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NASA Appropriations and Authorizations: A Fact Sheet

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Overview

Congressional deliberations about the National Aeronautics and Space Administration (NASA) often focus on the availability of funding. This fact sheet provides data on past and current NASA appropriations, as well as the President's budget request for FY2020 and congressional action on FY2020 appropriations and authorizations of appropriations. Through December 20, 2019, NASA is operating under a continuing resolution (P.L. 116-59 as amended by P.L. 116-69) at the FY2019 rate of funding.

Table 1 shows appropriations for NASA from FY2014 through FY2019. The data for FY2014 through FY2018 include supplemental appropriations, rescissions, transfers, and reprogramming. They are taken from NASA's congressional budget justifications for FY2016 through FY2020.[1] Congressional budget justifications are available on the NASA budget website (http://www.nasa.gov/news/budget/) for the current year and for past years back to FY2002. The data for FY2019 are as enacted by the Consolidated Appropriations Act, 2019 (P.L. 116-6). For amounts not specified in that act, see the conference report, H.Rept. 116-9.

Table 2 shows FY2018 appropriations as enacted (i.e., without the supplemental appropriations and other adjustments reflected in **Table 1**); the Administration's request for FY2019; authorization and appropriations amounts for FY2019 that were proposed in legislation in the 115th and 116th Congresses; and the appropriations for FY2019 that were enacted in February 2019 in the Consolidated Appropriations Act, 2019 (P.L. 116-6).

Table 3 shows FY2019 appropriations as enacted; the Administration's original request for FY2020 and its additional request in the May 2019 budget amendment; FY2020 appropriations proposed in the Commerce, Justice, Science, and Related Agencies Appropriations Act, 2020 (Division A of H.R. 3055 as passed by the House in June 2019 and as passed by the Senate in October 2019); FY2020 appropriations proposed in the Consolidated Appropriations Act, 2020 (H.R. 1158 as passed by the House on December 17, 2019); and authorizations of FY2020 appropriations proposed in the NASA Authorization Act of 2019 (S. 2800).

Note that the Administration's budget requests for FY2019 and FY2020 proposed new names for some NASA accounts. In the enacted FY2019 appropriation, Education became Science, Technology, Engineering and Mathematics (STEM) Engagement. The Administration has also proposed renaming Space Technology as Exploration Technology; Exploration as Deep Space Exploration Systems; and Space Operations as Low Earth Orbit (LEO) and Spaceflight Operations. The Administration's proposals would also transfer certain activities from Exploration to Space Technology, so the amounts shown for those items in **Table 2** and **Table 3** represent somewhat different content in different columns.

Figure 1 shows NASA's total annual budget authority from the agency's establishment in FY1958 to FY2019, in both current dollars and inflation-adjusted FY2019 dollars.

For additional information on selected NASA programs, see also CRS In Focus IF10940, *The James Webb Space Telescope*; CRS In Focus IF10828, *The International Space Station (ISS) and the Administration's Proposal to End Direct NASA Funding by 2025*; and the discussion of NASA's use of commercial space capabilities in CRS Report R45416, *Commercial Space: Federal Regulation, Oversight, and Utilization*.

[1] FY2016 and FY2017 Education amounts are not shown in the FY2018 and FY2019 congressional budget justifications and are instead taken from the explanatory statement for the Consolidated Appropriations Act, 2016 (P.L. 114-113), *Congressional Record*, December 17, 2015, pp. H9741-H9743, and the explanatory statement for the Consolidated Appropriations Act, 2017 (P.L. 115-31), *Congressional Record*, May 3, 2017, pp. H3374-H3375.

Table 1. NASA Appropriations, FY2014-FY2019

(budget authority in $ millions)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Science	**$5,148**	**$5,243**	**$5,584**	**$5,762**	**$6,212**	**$6,906**
Earth Science	1,825	1,784	1,927	1,908	1,921	1,931
Planetary Science	1,346	1,447	1,628	1,828	2,218	2,759
Astrophysics	678	731	762	783	850	1,192
James Webb Space Telescope	658	645	620	569	534	305
Heliophysics	641	636	647	675	689	720
Aeronautics	**566**	**642**	**634**	**656**	**685**	**725**
Space Technology	**576**	**600**	**686**	**687**	**760**	**927**
Exploration	**4,113**	**3,543**	**3,996**	**4,324**	**4,790**	**5,051**
Exploration Systems Development	3,115	3,212	3,641	3,929	4,395	4,093
Orion	*1,197*	*1,190*	*1,270*	*1,330*	*1,350*	*1,350*
Space Launch System	*1,600*	*1,679*	*1,972*	*2,127*	*2,150*	*2,150*
Exploration Ground Systems	*318*	*343*	*399*	*472*	*895*	*593*
Commercial Spaceflight	696	—[a]	—[a]	—[a]	—[a]	—[a]
Exploration R&D	302	331	355	395	395	958
Space Operations	**3,774**	**4,626**	**5,032**	**4,943**	**4,749**	**4,639**
Space Shuttle	0	8	5	0	0	0
International Space Station	2,964	1,525	1,436	1,451	1,493	n/s
Space Transportation	—[b]	2,254	2,668	2,589	2,346	n/s
Space and Flight Support	810	839	923	903	910	n/s
Commercial LEO Development	—	—	—	—	—	40
Education / STEM Engagement	**117**	**119**	**115**	**100**	**100**	**110**
Space Grant	40	40	40	40	40	44
EPSCoR	18	18	18	18	18	21
MUREP	30	32	32	32	32	33
Other	29	29	25	10	10	12
Safety, Security, & Mission Svcs.	**2,793**	**2,755**	**2,772**	**2,769**	**2,827**	**2,755**
Construction and EC&R	**522**	**446**	**427**	**485**[c]	**657**[d]	**348**
Inspector General	**38**	**37**	**37**	**38**	**39**	**39**
Total	**17,647**	**18,010**	**19,285**	**19,762**[c]	**20,817**[d]	**21,500**

Sources: FY2014-FY2018 from NASA FY2016-FY2020 congressional budget justifications. FY2019 from P.L. 116-6 and H.Rept. 116-9.

Notes: Some totals may not add because of rounding. R&D = Research and Development. LEO = Low Earth Orbit. STEM = Science, Technology, Engineering, and Mathematics. EPSCoR = Established Program to Stimulate Competitive Research. MUREP = Minority University Research and Education Program. EC&R = Environmental Compliance and Remediation. n/s = not specified.

a. Included in Space Transportation under Space Operations.

b. Commercial Crew funded under Exploration. Remainder of Space Transportation included in International Space Station.

c. Includes $109 million in additional emergency funding from Section 540 of the Consolidated Appropriations Act, 2017 (P.L. 115-31) that is not shown in the NASA FY2019 congressional budget justification.

d. Includes $81 million in supplemental emergency funding from the Further Additional Supplemental Appropriations for Disaster Relief Requirements Act, 2018 (Division B of P.L. 115-123) that is not shown in the NASA FY2020 congressional budget justification.

Table 2. NASA Appropriations and Authorizations, FY2019

(budget authority in $ millions)

		FY2019 Appropriations				FY2019 Auth.	
	FY2018 Enacted	Request	House (115th)	Senate (115th)	Enacted (116th)	House (115th)	Senate (115th)
Science	**$6,222**	**$5,895**	**$6,681**	**$6,400**	**$6,906**	**$6,624**	**$6,400**
Earth Science	1,921	1,784	1,900	1,931	1,931	1,921	n/s
Planetary Science	2,228	2,235	2,759	2,202	2,759	2,637	n/s
Astrophysics	850	1,185	1,029	1,243	1,192	1,375	n/s
James Webb Space Telescope	534	—[a]	305	305	305	—	n/s
Heliophysics	689	691	689	720	720	691	n/s
Aeronautics	**685**	**634**	**715**	**725**	**725**	**685**	**725**
Space Tech. / Exploration Tech.	**760**	**1,003**	**900**	**933**	**927**	**1,018**	**1,003**
Exploration / Deep Sp. Exp. Sys.	**4,790**	**4,559**	**5,084**	**5,339**	**5,051**	**4,929**	**5,339**
Exploration Systems Development	4,395	3,670	4,045	4,295	4,093	4,040	n/s
Orion	*1,350*	*1,164*	*1,350*	*1,350*	*1,350*	*1,350*	*n/s*
Space Launch System	*2,150*	*2,078*	*2,150*	*2,150*	*2,150*	*2,150*	*n/s*
Exploration Ground Systems	*895*	*428*	*545*	*795*	*593*	*540*	*n/s*
Exploration R&D	395	889	1,039	1,044	958	889	n/s
Space Ops. / LEO and Spflt. Ops.	**4,752**	**4,625**	**4,625**	**4,639**	**4,639**	**4,625**	**4,639**
International Space Station	n/s	1,462	n/s	n/s	n/s	1,462	n/s
Space Transportation	n/s	2,109	n/s	2,109	n/s	2,109	n/s
Space and Flight Support	n/s	904	n/s	n/s	n/s	904	n/s
Commercial LEO Development	—	150	150	40	40	150	n/s
Education / STEM Engagement	**100**	**0**	**90**	**110**	**110**	**108**	**100**
Space Grant	40	0	40	44	44	40	n/s
EPSCoR	18	0	18	21	21	18	n/s
MUREP	32	0	32	33	33	n/s	n/s
Other	10	0	0	12	12	n/s	n/s
Safety, Security, & Mission Svcs.	**2,827**	**2,750**	**2,850**	**2,750**	**2,755**	**2,750**	**2,850**
Construction and EC&R	**562**	**388**	**562**	**388**	**348**	**438**	**451**
Inspector General	**39**	**39**	**39**	**39**	**39**	**39**	**39**
Total	**20,736**	**19,892**	**21,546**	**21,323**	**21,500**	**21,215**	**21,546**

Sources: FY2018 enacted from P.L. 115-141 and explanatory statement, *Congressional Record*, March 22, 2018, pp. H2094-H2096. Request from FY2019 NASA congressional budget justification. House (115th Congress) from H.R. 5952 as reported and H.Rept. 115-704. Senate (115th Congress) from S. 3072 as reported and S.Rept. 115-275; H.R. 21 as passed by the House would have provided the same amounts. Enacted from P.L. 116-6 and H.Rept. 116-9; H.R. 648 as passed by the House would have provided the same amounts. Authorizations from H.R. 5503 (115th Congress) as reported and S. 3799 (115th Congress) as introduced.

Notes: Some totals may not add because of rounding. R&D = Research and Development. LEO = Low Earth Orbit. STEM = Science, Technology, Engineering, and Mathematics. EPSCoR = Established Program to Stimulate Competitive Research. MUREP = Minority University Research and Education Program. EC&R = Environmental Compliance and Remediation. n/s = not specified. See text for name changes and variations in program content.

a. $305 million included in Astrophysics.

Table 3. NASA Appropriations and Authorizations, FY2020

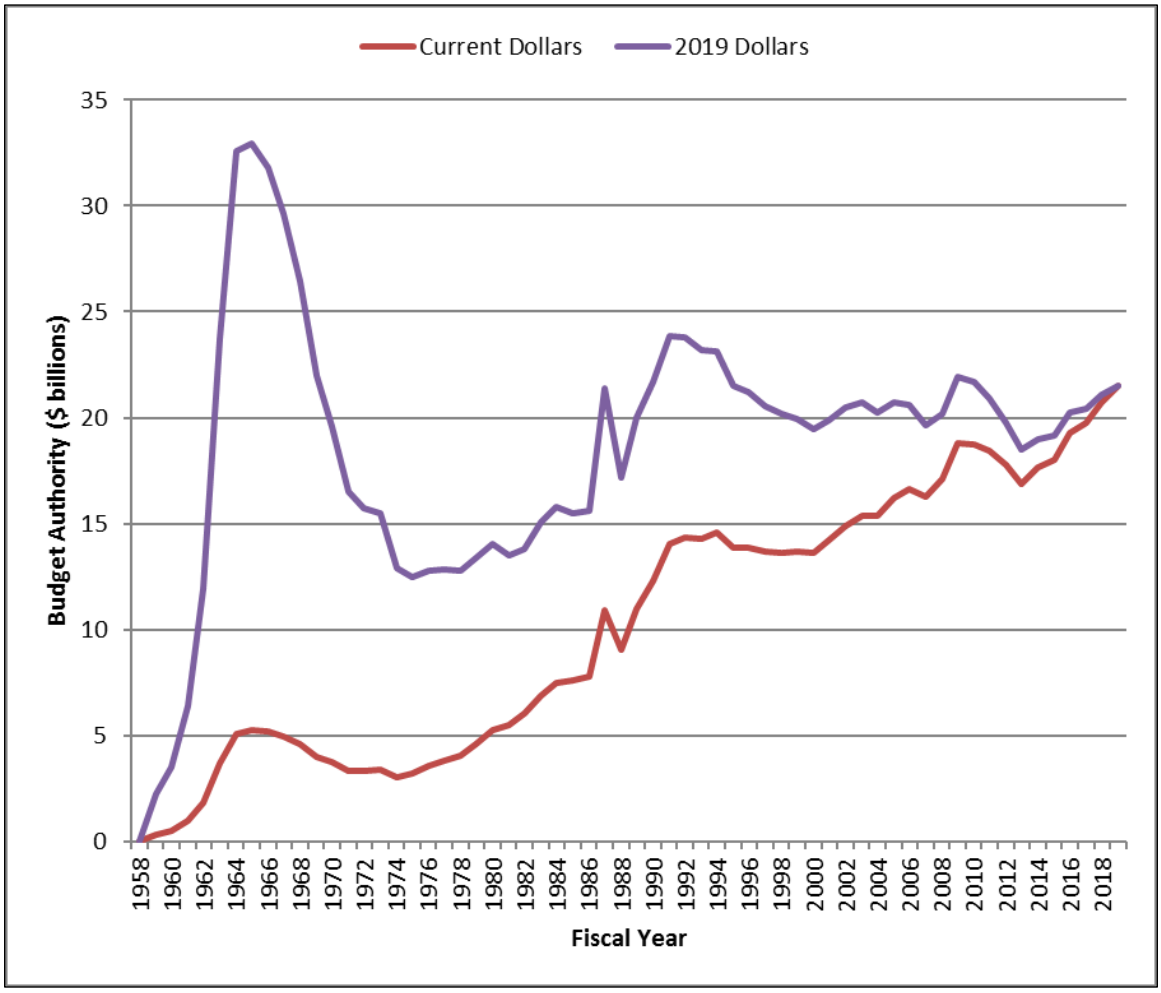
(budget authority in $ millions)

		FY2020 Appropriations					FY2020 Auth.
	FY2019 Enacted	Original Request	Budget Amdt.	House	Senate	Consol-idated	Senate
Science	**$6,906**	**$6,304**	**+$90**	**$7,161**	**$6,906**	**$7,139**	**$6,906**
Earth Science	1,931	1,780		2,023	1,945	1,972	n/s
Planetary Science	2,759	2,622		2,713	2,631	2,713	n/s
Astrophysics	1,192	845		1,368	1,172	1,306	n/s
James Webb Space Telescope	305	353		353	423	423	n/s
Heliophysics	720	705		705	735	725	n/s
Aeronautics	**725**	**667**		**700**	**784**	**784**	**784**
Space Tech. / Exploration Tech.	**927**	**1,014**	**+132**	**1,292**	**1,076**	**1,100**	**1,076**
Exploration / Deep Sp. Exp. Sys.	**5,051**	**5,022**	**+1,375**	**5,130**	**6,223**	**6,018**	**6,223**
Exploration Systems Development	4,093	3,442		4,168	4,583	4,583	n/s
Orion	*1,350*	*1,266*		*1,425*	*1,407*	*1,407*	*n/s*
Space Launch System	*2,150*	*1,775*		*2,150*	*2,586*	*2,586*	*n/s*
Exploration Ground Systems	*593*	*400*		*593*	*590*	*590*	*n/s*
Exploration R&D	958	1,580		962	1,640	1,435	n/s
Space Ops. / LEO and Spflt. Ops.	**4,639**	**4,286**		**4,286**	**4,150**	**4,140**	**4,150**
International Space Station	n/s	1,458		n/s	n/s	n/s	n/s
Space Transportation	n/s	1,829		n/s	n/s	n/s	n/s
Space and Flight Support	n/s	849		n/s	n/s	n/s	n/s
Commercial LEO Development	40	150		n/s	15	15	n/s
STEM Engagement	**110**	**0**		**124**	**112**	**120**	**112**
Space Grant	44	0		49	47	48	n/s
EPSCoR	21	0		25	22	24	n/s
MUREP	33	0		37	33	36	n/s
Other	12	0		13	10	12	n/s
Safety, Security, & Mission Svcs.	**2,755**	**3,085**		**3,085**	**2,935**	**2,913**	**2,935**
Construction and EC&R	**348**	**600**		**497**	**524**	**373**	**524**
Inspector General	**39**	**42**		**42**	**40**	**42**	**40**
Total	**21,500**	**21,019**	**+1,597**	**22,316**	**22,750**	**22,629**	**22,750**

Sources: FY2019 enacted from P.L. 116-6 and H.Rept. 116-9. Original Request from FY2020 NASA congressional budget justification. Budget Amendment from Estimate #1, May 13, 2019, https://www.whitehouse.gov/wp-content/uploads/2019/05/FY20_Budget_Amendment_5-13-19.pdf. House from H.R. 3055 as passed by the House (June 2019) and H.Rept. 116-101. Senate from H.R. 3055 as passed by the Senate (October 2019) and S.Rept. 116-127. Consolidated from H.R. 1158 as passed by the House (December 2019) and explanatory statement, https://docs.house.gov/billsthisweek/20191216/BILLS-116HR1158SA-JES-DIVISION-B.pdf. Senate authorization from S. 2800 as introduced.

Notes: Some totals may not add because of rounding. R&D = Research and Development. LEO = Low Earth Orbit. EPSCoR = Established Program to Stimulate Competitive Research. MUREP = Minority University Research and Education Program. EC&R = Environmental Compliance and Remediation. n/s = not specified. See text for name changes and variations in program content. The budget amendment does not provide a further breakdown of the additional requested amounts.

Figure 1. NASA Funding, FY1958-FY2019



Source: Compiled by CRS. FY1958-FY2008 from National Aeronautics and Space Administration, *Aeronautics and Space Report of the President: Fiscal Year 2008 Activities*, http://history.nasa.gov/presrep2008.pdf, Table D-1A. FY2009-FY2012 from NASA congressional budget justifications, FY2011-FY2014. FY2013-FY2019 as in **Table 1**. Current dollars deflated to FY2019 dollars using GDP (chained) price index from President's budget for FY2019, Historical Table 10.1, https://www.whitehouse.gov/wp-content/uploads/2018/02/hist10z1-fy2019.xlsx.

Note: Transition quarter between FY1976 and FY1977 not shown.

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