

Reforms Needed to Reduce Delays and Costs in U.S. Shipbuilding

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KEY TAKEAWAYS

Labor shortages and red tape are contributing to delays and cost overruns in America's shipbuilding industry, delaying the delivery of warships to the Pentagon.

The government already funds education-grant programs—part of this spending should go to vocational schools for training relevant to the defense industrial base.

ITAR should treat weapons, including warships, as a single unit to be approved once, minimizing the red tape for approving each component of a given weapon.

Within the Department of Defense's procurement process, delays in shipbuilding have become endemic, with programs routinely experiencing years-long holdups and backlogs. These delays cost the Pentagon much money and negatively affect the U.S. Navy's capacity to protect American interests. The Navy's next-generation *Constellation*-class frigate has already been delayed, and the Navy's first *Columbia*-class ballistic missile submarine is likely to face a one-year delay or more as well.

Contributing to these delays, shipyards face labor shortages as well as onerous regulations imposed at both the federal and state level. Federal and state legislators could reduce these delays and cost overruns by directing existing federal spending to training for critical defense tasks, reducing the regulatory burden on shipbuilders, and improving the predictability and size of defense contracts.

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Five Factors that Hinder American Shipbuilding

Following are the five main factors that are causing the delay in U.S. shipbuilding.

Labor. One of the biggest issues facing American shipyards is a shortage of skilled labor. Shipyards depend on certified welders for much of the shipbuilding process and have a difficult time attracting and retaining these workers. This is the case despite several initiatives that private industry offers to attract these workers: The shipyards in Norfolk, Virginia, and Marinette, Wisconsin, cover the costs for prospective welders to get certified at local technical colleges, with a follow-on offer of employment.¹

Some shipyards also offer second-chance programs to first-time, nonviolent offenders, giving them an opportunity to have a good starting salary and stable job. These programs have low rates of recidivism and the employees hired through them are often some of the hardest-working and most loyal employees of the shipyard. State-level reforms to enable expungement for minor criminal offenses could also be considered. As the Wisconsin-based Badger Institute has noted, expungement of misdemeanors for minor offenses can serve as a gateway to employment, especially for young, first-time offenders. Gainful employment plays a critical role in reducing recidivism.²

The federal government spends unbelievably large sums of money on education, but ties very little of this spending to outcomes. If the government is going to spend this money, the very least it can do is steer the money into educational training that is beneficial to the nation as a whole. Educational spending within the Department of Defense in particular should be geared toward outcomes that are favorable for national security. Whenever possible, lawmakers should set a requirement that a certain percentage of federal funding go to educational initiatives that strengthen the defense industrial base, especially funding for technical schools in areas with a large defense industrial base presence.

If, in addition to technical schools, high schools bring back technical classes either as electives or summer courses utilizing funds that are currently being used for college degrees not associated with an outcome or productivity, such as gender or ethnic studies, lawmakers can increase awareness and interest in high-paying defense-sector jobs that benefit society, while expediting the timeline of making these workers available to industry. This will not only benefit the defense industry, but it will also benefit manufacturing as a whole, making U.S. commercial supply chains more resilient and decreasing foreign dependence.

Environmental Regulations. Environmental regulations provide an additional cost burden. For example, Section 112 of the Clean Air Act requires that the Environmental Protection Agency (EPA) “establish emission standards that require the maximum degree of reduction in emissions of hazardous air pollutants.” The EPA thus has broad latitude in determining what level of reduction is necessary and in revising previous emissions standards. While some regulations may be necessary, Clean Air Act regulations keep expanding, moving the goal posts for emissions compliance whenever companies come close to compliance. These increasing regulations impose compliance costs on lower-tier suppliers that drive up prices and adversely affect supply-chain efficiency.

International Traffic in Arms Regulations (ITAR). American shipyards that work with foreign partners face an additional layer of regulations that slow down the process significantly. The ITAR create an unnecessarily onerous process for ship construction, requiring a multi-step approval process for technology and information sharing, including from foreign parent companies to their contracted subsidiaries, including for some unclassified information. The process can take months or years and imposes often unnecessary costs on defense contractors.³ Certain technologies do need to be controlled, but for co-production with allies to be feasible there needs to be a simpler and faster approval process—especially for less sensitive technologies.

Resourcing Predictability. Of course, regulatory reform will not fix the problem if a sufficient demand signal is not sent from the government to the shipbuilding industry. The Biden Administration’s proposed fiscal year (FY) 2025 defense budget, for example, reduces the number of *Virginia*-class submarines procured for the year from two to one. It is difficult for private industry to invest in industrial capacity at shipyards under the Pentagon’s annual procurement system. Expanded use of multi-year procurement (MYP) authorities and block-buy contracting would send a stable demand signal to industry and make it easier for industry to invest in expanded production capacity at shipyards.

The National Defense Authorization Act (NDAA) for FY 2024 included expanded use of MYP in the procurement of certain critical munitions for this exact reason. In the FY 2025 NDAA, Congress should consider expanding MYP authorities and block-buy contracting in the procurement of ships, as well.⁴

Navy Requirements. The lack of naval architecture expertise at Naval Sea Systems Command (NAVSEA) has led to a decrease in the Navy’s ability to efficiently develop specifications that are useful for industry. As a result, the Navy has become a less than fully informed customer and harder to work

with from the perspective of a shipbuilder. The Navy and industry also need to collaborate and co-develop requirements as early as possible in the process, so that requirements are not added later and do not slow down shipbuilding.

Recommendations for the U.S. Government

In order to foster a much-needed revitalization of U.S. Naval shipbuilding, Congress should:

- **Authorize block buys of warships.** The inconsistency in demand from the Navy is largely to blame for the problems facing the shipbuilding industry. Contractors will struggle to solve their problems with capacity, investment, and labor if there is no consistent demand for warships.⁵ Block buys of ships would provide a stable demand signal to shipbuilders and allow them to make long-term investments.⁶
- **Loosen or eliminate environmental regulations at the EPA to reduce costs.** The burden imposed by the EPA on industry is onerous and causes significant costs and delays to shipbuilders. Certain restrictions that prevent dumping and contamination are common sense and should be maintained. Other, newer regulations forcing ever-expanding reductions in carbon emissions are overly burdensome and should be either relaxed or eliminated.
- **Relax ITAR restrictions with certain partners and allies.** Japan, Italy, and South Korea (among others) have significant domestic capacity and capability for shipbuilding. These close partners and allies should have blanket approval within ITAR for non-weapons components and for select top-secret systems for shipbuilding when they are contracted to build in the United States. Granting this blanket approval were they to build warships for the Pentagon in the United States could incentivize them to invest in the American shipbuilding industry and expand American shipbuilding capacity. ITAR reform would also provide benefits in other areas, including the coproduction of munitions.⁷

The U.S. should:

- **Move toward a system that treats a weapon (such as a ship) as a whole over its entire lifetime,** including all follow-on parts and services, as a single unit, and thus not require a separate ITAR application

for each separate component. Any specific components that are not approved can be listed as such in the initial whole system approval. Coupling this with a system of blanket approvals for trusted NATO or major non-NATO allies, such as Japan, Italy, and South Korea, in specific ITAR categories (such as Category VI, which covers surface vessels) would substantially reduce the ITAR burden on shipbuilding and other defense sectors.

Congress should:

- **Direct a certain percentage of existing workforce training programs funded by the federal government for vocational training for critical defense tasks.** The Department of Defense and Department of Education already spend large amounts of money on workforce training and university grants. A certain percentage of this spending should be programmed for vocational training for critical defense tasks, like welding certificates, technical training at high schools in regions with significant defense industrial base presence, and engineering programs at universities. Congress should designate somewhere between 25 percent and 35 percent of Department of Defense educational grant programs for funding education in these critical defense areas.

The Department of Defense should:

- **Increase the number of qualified naval architects at NAVSEA and collaborate early with industry.** Collaborating early in the design phase reduces the likelihood of costly redesigns during the construction process and delivers ships on an expedited timeline. More qualified naval architects mean better requirements, greater ability to work with industry, and better ships.⁸ The ship design should be decided on by both parties before construction begins, and design changes after construction begins should only be applied in especially critical circumstances.

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Endnotes

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