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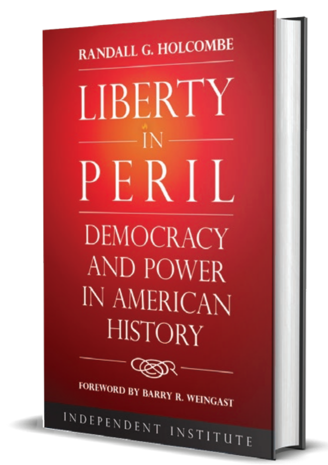

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The Provision of Naval Defense in the Early American Republic

A Comparison of the U.S. Navy and Privateers, 1789–1815

NICHOLAS J. ROSS

The War of 1812 began badly for British ocean-going commerce. Although the United States had a pitifully small navy, it did have a large merchant marine fleet keen to make a profit. Shortly after the outbreak of the war, the *London Times* lamented, "American merchant seamen were almost to a man converted into privateersmen and the whole of our West India trade either has or will in consequence sustain proportionate loss" (Letters from New York State 1812). Although the wars of the late eighteenth and early nineteenth centuries typically evoke images of large public armies and navies created to wage warfare for the state's political goals, privateers also played an important role. By licensing ships of the merchant marine to legally plunder from other nations' ships, governments could reduce their enemies' trade at very little direct cost to themselves and have a viable alternative to the public provision of naval defense.

In providing naval defense during the early republic, the U.S. government faced a trade-off between a relatively versatile navy at high direct cost and privateers at little direct cost. Given the incentives facing merchants in the shipping industry, however,

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privateers were relatively inflexible. In this article, I analyze the three major naval conflicts during the early republic and answer the question: Why did the United States rely heavily on public provision of naval defense during the Barbary Pirate Wars and the Quasi-War with France but rely more heavily on private provision of naval defense during the War of 1812?

Analytical Framework

Historian Wade Dudley succinctly summarizes the role of sea power as “protect[ing] a nation’s assets and extend[ing] national policy” (2003, 23). Naval forces could serve specifically by weakening the enemy’s economy by interrupting its seaborne commerce and by transporting land forces to invade the enemy’s territories. Naval forces could also serve to counter the enemy’s attempts to do the same. Table 1 summarizes the four major missions in naval warfare and the ability of public and private navies to execute these missions.

The Royal Navy, generally considered the world’s best for much of the eighteenth and nineteenth centuries and a benchmark against which other navies can be evaluated, abounds with examples of a public navy that executed all four missions. Public navies could facilitate invasion by transporting armies or by escorting invasion armies. The Royal Navy’s transportation of land forces to raid the Chesapeake Bay area, to assault New Orleans in 1814, and to support the war against Napoleon on the Iberian Peninsula are examples of naval forces facilitating invasions. Public navies also had the capability to reduce coastal fortifications to allow for the invasion of cities. The Royal Navy’s assault on Copenhagen in 1801 to destroy the Danish fleet provides a successful example of this type of mission.

The Royal Navy also succeeded in preventing invasion of Great Britain by engaging the French and its allies in battles to destroy their navies, such as Trafalgar in 1805, and by maintaining a fleet in the English Channel to deter invasions. The Royal Navy attempted to weaken its enemies’ commerce through naval blockades and capture of enemy merchant vessels. It could also protect Great Britain’s commerce by escorting merchant vessels in a system of convoys.

Table 1
Capabilities of Public and Private Navies

Capability	Public Navy	Private Navy
Facilitate invasion of enemy	X	
Defend against invasion	X	
Protect own nation’s commerce	X	
Weaken enemy’s commerce	X	X

Privateers, in contrast, focused almost exclusively on raiding an enemy's commerce. They supported their own country's commerce by bringing in captured goods for sale. However, privateers generally did not engage in ship-to-ship combat to gain control of the seas or to invade enemy territory. To understand why they were much more limited in their operations than were public navies, one needs to examine how the history of privateering influenced their incentives.

Privateering had its origins at least as far back as the Middle Ages and appears to have begun with the merchants of Italian city-states. In the absence of an international governing body, merchants could seek a "letter of marque and reprisal" from their government that allowed them to steal from another party for failure to pay debt, for theft of property, or for similar grievances (Garitee 1977, 3–4; Starkey 1990, 20–21). The tradition of the government's paying merchant ships for service as naval vessels during the Middle Ages and early-modern period may be another origin of the activity. However, the practice of hiring merchant ships to serve as warships had died out in the 1660s as "purpose-built warships" made the use of merchant ships in these duties impracticable (Starkey 1990, 21). Aside from a few exceptions, such as the British government's payment of bounties for the capture of enemy warships (Starkey 1990, 253) or merchants' payment for a ship to cruise the waters in the vicinity of its port to guard against enemy privateers (Swanson 1991, 51), privateers in the eighteenth and early nineteenth centuries received no direct financial support from the government.

These historical examples of private warships in noncommerce raiding roles provoke a counterfactual question: Why did the federal government not provide financial support to privateers to engage in the first three missions of naval defense listed in table 1? Indeed, during the War of 1812, the U.S. Congress provided bounties for prisoners captured by privateers engaged in commerce raiding (Garitee 1977, 168). Perhaps the federal government could have reallocated resources from the U.S. Navy to fund an extensive system of bounties to give privateers an incentive to engage in missions other than commerce raiding.

Economist Alexander Tabarrok provides an answer to this question by identifying privateering as a type of piece-rate system and arguing that navies, like many business firms, can capture benefits by employing bureaucratic production instead of piece-rate production when output is difficult to measure (2007, 574–75). Although for commerce-raiding missions in the late eighteenth and early nineteenth centuries output could be readily measured in terms of captured ships and men, the complexity of the other three missions in table 1 made it very difficult to establish the bounty needed to give privateers an incentive to accomplish the state's objectives. Tabarrok contends that public navies had an advantage over privateers in this regard because "governments could order navy personnel to do what they wanted them to do without having to change piece rates on the fly" (575). For the specific case of the U.S. Navy during the early republic, multiple historical examples of inefficiencies do exist. Nevertheless, the ultimate success of the U.S. Navy in accomplishing a variety of difficult tasks in the

Barbary Pirate Wars and the Quasi-War with France as well as decisive victories on Lake Erie and Lake Champlain during the War of 1812, tend to support Tabarrok's view that bureaucratic production of naval defense was indeed a viable alternative to giving privateers an incentive through government piece-rate bounties.

The lack of direct financial support meant that privateers depended on capturing enemy vessels in order to gain revenue. Therefore, privateers provided naval defense only in the form of commerce raiding because this mission was the only form of naval defense from which they could obtain revenue. To understand the extent to which merchants would invest in privateering, one needs to examine their legal environment and the major factors that influenced the profitability of privateering.

By the time of the early republic, privateering relied on a developed legal system provided by the federal government. American merchants who wished to engage in privateering needed to obtain a letter of marque and reprisal from the federal government and to post bonds that the privateer's owners would forfeit if the privateer broke the law (Petrie 1999, 9–10; Tabarrok 2007, 570). Upon capturing an enemy vessel at sea, the privateer could not legally confiscate any of the goods on the ship.[1] The privateer had to supply a prize crew to sail the captured ship to a friendly port with a prize court—which served as a legal check against abuse—to allow for "condemnation of the vessel and her cargo" (Petrie 1999, 9). After this point, the vessel and the goods it carried were allowed to be auctioned for the benefit of the privateer's owners. Because privateers were constrained by the number of prize crews they could provide and because sailing a prize vessel to a friendly port entailed a risk of its recapture, privateers would sometimes ransom a vessel instead of capturing it (Petrie 1999, 18–19; Leeson and Nowrasteh 2011, 2, 5).

So in times of war merchants in the shipping industry faced a trade-off: they could continue their transport activities, or they could take advantage of the prevailing legal framework and engage in plundering. My hypothesis is that merchants allocated their resources so as to maximize their expected profits. Indeed, the consensus among naval historians appears to be that in the late eighteenth and early nineteenth centuries privateering was motivated by its high profitability (Garitee 1977, 48–49; Crowhurst 1989, 1; Starkey 1990, 73, and 1997, 127).

Given that converting merchant ships to privateers appears to have been fairly straightforward with few major barriers (Garitee 1977, 48; Kert 1997, 143), I assume here that merchants allocated their resources between privateering and transporting so that their marginal products were equal in these two uses:

$$\text{Marginal Profit of Transporting} = \text{Marginal Profit of Privateering}$$

Thus, merchants in the shipping industry had three major choices during wartime: they could continue to allocate resources to transporting; they could allocate resources to privateering; or, owing to a decline in the expected profits of both

1. Privateers did not have the legal authority to steal goods on land.

transporting and privateering, they could leave the industry. Although many factors might potentially influence the difference of marginal profit between transporting goods and privateering, the major factors that influenced the expected profits of privateering relative to transporting are summarized in the equation

$$\prod^{e} = f(N_F, N_E, M_E, P_F), \text{ where}$$

$$\prod^{e} = \text{Expected profits of privateering relative to transporting}$$

$$N_F = \text{Size of the friendly public navy}$$

$$N_E = \text{Size of the enemy's public and private navies}$$

$$M_E = \text{Size of the enemy's merchant marine fleet}$$

$$P_F = \text{Number of ports available for sending prizes}$$

Table 2 summarizes how these major factors led merchants to engage in privateering or in transporting goods. An X in a box means that, with everything else held constant, the checked item should be more profitable relative to the other option.

A small friendly public navy would make it more profitable for merchants to engage in privateering. The smaller the friendly public navy, the less competition a privateer would face for prizes because privateers were in competition with public navies for prizes. If the public navy were large enough, it could also increase the cost of labor for privateers either directly by bidding up wages or indirectly through impressment, as in the case of the Royal Navy, so that merchants had to pay their crews higher wages to compensate for the risk of being impressed. With higher labor costs, transporting would be a more attractive option because transport ships required significantly smaller crews than privateers, which needed large numbers of personnel to man guns and to serve as prize crews. A large navy would also make

Table 2
Factors Influencing a Shipping Merchant's Allocation Decision

Factor	Privateering	Transporting
Small Friendly Public Navy	X	
Large Friendly Public Navy		X
Small Enemy Navy		X
Large Enemy Navy	X	
Small Enemy Merchant Marine		X
Large Enemy Merchant Marine	X	
Few Ports for Prizes		X
Many Ports for Prizes	X	

transporting less costly because the large navy could provide escorts, thereby making transporting goods less dangerous.

Merchants did not have to take the size of the public navy as a given. If they did not view privateering as a profitable venture, they could lobby the government for public naval vessels to provide escorts. These escorts would reduce costs for merchants engaged in transporting goods by reducing the probability of loss from capture if the cargo were uninsured and by reducing insurance premiums paid if the cargo were insured. Indeed, as I discuss in more detail later, American and British merchants tended to support strongly the public provision of naval defense when privateering opportunities were not readily available.

A large enemy navy might lead merchants to allocate their resources toward privateering because privateers tended to be faster and more heavily armed than transport ships and hence more likely to survive in an environment with numerous hostile ships. Though increasing the *relative* profitability of privateering, a large enemy navy might also cause a decrease in the *overall* profitability of privateering and transporting. A large enemy navy increased the likelihood of capture of both transport ships and privateers as well as the recapture of prizes. Moreover, a large enemy navy would allow for the convoying of enemy merchant ships, thereby reducing the likelihood that privateers would succeed in capturing prizes. Thus, an increase in the size of the enemy fleet might have a strong impact on a merchant's decision to exit the shipping industry.

The size of the enemy merchant marine played a major role in influencing the decision to allocate resources in privateering. A large enemy merchant marine would mean more potential prizes for privateers to capture and most likely higher expected profits. Therefore, the larger the size of the enemy's merchant marine fleet, the more likely it was that merchants would engage in privateering. An illustrative example of this effect is the long-run decline of British privateering in the eighteenth century as French merchants increased their reliance on neutral carriers, thereby reducing the number of potential prizes (Crowhurst 1989, 16; Starkey 1997, 7, 129–30).

The greater the number of potential ports where privateers could send their prizes, the more likely it was that merchants would engage in privateering. Privateering's profitability depended in large part on the privateers' ability to get prize vessels to friendly ports. Friendly ports included not only the ports of the privateer's own country, but possibly also the ports of cobelligerents (Petrie 1999, 105). The larger the number of friendly ports to receive prizes, the more likely it was that a prize vessel could get to a port where both it and its goods could be auctioned. If the number of available ports for prize vessels declined, one would expect merchants to allocate resources in favor of transporting goods as opposed to privateering. One might also see privateers relying more on the ransoming of captured vessels, which did not require taking the prize vessel to a friendly port.

One should recognize that this model, which emphasizes the allocational choice between privateering and transporting, simplifies the situation. Indeed, merchants could choose an intermediate solution as a letter-of-marque trader. In this situation, the merchant would secure a letter of marque and reprisal and arm his ship more heavily than typical of a transport, but, unlike a dedicated privateer, he would also transport goods. This option reduced business risk because the ship would be more heavily armed to resist capture and at the same time would have the ability to earn revenue from the transport of goods even if it did not capture enemy prizes. Nevertheless, in the decision about how much to arm his ship and what quantity of goods to transport, a merchant still faced similar trade-offs as merchants who decided to outfit ships either as dedicated privateers or as transport ships.

The upshot of this analysis is that merchants engaged in privateering based on the profit incentives they faced, not necessarily because of the state's naval defense needs. In the model presented here, merchants would generally provide naval defense only in the form of commerce raiding and only if privateering seemed to be a more profitable alternative to either transporting goods or exiting the industry. Furthermore, privateers would also engage in ransoming, which tended "not [to be] in the interest of the state" (Ritchie 1997, 17), as opposed to capturing goods if ransoming proved an easier alternative for the privateer (see also Tabarrok 2007, 573–74).

The state's leaders ultimately faced a trade-off in the provision of naval defense. One way would be to issue letters of marque and reprisal, which would allow the private sector to provide naval defense in the form of commerce raiding. This option had the advantage that the state had small direct, explicit costs for providing prize courts, which were already largely sunk costs for the United States because district courts also served as admiralty courts (Garitee 1977, 144).[2] Privateering also freed the government from the costs of maintaining a large support bureaucracy because individual merchants would decide how to build, equip, and man their ships based on market prices. However, ship owners had an incentive to invest in privateering only to the extent that they could capture the benefits. They would engage only in commerce raiding and only to the extent that privateering was profitable relative to the merchant's alternatives, not necessarily to the extent necessary to damage the opponent's war efforts.

Another way for the state to provide naval defense consisted of building and operating warships, which had the drawback that the state had to finance and manage the fleet's building, operation, and maintenance. The government also faced an information problem about how large the public fleet should be. Whereas private merchants could use prices and expected profits to guide their decision to invest in privateering or transporting and their decision to stay in or exit the maritime industry, state leaders did not have comparable price and profit information to guide their decisions on resource allocation. Indeed, in the case of the United States, Congress

2. There were, of course, indirect costs. For example, allowing privateering tended to increase the demand for seamen because privateers required relatively large crews compared to transport ships. The higher demand for labor made it more costly for the government to man its public ships.

appropriated funds for ship types such as gunboats in part in a mistaken attempt to achieve cost savings (Symonds 1980, 107–8; Smith 1994, 113).

However, because the state provided the navy's funding, the navy was not constrained to commerce raiding as privateers were. Public navies had the additional capability to facilitate invasions, defend against enemy invasions, and protect friendly commerce. Even with commerce raiding, public navies could engage in commerce raiding when it was too costly for privateers (for example, when it was necessary to destroy the captured goods instead of sailing them to port). However, naval officers' incentives did not always align perfectly with the state leaders' goals. Public ships could gain prize money through the capture of enemy ships, which might have led some naval officers to prefer commerce raiding and ship-to-ship actions over more mundane duties such as blockading and escorting convoys.[3]

Some naval officers also sought personal glory and prestige at the expense of their leaders' interests. For example, Captain Philip Broke of the HMS *Shannon* disregarded British Admiralty orders by weakening the naval blockade of Boston in 1813. This action lured the USS *Chesapeake* into a naval battle that brought glory and fame to Broke but was militarily insignificant (Dudley 2003, 94–95). In another instance during the War of 1812, the commander of the USS *Argus,* Lieutenant William Henry Allen, attempted to take enemy vessels as prizes rather than destroying them. Not only was this action against the orders of the secretary of the navy, but it also weakened Allen's crew and eventually led to the *Argus*'s defeat in battle (Petrie 1999, 35–39). Nevertheless, public navies appear to have had more flexibility of use than did their private counterparts.

To summarize, the state faced a trade-off when providing naval defense. Public navies gave the state a flexible means to provide such defense, but only at large direct costs. Private provision through privateers allowed the state to avoid the direct costs, but at the expense of control of the type and quantity of naval defense provided because privateers would engage only in activity expected to be profitable.

Barbary Pirate Wars

The Barbary states consisted of the four North African states Morocco, Algiers, Tripoli, and Tunis. These states had a history of engaging in piracy against merchant shipping in the Mediterranean. Nations that did not pay tribute to them were subject to their maritime piracy. After the United States gained its independence, American merchant ships could no longer rely on the Royal Navy for protection (O'Connor 1994, 58). Matters worsened in 1793, when the Portuguese concluded a peace treaty with Algiers, ending the Portuguese navy's blockade of the Strait of Gibraltar and giving the Barbary pirates access to the Atlantic Ocean (Fowler 1984, 9, 16). At the

3. For discussion of public navies' flexibility and the demise of privateers, see Tabarrok 2007.

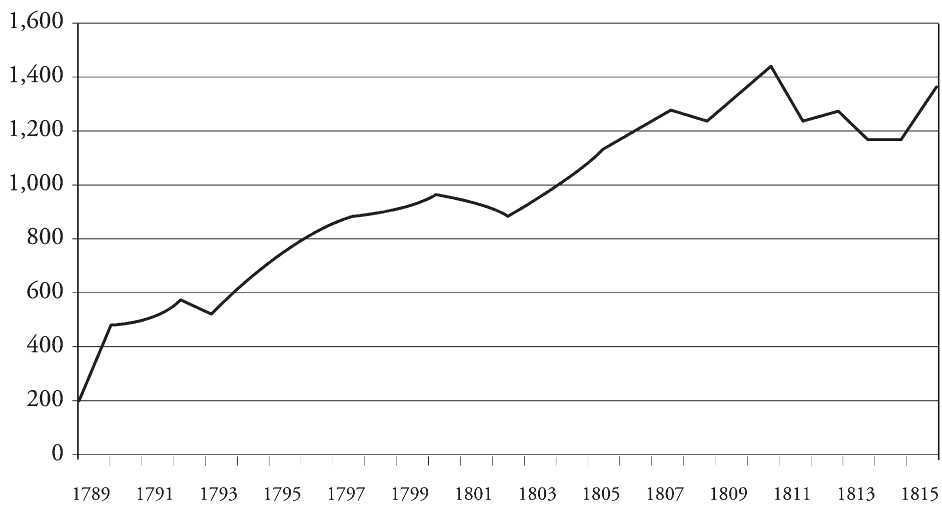
same time, during the French Revolution and the Napoleonic Wars, the American merchant fleet grew dramatically because its status as a neutral carrier gave it an advantage (Crowhurst 1989, 16; O'Connor 1994, 81). Figure 1 shows the dramatic increase in the size of the American merchant marine in this period.

The United States faced a major naval dilemma with the Barbary pirates. The U.S. merchant marine was growing in importance, but at the same time the threat to it also increased. To counter this threat, the United States could either pay tribute to pirates or provide a means of naval defense. The federal government ultimately provided defense through a public, not a private, navy because the threat was small enough for the federal government to fund a navy of sufficient size to counter it, and the incentives for a private navy did not exist.

As a method of countering the pirates, commerce raiding would not prove effective because the Barbary states did not have large merchant marines. Therefore, the expected profits of engagement in privateering would be fairly low and would lead merchants to transport goods or exit this industry. This situation helps to explain why U.S. merchants sought naval protection to defend their transports: reducing the likelihood of capture would increase their profitability. Indeed, much of the support for the establishment of the navy came from the northern and mid-Atlantic states, which were heavily involved in ocean-going commerce (O'Connor 1994, 60).

Another major reason why the federal government used a public navy in this piracy situation was that the threat was small enough that the government could bear

Figure 1
Documented U.S. Merchant Vessels, by Thousands of Gross Tons, 1789–1815



Source: From data in Carter et al. 2006, 858.

the direct costs of funding a public navy. The Naval Act of 1794 allowed for the procurement of only six ships, the largest being forty-four-gun frigates, to overcome the Barbary states' capability (Symonds 1980, 30; Fowler 1984, 19; O'Connor 1994, 63). This public navy would have the ability to protect American commerce by providing escorts and blockading hostile ports as well as by facilitating invasions, activities in which privateers had no incentive to engage.

Although the United States and Algiers signed a treaty before the United States could finish construction of its ships, war with Tripoli broke out in 1801 over the capture of the ship *Catherine* and demands for tribute. President Thomas Jefferson ordered the initial dispatch of a naval squadron to the Mediterranean in 1801, and the United States continued to maintain a naval presence in the Mediterranean for much of the early 1800s. These forces engaged in blockading and assaulting Barbary ports as well as in escorting U.S. merchantmen. They formed the nucleus of a force sent to invade Tripoli and later Tunis (Fowler 1984, 64–124; O'Connor 1994, 82–99). In both instances, American naval forces convinced the Barbary rulers to agree to peace terms. In 1815, President James Madison dispatched a squadron to confront Algiers, which had reneged on earlier agreements with the United States. Through a ship-on-ship naval victory and a show of force, the United States forced Algiers to terms. The U.S. Navy, along with an Anglo-Dutch naval expedition in 1816, ended the threat of the Barbary pirates and largely eliminated tribute payments (Fowler 1984, 263–64; O'Connor 1994, 100–103).

Quasi-War with France

The Quasi-War with France grew out of disputes over the U.S. conduct of trade with the British during the 1790s. The French seized American vessels, which the United States viewed as a violation of its neutral rights. Matters came to a head when the French, in the "X, Y, Z Affair," requested a bribe in order to begin negotiations with an American delegation. To retaliate, Congress authorized naval action against France in the spring of 1798 (Fowler 1984, 30–33).

Like the wars with the Barbary pirates, the war with France lent itself to public provision of naval defense. The British, who had been waging war against the French since 1793, had greatly weakened the French merchant marine and public navy (O'Connor 1994, 66). The French Revolution had reduced the French navy's effectiveness by forcing many of its officers into exile (Rodger 2004, 427).

This situation had two key implications. First, the lack of a large French merchant marine rendered a naval strategy of commerce raiding ineffective. The American merchant marine's incentives were to stay in the transport business or, if France's naval actions proved too detrimental, to exit the industry. Second, the lack of a large French naval threat meant that the public provision of naval defense would be within the U.S. government's means. Indeed, given the large American merchant marine, French naval defense efforts consisted largely of a commerce-raiding strategy. Thus, although Congress authorized privateering during the Quasi-War, it does not appear that U.S. privateering was widespread, and privateers captured no French ships (Garitee 1977, 26). Economist Larry Sechrest (2007) points out that "self-interested citizens" provided for the construction of several new naval ships, but these vessels did not operate as privateers. Rather, once the ships were constructed, the U.S. Navy funded and controlled their operation. As during the Barbary Pirate Wars, American merchants sought the employment of a public navy for the protection of transport shipping.

Thus, to fight the French threat, the United States employed the navy it had originally built to combat the Barbary states, bolstered with additional ships. The U.S. Navy attacked French ships, in particular privateers, and provided escorts for American merchant ships. The naval effort, combined with ongoing efforts by the British, nullified the impact of the French privateers and public warships. Historian William Fowler estimates that cost savings to the American merchant marine exceeded the U.S. Navy's costs during the war. American success allowed for a negotiated end of the conflict in 1800 (Symonds 1980, 71–72; Fowler 1984, 41–42, 57; O'Connor 1994, 66–70).

The War of 1812

As during the Barbary Pirate War and the Quasi-War with France, America's merchant marine played a role in the start of the War of 1812 against Great Britain. Although historians have long debated this war's origins (see Dudley 2003, 1–2), violation of American neutral rights, in particular the impressment of seamen from U.S.-flagged ships, was at the very least a nominal reason for the U.S. declaration of war in June 1812.

Unlike the situation during the Barbary Pirate Wars and the Quasi-War, however, there was a dramatic disparity in the size of the public naval forces involved. Historian Wade Dudley estimates the size of the U.S. Navy at 16 ships and of the Royal Navy at 98 ships in the Americas as well as an additional 555 ships in other locations in July 1812 (2003, 39). This disparity meant that it would be very difficult for the U.S. Navy to engage effectively in the first three missions of naval power listed in table 1. However, a commerce-raiding strategy could still be viable, given the large British merchant marine, which consisted of approximately 20,637 ships in 1812 (Mitchell 1988, 535). So, unlike during the Quasi-War and Barbary Pirate Wars, during the War of 1812 privateering could be a viable means of defense.

The fundamental idea behind the analytical framework presented earlier is that merchants allocate their shipping resources in response to economic incentives in order to maximize profits. Although data on privateering during the War of 1812 are limited and by no means perfect, it is worthwhile to examine two data series, one on prize dispositions assembled by historian Wade Dudley (2003) and another on

Figure 2
American Prize Dispositions per Month, 1812–1815

Source: From data in Dudley 2003, 139.

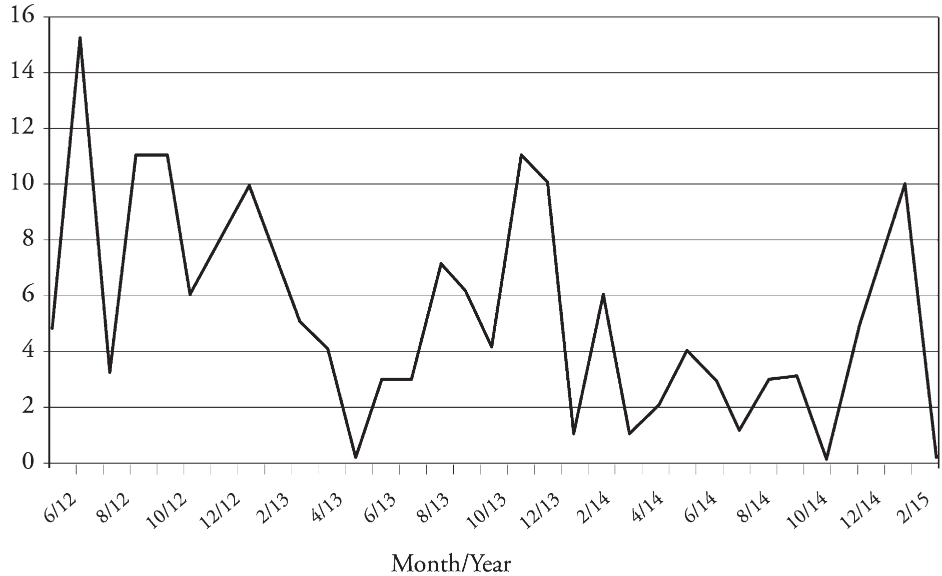
substantiated commissions of privateers in Baltimore assembled by historian Jerome Garitee (1977). Both of these data series provide tentative support for the hypothesis that merchants responded to profit incentives, as summarized in table 2.

Wade Dudley's data on the number of prize dispositions during the War of 1812 can serve as a rough indicator of privateering's profitability because gaining control of prize goods to sell at auction was the primary means for privateers to earn revenue. These data are not a perfect measure of profits, however, because they do not indicate costs or the amount of revenue earned per disposition. In addition, as economists Peter Leeson and Alex Nowrasteh point out, ransoming of captured vessels—a way of earning revenue not captured by disposition data—did occur, albeit significantly less than outright capture (2011, 31). Therefore, disposition data understate potential revenue from privateering. Finally, Dudley estimates that his sample of 1,444 may exclude 1,000 to 1,500 dispositions. Nevertheless, his sample does appear representative of general trends. Figure 2 assumes six months of war in 1812 and 1815[4] and twelve months of war in 1813 and 1814.

Dudley's data, as rendered in figure 2, show a high number of dispositions at the beginning of the war and a decline from 1812 through 1814. This pattern suggests that privateering's profitability was high at the beginning of the war. In the framework

4. Even though the United States and Great Britain were no longer at war by the end of February 1815, the second article in the Treaty of Ghent allowed privateers to capture enemy ships in some remote parts of the world up to 120 days after peace began (Engleman 1962, 301–11).

Figure 3
Substantiated Commissions by Baltimoreans, 1812–1815



Source: From data in Garitee 1977, 251–56.

of table 2, the relative profitability of privateering could be high at the beginning of a war when the enemy's merchant marine was most vulnerable because it had not yet taken countermeasures to avoid capture. Profitability would decline over the course of the war as enemy merchant ships took countermeasures, such as convoying or avoiding high-risk areas of the ocean, thereby reducing the number of captures. The decline may also represent an increasing presence of the Royal Navy—in particular its blockading efforts—that caused merchants to exit the shipping industry (Kert 1997, 152).

The increase in 1815 suggests that some factors changed, thereby increasing the profitability of privateering. One can explain this jump through a change in the factor "many ports for prizes" (see table 2) that led merchants to allocate more resources to privateering. Beginning in 1814 and continuing into 1815, some neutral European countries, which the British could not blockade, allowed the disposition of American prizes (Dudley 2003, 139). Around the same time, Great Britain reduced the size of the Royal Navy after Napoleon's exile to Elba in 1814 (Hickey 1989, 218). The increase in the number of friendly ports and the reduction of the enemy's naval force might have affected profitability by rendering privateers and their prizes less likely to be caught. The privateers' higher profitability would induce firms to allocate more resources to privateering and hence cause an increase in the number of dispositions.

Another data set, from Garitee as reported in figure 3, appears to show privateers responding to profit incentives. Although Dudley's data show prize dispositions and might be considered a measure of profitability, Garitee's data on commissions serves as a proxy for merchants entering the privateering business. These data show the number of substantiated ships with letters of marque for each month of the War of 1812 in Baltimore, one of the principal ports engaged in the outfitting of privateers. Two items stand out in this figure and suggest that merchants responded to profit incentives when engaging in privateering. First, the highest number of substantiated letters of marque occurred early in the war, in July 1812, followed by an overall downward trend as time progressed. This pattern suggests that merchants allocated the most resources to privateers at the beginning of the war, when privateers could most easily capture enemy merchant ships that had not yet taken countermeasures, thus making privateering a relatively profitable alternative. This pattern is similar to the one in Dudley's data showing a high number of prize dispositions at the beginning of a conflict. Second, the cyclical nature of the data show peaks during the winter months. Bad weather during the winter months made it more difficult for the Royal Navy to maintain vessels off the U.S. coast (Dudley 2003, 52, 54, 56). Reduction in enemy naval vessels made it easier for privateers and their prizes to evade capture, increasing the expected profitability of privateering.

Privateering made sense not only for individual merchants motivated by profit incentives, but also for the federal government. The U.S. government relied heavily on tariffs for revenue, so the reduction in ocean-going trade caused by the War of 1812 reduced the government's ability to fund naval expansion. At the same time, by taxing imports brought in by privateers, the privateering system provided the government with an important source of tax revenue (Garitee 1977, 213–14; Rodger 2004, 565).

The United States also provided naval defense by the use of a public navy. On the Great Lakes and Lake Champlain, where the primary naval defense goal was either to facilitate a U.S. invasion of Canada or to defend against a British invasion from Canada, the United States provided naval defense by building and operating public naval vessels. In the open ocean at the beginning of the war, the United States deployed public naval ships to distract the Royal Navy, thereby protecting American commerce (Rodger 2004, 567). The U.S. Navy engaged in several famous morale-boosting yet militarily insignificant frigate-on-frigate actions.

Yet the sheer inequality in power between the Royal Navy and the U.S. Navy led the latter, like its private counterparts, to engage in a strategy of commerce raiding. On the one hand, commerce raiding by the U.S. Navy had the potential to be more effective than raiding by privateers because the navy did not necessarily need to take prizes, which weakened the ship's crew by diverting men to prize vessels and risked recapture of the prize ship. For example, the USS *Constitution* burned several prizes on a cruise in 1812 (Fowler 1984, 172). Although privateers sometimes burned prizes after transferring valuable cargo to their own hold, this practice was not common (Dudley 2003, 139–40). On the other hand, U.S. naval ships, unlike privateers, had a tendency to seek combat with the Royal Navy, which usually had disastrous results. Prominent examples include the case of the USS *Argus* mentioned earlier and the USS *Essex*. The latter, after a highly successful voyage against British whalers in the Pacific, declined to flee from the Royal Navy and was ultimately captured by the British. Historian William Fowler summarizes the attitudes motivating officers in the public navies of the United States and Great Britain: "[H]onor and glory was everything, even at the expense of sound strategy" (1984, 198).

Historian Jerome Garitee makes a strong case that privateers provided the bulk of naval defense for the United States during the War of 1812. He contends that the privateers inflicted "heavy losses" on British merchants in the shipping industry and on insurance companies and helped to motivate the British government to agree to peace terms (1977, 244–45). The combined naval defense effort ultimately destroyed a large portion of the British merchant marine's tonnage. Dudley estimates losses varying from 6.3 to 25.8 percent (2003, 141). Historian N. A. M. Rodger's analysis of insurance data, suggesting a loss rate for merchant ships of 2 to 6 percent *per year* during the French Revolution and Napoleonic Wars, would seem to suggest that losses during the War of 1812 may have been around Dudley's lower bound (2004, 559–60). Rodger estimates, also based on insurance data from Lloyd's, that the United States captured 1,175 ships (569). Privateers thus played a central role in the U.S. naval defense (Garitee 1977, 244–47) and are a testament to the importance of private provision of naval defense during the War of 1812.

In contrast, the British relied predominantly on public provision for naval defense during the war. Although the British used privateers, the keystone of Britain's naval strategy was its public navy. Unlike the United States, Great Britain had the ability to levy taxes, including excise and income taxes, of up to approximately one-fifth of its gross domestic product to fund its war effort, and it had sound financial institutions to fund government expenditures through debt (Kennedy [1987] 1989, 124, 126; Ferguson 2001, 174–76; Rodger 2004, 473, 579). These fiscal conditions gave Great Britain the ability to fund a massive fleet of approximately 600 ships during the latter part of the Napoleonic Wars. Britain's naval success was also self-reinforcing. Its consistent victories meant that during the Napoleonic Wars at least one-fourth of its fleet consisted of captured ships.

Given Britain's naval dominance, British merchants' incentives would appear to have been to allocate resources to merchant shipping. Table 2 suggests that British merchants would have tended to avoid privateering because of competition with the Royal Navy for prizes, which would reduce expected revenue, and for seamen, which would raise labor costs. It appears that British merchants in the shipping industry took an approach of applying political pressure to obtain Royal Navy escorts for their ships (Crowhurst 1989, 32). Indeed, the Royal Navy played an important role in protecting the interests of members of the merchant shipping and financial sectors in London (Rodger 2004, 580–81). For the War of 1812, British naval strategy centered on publicly provided naval power for escorting convoys, blockading the coast of the United States in an attempt to prevent American public and private warships and merchant ships from leaving port, and transporting troops from Europe to invade the United States.

Conclusion

Study of the naval history of the early U.S. republic shows that although there were two viable alternatives for the provision of naval defense, the choice involved a careful trade-off. Privateering centered on merchants who, motivated by profits and backed by a publically provided legal system, outfitted privateers to plunder enemy ships. Their profit motives limited privateering to the provision of naval defense in the form of commerce raiding. Raising and maintaining a public navy involved the disadvantages of increased taxation and public debt to pay for warships as well as the bureaucracy to manage them. However, public navies had the advantage of enhanced flexibility in the missions they could execute. Ships of a public navy not only could engage in commerce raiding, but also could protect their country's commerce, defend against invasion, and facilitate invasions of their enemies. The provision of naval defense for the United States ultimately depended on the state's ability to bear the direct costs of a public navy able to counter the threats it faced and on whether a profitable environment for privateering existed or not.

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