Planetary Science R&A

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Planetary Science R&A Lead

Planetary Science Subcommittee Meeting
Washington, DC
March 30, 2015

PSD R&A ROSES 14

Program Name	Step-1 Due Date	Step-2 Due Date
Emerging Worlds (EW)	***03/31/2014***	***06/04/2014***
Exoplanets (XRP)	***03/31/2014***	***05/23/2014***
Exobiology	***04/14/2014***	***06/03/2014***
Solar System Obs. (SSO)	***04/07/2014***	***06/06/2014***
MatISSE	***04/21/2014***	***06/20/2014***
Laboratory Analysis of Returned Sample (LARS)	***04/28/2014***	***06/27/2014***
Solar System Workings (SSW)	***05/23/2014***	***07/25/2014***
Planetary Data Archiving, Resto, Tools (PDART)	***07/17/2014***	***09/17/2014***
Discovery Data Analysis (DDAP)	***07/21/2014***	***09/19/2014***
Planetary Sci./Tech. Throu Analog Research (PSTAR)	***07/25/2014***	***09/26/2014***
Cassini Data Analysis (CDAP)	***07/28/2014***	***09/26/2014***
Mars Data Analysis (MDAP)	***08/04/2014***	***10/03/2014***
Lunar Data Analysis (LDAP)	***08/29/2014***	***10/24/2014***
PICASSO	***09/15/2014***	***11/14/2014***
Habitable Worlds (HW)	***11/24/2014***	***01/23/2015***

Proposal Decisions

Program Name	Step-1 Submissions	Step-2 Submissions	Selected (* Pending)
EW	219	159	32
SSW	509	384	56*
Exobiology	186	144	Pending
SSO	99	71	21
PDART	143	100	20*
CDAPS	101	78	19*
DDAP	32	27	10
LARS	29	24	9
XRP	168	134	21/11†
MDAP	139	104	Pending
LDAP	82	51	Pending
PSTAR	69	46	7
HW	110	72	Review Pending
MatISSE	55	44	5*
PICASSO	112	96	Pending

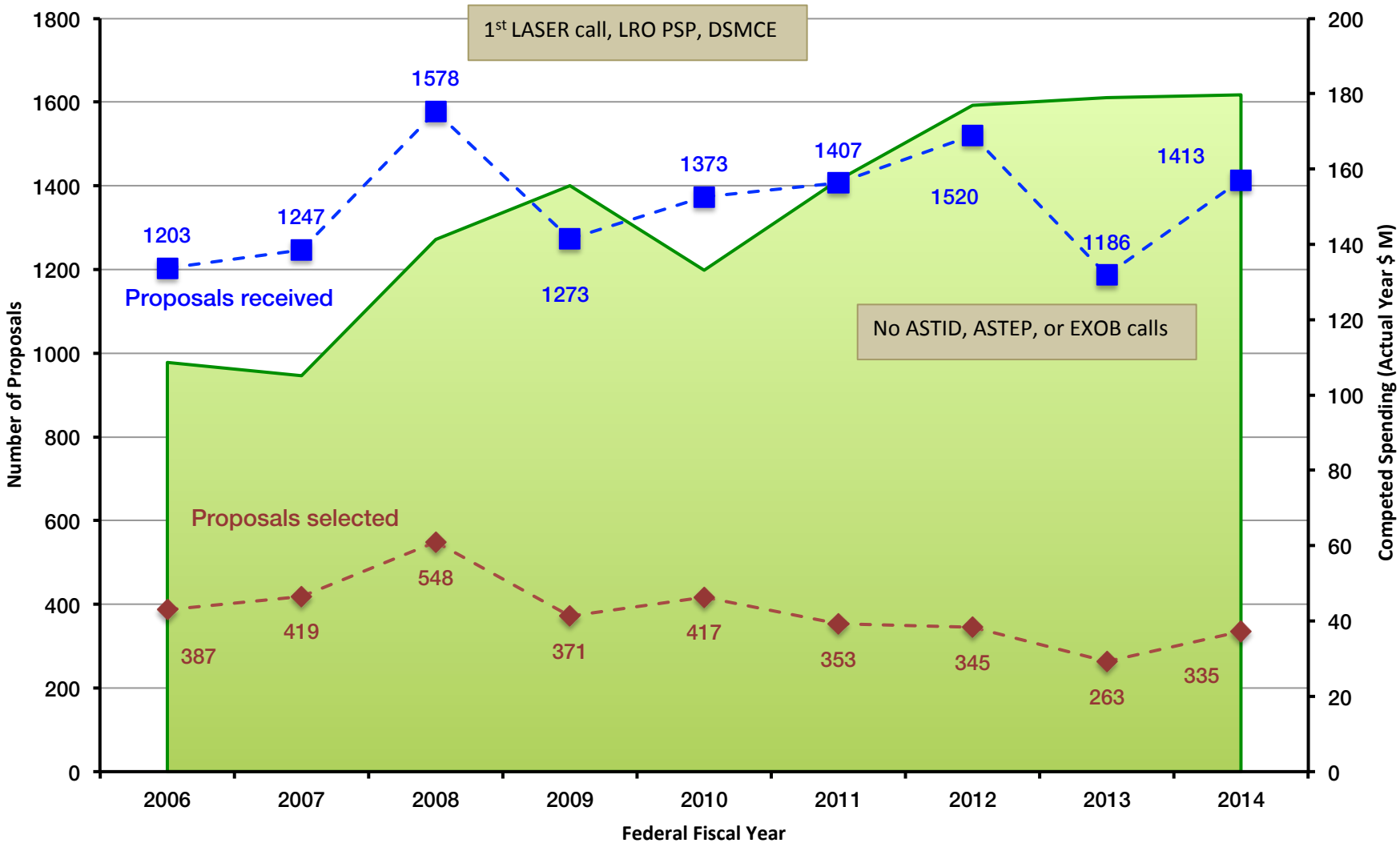
Trends in the PSD R&A Program 2004-2013

Big thanks to Susan Keddie, Michael New, and Jeff Grossman

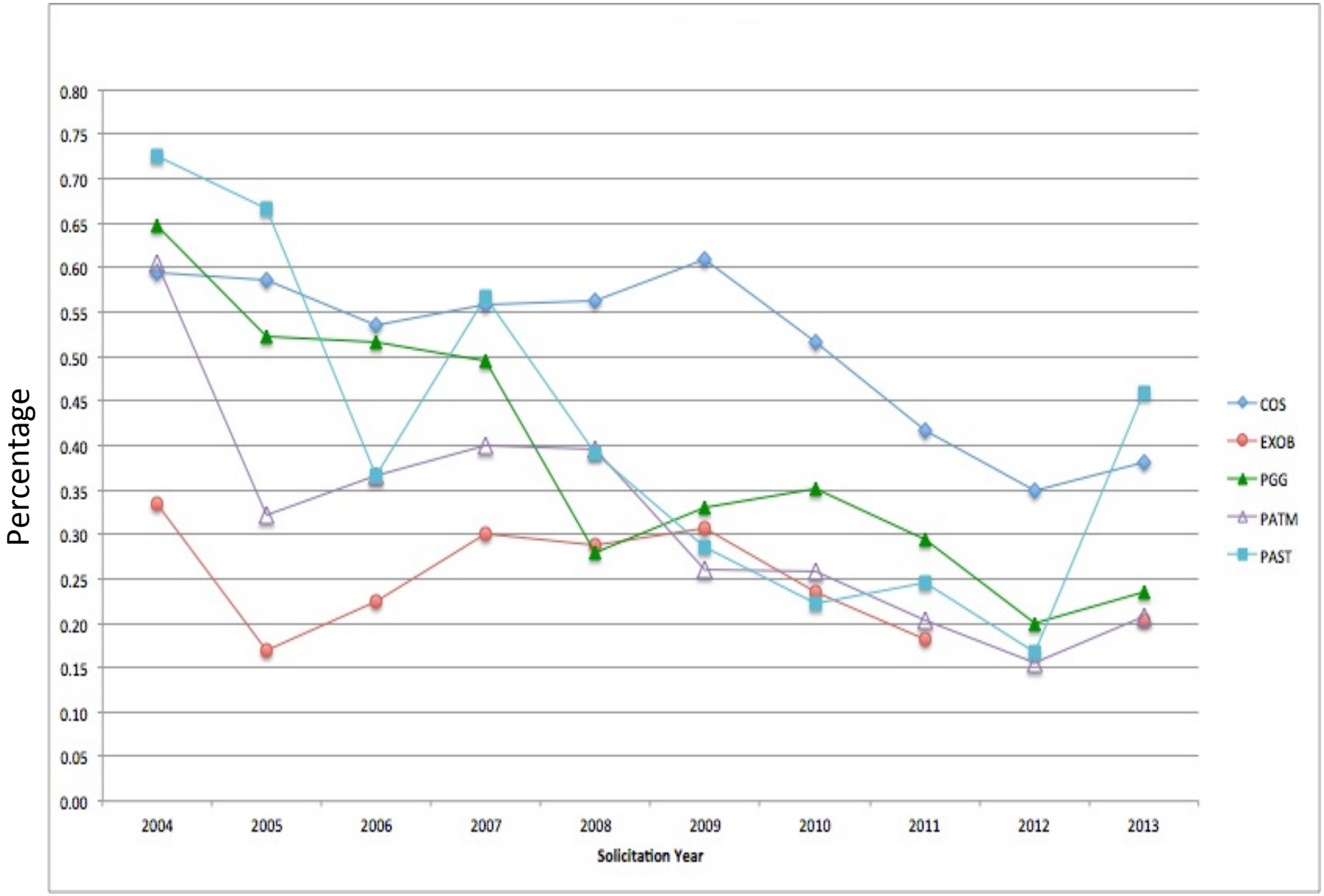
Data

- 13,330 proposals submitted to solicitations in ROSS-04 to ROSES-13
  - Data from selection spreadsheets (pre-2009) and NSPIRES
- Foreign proposals removed from set
- Any proposals listed as “Selectable” considered “Declined”

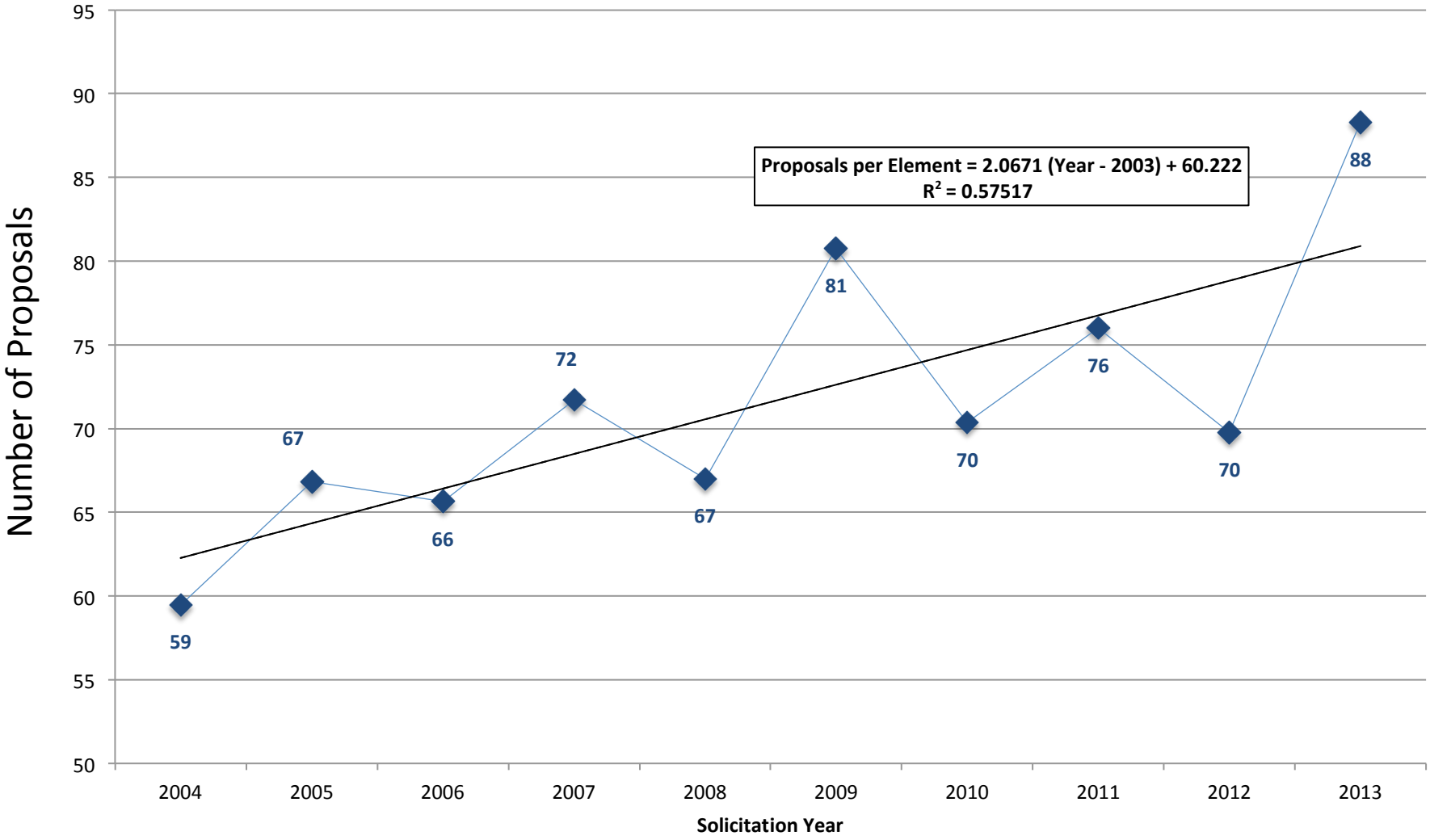
Proposal Pressure and Budgets



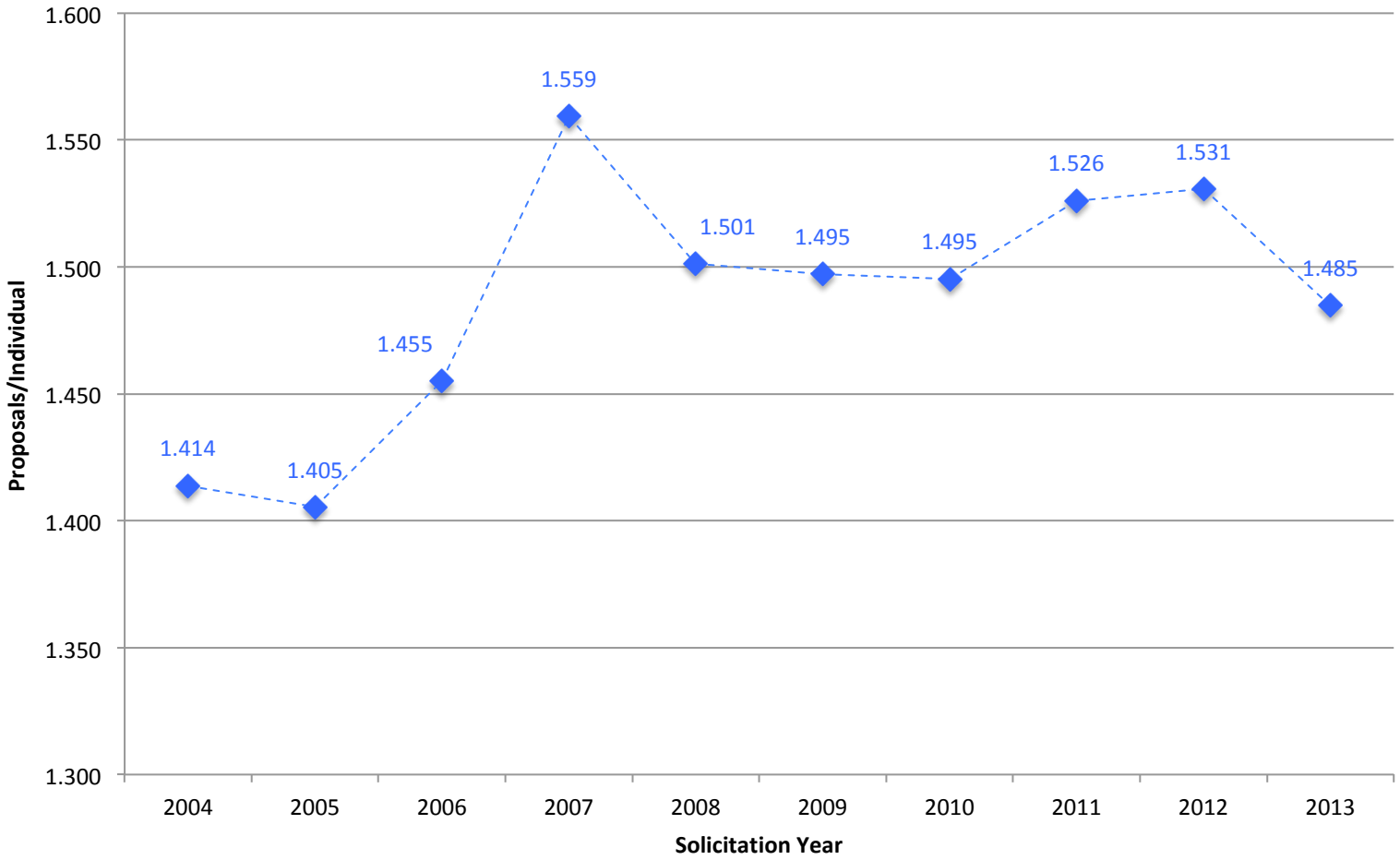
Success Rates of Core Programs thru time

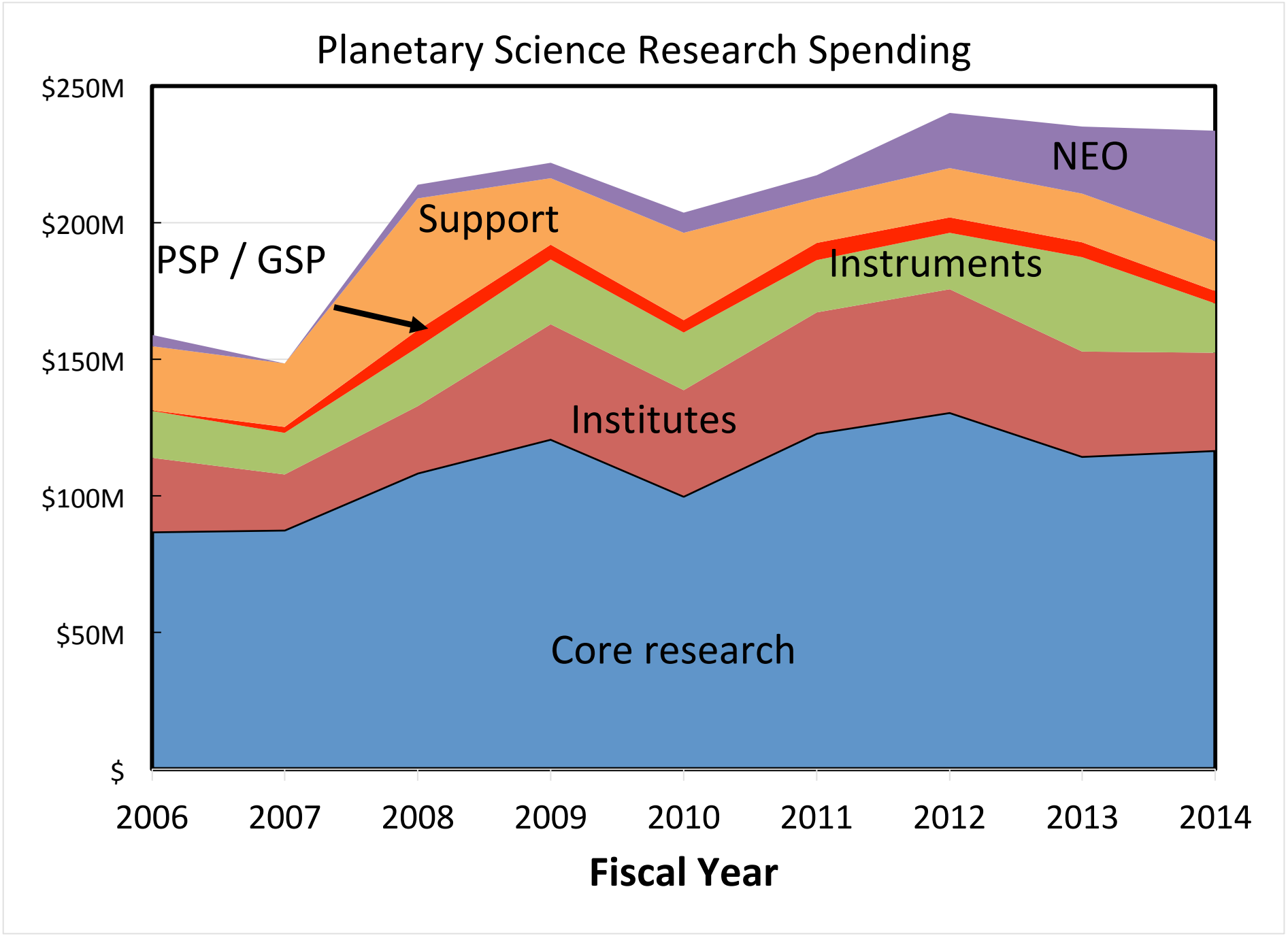


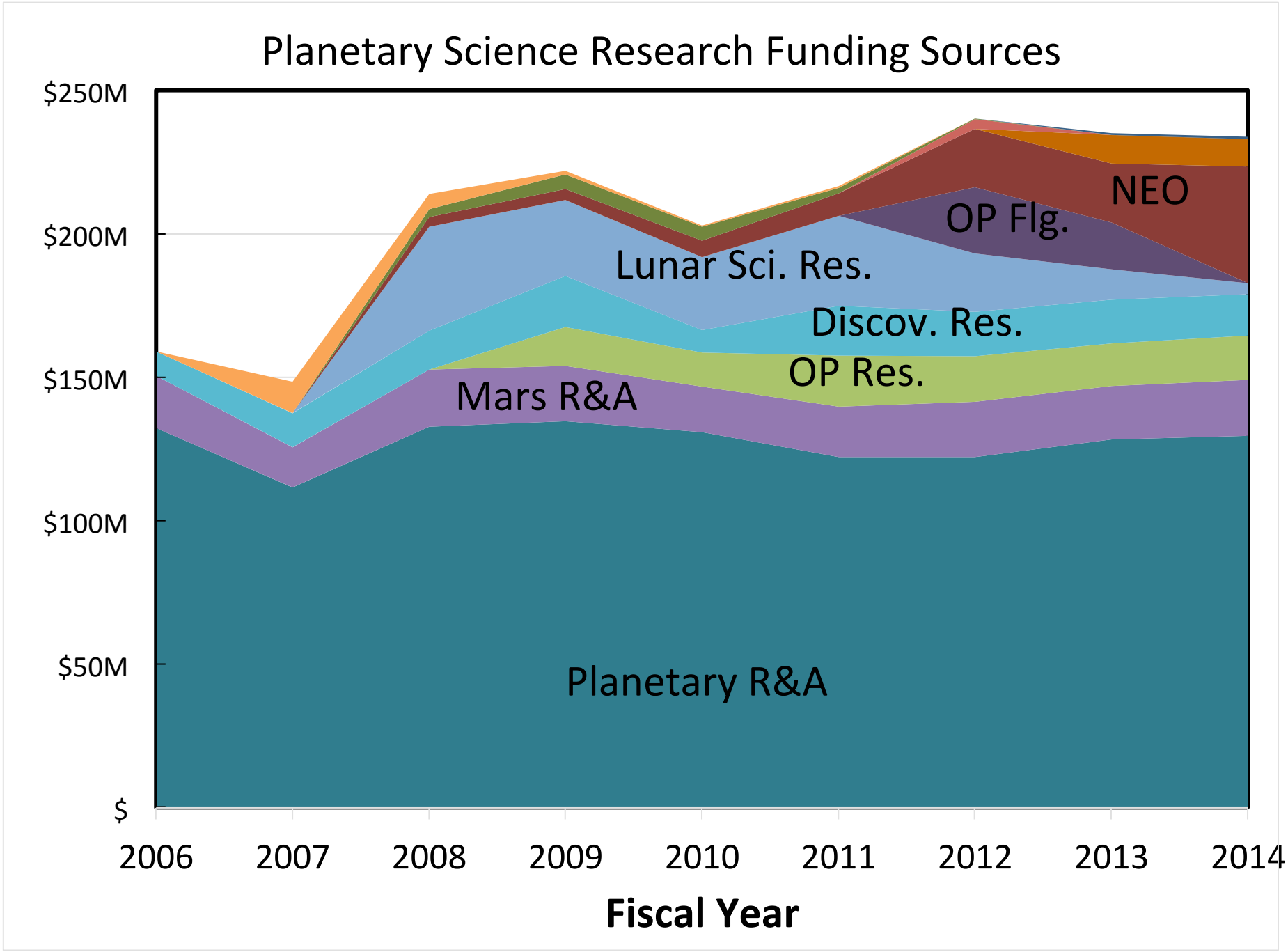
Remove variation due to number of solicitations



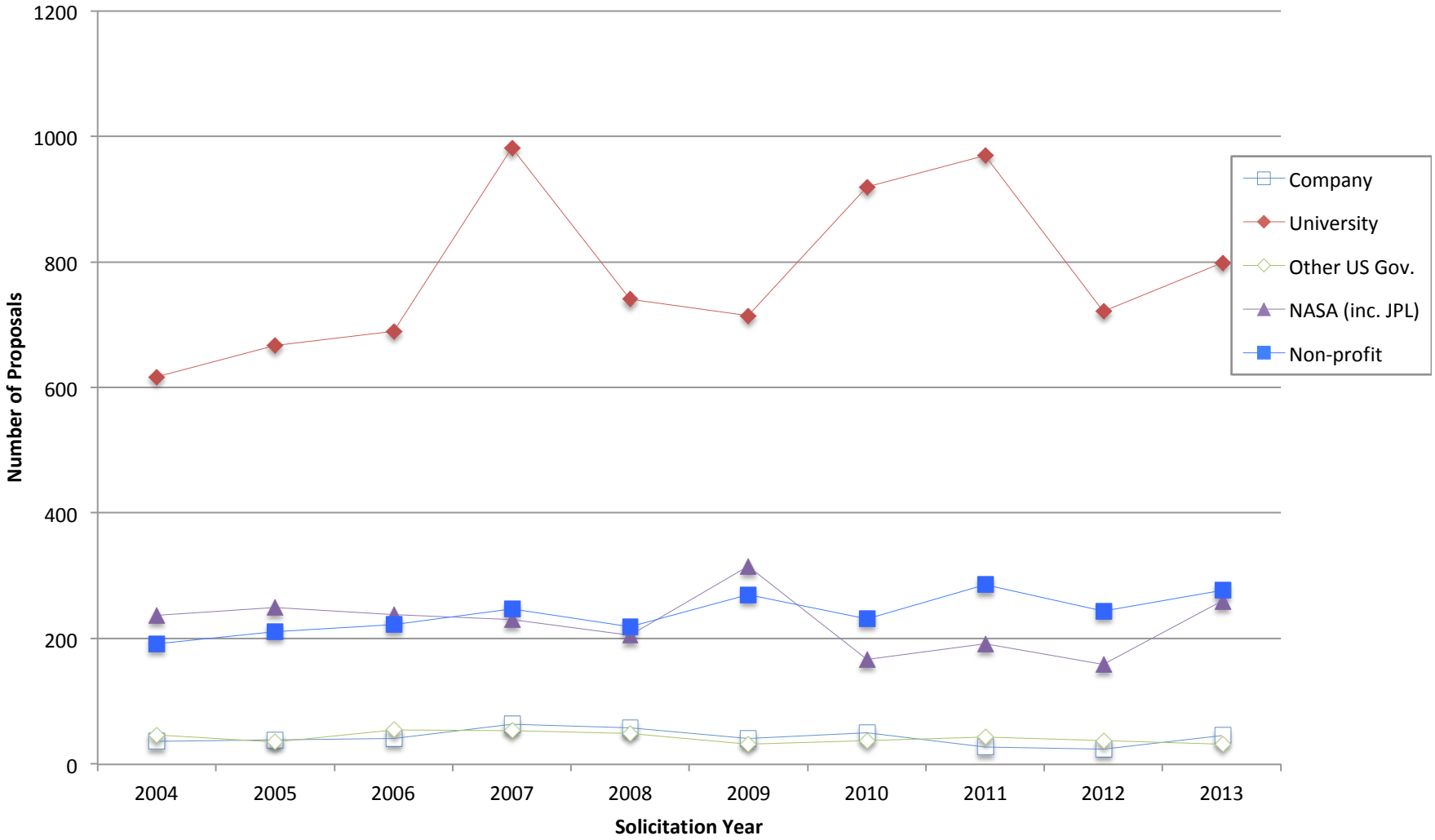
#Proposals/#Individual Pls



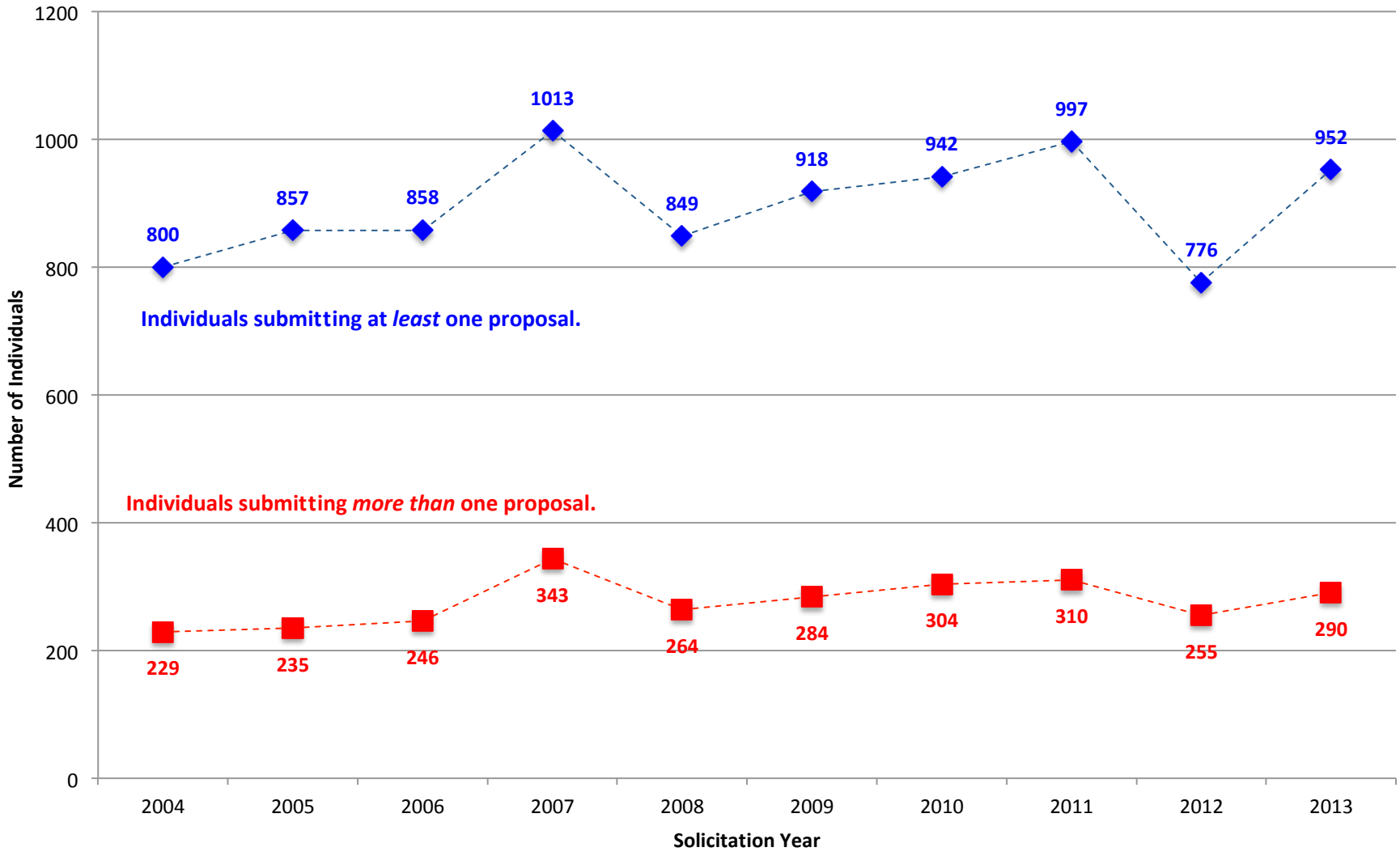

Planetary Science Research Spending
$250M
$200M
$150M
$100M
$50M
$
PSP / GSP
Support
NEO
Instruments
Institutes
Core research
2006
2007
2008
2009
2010
2011
2012
2013
2014
Fiscal Year


Planetary Science Research Funding Sources
$250M
$200M
$150M
$100M
$50M
$
NEO
OP Flg.
Lunar Sci. Res.
Discov. Res.
OP Res.
Mars R&A
Planetary R&A
2006
2007
2008
2009
2010
2011
2012
2013
2014
Fiscal Year

Proposals by Organization Type



Community Proposal Workload (1)



Community Proposal Workload (2)

DRAFT ROSES 2015 Table of Contents

PSD R&A ROSES 15 Deadlines

Program Name	Step-1 Due Date	Step-2 Due Date
Exoplanets (XRP)	03/27/2015	05/22/2015
Emerging Worlds (EW)	03/31/2015	06/05/2015
Exobiology	04/10/2015	06/12/2015
Solar System Obs. (SSO)	04/10/2015	06/12/2015
Laboratory Analysis of Returned Sample (LARS)	04/24/2015	06/26/2015
Planetary Data Archiving, Resto, Tools (PDART)	05/15/2015	07/17/2015
Cassini Data Analysis (CDAPS)	06/01/2015	08/18/2015
Solar System Workings (SSW)	06/11/2015	09/10/2015 02/25/2016
Planetary Sci./Tech. Throu Analog Research (PSTAR)	07/24/2015	09/25/2015
Mars Data Analysis (MDAP)	08/28/2015	10/02/2015
Lunar Data Analysis (LDAP)	08/28/2015	10/30/2015
Discovery Data Analysis (DDAP)	09/10/2015	11/20/2015
PICASSO	09/14/2015	11/13/2015
Habitable Worlds (HW)	11/20/2015	01/22/2016

FY15 Budget

Program	Budget
Planetary R&A	$162.4M
Mars R&A	$10.0M
Outer Planets Research	$8.5M
Discovery Research	$9.8M
JRPA — SSERVI	$10.0M
NEOO	$13M*
Total	$213.7M

*Estimate based on Approvals in RAPTOR and no expected solicitation

Questions?

Back Up

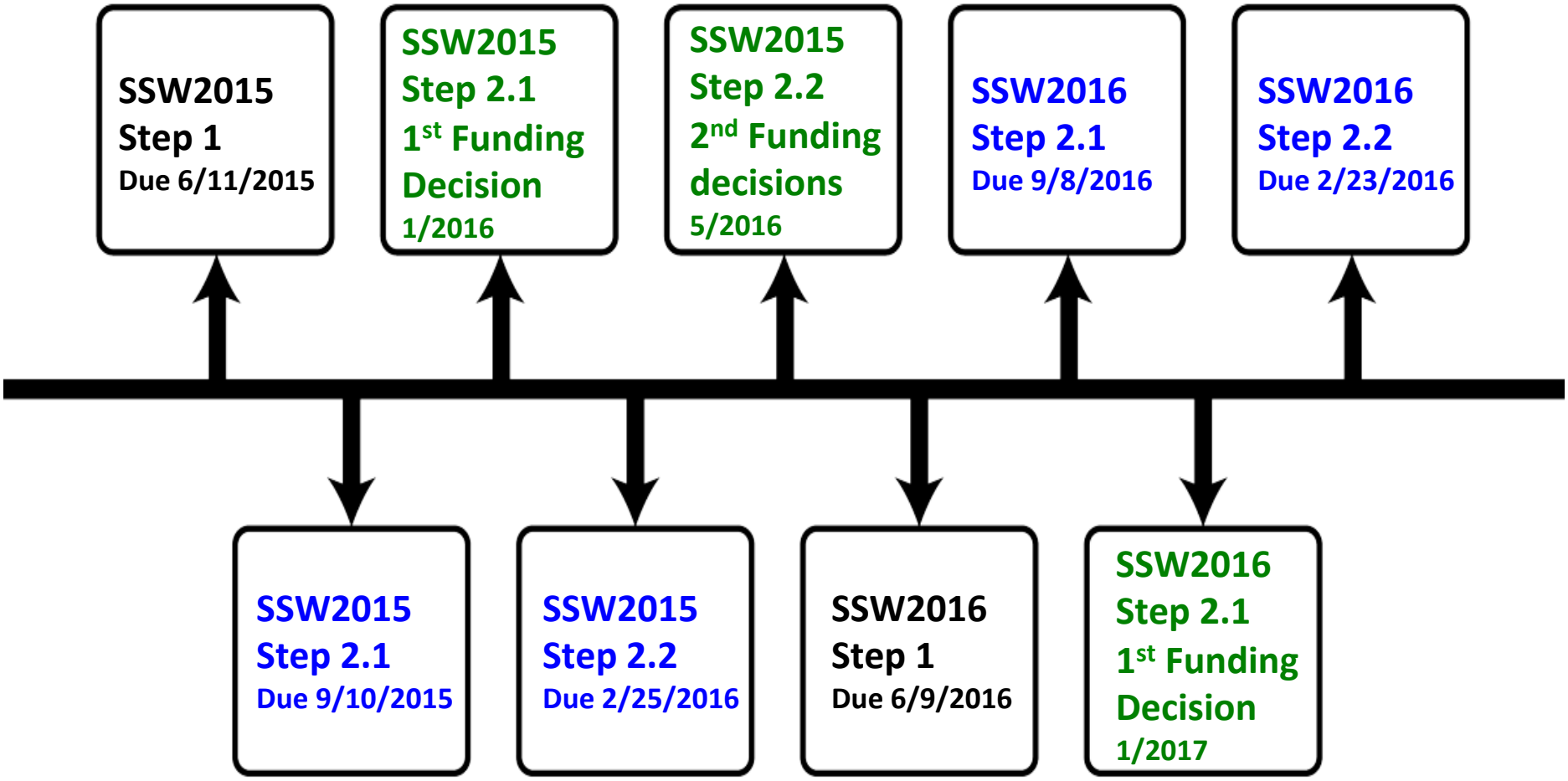
Notional Timeline for SSW

Single Step 1 per year

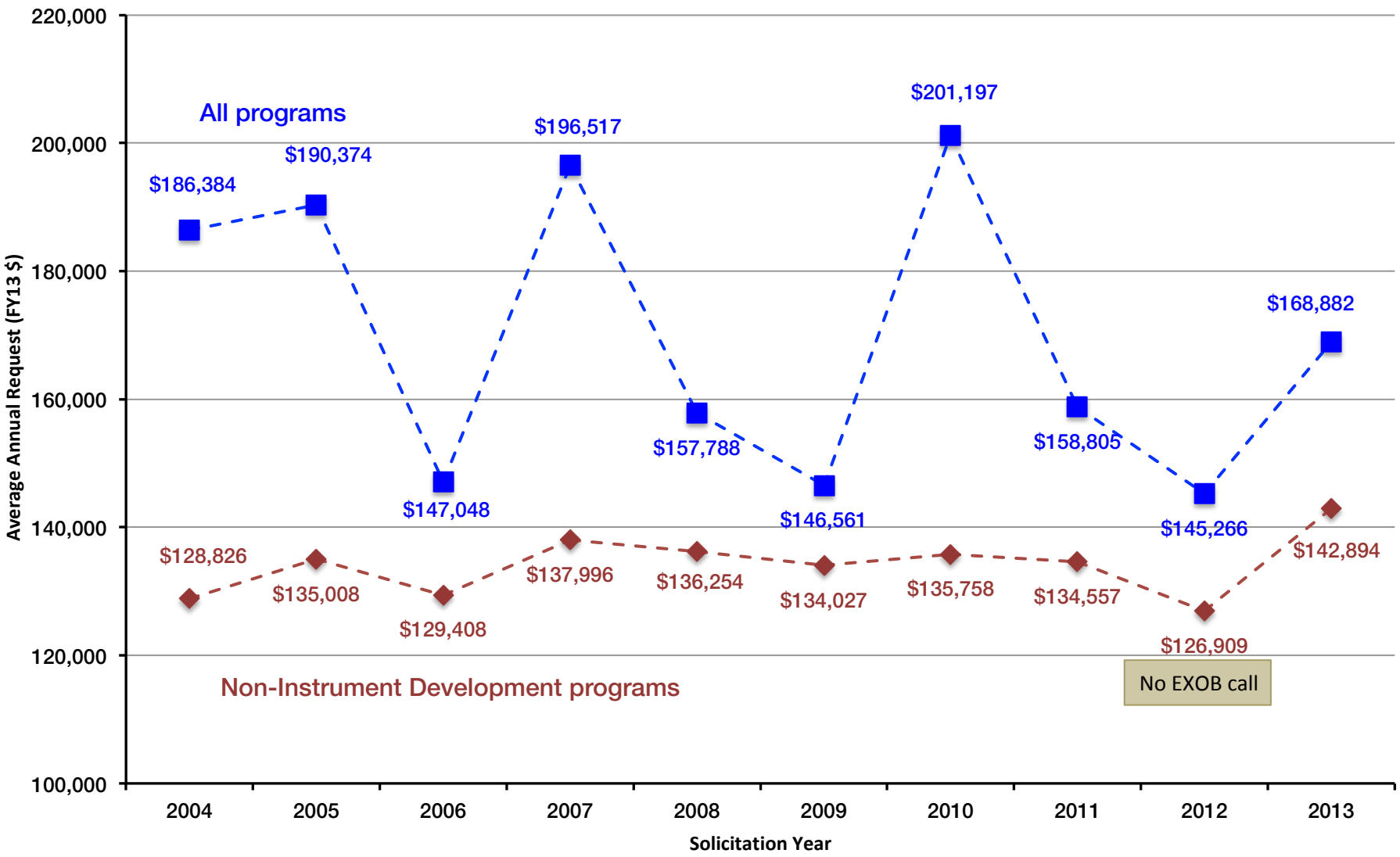
Two Step 2 deadlines

Two Funding Decision Dates

~45% from 2.1, ~45% from 2.2 and final ~10% from total remaining selectable proposals



Average Budget Requests



	PDART	CDAPS	DDAP	LDAP	MDAP	SSW
Science Investigation	No "does not accept proposals in which the main focus is hypothesis-based science"	YES	YES	YES	YES	YES
Laboratory Studies	YES "may be performed to validate any generated products"	YES "greatly increase the use of, or significantly facilitate the interpretation of, data from the mission"	Minor "not intended to support investigations whose primary emphasis is ... laboratory measurements"	Minor "provided that the request are clearly described and that the observations or measurements are essential to the success of the work proposed" and "does not exceed 20% of the proposal's total effort"	Minor	YES
Field Work	No	YES "greatly increase the use of, or significantly facilitate the interpretation of, data from the mission"	No	Minor "provided that the request are clearly described and that the observations or measurements are essential to the success of the work proposed" and "does not exceed 20% of the proposal's total effort"	Minor	YES
Comparative Planetology	YES "may be performed to validate any generated products"	YES As long as all Cassini Data	YES As long as all Discovery mission data	No	No	YES "If the proposal analyzes data within the scope of more than one of the [DAPs] in order to perform comparative studies across the Solar System, but is not appropriate to any one [DAP]"
Data Products	YES	YES must include a science investigation	YES must include a science investigation	YES must include a science investigation	YES must include a science investigation	YES must include a science investigation
Modeling	Minor "may be performed to validate any generated products"	YES "greatly increase the use of, or significantly facilitate the interpretation of, data from the mission"	Minor "not intended to support investigations whose primary emphasis is ... the development of numerical models"	Minor	Minor "Improved atmospheric models..." and "Improved models for the Mars gravity field and global topography and planetary figure."	YES
Mission Data Analysis	No "PDART does not support Scientific investigations whose primary emphasis is data analysis"	YES Cassini-Huygens "Proposals to work with Cassini data and also use ground-based or other data are acceptable, provided that the success of the proposal, as written, is dependent upon the Cassini data."	YES NEAR LunarProspector Stardust Genesis Deep Impact MESSENGER Dawn EPOXI Stardust-NExT	YES LCROSS M3 LRO GRAIL ARTEMIS LADEE non-US Lunar missions "data analyses that require the use of older mission data sets are allowable in the context of enhancing the analysis and understanding of the data from the missions listed above."	YES MPF MGS MO MERs MEX MRO PHX MSL	YES "Although this program encourages the utilization of data from planetary missions ... it does not accept proposals eligible for funding by the Data Analysis Programs"