

The Influence of Crisis and Subsidies Upon the History of American Seapower

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Abstract

This monograph explores the history of American shipbuilding, primarily focusing on the impact of national crises and government subsidies on its rise and decline. The text traces the industry's trajectory from its peak during the World Wars, highlighting the role of federal intervention and programs like the Emergency Fleet Corporation and the Merchant Marine Act of 1936 in spurring massive production. It details the postwar collapse of both naval and commercial shipbuilding, attributing it to reduced demand, the cessation of subsidies, and competition from foreign nations with lower labor and material costs. The analysis uses the USS New Jersey battleship and the Philadelphia Naval Shipyard as emblematic examples of this cyclical pattern, concluding that the industry's health has historically been tied to existential national security threats and sustained government support.

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Acknowledgements

Foremost, this project could not have happened without my biggest inspiration—the land that is home: *America*. In many ways, small places and big stood as my muse for this project. I spent countless hours from Bethlehem to Philadelphia, in Camden, the Jersey Shore, and on Long Island, taking inspiration from our rivers, our lakes, our bays, and the ocean itself. New Jersey is, of course, a principal part of this story—home to relics of our shipbuilding past, and to symbols of its strength, namely the Battleship *New Jersey*, docked in Camden.

Beyond those places, there are people to whom this project is innately tied. I cannot thank enough Devin Woods, Sean Bray, and Anton Yang, all of whom provided critical support and ideas for this project, and all of whom I count among my friends. Beyond that, I could not have done this without my mother and grandmother, who gave me the intellectual framework from which all of my work derives. I must also thank Laura Timaran, for helping me through every step of this venture.

Throughout this project, several great works have given me inspiration. I’ve found myself inspired by *Robert Caro*, who has given me much to think about the idea of American *greatness*, in his work on *Robert Moses*. I would be remiss to mention the artistic inspirations on my work, especially the work of the late *David Lynch*, for he has been at the forefront of my understanding of America, as a place and an idea. I further mention the late *Brian Wilson*, of the Beach Boys—whose music, principally *Pet Sounds*, has provided the soundtrack to this undertaking.

Finally, I would like to thank Dr. Kent Calder, and the Reischauer Center writ large—which has been my intellectual home since I graduated from the Paul H. Nitze School of Advanced International Studies at the Johns Hopkins University. To the Reischauer Center, I owe so much.

I. Introduction

The Passing of a Great Age?

From high above on South Mountain, a star shines over *Bethlehem*, watching over the sleepy city nestled in the Lehigh Valley. The star was erected in 1937,¹ calling back to the biblical star that guided the Three Wise Men to the East, to the newborn Jesus Christ. At the height of steel production at the Bethlehem Steel plant, an even brighter light shined from just below the mountain. From the main foundry along the Lehigh River, white plumes billowed overhead, and a powerful glowing light radiated out. Here, by the peak of American steel production in 1973, *Bethlehem Steel Corporation* produced 23.7 million tons of steel annually.²



Bethlehem Steel Plant, 1964, Digitized by the National Museum of Industrial History, Bethlehem, PA.

Here, the *little town of Bethlehem* made America's largest cities. These many feats of steel and concrete heralded an era of American greatness in the last century; first the railroads of steel

¹ Sarah Cassi, "Bethlehem Star, Christmas City USA Symbol, Has a Rich History," *Lehigh Valley Live*, December 22, 2017, https://www.lehighvalleylive.com/bethlehem/2017/12/bethlehem_star_christmas_city.html.

² Kenneth Warren, *Bethlehem Steel: Builder and Arsenal of America* (Pittsburgh: University of Pittsburgh Press, 2008), 228.

and steam, then monstrous steel bridges, tunnels bored into the ground below, and the great dams that powered American cities into the future. All these economic lifelines testified to a society moving forward. By 1940, New York was already becoming the megalopolis of the American imagination—and 80% of the skyline was built by Bethlehem.³ The Empire State Building, the Chrysler Building, the George Washington Bridge, and later Madison Square Garden, the Verrazano-Narrows Bridge, the Lincoln and Holland Tunnels—all built with Bethlehem Steel. Beyond New York, San Francisco’s Golden Gate Bridge, and Philadelphia’s Ben Franklin Bridge.⁴

Greatness and power are inextricably linked. Beyond the landmarks of New York’s skyline, other monuments to America’s greatness can be found on the seas. Large, imposing ships are testaments to such greatness. Think of the large steel monstrosities that patrol the waterways that are critical lifelines—that transport the materials that fuel the economy and provide for national defense. Think of the victorious scene from the end of World War II—around 300 or so ships in Tokyo Bay for the formal surrender of Imperial Japan, all ships of steel.⁵ During the war, the height of American industry, Bethlehem Steel produced 73 million tons of steel.⁶ At 15 shipyards across the country, *BethShip*, the company’s shipbuilding subsidiary produced 1,121 ships throughout the war.⁷ During the height of wartime production, they produced one ship per day.⁸

³“Bethlehem Steel,” *Discover America Blog*, August 18, 2019, <https://www.discoveramericablog.com/post/2019/08/18/bethlehem-steel>

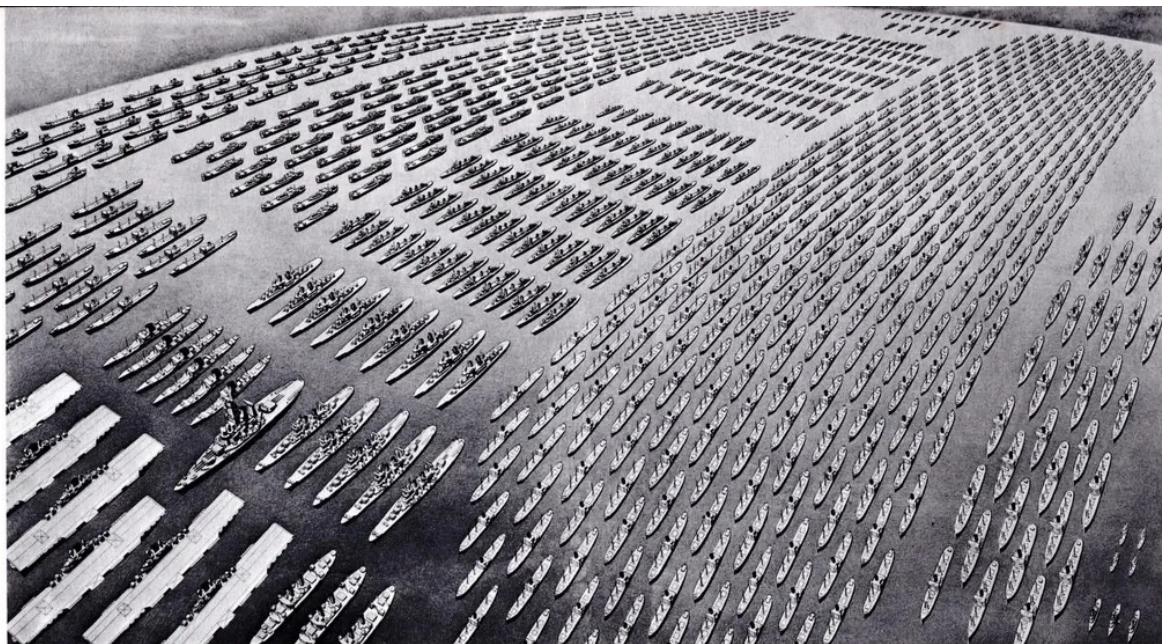
⁴ Ibid.

⁵ The National WWII Museum, “Full Circle: The Japanese Surrender in Tokyo Bay, September 2, 1945,” accessed June 25, 2026, <https://www.nationalww2museum.org/war/articles/japanese-surrender-tokyo-bay-september-2-1945>

⁶ Warren, P.145

⁷ Ibid.

⁸ Ibid.



SHIPS OF BETHLEHEM'S WORLD WAR II PROGRAMS • • • 1121 TOTAL
 6 Aircraft Carriers, 1 Battleship, 25 Cruisers, 112 Destroyers, 99 Destroyer Escorts, 23 Naval Transports, 6
 Destroyer Mine Layers, 211 LST's and LCI's, 8 Troopships, 10 Combat Transports, 2 Passenger Liners (originally
 scheduled as Troopships), 522 Cargo Vessels, 74 Tankers, 22 Tugs, Trawlers and Self-Propelled Lighters.

Ships of Bethlehem's World War II Programs, Digitized by the National Museum of Industrial History, Bethlehem, PA

Postwar optimism was soon replaced by something far worse. Across the country, and most notably in New York, *malaise* set in. The city had transformed from one brimming with optimism as the war came to an end, into a sort of societal decay. Economic stagnation, high unemployment, and a mass exodus of the city's population created an often chaotic malaise. By the 1970s, there seemed to be a passing of a great age. The oil crisis followed a deluge of civil unrest in the late 1960s, all amid a deepening and unpopular war in Vietnam. The economy was stagnant, and the future looked less clear than it had upon the Allied victory in 1945. With this malaise came a lessening appetite for those great testaments to American greatness. But what does the decline of the American golden age have to do with shipbuilding?

The postwar era brought a kind of defeat for U.S. industry; the wartime buildup of industry quickly faded. American industries began to shutter one by one. Wartime might faded into peacetime languor. American industry went the way of the economy in this period—towards stagnation and *malaise*. The shipbuilding industry, which had built testaments to American maritime might, faced the same fate as American industries writ large. Like New York City, like the many skyscrapers that underwrote its greatness, disarray followed the American shipbuilding industry into the postwar era. Once-bustling shipyards across the country began to shutter—and with them went the Merchant Marine and the naval fleet. This is still acutely felt today.

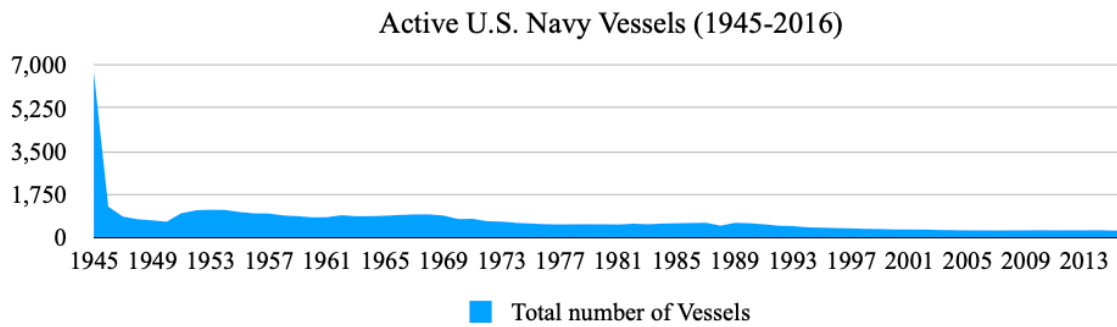
The postwar collapse of naval shipbuilding

Take the example of the *Philadelphia Naval Shipyard*—a focal point in the history of American shipbuilding. In 1939, only 4,500 civilians were employed full-time in the shipyard. During the war, this rose to 47,000 full-time civilian employees.⁹ After the wartime mobilization effort, the shipyard's workforce was reduced to 12,000, and the last ship built there was in 1970—*USS Blue Ridge* (LCC-19). With the end of the Cold War, the Base Realignment and Closure Commission (BRAC) recommended shuttering the yard in 1991, and when it finally closed in 1995, the remaining 8,000 jobs were eliminated overnight.¹⁰ Throughout the war, the Philadelphia shipyard produced 53 vessels and repaired over 574 more¹¹—all testaments to American greatness, and a thriving shipbuilding industry.

⁹“ Full History,” *Battleship New Jersey*, accessed July 6, 2025, <https://www.battleshipnewjersey.org/the-ship/full-history/>

¹⁰ World War II Database, “Philadelphia Navy Yard,” accessed July 6, 2025, https://ww2db.com/facility/Philadelphia_Navy_Yard/; and U.S. Government Accountability Office. Military Bases: Status of Prior Base Realignment and Closure Rounds, GAO-NSIAD-99-36. Washington, D.C.: GAO, December 11, 1998.

¹¹ World War II database.



Source: "US Ship Force Levels." Naval History and Heritage Command, November 17, 2017. <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>.

One such testament was the battleship *New Jersey*. On September 16, 1940, the first keel was laid down in the Philadelphia Naval Shipyard for the fastest and heaviest battleship ever built—*USS New Jersey (BB-62)*, of the new *Iowa-class*. The *Iowa-class* battleships were ordered to cope with the threat of Japanese naval power in the Pacific. *New Jersey* is notable, for many reasons beyond the fact that it remains the most decorated American naval vessel, as it was finished 9 months ahead of schedule—unthinkable today. It was launched exactly one year after Japan's attack on Pearl Harbor. By May of 1943, the ship was commissioned in the Navy.¹²

New Jersey steamed towards the Pacific, where it would become the *Black Dragon* of Japanese sailors' imagination. The ship's journey throughout the Pacific War took it from Pearl Harbor, to the Marianas, the Philippines, Formosa, and finally Okinawa. The ship scored two kills on enemy ships—including the destroyer *INS Maikaze*—and 20 planes.¹³ The ship's mission ended, not in Tokyo Bay, where it had served as the flagship of U.S. Naval Forces in Japan—but in San Francisco in February of 1946, after it had finished repatriating American troops home.

Two years later the ship was decommissioned in Bayonne, New Jersey, and assigned to the Atlantic Reserve Fleet. But the ship would once again hear the call to deliver *Firepower for*

¹² *Battleship New Jersey*

¹³ *Ibid.*

*Freedom*¹⁴ as war broke out in Korea in 1950. Truman ordered a large-scale naval mobilization, including activating the Reserve Fleet—and *New Jersey*, itself.

When the war drew down, *New Jersey* went back to Bayonne. In 1967, Secretary of Defense McNamara ordered the ship back into service, and a year later it was recommissioned in the Philadelphia shipyard, to provide naval artillery support for the deepening war in Vietnam. But by 1969, *New Jersey* was set to be decommissioned once again. Upon its decommissioning at Puget Sound Naval Shipyard, its Captain remarked, "Rest well, yet sleep lightly; and hear the call, if again sounded, to provide fire power for freedom."¹⁵

The ship's retirement was short-lived, as before. In 1982, President Reagan remarked, on her recommissioning as the 514th ship in his *600-ship Navy*; "She's gray, she's had her face lifted, but she's still in the prime of life, a gallant lady..."¹⁶ All of America's remaining Iowa-class battleships were rushed back into service to supplement a fleet in disarray. A year later, the ship delivered that firepower, once again, off the coast of Lebanon during the Civil War.¹⁷

Every American adversary from her launch, only a year after the attack on Pearl Harbor, until 1991 has known the name *New Jersey*. The life of *New Jersey* is a story emblematic of American naval shipbuilding writ large; *existential* crisis compelled her construction, and when that crisis ebbed, she was sent to the Reserve Fleet. When smaller crises erupted, she was hastily pressed into service once again, for nearly five decades after her construction—with few efforts made at naval rearmament thereafter.

In those five decades, most yards shuttered across the country with too few naval contracts. The story of the Philadelphia Navy Yard is one of the rise and fall of American shipbuilding—and the

¹⁴ Motto of USS New Jersey (BB-62)

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

broader history of American deindustrialization. Gone is the golden age of America's maritime-industrial might, when the U.S. was once able to roll out entire fleets to meet the most pressing existential security challenges.

Today, most of the forthcoming naval programs are behind schedule and massively over-budget. The first of the forthcoming *Ford-class* supercarriers is 18–26 months behind schedule. The next upgraded *Arleigh Burke-class* destroyers are 33–36 months behind schedule. The *Constellation-class* frigate program was 36 months behind schedule before it was ultimately cancelled¹⁸, as are Block IV and V *Virginia-class* submarines. The Navy's top priority, the new *Columbia-class* submarines are 12–18+ months behind. Finally, the third *America-class* Amphibious Assault Ship is 21 months behind schedule.¹⁹ As the U.S. enters a critical time of global uncertainty, the naval shipbuilding sector is failing to answer the needs of the nation.

At the same time, the People's Liberation Army Navy (PLAN) is currently undergoing the largest naval buildup in human history. A 2024 *Center for Strategic and International Studies* report posited, "If China continues to expand its fleet at the current pace and the United States does not revitalize its shipbuilding industry, China will grow increasingly likely to emerge victorious from interstate war, especially a prolonged great power war."²⁰ As Chinese shipyards brim with both commercial and naval production, U.S. yards languish—unable to produce ships on time. As of

¹⁸ Sam LaGrone, "Navy Cancels Constellation-class Frigate Program, Considering New Small Surface Combatants," *USNI News*, November 25, 2025, <https://news.usni.org/2025/11/25/navy-cancels-constellation-class-frigate-program-considering-new-small-surface-combatants>.

¹⁹ U.S. Government Accountability Office, "U.S. Navy Shipbuilding Is Consistently Over Budget and Delayed Despite Billions Invested in Industry," *GAO WatchBlog*, April 8, 2025, <https://www.gao.gov/blog/u.s.-navy-shipbuilding-consistently-over-budget-and-delayed-despite-billions-invested-industry>.

²⁰ Center for Strategic and International Studies, *Unpacking China's Naval Buildup*, accessed July 6, 2025, <https://www.csis.org/analysis/unpacking-chinas-naval-buildup>.

late 2024, the PLAN possesses, numerically, the largest maritime force: 234 ships to the Navy's 219.²¹

While numerical counts do not take into account capabilities of power projection per se, nor total tonnage, suffice it to say that much evidence suggests that larger fleets simply win wars. A recent study by the *U.S. Naval Institute* confirms the naval counterpart to Napoleon's classic adage, "God favors the side with the best artillery"—"bigger fleets win."²² Of course, quantity is a quality in its own right.

In fact, that proposition underwrote the American victory against the Imperial Japanese Navy. The Japanese went to war with a superior force, but were outclassed by American industrial might. Japan entered the war with 18 fleet, light, and escort carriers, the same number as the U.S. Imperial Japan produced only 18 during the course of fighting, while the U.S. produced 144. Today, the PLAN seems to have learned from the American experience in the Second World War. By some counts the PLAN is on track to have 460 vessels by the end of the decade. The U.S.? Only 260.²³

The fall of the commercial sector

While the story, told so far, is one of naval shipbuilding, the commercial sector quickly crumbled in the postwar period. The wartime mobilization effort created a modern Merchant Marine second to none. In the years from 1939 to 1945, the U.S. Maritime Commission constructed 5,171 ships of more than 2,000 gross tons.²⁴ New classes of ships called "Liberty" and "Victory,"

²¹ International Institute for Strategic Studies, *The Military Balance 2023* (London: IISS, 2023).

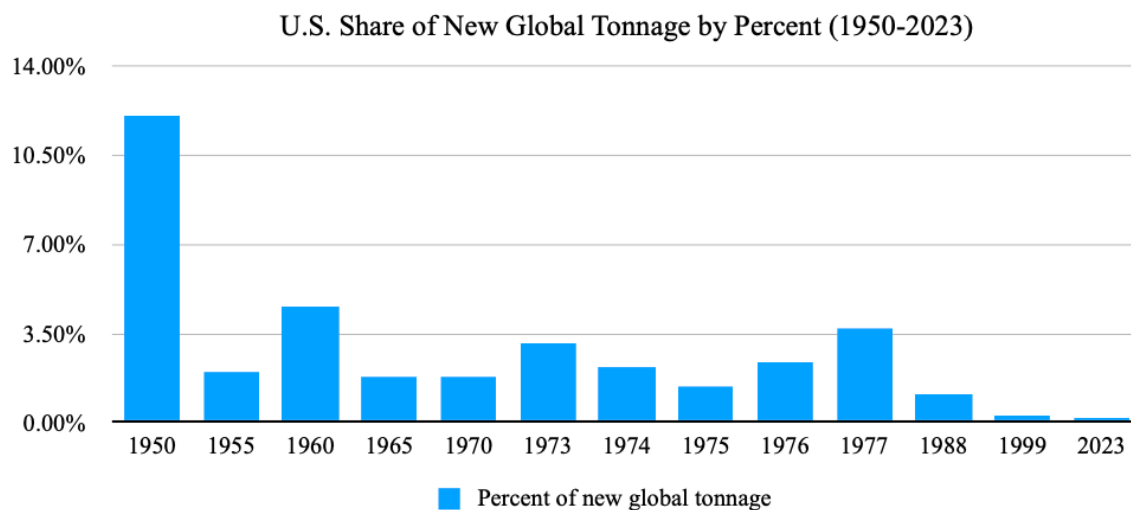
²² Tangredi, Sam J. "Bigger Fleets Win." *Proceedings of the U.S. Naval Institute*, January 2023. <https://www.usni.org/magazines/proceedings/2023/january/bigger-fleets-win>.

²³ Ibid.

²⁴ Potter.

manned by over 262,000 mariners during this period, carried goods across the globe in support of the vast military effort being undertaken.²⁵ Commercial vessels of all sorts, from tankers, to cargo ships, to barges, and even tugboats, sustained the economy in the midst of unrestricted submarine warfare in the North Atlantic.

By war's end, the U.S. merchant fleet accounted for over 66% of the world's total tonnage²⁶. Within three years, that number dropped to 48%.²⁷ The end of the war meant a sell-off of excess tonnage. In peace, the U.S. did not need a wartime merchant fleet. By the 1950s, Japan had risen to become the world's largest producer of new tonnage—because of new technical innovations perfected by the U.S. during the war effort.



Source: <https://www.construction-physics.com/p/why-cant-the-us-build-ships>

American commercial shipbuilding had always been somewhat of a bad bet. Globally, material and labor costs were higher in the U.S. than most anywhere else. In the era of steel-hulled

²⁵ U.S. Maritime Administration, *The Maritime Administration's First 100 Years: 1916–2016*, accessed July 6, 2025, <https://www.maritime.dot.gov/history/historical-documents-and-resources/maritime-administration%E2%80%99s-first-100-years-1916-%E2%80%932016>.

²⁶ Ibid.

²⁷ Potter.

ships, American steel was simply not as competitive as its foreign counterparts. In the 19th century, as the transition from wood-hulled vessels was made, British steel was markedly cheaper—which remained the case into the 20th century. By the 1970s, Japanese steel dominated the market, and by the 1980s, South Korea had supplanted Japan.

The same trend was clear with labor. In fact, shipbuilding dominance has traditionally chased the lowest labor costs. American labor was, once again, costlier than its British counterpart from the 19th century into the 1950s, then costlier than Japan, then South Korea, and now China. In this pattern we see the shifting centers of global shipbuilding—of which the U.S. has consistently been a minor blip, save for emergency shipbuilding efforts in the two great wars of the last century.

In the years after the Second World War ended, and before 1982, the U.S. produced around 20 commercial vessels a year. From 1982 to 1990, the U.S. produced only 5.²⁸ Look no further than the recent data for (oceangoing) commercial vessel orders. As the chart below shows us, the U.S. has consistently had, on average, four such vessels ordered per year. China? 1,573 on average. South Korea? 600. Japan? 577. Today, China, Japan, and South Korea account for over 85% of global shipbuilding.²⁹

²⁸ Ibid.

²⁹ Congressional Research Service. *U.S. Commercial Shipbuilding in a Global Context*. IF12534. Washington, D.C.: Congressional Research Service, 2022. <https://crsreports.congress.gov/product/pdf/IF/IF12534>.

What made the ‘Great Age’ of American shipbuilding?

Ocean-Fairing Ships on Order by Country (2020-2023)

Country	2020	2021	2023
U.S.	4	3	5
Japan	533	612	587
South Korea	441	626	734
China	1,216	1,708	1,794

It is clear American shipbuilding fell off rapidly in the postwar period. But how did the U.S. undertake the massive shipbuilding effort of the war—building both a modern merchant marine and a navy, second to none?

The success of this period, like all periods of great American shipbuilding capacity, was one of government *subsidies*. So far, we’ve focused on the Second World War—but this success was mirrored by that of the First World War. Here, the government played an incredible role in stimulating construction. In 1914, there were fewer than five public shipyards—by the war’s end there were dozens.³⁰ The Naval Act of 1916 and the Emergency Fleet Corporation (EFC) put forth expansive subsidies that made shipbuilding more economical, and met the needs of American national security.

Despite the relative decline of the interwar years, the U.S. passed the *Jones Act* (1920), providing protection for the nascent industry, and then the *Merchant Marine Act* of 1936, codifying a subsidy regime for merchant shipbuilding.³¹ The explosion of public yards, followed by the *New Deal* employment relief effort under the *Public Works Administration*, created a strong industry—

³⁰ Heinrich, Thomas. *Warship Builders: An Industrial History of U.S. Naval Shipbuilding, 1922–1945*. Annapolis, MD: Naval Institute Press, 2020. <https://www.usni.org/press/books/warship-builders-industrial-history-us-naval-shipbuilding-1922-1945>. p.17

³¹ U.S. Maritime Administration

in spite of the structural economic challenges of high material and labor costs. Subsidies flowed, yards boomed with production, and jobs were plentiful.

It is no surprise that the sector fell into disrepair, as U.S. priorities shifted elsewhere a protracted land war in Vietnam sapped U.S. attention in the 1970s, the *Merchant Marine Act* of 1970 failed to bolster the U.S. commercial fleet and lowered the subsidies for commercial vessels, and finally, Reagan's *600-Ship Navy* program³² shifted focus from commercial shipbuilding, eliminating the subsidies that propped the industry up. Though the Jones Act provided protection from foreign competition, the industry could not survive without subsidies. Without the subsidies, shipyards closed, construction declined, and jobs were eliminated. American yards became less productive, forced to survive on a diet of Navy contracts—unable to shift to commercial construction in times of naval drawdown, keep those yards open, and retain their skilled workforce.

Unfortunately, the end of the Cold War permitted a massive reduction of defense-related spending, with the *peace dividend*, and finally, in the 21st century the U.S. found itself fighting a protracted, global counterinsurgency against Islamist militants the world over. Since then, the U.S. has had a moribund industry.

Wait Until the Evening?

*“Wait until the evening to see how splendid the day has been”*³³

- *Sophocles*

While it seems the U.S. is in a sort of twilight of shipbuilding, history tells us that perhaps it isn't quite evening yet. The cycle of rise and fall is not uncommon in American shipbuilding

³² Sims, Joseph. “Lessons from the 600-Ship Navy.” *Naval History Magazine*, August 2022.
<https://www.usni.org/magazines/naval-history-magazine/2022/august/lessons-600-ship-navy>.

³³ Sophocles, *Oedipus at Colonus*, quoted in Edith Hamilton, *The Greek Way* (New York: W. W. Norton & Company, 1942), 62.

history; in the last century, the U.S. was compelled by the outbreak of many existential crises across the sea into robust commercial and naval shipbuilding. In response to World War I, under President Wilson, the U.S. jump-started a merchant fleet to ferry troops to French shores and protect U.S. commerce. In less than a decade thereafter, Presidents Harding and Hoover reversed those fortunes—as the U.S. sought to retreat to its safe shores under the Washington Naval Treaty and the London Naval Conference schemes of naval reduction. America’s shipyards started to shutter with little demand for merchant and naval vessels. With the looming outbreak of World War II, and the acute economic crisis of the Great Depression, President Franklin Roosevelt sought an ambitious merchant and naval buildup, providing both jobs and national security. In both periods of crisis, a languishing merchant and naval fleet was turned around to meet the needs of the day.

Today, no such crisis exists. In fact, no such crisis has existed since the *Twenty Years’ crisis* of the last century. Luckily, no truly global conflict has broken out since then. In coping with the prevailing threats since 1945, the U.S. relied upon a formula symbolized by the *Merchant Marine Act* of 1970 and the *600-Ship Navy*, both stopgap measures to address limited emergencies. The prevailing wisdom of the postwar period was *austerity*, and removing the government’s hand from the industry. In fact, the shipbuilding industry in the U.S. is unique in that it is one of the only industries marked by state enterprise. Public yards were owned by the government, and the private ones were, by and large, paid for by the government. The shipbuilding industry, so critical to national security, principally heeds the call of government demands, and always has.

Conclusion and policy recommendations

What, then, is necessary to meet the economic and security demands of the nation? How can we get to being able to, as Sophocles noted, say the day has been indeed splendid?

This paper will justify a cyclical history of American shipbuilding, one that follows a political and economic rationale; American shipbuilding is strengthened at the hand of crisis and government demand—and withers without it. The cycle is the jumping off point for any hope of solutions to the languor that set in during the Cold War and persists today. As discussed at length later, the most obvious solution to America’s malaise is burden-sharing among allies. Whether joint production, or other sorts of cooperation on maintenance and repair, in an era of increasing global instability, the U.S. will need to cultivate its allies for the crises that lie ahead. No matter where they shall appear, whether over the Taiwan Strait, in the Red Sea, the Eastern Mediterranean, or the Black Sea, the U.S. will need to count on well-prepared allies, ready to cope with the struggles of tomorrow.

From Randolph Bourne’s *War Diary*, a critical response to the American entry into the First World War, we find some wisdom:

“the promise of American life is not yet achieved. . . . there is nothing for us but stern and intensive cultivation of our garden.”³⁴

Regardless of whether Bourne’s assertion on the course of American foreign policy, he offers us something to consider—that we must first take care to ‘our garden’. The garden to consider, is not that of American domestic life, as Bourne was so concerned, but far beyond our shores. The garden

³⁴ Bourne, Randolph. “A War Diary.” *The Dial*, August 30, 1917. Quoted in Dempsey, David. “The Radical and the Aesthete: Randolph Bourne, Scofield Thayer, and the Politics of ‘A War Diary’.” *OpenEdition Books*. Accessed July 6, 2025. <https://books.openedition.org/pur/38410?lang=en>.

is thus a perfect analogy for the alliance system we rely upon. To meet the threats that lie ahead, we must tend to our garden, which has given us the fruits of global prosperity and stability.

On the seas, and in our naval and merchant production, the U.S. must seek to cultivate a thriving industry abroad, with allies like Japan and South Korea that can be used to advance American national interests. We must, as George Kennan believed and as I will discuss at length, have sway over those industrial centers of the globe—the ones through which amphibious power can be cultivated. Friend-shoring, burden-sharing, or whatever it is to be called, is the future of American maritime power.

II. The Micro-Economics of American Shipbuilding

Introduction

It is easy to assume shipbuilding is an industry like any other heavy industry; like automobile or commercial aircraft production, it requires large amounts of resources, technical expertise, and production is at a mass scale. But no other heavy industry in the U.S. is as reliant on the hand of government as on shipbuilding. No other capital goods in our capitalist system are produced with such levels of state intervention—even on the commercial end. Shipbuilding answers the call of U.S. national interests—and is the chosen response to national security crises, when they arise. Even commercial shipbuilding functions as a defense sector, also answering the call of the state when emergencies arise. The political and economic survival of the state relies on its ability to respond to distant crises with large fleets and to ensure the flow of commercial goods to and from our shores.

Thus, shipbuilding follows a cycle. It starts with a national security emergency requiring the projection of power and the protection of American commerce, like the outbreak of both World Wars. The government thus responds to the crisis with subsidies and capital funds for production. Emergency production follows. Such production satisfies government demand, and the national emergency ends. In the case of both World Wars, the merchant and naval fleets were instrumental in the American victory. With the emergency over, there is an oversupply of tonnage; demand for wartime merchant and naval capabilities is low, and the industry falters. The period of great American shipbuilding, throughout the World Wars, was predicated on great existential emergencies—the breakdown of international trade in the First World War at the hands of the Central Powers, the Great Depression and then the global march of the Axis in the Second World

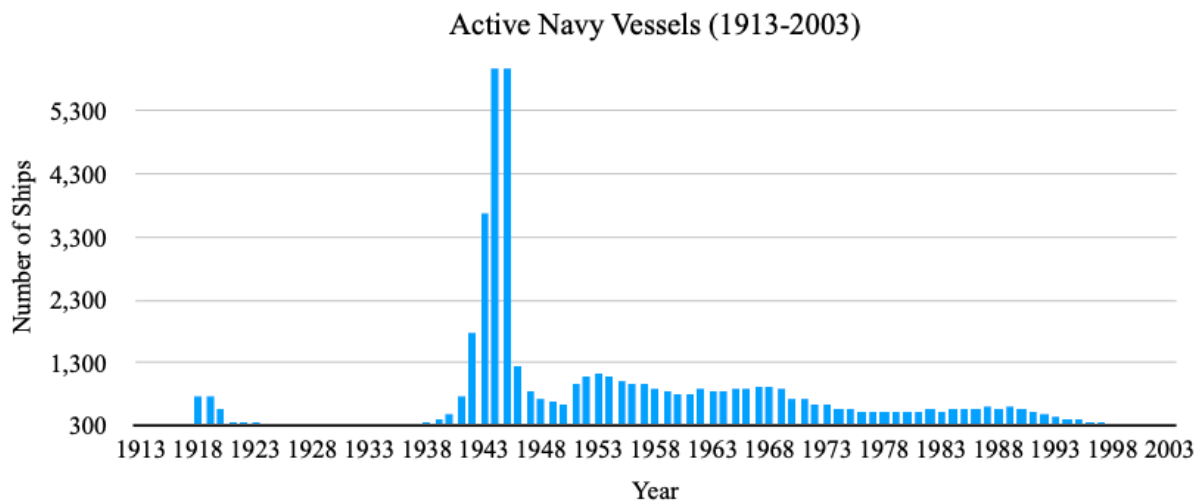
War. Existential threats stimulate obvious demand for the tools to meet them—i.e. building navies and merchant marines.

The U.S. shipbuilding industry has therefore been marked by a mixed system of private and state-owned enterprises. Private yards and private firms have long existed, juxtaposed by robust public naval shipyards (NSYs). Take the example of the Second World War: though 80% of naval production occurred in private yards, the U.S. government funded the construction, maintenance, and upgrade of most of those yards—to ensure seamless wartime production. America’s shipbuilders have existed by the grace of the government, and the crises that forced it to action.

Beyond the state-led rationale for production, there are structural issues that plague *American* shipbuilding—stymieing peacetime efforts at production. At the core of American shipbuilding woes is a set of four economic conditions yet to be bridged. First is the high cost in both materials and labor that has consistently plagued the industry in the era of steel-hulled vessels. Second is the lower level of productivity in American yards. Third is intense international competition and foreign subsidies that have created markedly lower construction costs abroad, to the detriment of domestic production. Finally, there’s the simple lack of demand for American shipping vessels—given low-cost alternatives like domestic trucking. These economic factors have continually stifled the industry’s development.

This chapter will explore the microeconomics of the American shipbuilding industry, identifying the structural deficiencies in the industry that underwrite America’s shipbuilding decline, and explaining how the economics of this industry remain unfavorable. This chapter will also set out the framework within which American shipbuilding has existed—the aforementioned national security cycle.

The national security cycle: national interest and crisis



See: <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>

The first question of shipbuilding is of the threat with which it copes. What defines national interest, crisis, and the challenges that shipbuilding is meant to meet? The great American statesman, George F. Kennan offers us the most succinct understanding of national interest, and the role and scope of policy. The fundamentals are:

1. Protecting “the security of the nation, by which it is meant the continued ability of this country to pursue the development of its internal life without serious interference, or threat of interference, from foreign powers; and
2. To advance the welfare of its people, by promoting a world order in which this nation can make the maximum contribution to the peaceful and orderly development of other nations and derive maximum benefit from their experiences and abilities.”³⁵

³⁵ John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War*, rev. and expanded ed. (New York: Oxford University Press, 1982), p.26.

The principal question of policymaking is: what exactly is needed to maximize national security and a favorable international order?

Thus American security has rested on the “ability to establish a balance among the hostile or undependable forces of the world.”³⁶ From this, Kennan understood that the U.S. must discriminate in its attention. Geographic priorities underwrite the entire proposition—one of “vital areas” that required “the maintenance of political regimes...at least favorable to the power and independence of our nation.”³⁷ These vital areas are defined as the “centers of industrial and military power.”³⁸ At the dawn of the Cold War, these included: the U.S., U.K., Germany (and Central Europe), the USSR, and Japan. Here were the centers of industrial might. Thus, the key is managing these centers as such, so they don’t fall into hands hostile to U.S. national interest and security.³⁹

Kennan recognized that industrial might is the prerequisite that “would enable people there to develop and launch the type of amphibious power which would have to be launched if our national security were seriously affected.”⁴⁰ That “amphibious power” of which he spoke, was the ability to project power—to enact one state’s will over others. Such a capability is one that relies upon the combined power of naval fleets and their merchant auxiliaries.

From Kennan’s understanding of national interest, we can define the type of crisis with which maritime power (defined in terms of naval and merchant capabilities) is meant to cope. A crisis can therefore be defined as the repudiation of the optimal conditions within the international order, and the internal order of the state. That is, a crisis is best understood as a severe shift in the

³⁶ Ibid, p.28.

³⁷ Ibid, p.29.

³⁸ Ibid, *ibid*.

³⁹ Ibid, *ibid*.

⁴⁰ Ibid, *ibid*.

global balance of power that threatens the first fundamental of government—assuring the stable internal life of the nation. The outbreak of war on the European continent in 1914, the Japanese invasion of China in 1937, and then the subsequent German invasion of Poland in 1939, are such crises. Here, all three heralded dramatic shifts in the global balance of power among forces hostile to the U.S. The outbreak of war on the Korean Peninsula, in June of 1950, can also be understood as such a crisis; the Soviets and their proxy in North Korea attempted to upend the stable, *regional* order, and dramatically maximize the Soviet position, to the detriment of the U.S.

Many such global crises are existential in nature. The breakdown of the stable European order in 1914 threatened the economic life of the U.S.—principally its access to the consumer goods that fuel everyday life. The crises of the Second World War—and the extent to which both Imperial Japan and Nazi Germany rapidly expanded—threatened not only the international order, but the ability of the U.S. to ensure its stable, internal order, without interference from such hostile powers.

The atomic age ushered in a new dynamic. While the crisis on the Korean Peninsula in 1950 was not dissimilar from the others, the presence of American and Soviet nuclear programs elevated any conflict to an existential threat. Suffice it to say that in the era before the bomb, naval power was the true ultimate lifeline of state survival. Only fleets of ships, transporting troops and materiel, could truly upend the survival of the state. Even more than the armies that would raze and occupy their enemies, ships presented the crucial lifeline of any maritime state.

The atomic age upended that truth. It was the B-29 Superfortress, conducting two bombing runs on Hiroshima and Nagasaki,⁴¹ that ended the Imperial Japanese state as it was constituted.

⁴¹ National Archives Museum, “The Atomic Bombing of Hiroshima and Nagasaki,” *Featured Document Display*, National Archives Museum, last updated July 23, 2020, <https://visit.archives.gov/whats-on/explore-exhibits/atomic-bombing-hiroshima-and-nagasaki>.

The atomic age was predicated on the birth of a new, destructive power with existential consequences on the relations between states.

Thus the national security cycle, as briefly expounded upon in the introduction to this chapter, begins. In subsequent chapters, those two crises will be discussed at length, but this chapter will introduce the framework through which the U.S. surged shipbuilding capacity to cope with these crises.

The outbreak of the crises in 1914, 1937, and 1939, respectively, upended the stability that American policymakers had previously taken for granted. Global war threatened the ability of the U.S. to connect to its economic lifelines, and ensure domestic stability (defined above as the ability to ensure stable domestic life without interference). Such a crisis required the massive expansion of power-projection tools (namely building fleets) to stabilize and reverse the crisis. The U.S., through the *Shipping and Naval Acts of 1916*,⁴² the *Emergency Fleet Corporation*, the *National Industrial Recovery Act (NIRA)*,⁴³ the *Merchant Marine Act of 1936*,⁴⁴ and the *Vinson-Walsh Two-Ocean Navy Act*,⁴⁵ responded to their respective crises with a surge of subsidies and funds for commercial and naval fleet production. Though this will be expounded upon later, those massive fleets eventually performed their duties. When the crisis subsides, there is hardly any demand for

⁴² *Shipping Act of 1916*, Pub. L. No. 64-260, 39 Stat. 728 (1916). See at: https://search.library.doc.gov/discovery/fulldisplay?docid=alma991000163219704716&context=L&vid=01USDOC_INST:01USDOC&lang=en&search_scope=MyInst_and_CI&adaptor=Local%20Search%20Engine&tab=Everything&query=sub%2Cexact%2Cnationalization%2CAND&mode=advanced&offset=20; and Duncan, Francis. "The Struggle to Build a Great Navy." *Proceedings* 88, no. 6 (June 1962): 712–?. U.S. Naval Institute. <https://www.usni.org/magazines/proceedings/1962/june/struggle-build-great-navy>.

⁴³ U.S. National Archives, "National Industrial Recovery Act (1933)," *Milestone Documents*, last modified June 16, 1933, <https://www.archives.gov/milestone-documents/national-industrial-recovery-act>.

⁴⁴ *Merchant Marine Act of 1936*, U.S. Merchant Marine Act, accessed June 29, 2025, <http://www.usmm.org/mmact1936.html>.

⁴⁵ Naval History and Heritage Command, "Naval Expansion Act, 14 June 1940," *History and Research by Topic: World War II Prelude*, Naval History and Heritage Command, accessed June 29, 2025, <https://www.history.navy.mil/browse-by-topic/wars-conflicts-and-operations/world-war-ii/1941/prelude/naval-expansion-act-14-june-1940.html>.

massive naval and merchant fleets—and so begins the process that succeeded the two World Wars: the sell-off of gross tonnage.

Micro-economics

Here enters the key issue of shipbuilding: demand is relatively low in times of peace. Crisis necessitates shipbuilding, and the government plays a central hand in addressing such crises. During periods of emergency production, the only periods of massive, successful shipbuilding production in the U.S., the government is the principal purchaser of commercial vessels—which is also the case for naval vessels. Massive emergency production follows government demands, paid for, almost in full, by government coffers. Mass production of this highly specialized sector is the only time when it is economical, given the four main structural issues facing shipbuilding.

Beyond this, there is a set of four economic conditions yet to be bridged. First is the high cost in both materials⁴⁶ and labor⁴⁷ that have consistently plagued the industry in the era of steel-hulled vessels. Second are the lower levels of productivity in American yards.⁴⁸ Third is intense international competition and foreign subsidies that have created markedly lower construction costs abroad, to the detriment of domestic production.⁴⁹ Finally, there's the simple lack of demand for American shipping vessels, given low-cost alternatives like domestic trucking.⁵⁰ These economic factors have continually stifled the industry's development, and have given rise to a cyclical nature in American shipbuilding efforts.

⁴⁶ W. Walker Hanlon, "The Persistent Effect of Temporary Input Cost Advantages in Shipbuilding, 1850 to 1911," *Journal of the European Economic Association* 18, no. 6 (December 2020): 3173–3209, <https://doi.org/10.1093/jeea/jvz067>.

⁴⁷ Marcel van der Linden and Alexis V. Roman, eds., *Shipbuilding and Ship Repair Workers around the World: Case Studies 1950–2010* (Amsterdam: Amsterdam University Press, 2017), accessed June 29, 2025, <https://muse.jhu.edu/book/66328>.

⁴⁸ Brian Potter, "Why Can't the U.S. Build Ships?" *Construction Physics*, September 5, 2024, <https://www.construction-physics.com/p/why-cant-the-us-build-ships>.

⁴⁹ Ibid.

⁵⁰ Ibid.

In the era before steel-hulled vessels, the U.S. was the premier shipbuilder, building the fastest ships in the world. In that time, wood was the dominant construction material, which the U.S. possessed in abundance. With an abundance of the premier raw material for shipbuilding, there was a large, economical industry. In the twenty years prior to the Civil War, the U.S. led shipbuilding because of this geographical blessing. But that changed as new technologies were introduced. The advent of the steam engine, iron ships, and eventually steel hulls displaced American wooden clippers and packet ships. Given the traditional dominance of wood, and the serious material inputs required for early steam engines, wooden ships were dominant into the 20th century, at least for coastal trade in the U.S. By 1905, the U.S. still relied upon wooden sail vessels for over three-quarters of foreign trade.

On the other side of the Atlantic, where the industrial revolution had begun, the British led the world in shipbuilding. They were the cheapest producers of steel,⁵¹ and their labor force was twice as productive as their American counterparts.⁵² Nothing short of massive subsidies could bridge these plain economic realities for American shipbuilders. Shipbuilding dominance has followed, generally, the place of lowest material and labor costs. In the 20th century, Britain reigned supreme until around World War II. The Japanese followed until the 21st century, when the South Koreans briefly took up the mantle until China surpassed them.⁵³

Conclusion

As demonstrated, the American shipbuilding industry is largely uneconomic, given the structural deficiencies of high material and labor costs, and low productivity compared to foreign

⁵¹ Hanlon, p.3173.

⁵² Marcel van der Linden and Alexis V. Roman.

⁵³ Stig Tenold, "The Declining Role of Western Europe in Shipping and Shipbuilding, 1900–2000," in *Shipping and Globalization in the Post-War Era: Contexts, Companies, Connections*, ed. Niels P. Petersson, Stig Tenold, and Nicholas J. White (Cham: Palgrave Macmillan, 2019), 9–36, https://doi.org/10.1007/978-3-030-26002-6_2.

counterparts. As such, in times of peace, there's hardly any demand for shipbuilding production, which has largely been the case in the postwar era. Thus, the shipbuilding industry—both commercial and naval—follows the aforementioned *national security cycle* in which existential crisis stimulates demand from the government, and thus a massive expansion of tonnage. This is the fundamental dynamic of the American industry, from which all else flows. Carrying capacity of global shipping increased by thirty percent, from 49 million gross tons, to 65 million in a matter of the nine years after the outbreak of war.

III. The First Cycle of American Shipbuilding: From ‘Great War’ to ‘Awful Interregnum’

Introduction

A crisis swept Europe beginning in July 1914. The crisis was not spontaneous, but rather the product of structural deficiencies in the European alliance system. It happened not in *Sarajevo*, where the Archduke of Austria-Hungary was assassinated, but rather in the power centers of Berlin, Paris, St. Petersburg, London, and Vienna. The crisis that erupted thereafter was a product of a slow march into conflict, furthered by a European arms race, increasingly hostile posturing, and the introduction of new technologies. Soon enough, European hopes of a short war faded into unrelenting and unforeseen man-made horrors. In the muddy trenches of Europe, millions died at the hands of trench warfare, and technological terrors like chemical weapons and fixed-wing aviation.⁵⁴ The war threatened the breakdown of global stability, and the unraveling of the global economy.

Though far from European shores, the U.S. could not escape the horrors on that continent. The war in Europe threatened everyday American economic life. In an increasingly globalized world, marked by international trade, Americans started to feel the effects of the war in the form of rising inflation. Unrestricted German naval warfare precipitously spiked the price of consumer goods, and most importantly, oil—which rose from \$4 per ton, to \$50 in the three years after the war started.⁵⁵

⁵⁴ See, Christopher M. Clark, *The Sleepwalkers: How Europe Went to War in 1914*, first U.S. ed. (New York: Harper, 2013).

⁵⁵ Salvatore R. Mercogliano, “The Shipping Act of 1916 and Emergency Fleet Corporation: America Builds, Requisitions, and Seizes a Merchant Fleet Second to None,” *The Northern Mariner / Le marin du nord* 26, no. 4 (October 2016): 407–24. pp.411-412.

To meet its national security and economic needs, the U.S. would need to marshal its industrial capabilities toward an ambitious shipbuilding effort. If America were to be a truly great power, and join the war in Europe, it would need to become a *maritime power*. The U.S. would need to jump-start an effort to expand commercial and naval shipbuilding to build a sealift to ferry troops to European shores.

Three years into the war, the U.S. was forced to join the European fray, as unrestricted German naval warfare increasingly targeted neutral U.S. shipping vessels. Even before the U.S. entry into the war in April of 1917, American policymakers saw the need for an expanded merchant and naval fleet amid shipping losses and inflation. To answer this, President Woodrow Wilson launched the first modern mass-industrial shipbuilding effort in the U.S. This effort would see the production of \$2.9 billion (or \$71 billion in current dollars) worth of tonnage.⁵⁶ By the early 1920s the U.S. owned 22% of total global shipping tonnage. Alongside this, from 1917 to 1918 alone, the U.S. increased the size of its surface fleet by 126%, from 342 to 774 total ships.⁵⁷

Emergency fleet-building under Wilson: the 19-month miracle

In the two weeks after the American war declaration, 122 vessels were sunk. In the entire month of that April, 1.25 million deadweight tons were sunk by German U-boats.⁵⁸ But the first American shot of the maritime war was not on the high seas, but in the harbors in New York and New Jersey. American neutrality in the war had brought many German commercial vessels to U.S. ports—94 or so were docked in the U.S. when the United States finally declared war.⁵⁹ With 25% of the German merchant fleet docked in American ports, and now an active state of war between

⁵⁶ Potter.

⁵⁷ Naval History and Heritage Command.

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⁵⁹ Mercogliano, pp.407-408.

both countries, U.S. marshals, along with soldiers, seized the enemy vessels in Manhattan and Hoboken. Of those ships seized in April, the largest was the 54,000-ton passenger liner *Vaterland*.⁶⁰ Now, flying under the American flag, these vessels would help transport the American Expeditionary Force across the Atlantic.

Though the war had broken out nearly three years prior, little effort was made in American shipyards to produce a vast merchant fleet, and its naval corollary. Two bills were rushed through to meet the challenge; the *Shipping Act of 1916*, and the *Naval Act of 1916*, providing for an expansion of merchant and naval production, respectively. The Shipping Act was titled: “An Act to establish a United States Shipping Board for the purpose of encouraging, developing, and creating a naval auxiliary and naval reserve and a Merchant Marine to meet the requirements of the commerce of the United States with its territories and possessions and with foreign countries; to regulate carriers by water engaged in the foreign and interstate commerce of the United States for other purposes.”⁶¹

The U.S. Shipping Board (USSB) established the EFC for the sole purpose of construction, maintenance, and operation of U.S. merchant vessels for both the war effort and commercial interests.⁶² The USSB and the EFC would have to contend with an industry of less than 50,000 yard workers, and few shipyards. The board’s first move was to order the seizure of enemy vessels so that they could be refurbished for the war effort, and all commercial vessels with more than 2,500 deadweight tons.⁶³ These vessels would be seized so the EFC could build, effectively, new American vessels from their existing hulls. But interned enemy vessels and commandeered commercial vessels would not be enough.

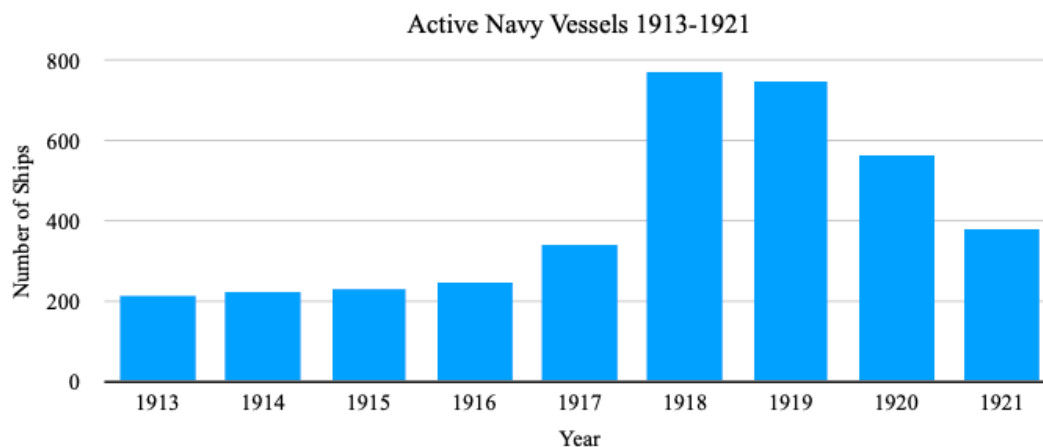
⁶⁰ Ibid, p.409.

⁶¹ *Shipping Act of 1916*, Public Law 64–260, U.S. Statutes at Large 39 (1916): 728–738.

⁶² Ibid.

⁶³ Mercogliano, p.410.

Through the EFC, the government started financing four yards: Bristol, Pennsylvania, Hog Island in Philadelphia, Newark, New Jersey, and Wilmington, North Carolina.⁶⁴ These yards would be home to several new entities, respectively, the Merchant Shipbuilding Corporation, the American International Shipbuilding Corporation, Submarine Boat Corporation, and the Wilmington-Carolina Shipbuilding Company. These four yards accounted for over 25% of the fabricated-steel vessels built under the effort.⁶⁵ Hog Island in Philadelphia became the model for modern shipbuilding, as it could mass-produce 78 vessels at a time.⁶⁶ In the 19 months after the Shipping Act was signed into law, the EFC produced 470 ships.



See: <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>

The Naval Act of 1916 also inaugurated a massive wave of shipbuilding. The vast expansion of commercial shipbuilding paved the way for economical and highly productive construction of naval vessels. The Naval Act called for a “big navy” with 156 more vessels added prior to July 1, 1919 and appropriated \$139,345,187 in 1916 dollars for this massive expansion.

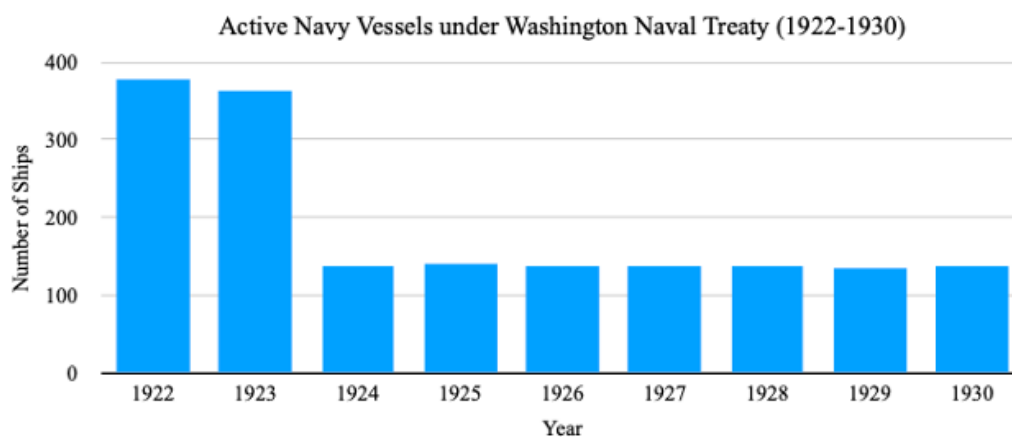
⁶⁴ John L. Hurley, *Bridge Across No Man's Land: Chapter 3*, in *The Great War: A Post-Mortem*, GWPDA (Great War Primary Document Archive), accessed June 30, 2025, <http://www.gwpda.org/wwi-www/Hurley/bridge1.htm#ch3>.

⁶⁵ Potter.

⁶⁶ Ibid.

Immediately following the passage, four battleships were laid down at Navy Yards—*Washington*, *West Virginia*, *Maryland*, and *Colorado*. All of these battleships were to be over 32,000 tons in displacement weight, and six would follow those initial four.⁶⁷ Importantly, the 1916 Naval Act set a precedent in American naval tradition—that the U.S. Navy would be second to none.

The Washington Naval Treaty and its Consequences



See: <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>

The *Washington Naval Treaty* was the first major episode of intransigence toward American commercial and naval shipbuilding. Postwar sentiment had swept the other direction, away from wartime emergency measures to create American naval preeminence. The *guns of August* had gone silent in November of 1918, and American voters sought to return to their safe home shores, divorced from the realities an ocean away. Policymakers largely agreed. The end of the wartime crisis meant there was little demand for continued naval and merchant expansion. A

⁶⁷ Francis Duncan, “The Struggle to Build a Great Navy,” *Proceedings* 88, no. 6 (June 1962): 712–??, U.S. Naval Institute, accessed June 30, 2025, <https://www.usni.org/magazines/proceedings/1962/june/struggle-build-great-navy>.

big navy was not necessary in a world of peace. Rationally, American policymakers sought to reduce the size and scope of the Navy, while also negotiating global naval reductions.

At the Washington Naval Treaty negotiations, President Harding's Secretary of State, Charles Hughes, negotiated away the burgeoning industry prompted by the World War. In exchange for massive reductions in British and Japanese tonnage (and construction thereof), and the breakup of the Anglo-Japanese naval alliance, Hughes negotiated away the fortification of American bases in the Western Pacific, and set the U.S. on the path toward shipbuilding decline. American naval tonnage was limited to a total maximum of 660,000 tons, leading to a massive cancellation of Navy contracts. Keels already laid were cancelled. 11 large capital ships (mostly battlecruisers and battleships) were cancelled, immediately following the treaty.⁶⁸ Even after the war, the Navy steamed forward with the construction of the new *Clemson-class* destroyers. Of the 162 destroyers in their class, over half were laid down for construction after the war officially ended, after the Washington Naval Treaty went into effect.⁶⁹

Not a decade later in 1930, President Herbert Hoover sought to continue the scheme of naval reduction at the London Naval Conference. There, American negotiators had agreed to a limit in tonnage and numbers for 8-inch gun heavy cruisers, and even a smaller number of total tons of light cruisers than the Royal Navy, even though the U.S., under President Wilson, had been instrumental in the war's end. Furthermore, the holiday on battleship construction was extended to 1936, which was a massive defeat for American shipbuilders who were already hurting.⁷⁰

This period of postwar deindustrialization led to the collapse of heavyweights of American shipbuilding like William Cramp & Sons of Philadelphia. If any firm was to survive the

⁶⁸ Thomas W. Heinrich, *Warship Builders: An Industrial History of U.S. Naval Shipbuilding, 1922–1945* (Annapolis, MD: Naval Institute Press, 2020), pp.17-18.

⁶⁹ *Ibid*, *Ibid*.

⁷⁰ *Ibid*, p.19.

Washington Naval Treaty years, it was Cramp & Sons on the Delaware River. They had put down 46 destroyers for the American war effort in World War I, they had laid down a majority of the fleet that won the Spanish-American War. Their foundries were numerous, as were their building and repair yards, and their steel facilities. Nearly 100 years of business came to an end in 1927, when the last *Omaha-class* cruiser left their yard in Philadelphia.⁷¹

Central to this story of American shipbuilding are the city of Philadelphia and the yards across the river in Camden, New Jersey. At the same time Cramp & Sons was collapsing, New York Ship in Camden survived deindustrialization—laying down the largest ship ever in U.S. naval history, the 38,000 ton *U.S.S. Saratoga*. But with the *Saratoga* finished and contracts dried up, the firm was forced to reduce its shipbuilders from 5,200 to 1,600.⁷² They survived on meager contracts, some previously given to Cramp & Sons, and diversification away from shipbuilding.

This was a common theme in this period. The mass exodus of firms from this once-burgeoning industry led to a consolidation of the industry under the Big Three surviving builders: Fore River (owned by Bethlehem Steel's shipbuilding subsidiary), Newport News, and New York Ship. But how did these three firms survive industry-wide collapse? Consolidation of the industry into three large builders brought about a cartel, which kept those builders alive, and led to yard specializations that have lasted well past the interwar years.⁷³

The shipbuilding cartel was born out of Cramp & Sons' demise, as the Big Three were the only yards capable of building large combatants. The Northampton-class contract saw the first coordinated effort between the three. Each entered large bids, far over the cost to build the ships, ensuring each of the three saw a piece of the contract. In the end, New York Ship saw 37% of the

⁷¹ Ibid, p.20.

⁷² Ibid, p.21.

⁷³ Ibid, p.29.

contract price, Newport News, 35%, and Fore River, 25%.⁷⁴ This continued, and led to specialization among those firms. The Big Three started to divide up contracts by surface vessel type, agreeing to put in unreasonably high bids on contracts to ensure it was won by a specific builder. In 1929, when the Navy sought to purchase new cruisers, Newport News put in an inflated bid to ensure that New York Ship and Fore River got it. In 1930, New York Ship and Fore River did the same for the carrier *U.S.S. Ranger*, leaving it to Newport News (which had never actually constructed a carrier by that point, unlike the other two firms). By rigging the bidding process, the Big Three firms ensured specializations that would last well into the future. To this day, Newport News constructs all of the U.S. Navy's carriers, as it did in 1930, and then again in World War II, with the carriers *Yorktown* and *Enterprise*, and later the *Essex-class* carriers.⁷⁵

Conclusion

The period from the outbreak of the First World War to the interregnum before the Second World War represents the first in a cycle that would repeat itself through the 20th century: crisis abroad would compel American policymakers to action, bringing to bear the great economic power, and requisite industrial capacity of the U.S. toward the construction of a vast merchant and naval fleet, which would then, though rationally, be left to languish once the crises ebbed.

The effort of the EFC brought the U.S. to the fore of great-power status. Whereas the West was tamed by the steel and steam of the railroads, creating a vast continental power, great power status rested upon the ability to control the high seas (specifically the economic arteries of the seas, the *sea lines of communication*, and the strategic chokepoints between). In an increasingly globalized world of international commerce a dual necessity was born: a merchant fleet to carry the commercial materiel to fuel American economic growth, and a naval fleet to secure it,

⁷⁴ Ibid, *ibid*.

⁷⁵ Ibid, *ibid*.

especially against the backdrop of unrestricted naval warfare wrought by the Germans in World War I.

The EFC effort was a glaring success; by the end of the program, in 1922, 2,312 ships were constructed for the new American Merchant Marine. Under the Naval Act of 1916, there was an expansion of 500,000 naval tons by the end of the war. The creation of the Shipping Board, the EFC, and the Naval Act of 1916 set up the structural features of American maritime power, and a formula of emergency shipbuilding that would be called upon again, as the world descended once again into great power war.

IV. “Hail Caesar!” The Second Cycle of American Shipbuilding

“Render unto Caesar the things that are Caesar’s...”⁷⁶

Introduction

Franklin Delano Roosevelt coasted to the presidency with a resounding mandate in the 1932 election, defeating President Hoover and his party. The country was poverty-stricken, and unemployed—a reversal of the fortunes of the ‘Roaring Twenties’. Roosevelt came to office amidst the greatest economic downturn in American history, with a mandate to provide jobs and dignity to despondent Americans.⁷⁷ At the same time, the beginnings of a crisis set in across the globe: in 1931, Japan invaded Manchuria, the Spanish Civil War turned into a proxy war between the great powers, and fascist movements came to dominate both Germany and Italy. The League of Nations, which had been created to cope with crises on a mass scale, was feckless in the face of a deteriorating world.

Much like the economy and the global situation, American shipbuilding languished. The guns had fallen silent in Europe in 1918. As a consequence, the rational, prevailing attitude became one of naval disarmament, and the collapse of domestic shipbuilding followed. Shipbuilding required immense material inputs and skilled labor, making it a great opportunity for job creation. Thus, ships became a critical public work under the New Deal. First through the *National Industrial Recovery Act*, then through the *Merchant Marine Act of 1936*, and the *Vinson-Walsh Act*, President Roosevelt bolstered shipbuilding to provide jobs, with only a vague notion that America would be plunged into a crisis as it had in the First World War. Roosevelt, having been Assistant Secretary for the Navy for the entirety of Woodrow Wilson’s presidency, was keen on

⁷⁶ Matthew 22:21

⁷⁷ See: David M. Kennedy, *Freedom from Fear: The American People in Depression and War, 1929–1945* (New York: Oxford University Press, 1999), p.131.

assuring American naval primacy—both with a thriving merchant marine, and a large naval fleet. He had seen the way in which the U.S. had been ill-prepared for the First World War, and was determined to avoid a crisis with which the U.S. could not adequately cope.

It is important to recognize that shipbuilding under Roosevelt was emblematic of the New Deal writ large: a works project that was built upon a web of patronage and pork, distributed to political allies. One such project, discussed at length later in this chapter, is *USS New Jersey*, named by Roosevelt in honor of the then-Governor of New Jersey, Charles Edison, who delivered votes to the Democratic Party, and was rewarded with funds for the shipyard in Camden and jobs for his constituents.⁷⁸ Roosevelt's shipbuilding project, as with his public works projects more generally, was a sort of dual-victory--it created and solidified the dominance of the New Deal Coalition, with union labor at the forefront, for decades to come, and bolstered American national security.

The New Deal Shipbuilding Miracle: from PWA to Merchant Marine Act

In the Department of the Navy, there had already been consternation over Hoover's 'pacifism'—extending the Washington Naval Treaty scheme of naval reduction at the London Naval Conference in 1930. Roosevelt's victory signaled as much hope for Navy officers as it did for the American people. His background in the Navy Department and his role overseeing the naval buildup under Wilson gave them much reason for optimism. He had overseen the creation of the Naval Reserve and commanded a certain respect among Navy officers, as he had been supportive of the "Preparedness Movement" advocating an effort to arm and prepare for the possibility the U.S. would be called on to fight in the Great War in Europe.⁷⁹

⁷⁸ Battleship New Jersey Museum & Memorial, "Full History," *Battleship New Jersey*, accessed June 25, 2025, <https://www.battleshipnewjersey.org/the-ship/full-history/>.

⁷⁹ Thomas W. Heinrich, *Warship Builders: An Industrial History of U.S. Naval Shipbuilding, 1922–1945* (Annapolis, MD: Naval Institute Press, 2020), p.56.

In 1932, Congress had approved the construction of new surface combatants, but without funding.⁸⁰ A year later, the surface combatants remained an illusory dream, but the Navy Department saw an opportunity to appropriate funds under the *National Industrial Recovery Act of 1933* (NIRA). The shipbuilding industry, writ large, was in a dire state with many shipyards in disrepair. The initial years of the Depression were not entirely bad for the industry, though. The *Jones-White Act of 1928* provided a certain amount of stimulus for the private side of the shipbuilding industry; excess wartime tonnage was sold off, increased mail subsidies were directed to American carriers that serviced routes abroad, and a \$250 million fund was enacted to provide upgrades for vessels in service and build new ones.⁸¹

The economic conditions were ripe for the industry; the economic downturn meant a collapse in material costs (especially steel), and decreasing labor costs. Initially, this was a boon for the biggest builders, like *New York Ship of Camden*, which received tens of millions of dollars in contracts to build liners for U.S. Lines. For the first time in a while, they began posting profits: \$507,000 in 1931, and then \$645,000 the year later⁸², an over 27% increase in profits. The initial success was only ephemeral. The subsidies quickly dried up, the economic situation continued to deteriorate, and industrial *decline* set back in. If the situation continued, New York Ship executives warned to the then-President Hoover, “[our workforce] will be reduced [from 5,520] to approximately fifteen hundred men by the end of the year...Our engineering force of two hundred fifty indispensable technical men is now working on half time basis. A substantial number of these men will be totally relieved within a short time, if new work cannot be had.”⁸³

⁸⁰ Ibid, Ibid.

⁸¹ *Merchant Marine Act of 1928*, Public Law No. 70-528, 45 Stat. 689 (1928).

⁸² Heinrich, p.56.

⁸³ “Shipbuilder Urges Replacement Program,” *Marine Engineering* 37 (Apr. 1932): 141.

There was simply no demand. With no contracts for new construction, what would happen to the workers? These skilled laborers would be forced out of the shipyards, and as Rear Admiral George Rock warned, they would “seek employment elsewhere, and when [they] have once settled in new work they are not easily enticed back.”⁸⁴ The collapse of shipbuilding demand, amidst the deepening Depression, threatened a sort of ‘brain drain’ for this highly-skilled labor, with their deep technical knowledge. The shipyards that needed to produce a merchant fleet, and naval combatants, would be emptied by the end of 1932. The warning signs of a moribund industry started to appear. Most importantly, productivity declined *rapidly*, with a precipitous decline in gross tonnage output of 155,000 to 16,000 gross tons from 1933 to 1934⁸⁵—an 89.68% decrease in a single year.

In response, the Public Works Administration (PWA), a centerpiece of the New Deal created by the NIRA, appropriated over \$238 million for Navy shipbuilding projects and an additional \$30 million for shipyard upgrades across the country.⁸⁶ Importantly, Roosevelt pitched this as a one-time “unemployment relief” program to keep laborers on the yard. While such relief would surely be approved by Congress, naval appropriations of that size were unlikely to get the approval of congressional Republicans and Democrats alike.

Roosevelt’s “unemployment relief” scheme with the PWA started with financing shipyard repairs and modernization across the country. In Philadelphia, the PWA financed a \$350,000 project to turn an old wooden slipway into a modern, concrete one large enough to accommodate the *Brooklyn-class* light cruisers. Beyond this, the shipyard in Brooklyn received \$300,000 for two

⁸⁴“ U.S. Congress, House, Committee on Naval Affairs, Sundry Legislation Affecting the Naval Establishment, 1931–1932: Hearings Before the Committee on Naval Affairs, House of Representatives, Seventy-Second Congress, First Session (Washington, DC: Government Printing Office, 1932), p.636.

⁸⁵ Heinrich, p.57.

⁸⁶ Ibid, p.60.

traveling cranes to also accommodate those *Brooklyn-class* ships.⁸⁷ Though small compared to the wartime ramp-up of shipyard upgrades, these funds kick-started a wave of production, keeping the industry solvent.

The PWA program was the largest since the last period of shipbuilding that was spurred by the U.S. entrance into the First World War. But this time, the program was spurred not by war—though one did in fact loom—but by economic crisis. Once again, the private and public shipyards were called upon for a massive effort. According to the 1935 *Preliminary Report of the Special Committee on Investigation of the Munitions Industry* conducted by the Senate, “the size of this program created a situation where the Navy needed the use of every private and navy yard instead of the private and navy yards needing Navy work to keep themselves going...”.⁸⁸ This was a complete reversal of the period after the war where demand cratered as government contracts evaporated, and excess tonnage was sold off.

The so-called *Big Three*—the naval shipbuilding cartel that had formed to weather the years after the wartime buildup under Wilson—once again dominated naval shipbuilding. Fore River, Newport News, and New York Ship, won \$92 million in contracts for destroyers, light cruisers, and even carriers. In fact, Newport News scored contracts in excess of \$38 million for two Yorktown-class carriers⁸⁹—and under the same coordination efforts the cartel had resorted to in the 1920s.

Beyond the cartel, the smaller yards that had made up the First World War’s naval armament effort and fallen into disrepair or disappeared completely in the period thereafter, also

⁸⁷ Bureau of Yards & Docks, “Projects to be Undertaken Under the National Industrial Recovery Act of 1933,” June 19, 1933, Folder: Dept. of the Navy Jan.–June 1940, Official File 18, Franklin D. Roosevelt Library.

⁸⁸ U.S. Senate, Special Committee Investigating the Munitions Industry, *Munitions Industry: Preliminary Report of the Special Committee on Investigation of the Munitions Industry*, 74th Cong., 1st sess., 1935, 52–53.

⁸⁹ Heinrich, p.61.

received sizable PWA funds. Notably, the Bath Iron Works of Maine fit this mold; through the EFC they received generous subsidies to produce destroyers, and then when the war effort ended and the contracts dried up, they shuttered in 1925. In attempting to avoid the fate of Cramp & Sons, they had even tried to break into other markets, producing machinery and even steel plows. In the years after the 1925 shutdown, they were reformed by New York investors and by 1933, under the PWA scheme, they won a \$6.9 million contract for the construction of two *Mahan-class* destroyers.⁹⁰ The subsidiary of U.S. Steel, *Federal Shipbuilding & Dry Dock Company of Kearny*, New Jersey, which had subsisted on private contracts for barges, and small merchant vessels during the waning years of the 1920s, suddenly won a naval contract. Just like Bath Iron Works, they won a contract for two Mahan-Class destroyers. Alongside these contracts, Electric Boat was awarded contracts of \$5.4 million for *Porpoise-class* submarines.⁹¹

The PWA shipbuilding effort was critical in responding to the economic crisis of the Depression, and provided benefits to both the big yards and the many smaller ones that had played a critical role in the previous war's effort. The PWA effort, however, explicitly provided funds for naval shipbuilding, not for a merchant fleet.

Across the sea, the great powers tried to bulk up their merchant auxiliaries. In 1932, through the Ship Improvement Plan, Japan provided \$5 million to builders to replace 400,000 tons of aging vessels with 200,000 tons of new ones with sealift capabilities.⁹² In Germany, the sell-off of excess tonnage to the tune of 400,000 tons was followed by \$120 million in subsidies to create a new

⁹⁰ U.S. House of Representatives, Naval Affairs Committee, *Report of Visit of Subcommittee of House Naval Affairs Committee, Bath Iron Works Corporation, Bath, Me.*, June 26, 1941, Box 182, Entry A1 1266-I, Bureau of Ships General Correspondence, 1940–1945, RG 19, National Archives at College Park, MD.

⁹¹ U.S. Senate, Special Committee Investigating the Munitions Industry, *Munitions Industry, Part 23: Naval Shipbuilding—Federal Shipbuilding and Dry Dock Co.; Bath Iron Works Corp.; Sun Shipbuilding and Dry Dock Co.; United Dry Docks, Inc.*; Hearings, 74th Cong., 1st sess., 1935, 6658–71.

⁹² David C. Evans and Mark R. Peattie, *Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy, 1887–1941* (Annapolis, MD: Naval Institute Press, 1997), 206–12.

merchant fleet, also with auxiliary capabilities. The *Ehrenfels* class of freighters, funded by this program, was eventually converted into cruisers for the German war effort.⁹³ In Britain, subsidies of \$17 million were provided to scrap excess tonnage and build new merchant vessels.⁹⁴ All of these merchant projects were dwarfed by the PWA effort under Roosevelt.

But Roosevelt was not ignorant of the necessity of a strengthened American merchant fleet. Congress marshaled through the Merchant Marine Act of 1936 to address this issue. With no serious effort to expand or modernize the fleet after Wilson's EFC program, the merchant fleet remained old and costly. Most ships in the fleet, around 88%, were more than 14 years old by the time of the Merchant Marine Act.⁹⁵ In fact, 14 years was a lifetime in ship production, whereas the First World War introduced prefabrication, during the lead-up to the Second World War, large-block construction was introduced. The biggest technological advance here was the move from riveting prefabricated ship parts together with bolts, to welding large blocks of the ship together, more efficiently and with less labor required.⁹⁶

Much like the German plan, the Merchant Marine Act of 1936 initially pushed the scrapping of older tonnage. This was a necessary effort to stimulate demand for new tonnage. Beyond that, the Maritime Commission was created to direct the issuing of contracts for merchant vessels to private shipyards, and the leasing of "government-owned merchantmen", the mariners, to private carriers.⁹⁷ Most importantly, the Merchant Marine Act of 1936 set up the aforementioned Cost Differential Subsidy of up to 50% of ship costs to close the gap between the cost of American-

⁹³ Andreas Meyhoff, Blohm & Voss im "Dritten Reich": Eine Hamburger Großwerft zwischen Geschäft und Politik (Hamburg, Germany: Christians, 2001), 75–76.

⁹⁴ Heinrich, pp.68-69.

⁹⁵ "Ships on the Ways: Newport News and the Huntington Dynasty," *Fortune* 14, no. 11 (November 1936): 178.

⁹⁶ Brian Potter, "Why Can't the U.S. Build Ships?" *Construction Physics*, September 5, 2024, <https://www.construction-physics.com/p/why-cant-the-us-build-ships>.

⁹⁷ Heinrich, pp.68-69.

built and foreign vessels.⁹⁸ Immediately, many of the Big Three shipyards scored the lion's share of contracts. Newport News was awarded 150,000 gross tons for the Maritime Commission, and Fore River was awarded 84,000 gross tons.⁹⁹ To “aid national defense”, the mandate of the Merchant Marine Act, 141 ships were produced before the outbreak of the war in 1939. The U.S. spent over \$345 million under the Merchant Marine Act—the largest expenditure between the wars on a merchant fleet. Coupled with the PWA spending on naval shipbuilding, the U.S. spent over \$583 million on shipbuilding between 1933 and 1939,¹⁰⁰ in the crucial six years leading up to the explosion of a new ‘war to end all wars’.

Building a “two-ocean” fleet

It was Rep. Carl Vinson, the Democrat from Georgia, who had become a “two-ocean” fleet proponent. The U.S. had a combination of intervening interests that necessitated such, as the world rapidly fell apart. The Chief of Naval Operations (CNO) at the time, Admiral Harold Stark, outlined the demands of the Navy; “to defend our home waters, the Monroe Doctrine, our possessions and our trade routes against a coalition ... of Japan, Russia, Germany and Italy.”¹⁰¹ Stark continued to warn that under the current circumstances, the U.S. would be forced to abandon at least one of those core interests. In his testimony before the House Committee on Naval Affairs in September of 1939, he argued in favor of a massive expansion of the fleet. To meet those needs, he believed the Navy would need to add an additional 2.2 million tons—three times the amount of tons ordered in the entirety of the decade leading up to the war in the U.S.¹⁰²

⁹⁸ *Merchant Marine Act of 1936*, Pub. L. No. 74-835, 49 Stat. 1985 (1936).

⁹⁹ U.S. Maritime Commission, Report to Congress for the Period Ended October 25, 1939 (Washington, DC: Government Printing Office, 1940), 1.

¹⁰⁰ Ibid, *ibid*.

¹⁰¹ Heinrich, p.139.

¹⁰² Ibid, *ibid*.

Rep. Vinson's proposal, certainly more modest, was a 25% increase in naval tonnage,¹⁰³ which would cost \$1.4 billion, a complete nonstarter for the fiscal hawks in Congress. Vinson compromised with only an 11% expansion, which was passed on June 14, 1940 as the 11% Act. This act called for the expansion of the fleet by 167,000 tons, with 75,000 tons for auxiliary vessels. Of this, Essex-class carriers, Cleveland-class cruisers, Fletcher-class destroyers, and the Baltimore-class cruisers would make up the mainstay of the new tonnage.¹⁰⁴

At the same time, in June of 1940, the Germans overran France, Belgium, and the Netherlands. Only Britain stood free in Western Europe. The Germans had an immense advantage, and were gearing up to attack the British Isles. The prospect of allied defeat grew more imminent. Thus the *Vinson-Walsh Two-Ocean Navy act* was signed into law by June 19th, of 1940, on top of the 11 percent authorized prior. In all, it called for 1.4 million new tons.

¹⁰³ Ibid, *ibid*.

¹⁰⁴ *Public Law 757*, 76th Cong., 3rd sess. (July 19, 1940).; *Public Law 781*, 76th Cong., 3rd sess. (September 9, 1940).; U.S. Department of the Navy, *Annual Report of the Secretary of the Navy 1941* (Washington, DC: Government Printing Office, 1941), 27–34.

1940 Naval Expansion by Appropriations

	Supplemental National Defense Appropriations (6/26/1940)	Supplemental National Defense Appropriations (9/9/1940)
Aircraft Carriers	3	7
Battleships	0	7
Cruisers	5	33
Destroyers	30	155
Submarines	22	43

Public Law 757, 76th Cong., 3rd sess. (July 19, 1940).; *Public Law 781*, 76th Cong., 3rd sess. (September 9, 1940).; U.S. Department of the Navy, *Annual Report of the Secretary of the Navy 1941* (Washington, DC: Government Printing Office, 1941), 27–34.

Despite the orders the government made, the success was often uneven at first. In the critical area of escort ship production, the Navy secretary noted in August of 1942, “We are by no means producing enough escorts to provide sufficient convoys and it seems to me blind folly to ignore the implications of this policy. It does us little good to produce one hundred cargo ships a month if we do not produce enough escort vessels during that month to enable us to protect them when they go to sea”.¹⁰⁵

American yards delivered 306 escort vessels the very next year when wartime production was ramped up. In May of 1942, Congress authorized an expansion of U.S. submarines on a multi-year timeline to the tune of over 200,000 tons. The Congress asked, and by 1943 they received, 56

¹⁰⁵ Jeffrey G. Barlow, “The Views of Stimson and Knox on Atlantic Strategy and Planning,” in *To Die Gallantly: The Battle of the Atlantic*, ed. Timothy J. Runyan and Jan M. Copes (Boulder, CO: Westview Press, 1994), 34.

new submarines. In 1944, they received 80, and in 1945, 32 were delivered before war's end. In all, this new fleet of submarines sank over 4.9 million tons of Japanese shipping.¹⁰⁶

The War and the Battleship New Jersey, a symbol of American shipbuilding strength

Not even a year after Imperial Japan invaded China in early 1938, American naval architects envisioned a new battleship to meet several requirements. It needed to be able to keep up with the fast carriers of the day, outmatch Japanese fast battleships (like the upgraded *Kongō-class*), and match the firepower of heavy battleships under construction in Japan. The possibility of a war in the Pacific with Japan (the principle assumption of *War Plan Orange*) guided the design of a new battleship class. The main considerations in meeting the aforementioned requirements were questions of tonnage, armor, firepower, and speed. Speed was paramount for this new class of battleships on the drawing board, as the ability to intercept fast Japanese capital ships would determine the course of a potential war.

By May of 1938, the Navy had its authorization and appropriation for these *Iowa-class* ships. The Naval Act of 1938, passed at President Roosevelt's behest, authorized new capital ships in excess of 35,000 tons, and over 135,000 new tons to the Navy.¹⁰⁷ A little over a year later, in July of 1939, the first two *Iowa-class* ships were ordered by the Navy under this authorization. The first of the class was the namesake, *Iowa (BB-61)* sent to the New York NSY, and the second was *New Jersey (BB-62)* sent to Philadelphia. Ahead of the queue at the Philadelphia NSY was *USS Washington (BB-56)* which was completed by June 1, 1940. Following its completion, the open slipway had to be extended another 325 feet to accommodate the design for *New Jersey*,

¹⁰⁶ Heinrich, pp. 174-176.

¹⁰⁷ Battleship New Jersey Museum & Memorial, "Full History," *Battleship New Jersey*, accessed June 25, 2025, <https://www.battleshipnewjersey.org/the-ship/full-history/>.

which had around 12% more length, and around 30% more weight than *Washington*, and most contemporary battleships.¹⁰⁸

A year into the war in Europe, in September of 1940, workers in the shipyard put down the first plates for the keel. The ship, like many shipbuilding projects before American entry into the war, provided necessary stimulus to a battered economy; like the PWA projects before, the construction of such a vessel created work that kept workers employed. *New Jersey* required nearly 33 million hours for construction, at a cost of \$100 million (or around \$1.8 billion in today's dollars). According to the Battleship New Jersey's conservatory, workers from 34 states provided labor from the design board to her construction. In 1939, the yard's full-time staff was around 4,500, and around the war's end it was 47,000 as noted above. Here, there was room for patronage; the increase in jobs in the Philadelphia yard helped deliver Pennsylvania and New Jersey on President Roosevelt's bid for a third term in 1940. Half of the workers on the battleship came from the ship's namesake, unusual for most ships.¹⁰⁹

When the Vinson-Walsh Act was passed, an additional three battleships were ordered, with the next two, *Missouri* (BB-63) and *Wisconsin* (BB-64), sent to New York and Philadelphia, respectively. The Japanese attack on Pearl Harbor in 1941 underscored the need for quick acquisition of new battleships. During the attack, 8 American battleships were lost or rendered inoperable by damage. *New Jersey* was completed 9 months ahead of schedule, which allowed work in Philadelphia to begin on *Wisconsin*, before *Missouri*.

One year after the attack on Pearl Harbor, on December 7, 1942, BB-62 was christened *New Jersey* with a bottle of white wine from her namesake. The battleship sailed down the Delaware River coast of Southern New Jersey, and out to the Atlantic for its sea trials. By May of

¹⁰⁸ Ibid, *ibid*.

¹⁰⁹ Ibid, *ibid*.

1943, she was a commissioned vessel in the U.S. Navy. After a shakedown cruise, a brief deployment to the coast of Maine, and an anti-aircraft gun upgrade in Philadelphia, the ship headed through the Panama Canal in January of 1944, just a couple months after the start of the naval offensive in the Pacific in November of 1943.

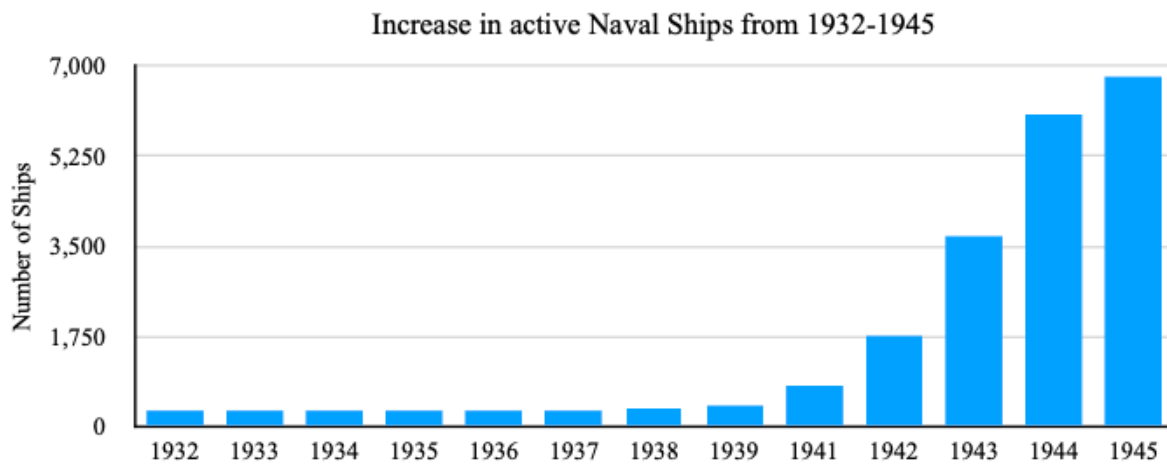
Momentum in the Pacific War seemed to stall; the Central Pacific Offensive looked as if it were to falter, given the bloody landings at Tarawa. But New Jersey's first main engagements of the offensive, first in the attack on the Marshall Islands, then supporting landings at Kwajalein and Majuro, were great successes, affirming the value of the *island-hopping* strategy. Nearly every major naval engagement of the Pacific War involved an Iowa-class battleship, of which all four survived the war.

New Jersey sailed over 200,000 miles throughout the war, from Philadelphia to Tokyo Bay. In Tokyo Bay, on September 17, 1945, New Jersey served as the flagship of the occupation forces, with Admiral Spruance overseeing the surrender, and landings of the occupation army. In fact, New Jersey was considered first to serve as the location of the final surrender of Japan to the U.S. Instead, Missouri was chosen, as it was the ship named for President Truman. The success of the war was not because of the four battleships, though, but the new aircraft carrier. After New Jersey completed her mission, repatriating Americans back to the U.S. in 1946, all the forthcoming battleships were cancelled, including two Iowa-class, *Illinois* (BB-65), and *Kentucky* (BB-66). All five *Montana-class* battleships on order were cancelled. When the war ended, 90% of the Navy's ships were decommissioned, many going to the scrapyards and the reserve fleet.¹¹⁰ 1946 would be the last year of global battleship construction, as the face of naval warfare had irreparably changed with the advent of carrier air wings. The end of the war meant New Jersey was sent to Bayonne,

¹¹⁰ Ibid, *ibid*.

to be mothballed. Peace was at hand, and the threat of another, existential global war seemed distant.

Conclusion

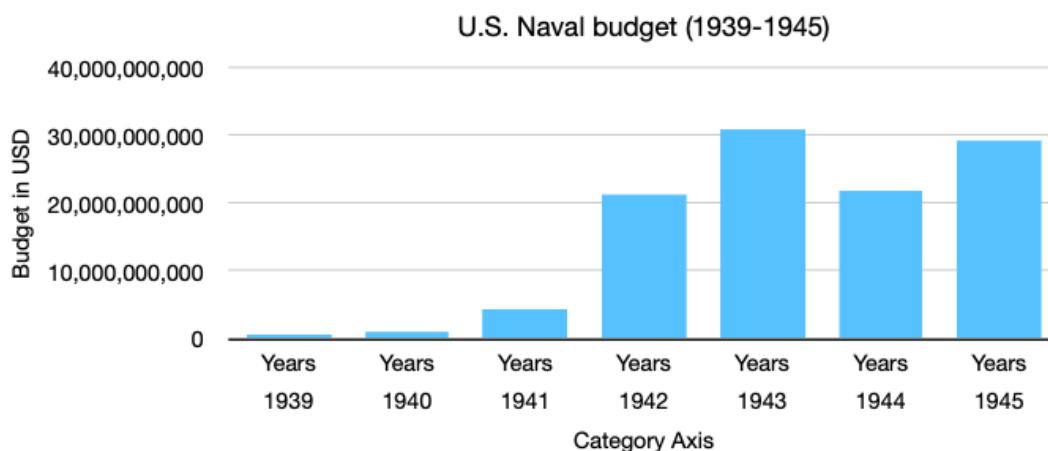


See: <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>

“Render unto Roosevelt...” could be the apt saying regarding shipbuilding from 1932 to 1945. From 1932, the size of the U.S. Navy increased by over 2,062%, from 313, to 6,768 active vessels. The U.S. had based its strategic outlook and naval war planning around a worst-case scenario of complete allied collapse, and though it never materialized, the U.S. was left with an incredible two-ocean fleet. Just as in World War I, the U.S. entered the war seemingly unprepared. On December 7, 1941, the day of the Pearl Harbor attack, the U.S. stood at 790 vessels, a year later, it had 3,699, a year after that, 6,084. On the back of previously unheard of appropriations for ships, and new technology making the industry more productive, the U.S. Navy rapidly expanded, amidst the war, to meet the threat of the Japanese and German navies.

But the American naval success of the Roosevelt years was not just a success of wartime production. As demonstrated, the U.S. began its naval and merchant expansion under the auspices of the NIRA, and the PWA—well before the U.S. entered the war. The crisis that had stirred Roosevelt and the Navy to expand both fleets, was not one of war, but rather of economic crisis. The effort of winning the war started in the yard modernizations across the country, but most importantly in *Philadelphia*. It started with subsidies and funds, not necessarily to keep the industry afloat, but to keep Americans working.

Much like with the EFC, the Roosevelt administration marshaled emergency efforts at an incredibly high cost. That effort alone, before the war, as previously mentioned, cost \$583 million (for shipbuilding). The wartime budget for the Navy was unforeseen in U.S. history (see below).



See: <https://www.history.navy.mil/research/library/online-reading-room/title-list-alphabetically/b/budget-of-the-us-navy-1794-to-2004.html>

The rapid increase in spending mirrored the rapid expansion of the shipbuilding sector, and its industrial capacity. The rapid expansion of the merchant fleet mirrored the naval expansion under Roosevelt.

Crisis prompted spending previously unforeseen, and yielded a Navy and Merchant Marine that won the war. But when the crisis ebbed, what would come of that great fleet, and the shipyards that bore it? As seen at the end of the First World War, a peace dividend followed the great victory. Rationally, U.S. policymakers decided to sell off excess tonnage, and mothball much of the fleet. By 1947, as the fleet was demobilized, the naval budget sank to \$4,647,136,000. The fleet decreased in size from its 1945 peak, to 634 by 1950.¹¹¹ This was mirrored by the selloff of excess commercial tonnage. From 1945 to 1948, the U.S. went from owning 66% to 48% of global commercial tonnage.¹¹²

¹¹¹ Naval History and Heritage Command, "Budget of the U.S. Navy: 1794 to 2004," Naval History and Heritage Command, U.S. Navy, accessed June 26, 2025, <https://www.history.navy.mil/research/library/online-reading-room/title-list-alphabetically/b/budget-of-the-us-navy-1794-to-2004.html>.

¹¹² Potter.

V. The End of Subsidies: the Post-War Collapse of American Shipbuilding

Introduction

By 1970, twenty-five years had passed since the end of the Second World War. The postwar world was one of incredible transformations. Old enemies like Japan and Germany had become new allies in the struggle against America's onetime ally, the Soviet Union. This struggle against Soviet Communism was the basis for the *Cold War*. While the Soviet threat was in fact existential, and the successful Soviet nuclear test of 1949¹¹³ elevated that reality, there was no *crisis*. The *Cold War* was hardly a *war* compared to the struggle against Nazi Germany and Imperial Japan. In a way, it was accepted that the atomic bomb precluded such a conflict, like the Second World War. National security crises compelled the U.S. to become a shipbuilding powerhouse in both World Wars, and the peace that followed delivered a rational decline in shipbuilding.

Much like the end of the First World War, American policymakers figured they no longer needed large wartime merchant and naval fleets, and delivered a sort of peace dividend. With excess tonnage being scrapped and contracts drying up, American shipbuilding sank further. In the meantime, those old foes turned new allies—namely Japan—came to dominate the shipbuilding industry because of American innovations like the large block technique.

The international environment swiftly changed. A new type of war set in across the globe: wars of national liberation as decolonization and insurgencies swept the world, many of them proxy wars between the two global hegemonies, the U.S. and the Soviet Union. In lieu of outright

¹¹³See: William Burr, ed., "U.S. Intelligence and the Detection of the First Soviet Nuclear Test, September 1949," *National Security Archive*, September 22, 2009, <https://nsarchive.gwu.edu/briefing-book/nuclear-vault/2019-09-09/detection-first-soviet-nuclear-test-september-1949>.

war, Soviet and American proxies battled it out, often in low-intensity warfare. The postwar period saw the U.S. get ensnared in protracted land battles in Korea,¹¹⁴ and then Vietnam.¹¹⁵ Thereafter, the U.S. naval fleet languished. The large capital ships that won the Second World War were not so necessary to fight ragtag insurgents fighting for their nation's liberation. Throughout the 1970s, the U.S. fleet increasingly declined as the war in Vietnam deepened. By the end of the decade, it seemed the U.S. was increasingly falling behind the Soviets on the high seas.

At the same time, the merchant fleet was virtually nonexistent. In 1970, Congress passed the largest "peacetime shipbuilding program". Around \$1 billion was spent on yard upgrades, and improvements to make the industry more competitive. Additionally, this legislation, the *Merchant Marine Act of 1970* continued the previous scheme of *construction differential subsidies*, but with a phased decrease from 50% to 35% of construction costs.¹¹⁶ Here, the prevailing supply-side attitude discussed in the previous chapter saw the beginning of the end of the subsidies that made the U.S. industry remotely competitive. With no international crisis, and the collapse of shipping on America's domestic waterways in the face of trucking, the 1970 effort was destined to fail. The 1973 oil crisis was the final nail in the coffin of this effort, as demand for tankers and LNG carriers collapsed almost overnight.

In the late 1970s, the Navy and President Carter saw a deteriorating fleet as an increasing national security threat, and commissioned a new strategy on naval expansion with *Sea Plan 2000* in 1978. Carter lost re-election in 1980, and President Ronald Reagan was forced to deliver on the necessary naval expansion. The Reagan 600-ship Navy scheme sought to counter the rising Soviet Naval threat. But this measure was merely a stopgap measure in the face of decline. A new

¹¹⁴ See: David Halberstam, *The Coldest Winter: America and the Korean War* (New York: Hyperion, 2007).

¹¹⁵ See: Max Hastings, *Vietnam: An Epic Tragedy, 1945–1975* (New York: Harper, 2018).

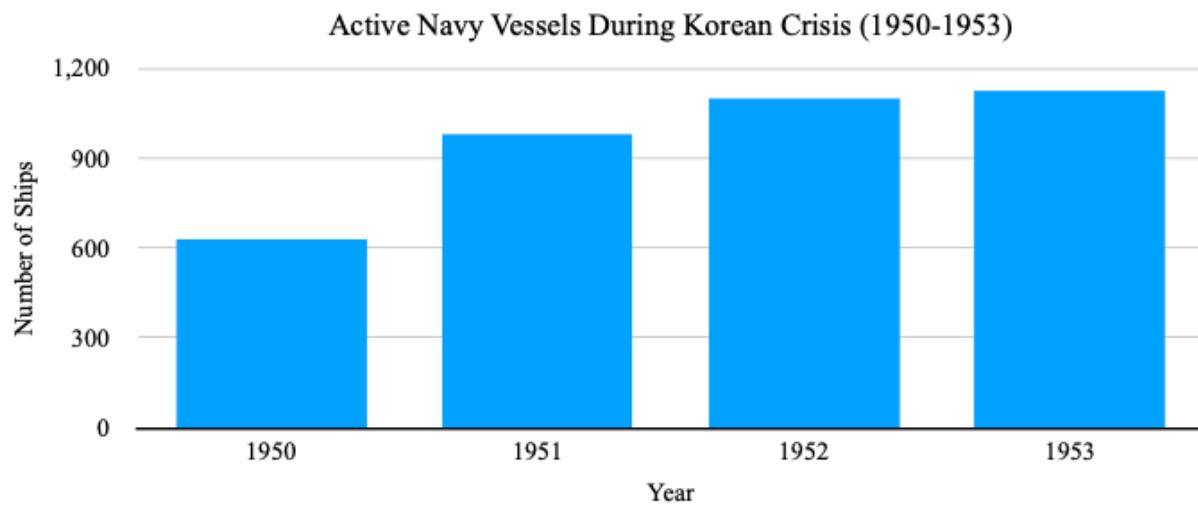
¹¹⁶ S. W. Emery, Jr., "The Merchant Marine Act of 1970," *Proceedings* 97, no. 3 (March 1971): [page number], U.S. Naval Institute, <https://www.usni.org/magazines/proceedings/1971/march/merchant-marine-act-1970>.

dynamic was formed for the industry: in 1982, Reagan eliminated the CDS program¹¹⁷ that had made the industry internationally competitive. The Jones Act had mandated protection for the industry, requiring U.S. vessels to transport between American ports, and the CDS ensured that the orders continued to flow. Without subsidies to lower the high price of American ships, there was no option but to look abroad. With no subsidies, the industry could only subsist on naval orders. But to quickly increase the size of the fleet, the U.S. relied heavily on calling up old ships, including all of the remaining Iowa-class battleships, to meet the Navy's needs.

This chapter will examine the last part of the cycle proposed in previous chapters: *decline*. National security crises, or emergencies, have long bred American shipbuilding progress—and the Cold War era provided no 'emergency'. This chapter will examine the Merchant Marine Act of 1970, comparing it with the *successful* 1936 legislation, then examine key structural changes in the shipping industry in the U.S., and the effects of the 1973 Oil Crisis on shipbuilding. On the Naval side, this chapter will examine the deterioration of the fleet in the 1970s, and the efforts under both Carter and Reagan to turn that around. Finally, this chapter will examine the irreparable harm that Reagan's shipbuilding schemes had on the industry since then.

¹¹⁷ Thomas W. Lippman, "Administration Plans to Cut Maritime Shipping Subsidies," *The Washington Post*, January 20, 1982, <https://www.washingtonpost.com/archive/politics/1982/01/20/administration-plans-to-cut-maritime-shipping-subsidies/c8579bfe-ece2-4503-856a-179a24a6c1ba/>

The postwar stopgap: the WWII fleet is called back up to Korea, and then Vietnam



See: <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>

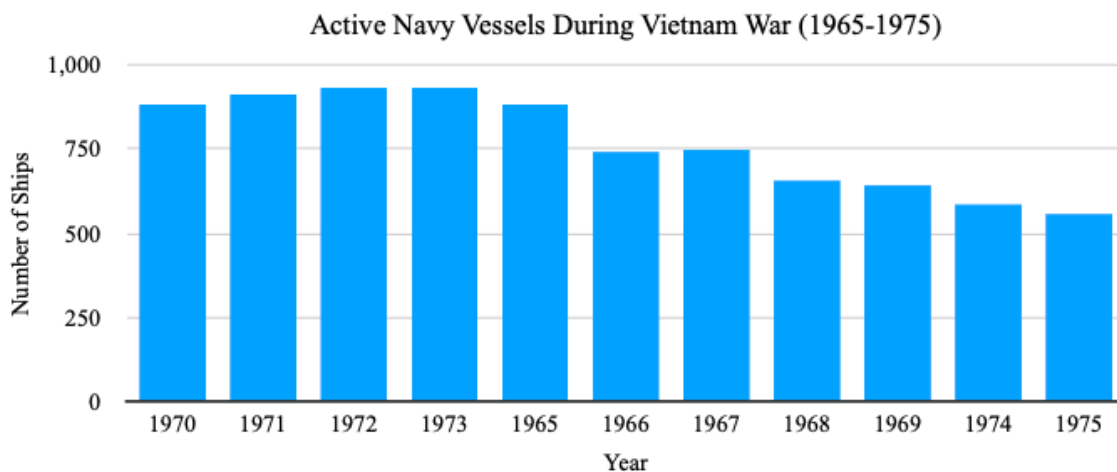
In June of 1950, the Democratic People’s Republic of Korea launched a full-scale invasion of South Korea, leaving the U.S. in a precarious position. Future Secretary of State and then advisor to President Truman, John Foster Dulles, warned of the deepening Korean crisis, “to sit by while Korea is overrun by unprovoked armed attack would start a disastrous chain of events leading most probably to world war.”¹¹⁸ A great war in the Pacific, not even five full years after the end of the last one, loomed large, it would seem, but the fleet to meet the challenge was mothballed in places like Bayonne, New Jersey.¹¹⁹

The crisis lasted through three years of fighting on the Korean Peninsula, and though a showdown between the nuclear-armed U.S. and Soviet Union loomed, it never materialized. The war was fought as a proxy war, though not one of the sheer scale of the Second World War, which

¹¹⁸ Michael Beschloss, *Presidents of War: The Epic Story, from 1807 to Modern Times* (New York: Crown, 2018) p.447.

¹¹⁹ As was the case with *USS New Jersey (BB-62)*, which was sent to the Reserve Fleet in Bayonne in 1948, as discussed in the introduction.

required a two-ocean Navy for multiple theater warfare. In 1950, the U.S. had 9.37% of its 1945 peak fleet of naval vessels. By 1953, the last year of fighting on the peninsula, the U.S. had 1,122 active ships, or nearly 17% of the 1945 peak. Of those vessels that served in the Korean War, nearly all of them were from the World War II fleet, as the U.S. had a capable fleet in reserve, given the massive prior wartime expansion.¹²⁰



See: <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>

Another such example of stopgap measures was the small increase in the fleet during the Vietnam War from 1965 to 1967. From the Korean crisis until the deepening of U.S. involvement in Vietnam, the fleet slowly decreased in size, from 1,122, to 859 on the eve of 1965. During the Vietnam War, the Navy increased its size by a little over 6% to its peak in 1968. By the end of the Vietnam War in 1975, the fleet was at 559 vessels, back to numbers smaller than the average

¹²⁰ Naval History and Heritage Command, "U.S. Ship Force Levels: 1886–Present," *Ship Histories*, Naval History and Heritage Command, last modified June 24, 2024, <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>.

number of vessels from 1947-1950, of 726.¹²¹ The marginal change in the size of the fleet reflects the war's reality—it was a protracted land war against ill-armed insurgents.

The first nail; the Merchant Marine Act of 1970 versus 1936

As discussed in previous chapters, the *Merchant Marine Act of 1936* set up the framework of American commercial shipping. This was a system wherein subsidies would correct the core economic conditions afflicting American shipbuilding efforts: high labor and material costs compared to foreign producers. The construction of new ships was to be facilitated by the aforementioned Construction Differential Subsidy, and the operation of them, facilitated by the Operating Differential Subsidy. The former was paid to shipbuilders to offset up to 50% of the difference in costs with foreign-produced ships, and the latter paid to ship operators.¹²²

The Maritime Commission was set up to oversee and distribute these subsidies to producers and operators, and to even oversee the construction of a new merchant fleet, all the way from the drawing board to the shipyards. Within the purview of the commission was everything from the standardized design of ships—namely the *Liberty Ships* to replace the aging First World War fleet—to the distribution of contracts, and the construction of the fleet. All of this, borne from an understanding of the national interest in providing both a naval auxiliary, and the means of assuring American access to its economic lifelines abroad. This effort delivered over 5,000 vessels over 2,000 gross tons.¹²³ By all accounts the act provided what the country desperately needed in the face of an increasingly unstable international environment.

¹²¹ Ibid, *ibid*.

¹²² Maritime Administration, “The Maritime Administration’s First 100 Years: 1916–2016,” U.S. Department of Transportation, updated February 25, 2022, <https://www.maritime.dot.gov/history/historical-documents-and-resources/maritime-administration%E2%80%99s-first-100-years-1916-%E2%80%93-2016>.

¹²³ Ibid *ibid*.

The 1970 act did not seek a complete revision of this system, but sought to deliver in the way the 1936 act had. At the time, the U.S. desperately needed a modern fleet of merchant vessels for both international trade, and to serve as the naval auxiliary they once had. By 1970, the American merchant fleet included only 819 vessels, only about 16% of the number of vessels produced under the 1936 Act.¹²⁴ During the Vietnam War, in 1967, these vessels transported over 34% of all military cargo. These vessels were key to the military logistics that sustained the war effort. Of these vessels, over 66% of them had been produced over a quarter of a century prior, during the Second World War. These aging vessels could not meet the needs of the nation, either as economic auxiliaries or naval ones.

The 1970 act set up a goal of 300 new vessels—a mere fraction of the wartime effort—to be produced by 1980. These vessels would focus on larger bulk carriers and container ships, reflecting the needs of the time (commercial trade and oil/LNG transport). But the first major revision of the 1936 act was the matter of subsidies. On top of protectionist measures under the Jones-White Act, the CDS had made the industry more economical, providing the only lifeline to builders. The 1970 act sought to reduce the CDS. In 1970, they stood at 50%, as the 1936 act had mandated. By 1971, they would be reduced to 45%, and then by an additional 2% per year, until they hit 35% by 1976.¹²⁵ The act additionally extended the operating subsidies to bulk carriers which, again, reflected systemic changes in the modes of transportation.

The reduction of subsidies served only to make American-produced vessels a less-economical option. The structural issues persisted. The labor and material costs remained high. Reducing the CDS over time served only to hurt the 1970 Act's main goal of producing 300 vessels over the decade.

¹²⁴ Ibid, *ibid*.

¹²⁵ Potter.

The backdrop of these radical changes to the ‘1936 system’ of American Merchant shipbuilding was a critical change in domestic shipping. In the pre-war era, there was high demand for commercial vessels on America’s domestic waterways. American coastal trade was served by over 400 vessels prior to the war, and only 100 after.¹²⁶ In the postwar years, the U.S. created the interstate highway system—large highways to serve as new economic arteries for the country’s domestic trade. Thus, trucking quickly replaced ships as the principal means of domestic shipping.

Another shock to the system was the 1973 oil crisis. Prior to the oil crisis, the U.S. had actually surpassed Japan as the largest shipbuilder, producing new LNG carriers (without the help of the CDS), because of an increasing demand for energy. High consumption necessitated demand for carriers capable of shipping LNG and oil from abroad. But the shock of the oil crisis killed such progress. Oil shipments rapidly collapsed, and the demand for such vessels went with it. Thereafter, global demand for ships collapsed rapidly. From 1975 to 1980, global production fell from 34 million tons to only 13 million.¹²⁷

America needs a Navy: Sea Plan 2000, the intellectual basis of expansion

While the U.S. was preoccupied with the mission of nation-building to stabilize South Vietnam, the Soviets made considerable headway on the seas. By 1978, the U.S. was outnumbered by Soviet naval vessels both above and below the surface. Of course, throughout this period, U.S. naval strategy also languished. With few ships, and a focus on the forward defense of Germany with ground assets, Carter pursued a naval strategy of, principally, defending sea lanes of communication (SLOC) in the Atlantic. This was the preferred NATO strategy, focused on the principal venue of U.S.-Soviet competition. Such a task did not require carriers and their battle

¹²⁶ Potter.

¹²⁷ Ibid.

groups, but would leave the U.S. without the means to credibly wage future wars on the seas. Furthermore, the strategy effectively accepted Soviet naval dominance in the Pacific.¹²⁸

The Naval Balance of 1978

Vessel Type	U.S.	U.S.S.R.
Surface Warfare Vessels	196	443
Submarines	119	294

Source: “*Lessons from the 600 Ship Navy*”, Lt. Joseph Shims, USN.

In 1977, the Chief of Naval Operations (CNO) Holloway had commissioned a study at the Naval War College on the necessary naval posture, titled *Sea Plan 2000*. Principally, the study found that the U.S. had no long-term naval strategy; the U.S. faced a “capable opponent”,¹²⁹ with growing naval capabilities—yet, the “ability of [U.S.] naval forces to carry out their mission...” both then and over the next three decades, was “far more constrained than that to which [the U.S. had] become accustomed in the past 30 years”.¹³⁰ Navy planners understood that the primary mission of naval forces was “the projection of American influence...where military means are appropriate.”¹³¹ This is how the U.S. had used its naval forces in Lebanon in 1958, with Operation Linebacker during the Vietnam War, during the 1971 Indo-Pakistani War, and during the 1973 resupply of Israel during the Yom Kippur War.

Second to this mission of projecting influence was the issue of countering Soviet power projection. The U.S. had done this during the Cuban Missile Crisis in 1962, during the

¹²⁸ Joseph Sims, “Lessons from the 600-Ship Navy,” *Naval History Magazine*, August 2022, U.S. Naval Institute, <https://www.usni.org/magazines/naval-history-magazine/2022/august/lessons-600-ship-navy>.

¹²⁹ *Sea Plan 2000: Naval Force Planning Study, 1978*, RG-27, Box 21, Folder 6, General Subjects, Naval War College Archives, U.S. Naval War College, Newport, RI, https://www.usnwcarchives.org/repositories/2/archival_objects/185039 (accessed June 11, 2025). p.1.

¹³⁰ Ibid, ibid.

¹³¹ Ibid, p.xv.

aforementioned Yom Kippur War, and in the Horn of Africa in 1978 during the Ethiopia-Somali War. Finally, there was the mission of supplementing “land-based ground power,” as the U.S. did in the battles of the North Atlantic and Pacific during the Second World War, and in Korea at Inchon. Though the future was indeterminate, these main missions would remain constant.¹³²

The warning undergirding the entire study was an understanding that the future would “not be more secure for U.S. interests than the past,” especially given the relative decline of U.S. naval power during the Vietnam era.

Though the force was deficient, U.S. naval *capabilities* were improving relative to the Soviet Union. That is, U.S. *naval science* was outpacing the enemy in critical areas; computers, microelectronics, and nuclear physics. Technological advancements were, and continue to be, a critical factor in naval expansion. While the estimated budgetary expansion needed in 1978 to *balance* the Soviet threat required growing the U.S. budget by 3%, planners understood that positive trends in U.S. technological dominance could mitigate the high costs. Beyond that singular positive area of competition, the U.S. was woefully deficient in “numerical size and the mission flexibility of the fleet.”¹³³ While tech could offset some of the costs, a massive naval expansion was necessary to meet the demands of the aforementioned three main missions of the navy for the future.

What, then, were the force and funding options suggested by the study for civilian policymakers? President Carter had set a benchmark of a 3% increase in the Defense budget per year to meet U.S. national security needs across the board (land, sea, and air).¹³⁴ The study offered

¹³² Ibid, pp.xvi-xix.

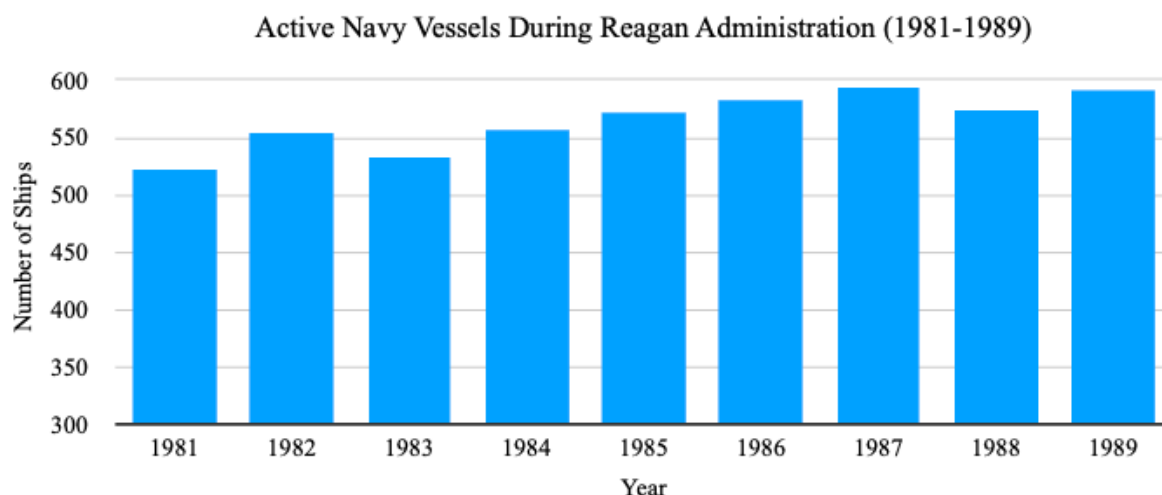
¹³³ Ibid, p.xlv.

¹³⁴ Sims.

force levels at the 3% increase benchmark, and the alternatives of no real growth from present numbers and the ambitious recommendation of a 4% increase.¹³⁵

Sea Plan 2000 was born out of a fundamental understanding for the need of long-term planning in an era of U.S. naval languor. President Carter inherited a state of naval disarray given the era of protracted land battle—and focused on a mission of Atlantic SLOC defense. Though this was deficient to meet the future national needs, Carter, having been a sailor himself, was attuned to the necessity of such a long-term strategy—even if U.S. strategy was very much *unmoored* at the time.

Reagan's shortsighted vision: the final nail for American shipbuilding



See: <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>

It is clear, as Reagan came to Washington, that there was a bipartisan consensus on the need for naval expansion. In the decade from 1969 to 1979, the Navy went from 885 ships to 533—a continuation of the general trend of postwar drawdown. Numerically overtaken by the Soviet

¹³⁵ Sea Plan 2000, p. xlv.

Navy, the U.S. needed action. Reagan also sought to chart a new, more aggressive foreign policy toward the Soviets. The era of containment was over, as Reagan pursued rollback of Soviet influence and power abroad. On the seas, this meant a policy of “maritime supremacy,” that is, beyond the Carter-era mission of force protection for vital sea lanes. The U.S. would now actively contest Soviet naval preeminence wherever it could.

Reagan’s first defense budget (FY 1983) increased naval spending by 35% of Carter’s last defense budget (FY 1982), with over \$100 billion for shipbuilding of the total budget of \$268 billion. The Reagan Administration saw that they would need over 15 Carrier Battle Groups (CBGs) in the event of full-scale conventional warfare with the Soviet Union. Each carrier group would require an air wing of 90 aircraft, plus 2-4 battleships, 2-4 destroyers, 2-3 cruisers, 2 nuclear-capable attack submarines, and a single combat support vessel (either a fleet oil tanker, or ammunition ship).¹³⁶

While the \$100 billion was earmarked for shipbuilding, the fleet could not quickly be conjured up without calling in inactive reserve vessels.¹³⁷ In 1982, President Reagan remarked, on her recommissioning as the 514th ship in his 600-ship Navy; “She’s gray, she’s had her face lifted, but she’s still in the prime of life, a gallant lady: the New Jersey.”¹³⁸ “NEW JERSEY STARTS NEW LIFE”¹³⁹ was the headline in the Bend, Oregon Bulletin, as the ship left its refit and modernization at Puget Sound NSY. All of America’s remaining Iowa-class battleships were rushed back into service to supplement a fleet in seeming disarray.

¹³⁶ William Schneider, *Financing the Reagan 600-Ship Naval Modernization Program, 1981 – 89* (Hudson Institute, 2019), <https://www.hudson.org/national-security-defense/financing-the-reagan-600-ship-naval-modernization-program-1981-89>.

¹³⁷ Ibid, *ibid*.

¹³⁸ Battleship New Jersey Museum and Memorial.

¹³⁹ “New Jersey Starts New Life,” *The Bulletin* (Bend, OR), July 27, 1981, A1, United Press International.

These antique vessels, many of them built between 1939 and 1943, required modernization: Tomahawk missiles and launchers, new fire control systems, advanced radar arrays, and the Phalanx Close-In Weapon System (CIWS). By 1995, all of these vessels were stricken from the Naval Register, as their utility in modern naval warfare was seen as marginal.¹⁴⁰

The Reagan administration's goal was 30 vessels per year, including new AEGIS guided missile destroyers, anti-air warfare destroyers, nuclear attack submarines, and of course the 4 Iowa-class battleships. Building the new vessels would cost \$25 billion per year. Overall, this would entail 3 new CBGs, 4 new surface action groups, 2 new underway replenishment groups, and 12 new nuclear submarines.

The Reagan naval modernization just about met its 600-ship goal, but most importantly, it came at the cost of the very thing sustaining the shipbuilding industry: slashing government subsidies. The CDS was completely cut in 1982 to make way for an aggressive naval modernization under which the Navy expanded only marginally during the Reagan years.

In a zero-sum game of massive maritime expenditures, the merchant fleet was sacrificed in the face of intense competition with the Soviets. Prior to 1982, the U.S. produced over 20 merchant vessels a year. From 1982 to 1990, it produced only 5.¹⁴¹ The spending, unprecedented in peacetime, provided a quick boon to shipbuilders and naval yards, completely pivoting them away from commercial shipbuilding. When the Cold War ended, a few years after Reagan left office, a massive peace dividend¹⁴² was delivered as the U.S. had no hegemonic threat to cope with. With no new naval contracts, and no subsidies for merchant vessels, the yards were forced

¹⁴⁰ Maya Carlin, "How the Navy's Iowa-Class Battleships Made the Ultimate Comeback," *The National Interest*, February 25, 2024, <https://nationalinterest.org/blog/buzz/how-navys-iowa-class-battleships-made-ultimate-comeback-209674>.

¹⁴¹ Potter.

¹⁴² Joshua R. Itzkowitz Shiffrin, "George H.W. Bush: American Radical," *War on the Rocks*, December 10, 2018, <https://warontherocks.com/2018/12/george-hw-bush-american-radical/>

to shutter. The structural issues of high labor costs and material costs persisted—and with no subsidies, who would buy American ships?

After 194 years of service, the Philadelphia shipyard, which had provided the fleets that steamed towards European shores in World War I, and in the Pacific in World War II, shuttered in 1995. Commander of the yard, Rear Adm. William Retz remarked, “Sad as this closing may seem, I invite you to join me in a celebration...a celebration of the Cold War, a victory that allowed us to begin to do more with less.”¹⁴³

Conclusion

In the postwar period, few things remained constant, save for the economic reality of an American shipbuilding industry that could not compete with lower foreign labor and material costs. In a way, the American industry became a victim of globalization; American innovations went abroad, propping up shipbuilding sectors elsewhere. In fact, global shipbuilding leadership followed the lowest labor costs—first Japan, then South Korea, and now China. This was, in fact, encouraged by U.S. policymakers who sought to deliver a dividend to the American people who now lived in the great peace won in the Second World War.

Domestic shipping increasingly focused on interstate trucking, propped up by a new highway system. And the oil shock destroyed demand for new tankers and bulk carriers. The Merchant Marine Act of 1970 failed to deliver much of anything, as it paved the way for eliminating the subsidies that made American shipbuilding economical in the first place. Finally, Reagan’s 600-ship Navy shifted all of the focus from the commercial rationale of shipbuilding to

¹⁴³“Navy Shipyard Closes Down in Philadelphia,” *The New York Times*, October 2, 1995, <https://www.nytimes.com/1995/10/02/us/navy-shipyard-closes-down-in-philadelphia.html>.

naval works. Here, Reagan finally eliminated the CDS, and thus killed the industry. When naval contracts dried up, and they did when the Cold War ended, the shipyards were left with nothing.

VI. Conclusion:

Philadelphia and the future of American Shipbuilding



Major Naval Shipyards of the Twentieth Century

Source: <http://shipbuildinghistory.com/shipyards/public.htm>

At night, the masts of old *Ticonderoga*-class cruisers and *Arleigh Burke*-class destroyers rise up from the darkness of the Naval Inactive Ship Maintenance Facility (NISMF) at NSY Philadelphia. Juxtaposed against the darkness, on the southern end of the yard, bright lights illuminate the gantry crane emblazoned with “Hanwha”. On that end of the yard, there are no rusting Cold War-era ships, but rather new tankers being constructed in dry docks. These Jones Act-compliant ships are being produced by one of the world’s eminent shipbuilders, the Korean conglomerate Hanwha Ocean. Here we see the starkest representation of American shipbuilding; on one side of the yard, Navy ships of the last era of global competition sit, practically as colossal wrecks. On the other, Hanwha does something Americans seemingly cannot.

On January 1, 2026, the Mare Island Dry Dock announced it would be closing due to the loss of a maintenance contract with the U.S. Coast Guard.¹⁴⁴ This followed a rash of shipbuilding news: in December, the U.S. Navy cancelled the beleaguered next-generation *Constellation-class* frigate with zero ships delivered, in favor of a redesign of the Coast Guard's *Legend-class* National Security Cutter.¹⁴⁵¹⁴⁶ Shortly thereafter, President Trump announced a new *Trump-class* guided-missile battleship¹⁴⁷—the first American battleship since the Iowa-class,¹⁴⁸ and center of the President's *Golden Fleet*. This would replace the Navy's DDG(X) program, for a guided-missile destroyer replacement for the remaining Ticonderogas and Arleigh Burkes.¹⁴⁹ By the end of 2025, around 20 Chinese naval vessels were commissioned, as opposed to 2 American vessels.¹⁵⁰

It's no wonder hardly anything gets built anymore. Look no further than the above map of public naval shipyard closures.¹⁵¹ Those yards speak to a once great era of shipbuilding, one gone for many years now. It is thus easy to assume that America is in the twilight of its maritime power. Beyond the many yards now closed, it is easy to see the decline in the size of the naval surface fleet, and the Merchant Marine, as a sign of the bygone era. Perhaps even now, it is the evening by which we can judge the day, as Sophocles commands us.

¹⁴⁴ Luz Pena, "Mare Island Dry Dock in Vallejo Facing Layoffs After Losing Large U.S. Coast Guard Contract," *ABC7 News (KGO-TV)*, January 2, 2026, <https://abc7news.com/post/mare-island-dry-dock-llc-vallejo-facing-layoffs-after-losing-large-us-coast-guard-contract/18339811/>.

¹⁴⁵ The *Constellation-class* featured a 32-VLS Mk. 41 system, while the replacement FF(X) based on the Coast Guard *Legend-class* has zero built-in VLS cells. The next-generation PLAN Type-054b Frigate has 32 VLS cells.

¹⁴⁶ Lagrone.

¹⁴⁷ Mallory Shelbourne, "Trump Unveils New Battleship Class Proposed USS *Defiant* Will Be Largest U.S. Surface Combatant Since WWII," *USNI News*, December 22, 2025, <https://news.usni.org/2025/12/22/trump-unveils-new-battleship-class-proposed-uss-defiant-will-be-largest-u-s-surface-combatant-since-wwii>.

¹⁴⁸ It is unclear how this class of vessel will fit into Navy war-planning and fleet design.

¹⁴⁹ President Trump has erroneously claimed the first Trump-class vessel, *Defiant*, will be commissioned in the next 2.5 years, though no funds were appropriated in the 2026 NDAA.

¹⁵⁰ James E. Fanell, "Going Nuclear, Getting Bigger, and Going Beyond," *Proceedings* 152, no. 5 (May 2026), U.S. Naval Institute; Matthew P. Funaiolo, Brian Hart, and Aidan Powers-Riggs, "Ship Wars: Confronting China's Dual-Use Shipbuilding Empire," CSIS, March 11, 2025.

¹⁵¹ Colton, Tim. "U.S. Shipyards." *ShipbuildingHistory.com*. Last modified June 17, 2024. <http://shipbuildinghistory.com/shipyards/public.htm>.

Conclusion

The fundamental theoretical basis for American shipbuilding is the cycle. As outlined in earlier chapters, American shipbuilding is fundamentally driven by national security imperatives and government intervention. This cycle begins with a national security emergency or an existential crisis that demands the projection of power and the protection of American commerce. Such a crisis can best be understood in Kennan's terms, as a breakdown in the stable, favorable order among hostile powers. In response to these critical threats, the U.S. government intervenes with massive subsidies and capital funds for production. This government support triggers periods of emergency production, leading to a surge in shipbuilding capacity and the creation of vast merchant and naval fleets capable of meeting the nation's emergency needs.

But once the immediate crisis subsides, decline sets in. Having built a merchant and naval fleet to meet *emergency* needs, when the crisis subsides, there is an oversupply of tonnage, and demand drops precipitously. With no immediate need, the government rolls back subsidies and funds that are the industry's critical lifeline: a *peace dividend*. Compounded by persistent structural economic disadvantages such as high labor and material costs, and intense international competition, American shipyards are unable to sustain production without government support. Shipbuilding jobs are cut, and then the yards begin to shutter, perhaps, awaiting the next compelling crisis in a new cycle.

Look no further than the number of active U.S. Navy ship levels, and the cycle emerges. From 1910 to 1916, the U.S. had, on average, around 217 active ships.¹⁵² In 1917, the U.S. entered the war, and by the end of 1918 the war had ended. In those two years of war, the U.S. averaged 558 active ships.¹⁵³ From 1917 to 1918, the U.S. Navy increased its active ships from 342 to 774,

¹⁵²“ U.S. Ship Force Levels: 1886–Present”.

¹⁵³ Ibid.

an increase of nearly 127%.¹⁵⁴ From the wartime high of 774 ships, the peacetime reduction began in 1919, extended under the naval arms control of the Washington Naval Treaty. By 1924, the U.S. was back to pre-war ship numbers, with 137 active ships.¹⁵⁵

With the onset of the Depression, and the Japanese invasion of China, the U.S. started to build up vessels. From 1933 to 1940, the U.S. increased the surface fleet by 54%, from 311 to 478.¹⁵⁶ A year after the Japanese attack on Pearl Harbor, the U.S. surface fleet was 1,782 vessels,¹⁵⁷ a 273% increase. From 1942 to 1945, the U.S. averaged 4,582 ships—with a wartime high of 6,768 in 1945.¹⁵⁸ From 1946 to 1950, the Navy was reduced from 1,248 vessels to 634—a reduction of nearly 50%.¹⁵⁹ In these two cases, we see the cycle outlined above, from crisis to peace dividend.

The question of how the U.S. surged production is especially important. Given the structural disadvantages the U.S. faces, namely in terms of labor and steel costs, mass production, necessitated by a crisis, and subsidized by the government, is the only way the U.S. can build ships economically. That is, reducing the per-unit costs of building ships, shifting the cost curve downward. In a situation where those deficiencies are constant, without intervening subsidies to reduce those costs, and there is no intervening crisis to foment demand, there is simply no rationale to build ships in the U.S., especially as labor and material costs are lower in places like China, Japan, and South Korea. In fact, the global centers of shipbuilding have historically followed the lowest labor and material costs. The U.S. has only briefly led global shipbuilding, because of government intervention to reduce those costs, through subsidies.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid.

¹⁵⁸ Ibid.

¹⁵⁹ Ibid.

There are a couple of important conclusions that can be drawn from the cyclical theory of shipbuilding. First and foremost, we can understand the shipbuilding industry as a state enterprise. At its core, it responds to the demands of government, which is in turn forced to action by systemic shifts in the global order. Few industries are so reliant on and shaped by the hand of government. The American shipbuilding industry is one of public yards, private yards often paid for, at least in part, by the government, and direct subsidies to offset construction and operational costs. The government orders both merchant and naval ships, and the shipyards answer its demands, like few other industries.

Secondly, we can see a logic to the state of American shipbuilding. The U.S. government is a rational actor. In times of crisis, it acts, and otherwise it doesn't. The U.S. entered both World Wars, woefully deficient in maritime capabilities, and left both wars with large, modern, capable fleets. The U.S. adequately marshaled capital funds to buy the fleet it needed, to meet the wartime needs. When those crises ebbed, it sold off excess tonnage, and reduced or eliminated subsidies. No one could reasonably argue that the U.S. needed wartime levels of production, at massive costs, in times of peace.

In the postwar era, the U.S. faced unfavorable shifts in the international order—yet none as existential and dire as the World Wars. No global crisis of that scale has happened since 1945. While Reagan's decision to cut the CDS in 1982 was detrimental to the shipbuilding industry writ large, it was not, in fact, irrational, given the nature of the Soviet threat. The U.S. never engaged the Soviets like it did the Nazis, or Imperial Japan. Furthermore, the post-Cold War era has presented itself few systemic rivals, and no crises of comparable caliber. The U.S. has principally spent the 21st century fighting non-state actors with limited capabilities—no wars of national survival.

The rise of China and the potential for a future conflict show cracks in this understanding: such a threat has yet to fully materialize. Here, “yet” is the operative word. The congressionally mandated report on *Military and Security Developments Involving the PRC*, published at the end of 2025, outlined the threat succinctly: The PLA continues to make steady progress toward its 2027 goals, whereby the PLA must be able to achieve “strategic decisive victory” over Taiwan, “strategic counterbalance” against the United States in the nuclear and other strategic domains, and “strategic deterrence and control” against other regional countries. In other words, China expects to be able to fight and win a war on Taiwan by the end of 2027.¹⁶⁰

Whether or not China will choose to completely upend the global economy and perhaps even the CCP regime’s survival remains to be seen. But clearly, China’s push to ‘reunify the motherland’ cannot be ignored by American war planners.

Recommendations

If the industry is so reliant on the hand of the state, on the prevailing conditions of the international system, and a crisis potentially looms in the near future with China, then there is an intuitive argument for reintroducing the CDS and ODS scheme of the Merchant Marine Act of 1936. If crisis is the basis of demand in this cycle, then it is clear the U.S. faces no such impetus to build ships en masse. But if the U.S. wants to make the effort of increasing the size of the Merchant Marine, expand its naval forces, and cut down the construction time and costs of such vessels, then subsidies are a straightforward solution.

¹⁶⁰ U.S. Department of Defense, *Military and Security Developments Involving the People’s Republic of China 2025: Annual Report to Congress* (Washington, DC: DoD, 2025), <https://media.defense.gov/2025/Dec/23/2003849070/-1/-1/1/ANNUAL-REPORT-TO-CONGRESS-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA-2025.PDF>

This is a question of political will. Since the 1970s, the U.S. has been in an era of austerity. President Carter said in his 1978 State of the Union, “The government cannot solve our problems, it can’t set our goals, it cannot define our vision...”.¹⁶¹ The Reagan years solidified this line of policy, and by the Clinton years it was assumed as fact. As President Clinton put it, “the era of big government is over.”¹⁶² The era of austerity saw the elimination of the 1936 system of maritime subsidies, which desperately needs to be overturned. The solution is leadership that can articulate that, at least in this sector, the government can solve the problems of shipbuilding malaise, and can set goals and define the vision, because it *must*.

Though subsidies can direct shipbuilding production, there will need to be an effort to harness the shipbuilding strengths of U.S. allies. Japan and South Korea, both U.S. allies, make up over 40% of global shipbuilding production, whereas China makes up around 50%.¹⁶³ Lower labor and material costs in both Japan and South Korea can and should be harnessed to the benefit of U.S. national interests. This would, of course, require tearing down the protectionist measures underpinning the industry—the *Jones Act*, which prohibits foreign-built, owned, and crewed vessels from coastwise trade between U.S. ports.

The Jones Act has long provided protections for U.S. industry, but ultimately, it fails to meet the needs of today. In 1920, when the act was passed, most trade occurred on domestic waterways. Today, trucking does. Such an antiquated piece of legislation does very little to

¹⁶¹ Carter, Jimmy. “State of the Union Address.” January 23, 1978. In *Public Papers of the Presidents of the United States: Jimmy Carter, 1978*. Washington, DC: U.S. Government Printing Office, 1979.

¹⁶² Bill Clinton, “State of the Union Address,” January 23, 1996, *The American Presidency Project*, <https://www.presidency.ucsb.edu/documents/address-before-joint-session-the-congress-the-state-the-union-4>.

¹⁶³ Oh, Miyeon, and Michael Cecire. “Why the United States, South Korea, and Japan Must Cooperate on Shipbuilding.” *RAND*, Commentary, May 6, 2025. <https://www.rand.org/pubs/commentary/2025/05/why-the-united-states-south-korea-and-japan-must-cooperate.html>.

strengthen the industry today, and ultimately acts as a barrier to *burden-sharing* with allies, in shipbuilding production.

The future of shipbuilding is in Philadelphia

What could joint production look like? Look no further than the historical locus of American shipbuilding from 1801 into the latter half of the 20th century—*Philadelphia*. In June 2024, it was announced that *Hanwha Ocean*—one of the ‘big three’ of South Korea’s shipbuilding sector—came to a \$100 million agreement to acquire the shipyard from *Aker American Shipping ASA*.¹⁶⁴ Then-Secretary of the Navy, Carlos Del Toro remarked that:

“Hanwha’s acquisition of Philly Shipyard is a game-changing milestone in our new Maritime Statecraft...this will bring good paying union jobs to Philadelphia, a city with a 250-year relationship with the U.S. Navy. Knowing how they will change the competitive U.S. shipbuilding landscape, I could not be more excited to welcome Hanwha as the first Korean shipbuilder to come to American shores—and I am certain they will not be the last.”¹⁶⁵

Philadelphia’s Shipyard produced the great ships of the line of all of America’s great wars, including the *USS New Jersey*, until the last Navy ship rolled out of the slipway in 1970. After the BRAC hearings of the 1990s and its eventual closure in 1995, Aker purchased the yard. To date, the yard has produced 50% of all Jones Act-compliant commercial vessels since 2000.¹⁶⁶

¹⁶⁴ Katz, Justin. “South Korean Giant Hanwha Agrees to Acquire Philly Shipyard for \$100 M.” *Breaking Defense*, June 20, 2024, 1:48 PM. <https://breakingdefense.com/2024/06/south-korean-giant-hanwha-agrees-to-acquire-philly-shipyard-for-100m/>.

¹⁶⁵ Del Toro, Carlos. Statement. *U.S. Department of the Navy Press Office*, June 20, 2024. In “Statement from Secretary Del Toro on Hanwha Group’s Acquisition of Philly Shipyard,” *U.S. Department of the Navy*. Quoted: “Hanwha’s acquisition of Philly Shipyard is a game-changing milestone in our new Maritime Statecraft.” <https://www.navy.mil/Press-Office/Statements/display-statements/Article/3812713/statement-from-secretary-del-toro-on-hanwha-groups-acquisition-of-philly-shipya/>.

¹⁶⁶ Philly Shipyard, “About Us,” accessed July 2, 2025, <https://www.phillyshipyard.com/about-us/>.

Hanwha's acquisition of the yard is notable, beyond the builder being highly competent and productive, because it was the first foreign firm to receive a contract with the U.S. Navy for Maintenance, Repair, and Overhaul (MRO).¹⁶⁷ Six months after they received the June 2024 contract, it completed maintenance on the ammunition ship, *USNS Wally Schirra*.¹⁶⁸ The overhaul included necessary maintenance on the hull, the main engines, and other system upgrades. Shortly after securing the Master Ship Repair Agreement for *Wally Schirra*, Hanwha secured an MRO contract for *USNS Yukon*, a replenishment oiler of the 7th Fleet.¹⁶⁹

Hanwha's deepening relationship with the U.S. Navy has coincided with the purchase of the Philadelphia shipyard, and a deepening interest in U.S. commercial and naval production. A foreign firm securing MRO contracts for Navy vessels is the first step in future joint production. So far, Hanwha has proven itself capable and dependable in answering the Navy's demands.

Philadelphia shows a possible future for American shipbuilding efforts: a shipyard producing Jones Act-compliant commercial vessels that could shift under emergency conditions to naval production and maintenance.

The ability to shift production from commercial to naval, or vice versa, depending on the needs of the U.S. government, ensures a shipbuilding base—that is, a system wherein there is demand for highly-skilled shipbuilding jobs, and those workers are retained as demand shifts more toward commercial or naval production.

¹⁶⁷ Hanwha Ocean, "Hanwha Ocean Secures South Korea's First U.S. Navy MRO Project," *Hanwha*, September 4, 2024, <https://www.hanwha.com/newsroom/news/press-releases/hanwha-ocean-secures-south-koreas-first-us-navy-mro-project.do>.

¹⁶⁸ Naval News Staff, "Hanwha Ocean Completed Its First MRO on U.S. Navy Ship," *Naval News*, March 13, 2025, <https://www.navalnews.com/naval-news/2025/03/hanwha-ocean-completed-its-first-mro-on-us-navy-ship/>.

¹⁶⁹ Ibid.

The problem of government ‘philosophy’

Hanwha can bring necessary funding, and marshal the resources of South Korea’s burgeoning industry, in ways the U.S. has so far proven unable to in the postwar era. But this will need to be matched by vast spending, partly in the form of subsidies, on the American side. Suffice it to say that the general crux of shipbuilding is analogous to going to the grocery store: if you want something, you have to pay for it. For too long, the U.S. has had little demand for vast expansions in the commercial and naval fleets. Beyond that, the U.S. has increasingly, and rationally, sought to reduce spending across the board and committed itself to the notion that government intervention in the economic life of the nation was undesirable.

In response to Franklin Roosevelt’s government interventionism, a growing conservative opposition formed, praying at the altar of ‘small government’, ‘free markets’, and ‘low taxes’. Economically, this meant casting “production as a function of unfettered markets”.¹⁷⁰ This was the crux of the *supply-side revolution*.

By Bill Clinton’s presidency, the progressivism of Franklin Roosevelt, Harry Truman, or Lyndon Johnson, which had delivered massive public works of steel and concrete, a testament to American ingenuity and labor, had been roundly dismissed. The idea of progressivism itself was rooted in government *subsidies*, which helps explain the structural issues of American shipbuilding’s collapse. In an era of supply-side economics, the public sector has retreated, while the private sector has surged to the fore.

On the eve of the two greatest global crises to beset the last century, it was not private industry, nor the market, that delivered the U.S. a strong merchant marine and a navy to be a true maritime power—it was the hand of *big government*. As we’ve seen, the American industry was

¹⁷⁰ Klein, Ezra, and Derek Thompson. *Abundance*. New York, NY: Avid Reader Press, an imprint of Simon & Schuster, 2025., p.6.

born in public shipyards, because of subsidies provided by President Wilson's *Emergency Fleet Corporation*, and Roosevelt's New Deal policies. The catalyst was, of course, national emergency, and economic relief, respectively. The private sector functioned as an appendage of the state in World War II, as the example of New York Ship of Camden, as noted in the congressional record; "[New York Ship] is practically a Government yard. The Government pays for everything in there...If they need extra help, extra supervisors to take care of this work and can get them, the Government pays for them."¹⁷¹

Sure, 80% of the wartime effort was produced in private yards.¹⁷² But none of it would've been possible without the government subsidies that funded the construction, maintenance, and upgrade of the yards, and of course, the U.S. Navy purchase orders that compelled work in the yards.

Can the U.S., in the age of government fixation with efficiency, most recently through the *Department of Government Efficiency*, embark upon the massive, inefficient effort of shipbuilding? Of course, the U.S. has long acted rationally in terms of its national security, and a crisis would compel it to wartime production, unseen since the Second World War. When such a crisis comes to the fore, the U.S. will be given a chance to shift its philosophy toward that of state intervention, to bolster national needs.

¹⁷¹" Investigation of the Progress of the War Effort: Hearings Before the House Committee on Naval Affairs: Renegotiation of War Contracts, 78th Cong., 1st Sess., 574 (1943)."

¹⁷² Heinrich, p.244.

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