

Navy Shipbuilding: Congressional Perspectives and the Navy's 2022 Plan

January 13, 2022

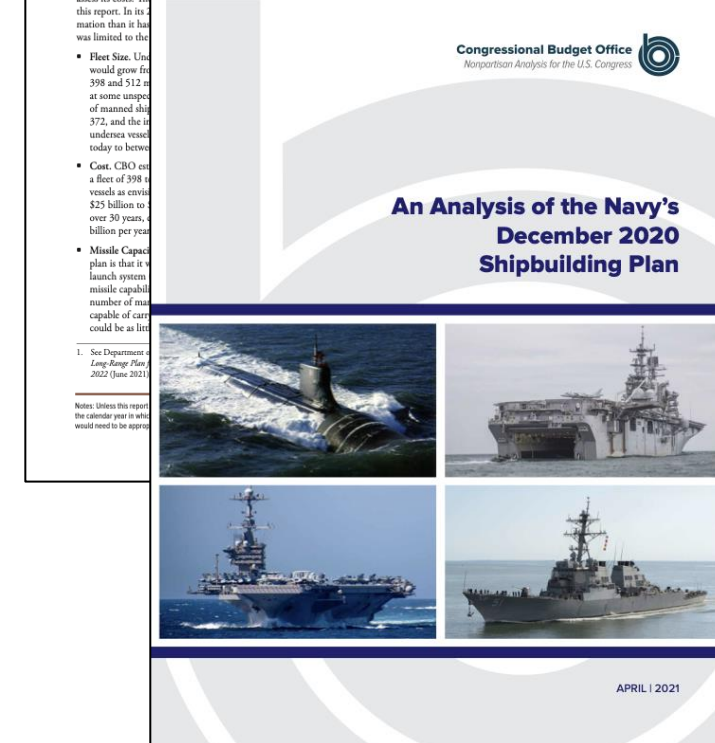
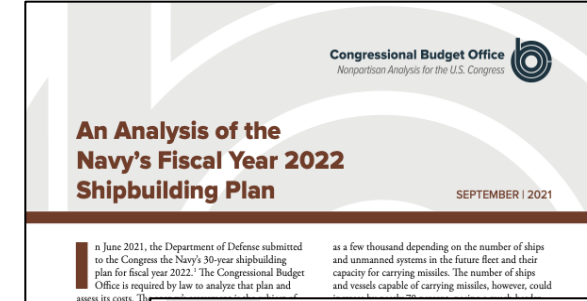
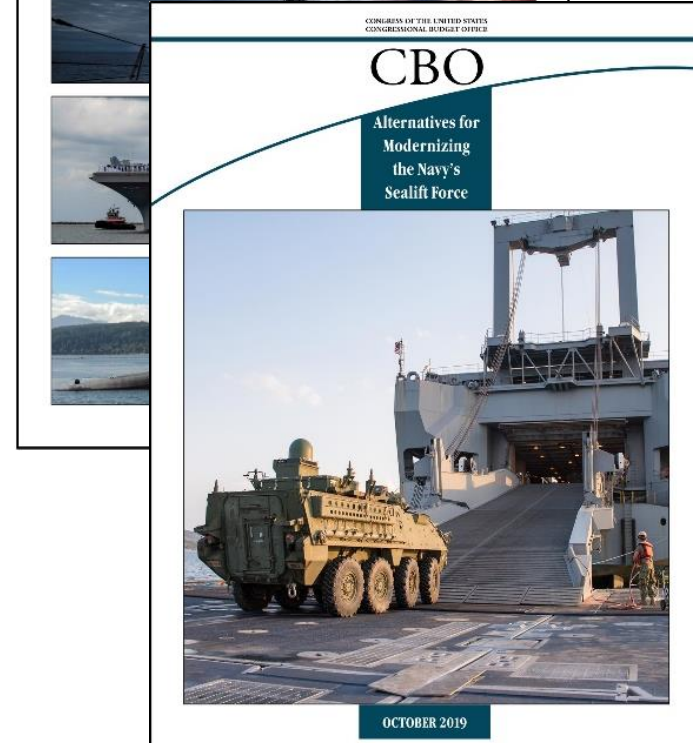
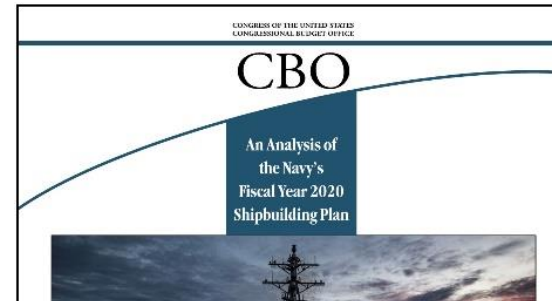
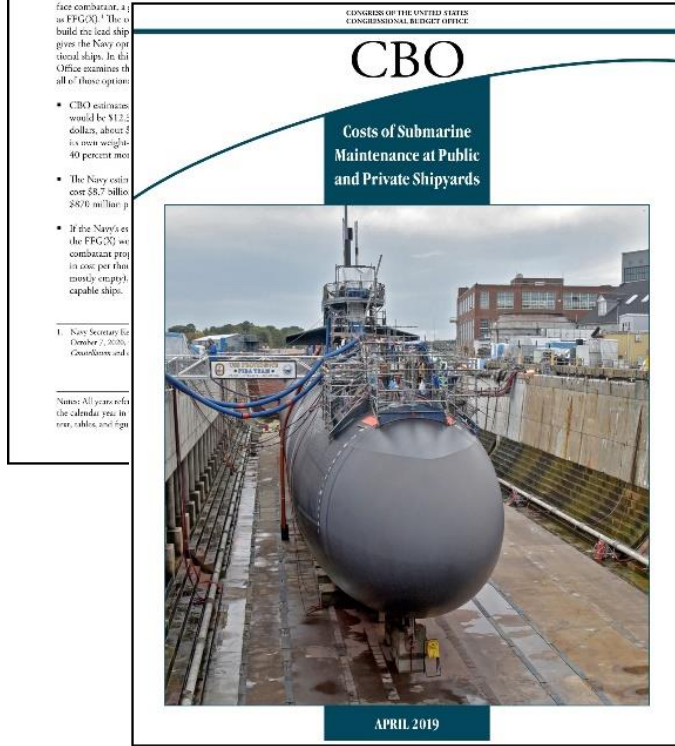
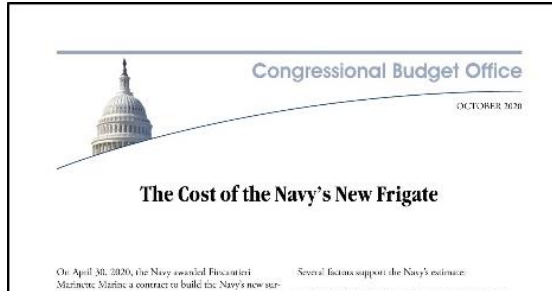
Presentation at the Surface Navy Association's 34th National Symposium

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Relevant Reports by CBO





Prospects for Building a Larger Fleet

- Congressional Support for Shipbuilding
- Recent Force Structure Assessments and the Navy's 2022 Shipbuilding Plan
- Paying for the Navy's Shipbuilding Plans

Congressional Support for Shipbuilding

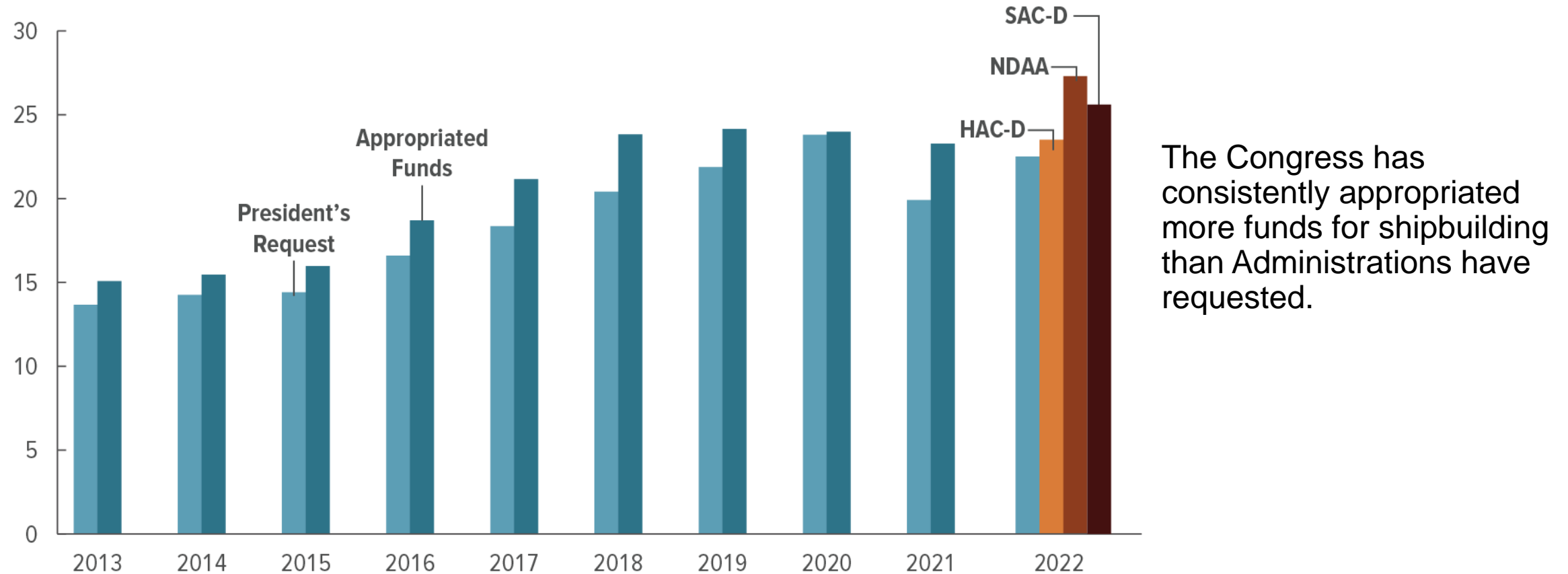


The Navy's 2012 Shipbuilding Plan Compared With Enacted Appropriations in the Era of the Budget Control Act, 2012 to 2021

Ship Type	2012 Shipbuilding Plan	Enacted Appropriations	Difference
Aircraft Carriers	2	3	1
Ballistic Missile Submarines	1	1	0
Attack Submarines	19	20	1
Destroyers	16	22	6
Frigates	0	2	2
Littoral Combat Ships	32	27	-5
Amphibious Warfare Ships	6	7	1
Logistics and Support Ships	<u>30</u>	<u>28</u>	<u>-2</u>
Total	106	110	4
Large Combat Ships	44	55	11
Small Combat and Support Ships	62	55	-7

Shipbuilding Requests and Appropriations, 2013 to 2021

Billions of Dollars



The Congress has consistently appropriated more funds for shipbuilding than Administrations have requested.

Figures for the HAC-D and SAC-D represent the amounts for shipbuilding in their respective appropriations, as ordered reported out of committee earlier this year.

HAC-D = House Appropriations Committee, Defense Appropriations Subcommittee; NDA = National Defense Authorization Act for 2022; SAC-D = Senate Appropriations Committee, Defense Appropriations Subcommittee.

Congressional Action on Shipbuilding for FY 2022 to Date

	Administration's Request	HASC	SASC	NDAAs	HAC-D	SAC-D
Ship Purchases						
Destroyers	1	3	2	3	2	2
Submarines	2	2	2	2	2	2
Frigates	1	1	1	1	1	1
Amphibious Ships	0	1	0	0	0	0
Logistics and Support Ships	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>3</u>	<u>7</u>
Total	8	13	10	13	8	12
Shipbuilding Budgets (Billions of dollars)						
New Combat Ships	16.7	21.7	19.3	20.4	18.0	18.8
New Logistics and Support Ships	1.4	2.5	1.6	2.5	1.2	2.5
Other	<u>4.5</u>	<u>4.3</u>	<u>4.2</u>	<u>4.4</u>	<u>4.2</u>	<u>4.3</u>
Total	22.6	28.4	25.1	27.3	23.5	25.6
Amount Above Request		5.8	2.5	4.7	0.9	3.0



Recent Force Structure Assessments and the Navy's 2022 Shipbuilding Plan

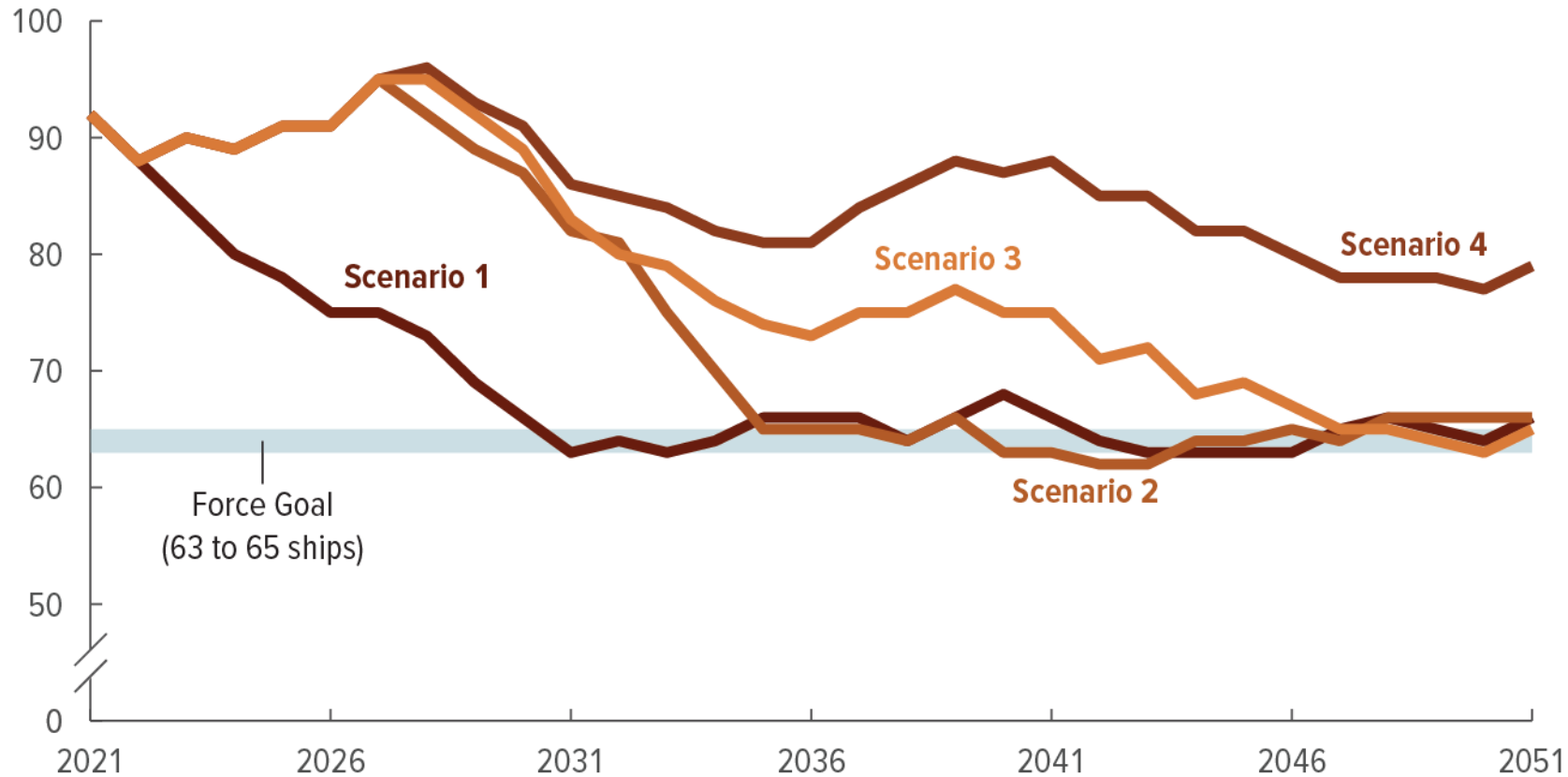


The Navy's Restated Goal for a Larger and More Distributed Fleet

Ship Type	2016 FSA Inventory Goals	2020 FNFS Inventory Goals	FY 2022 Plan Objective Force	Memorandum: Today's Fleet
Aircraft Carriers	12	8 to 11	9 to 11	11
Light Carriers	0	0 to 6	0	0
Ballistic Missile Submarines	12	12	12	14
Attack and Large Payload Submarines	66	72 to 78	66 to 72	53
Large Surface Combatants	104	73 to 88	63 to 65	93
Small Surface Combatants	52	60 to 67	40 to 45	32
Large Amphibious Warfare Ships	12	9 to 10	8 to 9	9
Small Amphibious Warfare Ships	26	52 to 57	40 to 54	22
Logistics and Support Ships	71	96 to 117	83 to 104	62
Unmanned Surface Vehicles	n.a.	119 to 166	59 to 89	0
Unmanned Underwater Vehicles	<u>n.a.</u>	<u>24 to 76</u>	<u>18 to 51</u>	<u>0</u>
Total Manned Ships	355	382 to 446	321 to 372	296
Total Unmanned Systems	n.a.	143 to 242	77 to 140	0
Total Manned and Unmanned	355	525 to 688	398 to 512	296

Reducing the Size of the Large Surface Combatant Force Under the Navy's FY 2022 Shipbuilding Plan

Number of Ships



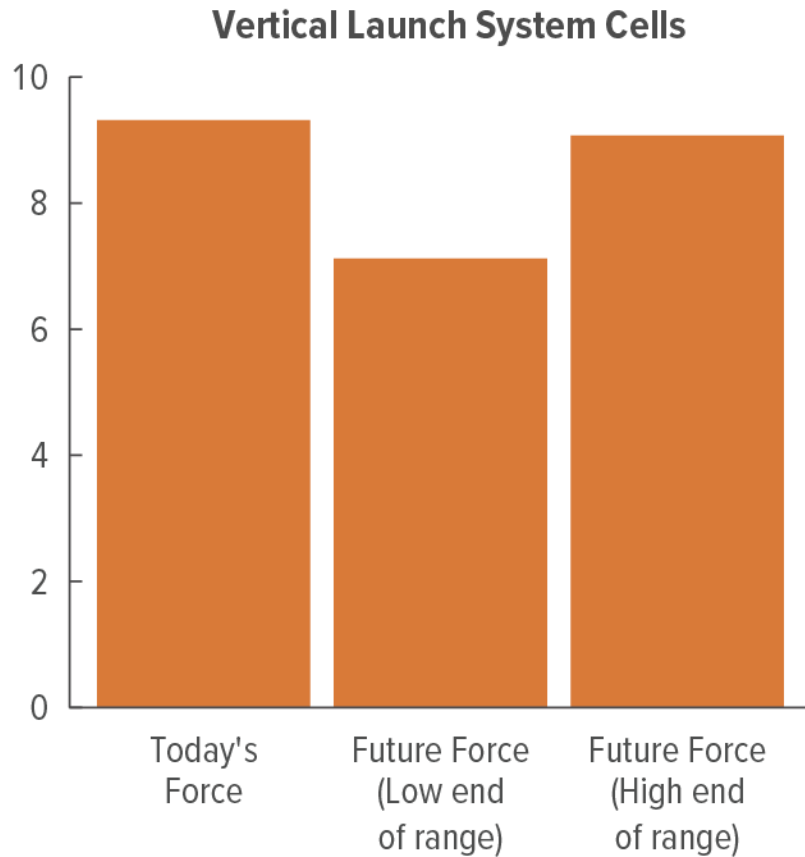
The Navy could reduce its large surface combatant force by shortening the service life of existing destroyers, by decreasing the rate at which it procures new destroyers, or by combining both methods.

Source: Congressional Budget Office, *An Analysis of the Navy's Fiscal Year 2022 Shipbuilding Plan* (September 2021), www.cbo.gov/publication/57414. FY = fiscal year. Under Scenario 1, the Navy would retire ships quickly to meet force goals by 2030 and would maintain the size of the force with a steady-state build rate of 1.8 destroyers per year. Under Scenario 2, the Navy would maintain a steady-state build rate of two destroyers per year and would reduce the size of the force with retirements by 2035. Under Scenario 3, the Navy would maintain the 35- to 40-year service life for destroyers and buy one new destroyer per year through 2036 and two new destroyers per year thereafter. Under Scenario 4, the Navy would maintain the 35- to 40-year service life for destroyers and buy two new destroyers per year (the current rate of purchase).

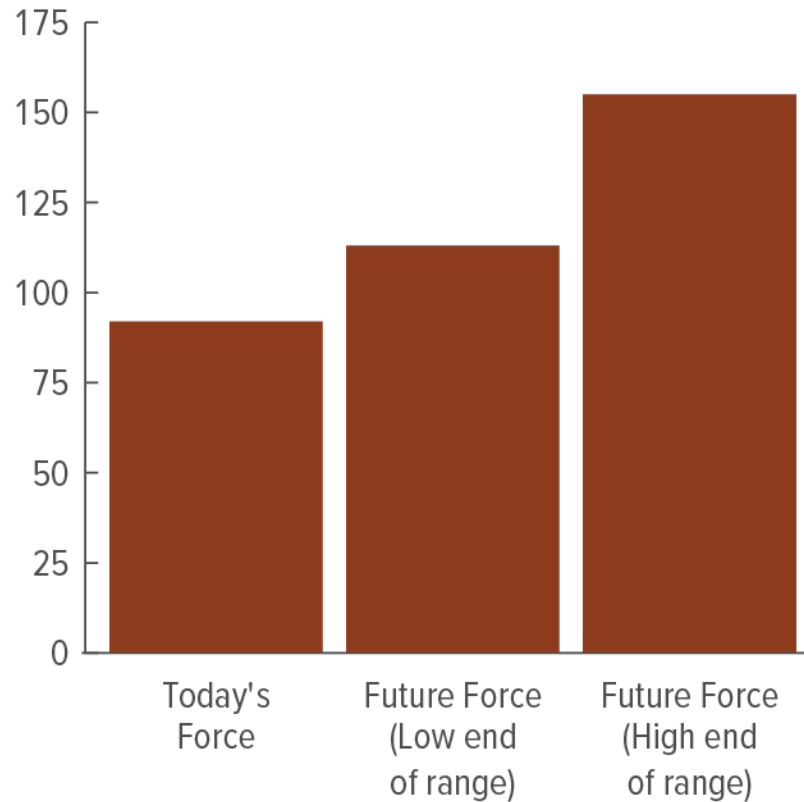
The Vertical Launch System Capability of the Surface Force Under the Navy's FY 2022 Shipbuilding Plan

Number, in Thousands

Number



Surface Combatants and Unmanned Surface Vessels Carrying Vertical Launch System Cells



Under the Navy's FY 2022 plan, the surface forces (manned and unmanned) would eventually have between 3 percent and 24 percent fewer vertical launch system cells than today's fleet, but the cells would be deployed on 23 percent to 68 percent more ships.

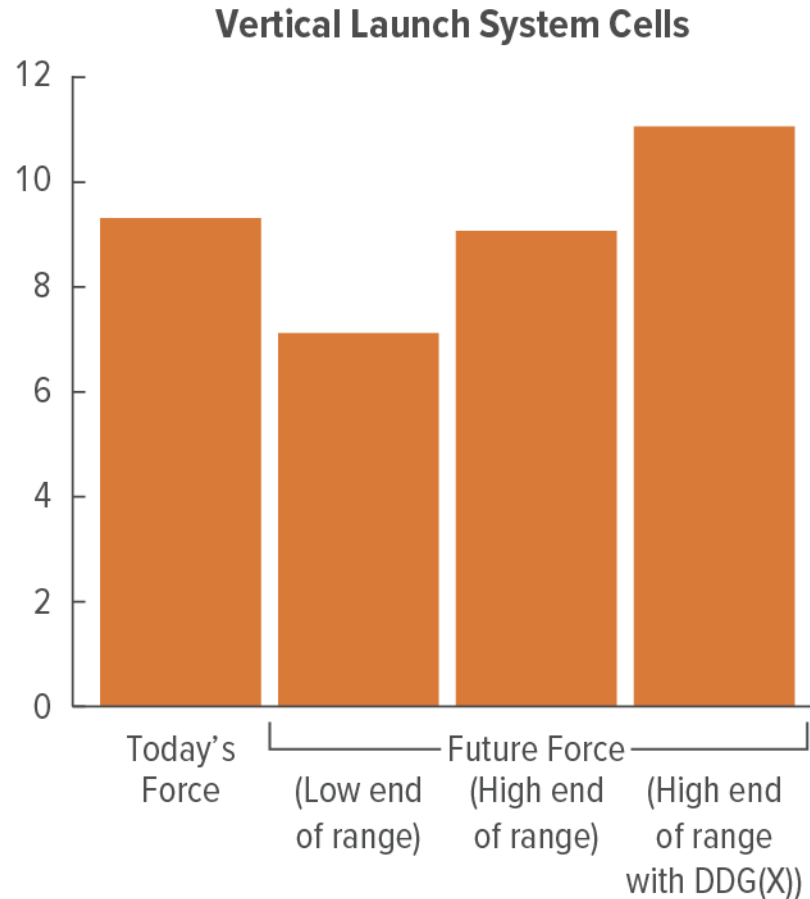
Source: Congressional Budget Office, *An Analysis of the Navy's Fiscal Year 2022 Shipbuilding Plan* (September 2021), www.cbo.gov/publication/57414.

FY = fiscal year.

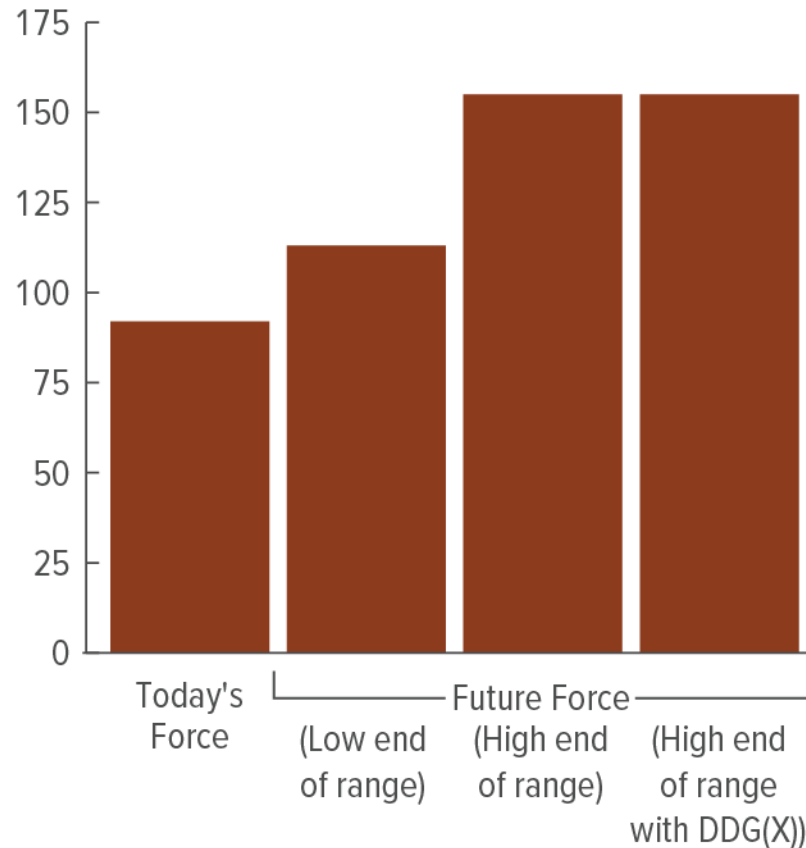
The Vertical Launch System Capability of the Surface Force, Including the DDG(X), Under the Navy's FY 2022 Shipbuilding Plan

Number, in Thousands

Number



Surface Combatants and Unmanned Surface Vessels Carrying Vertical Launch System Cells

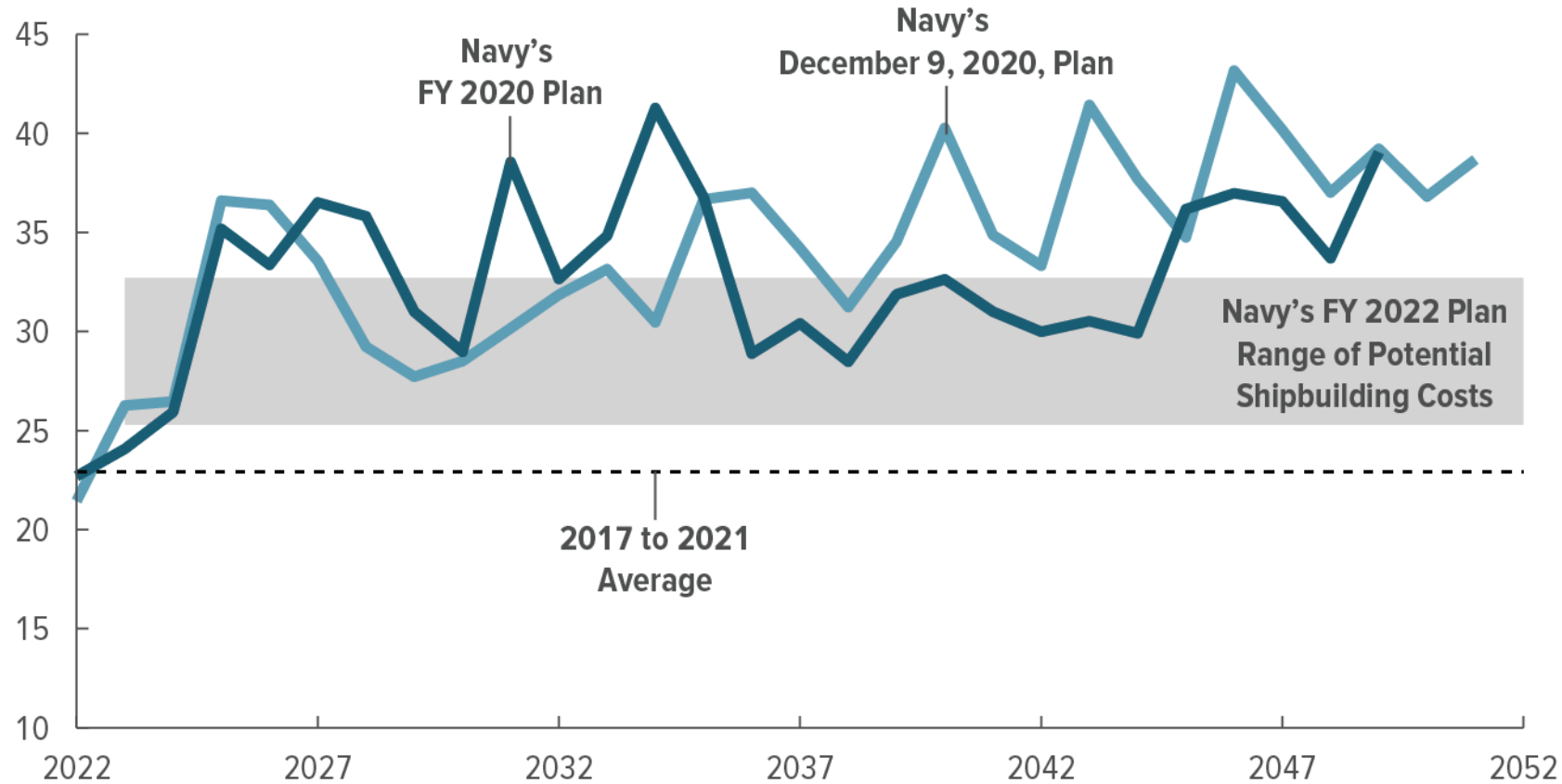


The number of vertical launch system cells would increase dramatically at the high end of the range if the Navy built significant numbers of the DDG(X).

Paying for the Navy's Shipbuilding Plans

Annual Shipbuilding Costs Under the Navy's Recent Plans

Billions of 2021 Dollars



The Navy's three most recent shipbuilding plans would each cost, on average, more than the Navy has received in appropriations over the past five years, the period with the highest amount of shipbuilding appropriations since the 1980s.

Average Potential Ship Construction Costs Under the Navy's FY 2022 Shipbuilding Plan

	Platform Ranges (Number of ships)		Service Life (Years)		Average Annual Costs (Billions of 2021 dollars)	
	Low	High	Low	High	Low	High
Aircraft Carriers	9	11	50	50	2.3	2.9
Ballistic Missile Submarines	12	12	42	42	2.3	2.3
Attack Submarines	66	72	33	42	9.3	10.7
Large Surface Combatants	63	65	35	40	4.4	6.1
Small Surface Combatants	40	45	20	30	1.5	2.6
Amphibious Ships	48	63	20	40	1.5	2.1
Combat Logistics and Support Ships	83	104	30	45	1.4	2.2
Total Manned Battle Force Ships	321	372	n.a.	n.a.	22.7	28.9
Unmanned Surface Vessels	59	89	10	15	0.5	1.3
Unmanned Undersea Vessels	18	51	10	15	0.1	0.4
Total Unmanned Vessels	77	140	n.a.	n.a.	23.4	30.6
Carrier Refuelings and Outfitting Costs	n.a.	n.a.	n.a.	n.a.	1.9	2.1
Total Shipbuilding Costs	n.a.	n.a.	n.a.	n.a.	25.3	32.7

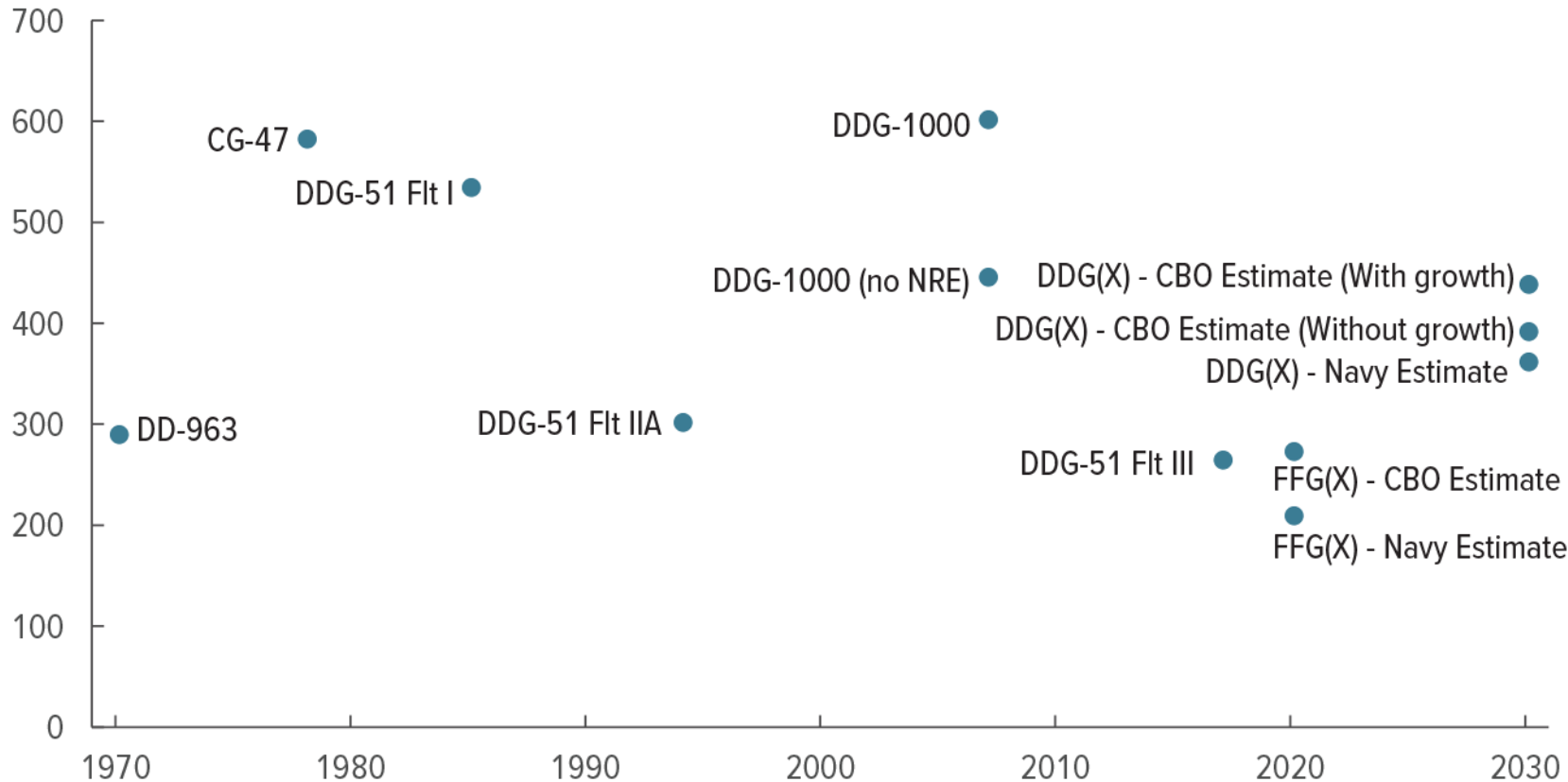
Source: Congressional Budget Office, *An Analysis of the Navy's Fiscal Year 2022 Shipbuilding Plan* (September 2021), www.cbo.gov/publication/57414.

FY = fiscal year; n.a. = not applicable.



Lead Ship Cost, by Weight, for Surface Combatants, 1970 to 2030

Cost per Thousand Tons, in 2021 Dollars



The cost, by weight, of the Navy's proposed DDG(X) large surface combatant is in line with similar shipbuilding programs.