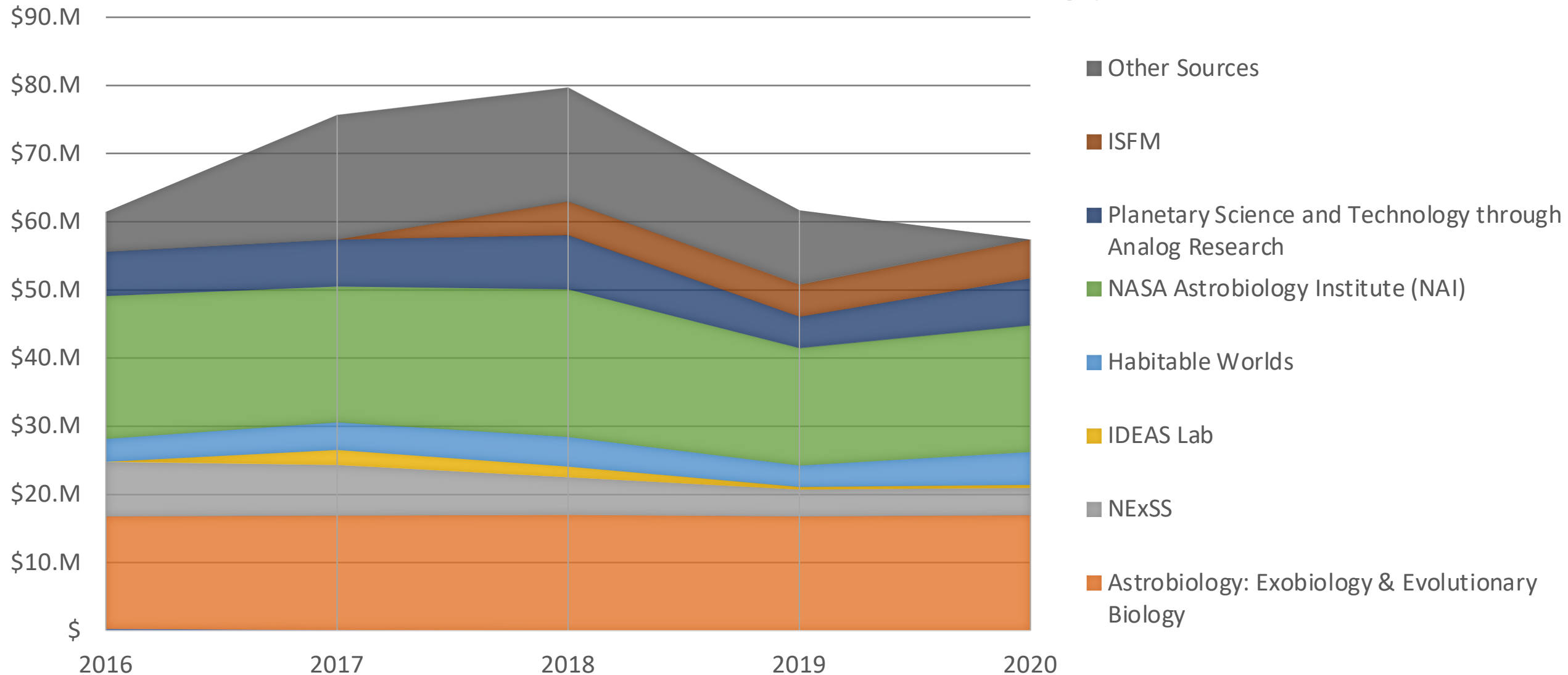
PSD R&A (811073) Overview



Research – Planetary



Research – Astrobiology

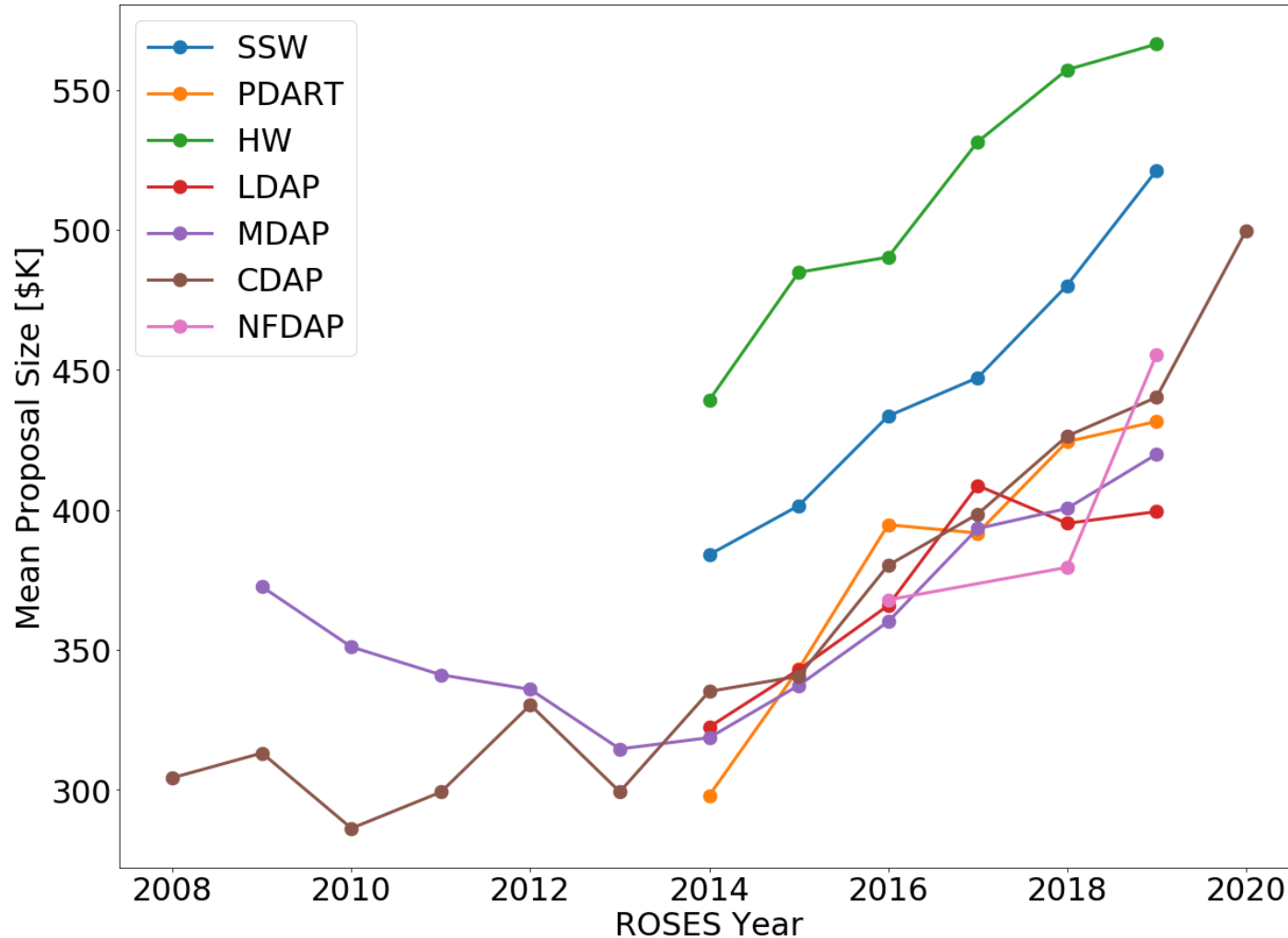




Other Historical Trends

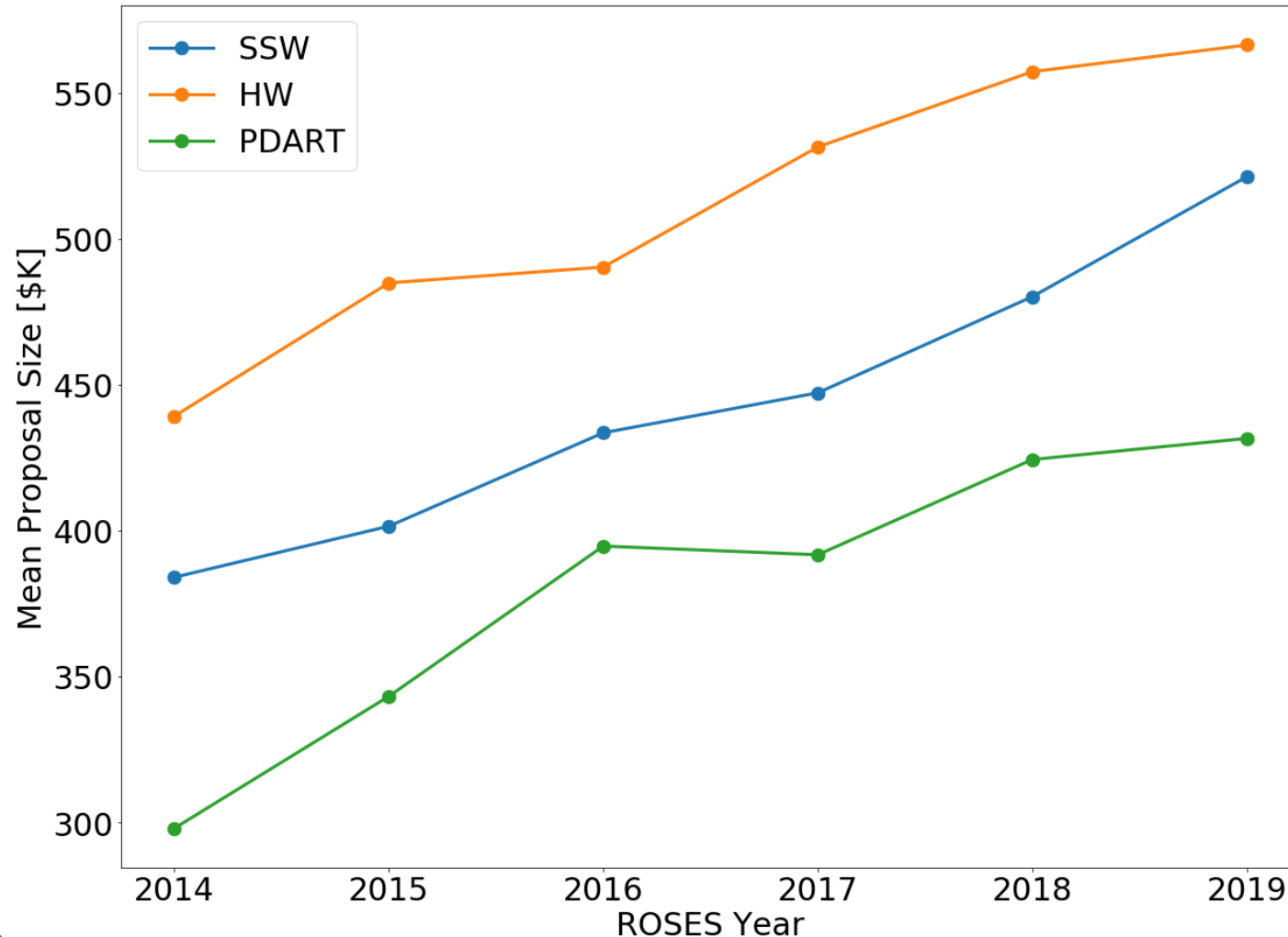


Trends in Requested Budgets (1)



Looking at just a few programs, plot the mean requested budget for proposals versus ROSES year:

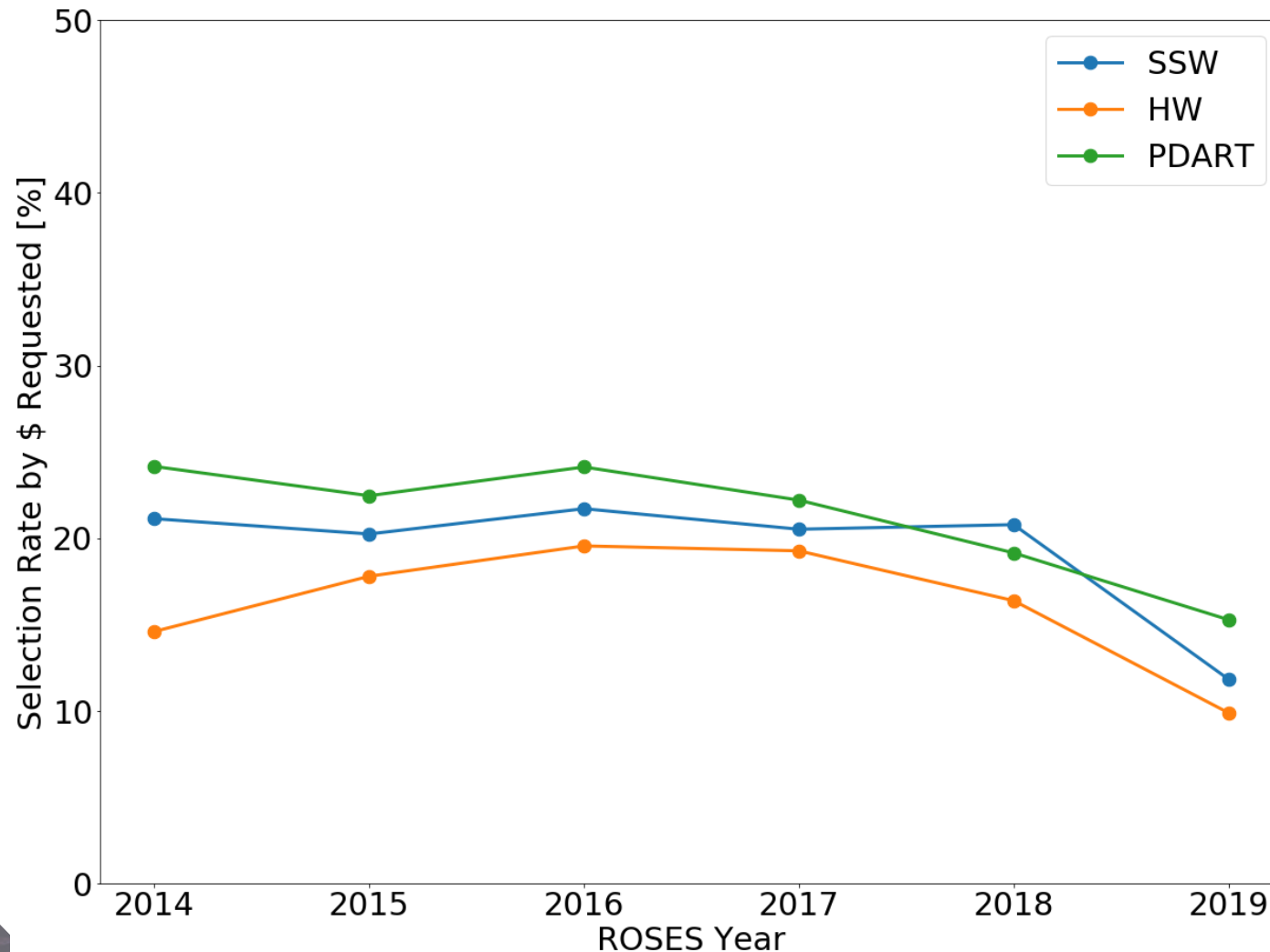
Focus on three core programs



Since 2014, requested budgets are growing by ~6%/year (on average)

Couple this with (smaller) increases in the number of proposals received: Total budget request for SSW has grown by 53% in 5 years. Program budget has grown by 18%

Drops in selection rates



Even before budget cuts in 2019/2020, we were starting to see selection rates fall.

Budget requests have grown faster since 2014 than the R&A budget.

(Reminder: budget year generally lags ROSES year by 1 year.)



Current Challenges





COVID Augmentations

All Divisions in SMD set aside 15% of funding for new awards to provide augmentations for early-career researchers impacted by COVID.

The high level of response to the EOI resulted in tighter constraints on requests.

As of January 8:

- SMD had received over 100 requests totalling ~\$13M
- PSD had 40 requests (including 3 cross-divisional requests) totaling ~\$4.5M. This is over half of the funding available for such augmentations.



The Past

In both 2019 and 2020 we saw significant cuts to R&A: with a healthy budget, it may take a little time to recover from those years. Why?

- Increased proposal rates? Do we have a "backlog" of proposals that weren't funded?
- Deferred expenses: one tool for balancing budgets in the lean years is to defer expenses to future years.
 - Pressure to maintain selection rates led to some of these deferments



Summary





Summary

The R&A budget has grown substantially since the last Decadal (over 50%).

- In FY20, R&A was 8.8% of the total PSD budget
- A combination of factors have resulted in falling selection rates:
 - Growth in total requested funding from the community which far outpaces growth in R&A budgets
 - Budget cuts in 2019 and 2020

PSD leadership is committed to protecting R&A and ensuring its long-term health.