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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 FY2021. It will be updated as warranted to reflect congressional action on FY2021 appropriations and authorizations of appropriations.

Table 1 shows appropriations for NASA from FY2015 through FY2020. The data for FY2015 through FY2019 include supplemental appropriations, rescissions, transfers, and reprogramming. They are taken from NASA's congressional budget justifications for FY2017 through FY2021.¹ 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 FY2020 are as enacted by the Consolidated Appropriations Act, 2020 (P.L. 116-93). For amounts not specified in that act, see the explanatory statement in the *Congressional Record*, December 17, 2019.

Table 2 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 enacted in the Consolidated Appropriations Act, 2020 (P.L. 116-93); and authorizations of FY2020 appropriations proposed in the NASA Authorization Act of 2020 (H.R. 5666) and the NASA Authorization Act of 2019 (S. 2800).

Table 3 shows FY2020 appropriations as enacted and the Administration's request for FY2021. Additional information will be added when available. Authorizations for FY2021 are not included in H.R. 5666 or S. 2800.

Note that the Administration's budget requests since FY2019 have 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** may represent somewhat different content in different columns.

Figure 1 shows NASA's total annual budget authority from the agency's establishment in FY1958 to FY2020, in both current dollars and inflation-adjusted FY2020 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, FY2017, and FY2019 Education and STEM Engagement amounts are not shown in the FY2018, FY2019, and FY2021 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; the explanatory statement for the Consolidated Appropriations Act, 2017 (P.L. 115-31), *Congressional Record*, May 3, 2017, pp. H3374-H3375; and the explanatory statement for the Consolidated Appropriations Act, 2020 (P.L. 116-93), *Congressional Record*, December 17, 2019, pp. H10969-H10971.

Table I. NASA Appropriations, FY2015-FY2020
(budget authority in \$ millions)

| | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|--|----------------|----------------|---------------------------|---------------------------|----------------|----------------------------|
| Science | \$5,243 | \$5,584 | \$5,762 | \$6,212 | \$6,887 | \$7,139^a |
| Earth Science | 1,784 | 1,927 | 1,908 | 1,921 | 1,931 | 1,972 |
| Planetary Science | 1,447 | 1,628 | 1,828 | 2,218 | 2,747 | 2,713 |
| Astrophysics | 731 | 762 | 783 | 850 | 1,191 | 1,306 |
| James Webb Space Telescope | 645 | 620 | 569 | 534 | 305 | 423 |
| Heliophysics | 636 | 647 | 675 | 689 | 713 | 725 |
| Aeronautics | 642 | 634 | 656 | 685 | 725 | 784 |
| Space Technology | 600 | 686 | 687 | 760 | 927 | 1,100 |
| Exploration | 3,543 | 3,996 | 4,324 | 4,790 | 5,045 | 6,018 |
| Exploration Systems Development | 3,212 | 3,641 | 3,929 | 4,395 | 4,087 | 4,583 |
| <i>Orion</i> | <i>1,190</i> | <i>1,270</i> | <i>1,330</i> | <i>1,350</i> | <i>1,350</i> | <i>1,407</i> |
| <i>Space Launch System</i> | <i>1,679</i> | <i>1,972</i> | <i>2,127</i> | <i>2,150</i> | <i>2,144</i> | <i>2,586</i> |
| <i>Exploration Ground Systems</i> | <i>343</i> | <i>399</i> | <i>472</i> | <i>895</i> | <i>593</i> | <i>590</i> |
| Exploration R&D | 331 | 355 | 395 | 395 | 958 | 1,435 |
| Space Operations | 4,626 | 5,032 | 4,943 | 4,749 | 4,640 | 4,140 |
| Space Shuttle | 8 | 5 | 0 | 0 | 0 | 0 |
| International Space Station | 1,525 | 1,436 | 1,451 | 1,493 | 1,490 | n/s |
| Space Transportation | 2,254 | 2,668 | 2,589 | 2,346 | 2,110 | n/s |
| Space and Flight Support | 839 | 923 | 903 | 910 | 1,000 | n/s |
| Commercial LEO Development | — | — | — | — | 40 | 15 |
| Education / STEM Engagement | 119 | 115 | 100 | 100 | 110 | 120 |
| Space Grant | 40 | 40 | 40 | 40 | 44 | 48 |
| EPSCoR | 18 | 18 | 18 | 18 | 21 | 24 |
| MUREP | 32 | 32 | 32 | 32 | 33 | 36 |
| Other | 29 | 25 | 10 | 10 | 12 | 12 |
| Safety, Security, & Mission Svcs. | 2,755 | 2,772 | 2,769 | 2,827 | 2,755 | 2,913^b |
| Construction and EC&R | 446 | 427 | 485^c | 657^d | 372 | 373 |
| Inspector General | 37 | 37 | 38 | 39 | 39 | 42 |
| Total | 18,010 | 19,285 | 19,762^c | 20,817^d | 21,500 | 22,629^{ab} |

Sources: FY2015-FY2019 from NASA FY2017-FY2021 congressional budget justifications. FY2020 from P.L. 116-93 and explanatory statement, *Congressional Record*, December 17, 2019, pp. H10969-H10971.

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. Not adjusted to reflect rescission of \$70 million from prior year unobligated balances (Section 521(c)).
- b. Does not include an additional \$60 million that would be appropriated by the CARES Act (H.R. 748).
- 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, FY2020
(budget authority in \$ millions)

| | FY2020 Appropriations | | | | | | FY2020 Auths. | |
|--|-----------------------|------------------|---------------|----------------|----------------|---------------------------|----------------|----------------|
| | FY2019 Enacted | Original Request | Budget Amdt. | House | Senate | Enacted | House | Senate |
| Science | \$6,906 | \$6,304 | +\$90 | \$7,161 | \$6,906 | \$7,139 | \$7,139 | \$6,906 |
| Earth Science | 1,931 | 1,780 | | 2,023 | 1,945 | 1,972 | 1,972 | n/s |
| Planetary Science | 2,759 | 2,622 | | 2,713 | 2,631 | 2,713 | 2,713 | n/s |
| Astrophysics | 1,192 | 845 | | 1,368 | 1,172 | 1,306 | 1,306 | n/s |
| James Webb Space Telescope | 305 | 353 | | 353 | 423 | 423 | 423 | n/s |
| Heliophysics | 720 | 705 | | 705 | 735 | 725 | 725 | n/s |
| Aeronautics | 725 | 667 | | 700 | 784 | 784 | 784 | 784 |
| Space Tech. / Exploration Tech. | 927 | 1,014 | +132 | 1,292 | 1,076 | 1,100 | 1,100 | 1,076 |
| Exploration / Deep Sp. Exp. Sys. | 5,051 | 5,022 | +1,375 | 5,130 | 6,223 | 6,018 | 6,018 | 6,223 |
| Exploration Systems Development | 4,093 | 3,442 | | 4,168 | 4,583 | 4,583 | 4,583 | n/s |
| <i>Orion</i> | <i>1,350</i> | <i>1,266</i> | | <i>1,425</i> | <i>1,407</i> | <i>1,407</i> | <i>1,407</i> | <i>n/s</i> |
| <i>Space Launch System</i> | <i>2,150</i> | <i>1,775</i> | | <i>2,150</i> | <i>2,586</i> | <i>2,586</i> | <i>2,586</i> | <i>n/s</i> |
| <i>Exploration Ground Systems</i> | <i>593</i> | <i>400</i> | | <i>593</i> | <i>590</i> | <i>590</i> | <i>590</i> | <i>n/s</i> |
| Exploration R&D | 958 | 1,580 | | 962 | 1,640 | 1,435 | 1,435 | n/s |
| Space Ops. / LEO and Spflt. Ops. | 4,639 | 4,286 | | 4,286 | 4,150 | 4,140 | 4,140 | 4,150 |
| International Space Station | n/s | 1,458 | | n/s | n/s | n/s | n/s | n/s |
| Space Transportation | n/s | 1,829 | | n/s | n/s | n/s | n/s | n/s |
| Space and Flight Support | n/s | 849 | | n/s | n/s | n/s | n/s | n/s |
| Commercial LEO Development | 40 | 150 | | n/s | 15 | 15 | n/s | n/s |
| STEM Engagement | 110 | 0 | | 124 | 112 | 120 | 120 | 112 |
| Space Grant | 44 | 0 | | 49 | 47 | 48 | 48 | n/s |
| EPSCoR | 21 | 0 | | 25 | 22 | 24 | 24 | n/s |
| MUREP | 33 | 0 | | 37 | 33 | 36 | 36 | n/s |
| Other | 12 | 0 | | 13 | 10 | 12 | 12 | n/s |
| Safety, Security, & Mission Svcs. | 2,755 | 3,085 | | 3,085 | 2,935 | 2,913^a | 2,913 | 2,935 |
| Construction and EC&R | 348 | 600 | | 497 | 524 | 373 | 373 | 524 |
| Inspector General | 39 | 42 | | 42 | 40 | 42 | 42 | 40 |
| Total | 21,500 | 21,019 | +1,597 | 22,316 | 22,750 | 22,629^a | 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. Enacted from P.L. 116-93 and explanatory statement, *Congressional Record*, December 17, 2019, pp. H10969-H10971. House authorization from H.R. 5666 as introduced. 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.

a. Does not include an additional \$60 million that would be appropriated by the CARES Act (H.R. 748).

Table 3. NASA Appropriations and Authorizations, FY2021
(budget authority in \$ millions)

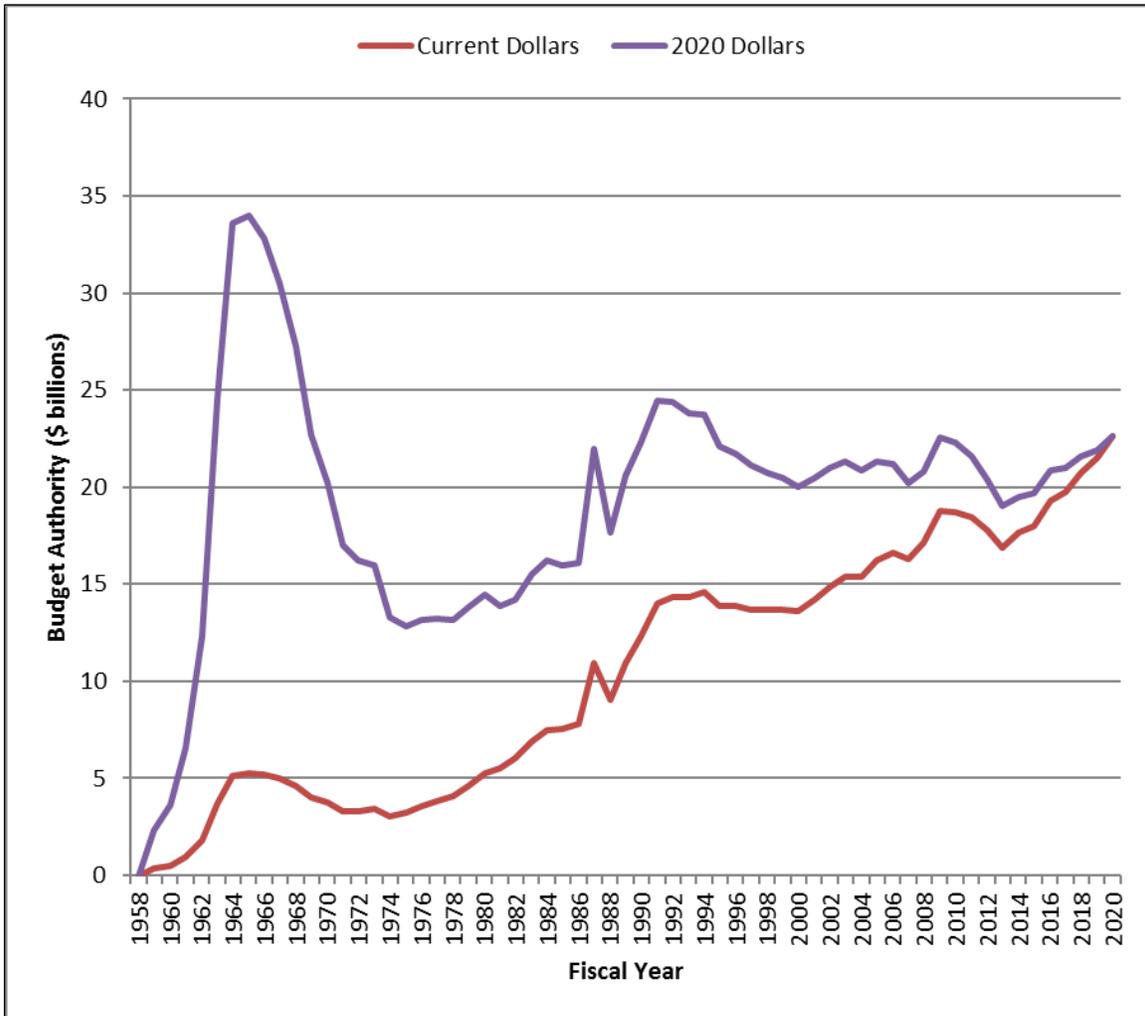
| | FY2020 Enacted | FY2021 Appropriations | | | |
|--|----------------------------|-----------------------|-------|--------|---------|
| | | Request | House | Senate | Enacted |
| Science | \$7,139^a | \$6,307 | | | |
| Earth Science | 1,972 | 1,768 | | | |
| Planetary Science | 2,713 | 2,660 | | | |
| Astrophysics | 1,306 | 831 | | | |
| James Webb Space Telescope | 423 | 415 | | | |
| Heliophysics | 725 | 633 | | | |
| Aeronautics | 784 | 819 | | | |
| Space Tech. / Exploration Tech. | 1,100 | 1,578 | | | |
| Exploration / Deep Sp. Exp. Sys. | 6,018 | 8,762 | | | |
| Exploration Systems Development | 4,583 | 4,042 | | | |
| <i>Orion</i> | <i>1,407</i> | <i>1,401</i> | | | |
| <i>Space Launch System</i> | <i>2,586</i> | <i>2,257</i> | | | |
| <i>Exploration Ground Systems</i> | <i>590</i> | <i>385</i> | | | |
| Exploration R&D | 1,435 | 4,719 | | | |
| Space Ops. / LEO and Spflt. Ops. | 4,140 | 4,187 | | | |
| International Space Station | n/s | 1,401 | | | |
| Space Transportation | n/s | 1,878 | | | |
| Space and Flight Support | n/s | 759 | | | |
| Commercial LEO Development | 15 | 150 | | | |
| STEM Engagement | 120 | 0 | | | |
| Space Grant | 48 | 0 | | | |
| EPSCoR | 24 | 0 | | | |
| MUREP | 36 | 0 | | | |
| Other | 12 | 0 | | | |
| Safety, Security, & Mission Svcs. | 2,913^b | 3,010 | | | |
| Construction and EC&R | 373 | 539 | | | |
| Inspector General | 42 | 44 | | | |
| Total | 22,629^{ab} | 25,246 | | | |

Sources: FY2020 enacted from P.L. 116-93 and explanatory statement, *Congressional Record*, December 17, 2019, pp. H10969-H10971. Request from FY2021 NASA congressional budget justification.

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.

- a. Not adjusted to reflect rescission of \$70 million from prior year unobligated balances (Section 521(c)).
- b. Does not include an additional \$60 million that would be appropriated by the CARES Act (H.R. 748).

Figure I. NASA Funding, FY1958-FY2020



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-FY2014 from NASA congressional budget justifications, FY2011-FY2016. FY2015-FY2020 as in **Table I**. Current dollars deflated to FY2020 dollars using GDP (chained) price index from President’s budget for FY2021, Historical Table 10.1, <https://www.whitehouse.gov/omb/historical-tables/>.

Note: Transition quarter between FY1976 and FY1977 not shown. FY2020 amount does not include an additional \$60 million that would be appropriated by the CARES Act (H.R. 748).

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