

The Growth of the “Camo Economy” and the Commercialization of the Post-9/11 Wars

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Executive Summary

Since September 11, 2001, United States military spending has grown rapidly, as has the portion of that spending that pays for military contractors. These contracting companies engineer and manufacture equipment, build and repair infrastructure around the world, provide services like cafeterias and other facilities support, and even replace troops in many war zones. In 2019, the Pentagon spent \$370 billion on contracting – more than half the total defense-related discretionary spending, \$676 billion, and a whopping 164% higher than its spending on contractors in 2001.

Over nearly two decades, government officials, private companies, and conservative think tanks have sold the idea that military contractors are a cost reducer, yet in reality, the growth in military contracting—or what I call the “Camo Economy”—has actually increased the overall cost of this country’s military operations. **It’s a Camo Economy because the U.S. government has used the commercialization (often mislabeled “privatization”) of the military as camouflage, concealing the true financial and human costs of America’s post-9/11 wars.** Regarding human costs, in 2019, there were 53,000 U.S. contractors compared to 35,000 U.S. troops in the Middle East. Since the U.S. invasion of Afghanistan in 2001, an estimated 8,000 U.S. contractors have died, in addition to around 7,000 U.S. troops.²

America’s post-9/11 wars, which the Costs of War project defines as U.S.-led military operations and other government programs around the world that have grown out of President George W. Bush’s “Global War on Terror” and the U.S. invasion of Afghanistan

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² As the paper later details, the ratio of contractors to military personnel has increased from 1:1 in 2008 to 1.5:1 today. For a full calculation of war casualties, see: <https://watson.brown.edu/costsofwar/figures/2019/direct-war-death-toll-2001-801000>.

in 2001, have cost U.S. taxpayers over \$6.4 trillion.³ Defense spending now accounts for more than half of all discretionary spending, a category that also includes education, transportation, and healthcare – virtually everything the government does other than Medicare and Social Security.⁴ **Most of these inflated costs are due to payments to overly expensive military contractors.**

This paper disproves the theory, put forth by advocates for military contracting, that the commercialization of government services decreases costs and increases quality of these goods and services, thereby benefiting the public purse. Instead, the paper shows that military contracting is at least as expensive, and often more expensive, than if the military were to perform the same services in-house. This is because **contractors lack competitive pressures to reduce the prices they charge to the government.** This lack of competition is due, first, to the nature of the contracts themselves. Forty-five percent of the Pentagon’s contracts were classified as “non-competitive” in 2019 – a much higher percentage than other government agencies. Even of those contracts the Pentagon classifies as “competitive,” some are “cost-type” contracts, which create no incentive for contractors to keep costs low. Between 2008 and 2019, the Department of Defense (DoD) spent over \$1.2 trillion on such cost-type contracts, none of which were subject to the cost-reducing pressures of private markets. Other contracts include lifetime service agreements and sole-supplier contracts, which effectively create monopolies.

Scant competition or monopolies also occur because of the nature of the work. Services like building dining hall infrastructure and troop support facilities overseas have high fixed or upfront costs. Sometimes military commanders become accustomed to working with certain contractors and do not want to make changes mid-mission. The prevalence of sub-contracting, for example when a dining services contractor subcontracts for provision of utensils or cookware, builds in layers of profit-making, leading contractors to be inefficient or expensive. This outsourcing also encourages fraud and abuse.

I use the term “commercialization” rather than the more common “privatization” because in many cases, these firms simply do not face the competitive pressures of the private market. In addition, they are not strictly private: they profit from public funds, ostensibly serve a public purpose, and in theory are subject to some level of oversight by the DoD.

The extreme profitability of military contractors—both those providing services in war theaters as well as those producing goods and services in the U.S.— negatively impacts U.S. labor markets. Industry giants such as Lockheed Martin, which earned over \$8 billion in profits in 2019, or Kellogg, Brown & Root (KBR), which earned \$653 million, are able to

³ Crawford, N. (2019). *United States Budgetary Costs and Obligations of Post-9/11 Wars through FY2020: \$6.4 Trillion*. Costs of War. Watson Institute, Brown University.
<https://watson.brown.edu/costsofwar/files/cow/imce/papers/2019/US%20Budgetary%20Costs%20of%20Wars%20November%202019.pdf>

⁴ In FY2019, more than half of all discretionary spending was defense: \$676 billion defense compared to \$661 non-defense. Source: Congressional Budget Office (CBO). (2020). *Discretionary Spending in 2019*.
<https://www.cbo.gov/system/files/2020-04/56326-CBO-2019-discretionary-spending.pdf>

offer significantly higher wages than either the military or similar occupations in the domestic economy (e.g., security services, electrical repair, or mechanical engineering). **This paper shows military contractors are able to pay wages that range from 20 to 166 percent above the national average for such occupations. This pay discrepancy distorts** the national labor market by making it more difficult for other firms, or for the military itself, to compete.⁵ This is problematic because it signifies a loss or misallocation of human capital, with workers seeking contractor employment and thereby contributing to war profiteering instead of providing their services to the military or other socially important sectors of the economy. A talented engineer, for example, might choose to work for Lockheed Martin rather than a renewable energy company because of the higher salary.

While a number of researchers have noted the negative effects of contracting on the military's own capabilities, including an increased dependence on contractors and diminished in-house expertise, the focus of this paper is on the cost implications for the federal budget and the labor market distortions of military contracting.⁶

Finally, I provide an economist's recommendations for reform. These reforms include reducing military spending overall, decreasing contracting as a percentage of military spending, and refashioning the contracting process to reduce waste, excessive profits and labor demand by contractors. I also suggest increasing labor demand from other sectors important to the American public that have occupational crossover with military and contractor labor, such as construction of infrastructure and clean energy production.

Growth in the "Camo Economy"

Here I examine evidence of the growth of the Camo Economy since 2001, and in the following section I examine reasons for this growth. We will see how increased reliance on contractors has actually increased costs rather than decreasing costs as promised, how these increased costs have ramifications for federal spending, and how the profitability and cost structure of military contracting leads to labor market distortions. The growth in the Camo Economy can be seen both through the level of spending channeled to military

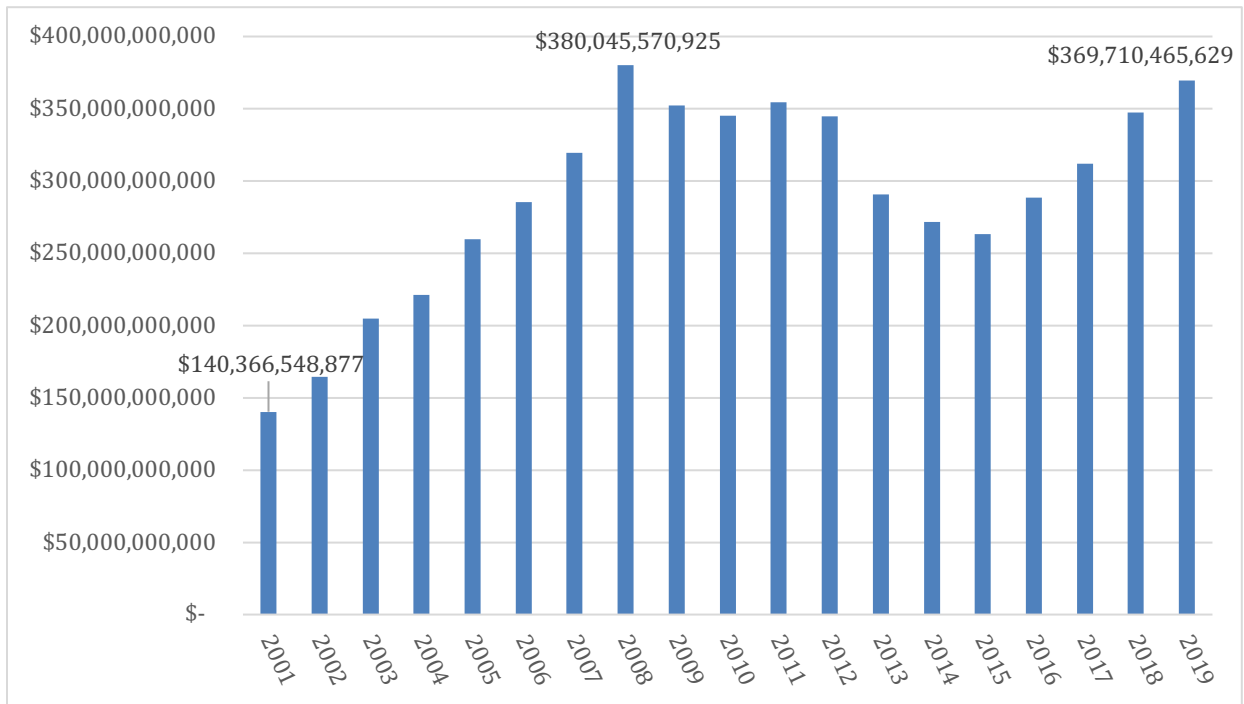
⁵ In this paper, we are primarily concerned with the effects on labor markets in the U.S., and thus focus on the wage differentials between contractor pay and military or other civilian pay for U.S. workers. Other papers, including Noah Coburn's 2017 paper, "The Guards, Cooks, and Cleaners of the Afghan War: Migrant Contractors and the Cost of War," address the issue of sub-contracts and low wages for third country nationals. Retrieved from <https://watson.brown.edu/costsofwar/papers/2017/guards-cooks-and-cleaners-afghan-war-migrant-contractors-and-cost-war>.

⁶ For more on the negative effects of contracting on military capabilities and national security, see for example: Singer, P.W. (2008). *Corporate Warriors: The Rise of the Privatized Military Industry, Updated Edition*. Cornell University Press; Pelton, R.Y. (2006). *Licensed to Kill: Hired Guns in the War on Terror*. Penguin Random House; Grazier, D. (2019). The F-35 and the Captured State. *Project on Government Oversight*. <https://www.pogo.org/analysis/2019/06/the-f-35-and-the-captured-state/>; or Congressional Research Service (CRS). (2019). *Department of Defense Contractor and Troop Levels in Afghanistan and Iraq: 2007-2018*. <https://fas.org/sgp/crs/natsec/R44116.pdf>.

contractors, as well as the number of contractor personnel in comparison to Department of Defense (DoD) personnel.

Today DoD spending on military contracts is more than 2.5 times what it was in 2001. At the start of the post-9/11 wars, contracts from DoD totaled about \$140 billion, according to data I compiled from USAspending.gov (Figure 1). In 2008, at the peak of the “Global War on Terror,” contracting through DoD reached a high of \$380 billion, dipping back down by 2015 and then climbing again, until the most recent estimate available, for 2019, shows DoD contracting totaling about \$370 billion.

Figure 1. DoD Contracts, 2001–2019⁷



Over that same 18-year period, contractor spending increased about 20 percent more than personnel spending. While spending on contractors over this period increased by 2.5 times, spending for DoD military and civilian personnel rose much less. According to the White House Office of Management and Budget (OMB) historical tables,⁸ military personnel spending was about \$74 billion in FY 2001 and \$156 billion in FY 2019, about 2.1 times as much.

This worrying trend can also be seen in Figure 2, which is drawn from the Defense Business Board (2018). Here we see contracted goods and services (including weapons

⁷ Source: Author analysis of USAspending.gov data. Current dollars.

⁸ Office of Management and Budget. *Historical Tables, Table 3.2—Outlays by Function and Subfunction: 1962-2025*. <https://www.whitehouse.gov/omb/historical-tables/>.

procurement, construction, and other contracted services) made up about two-thirds of DoD spending in both 2001 and 2016, while in-house personnel (both civilian and military) made up about one-third of DoD spending.

Figure 2. Growth in Contract Spending⁹

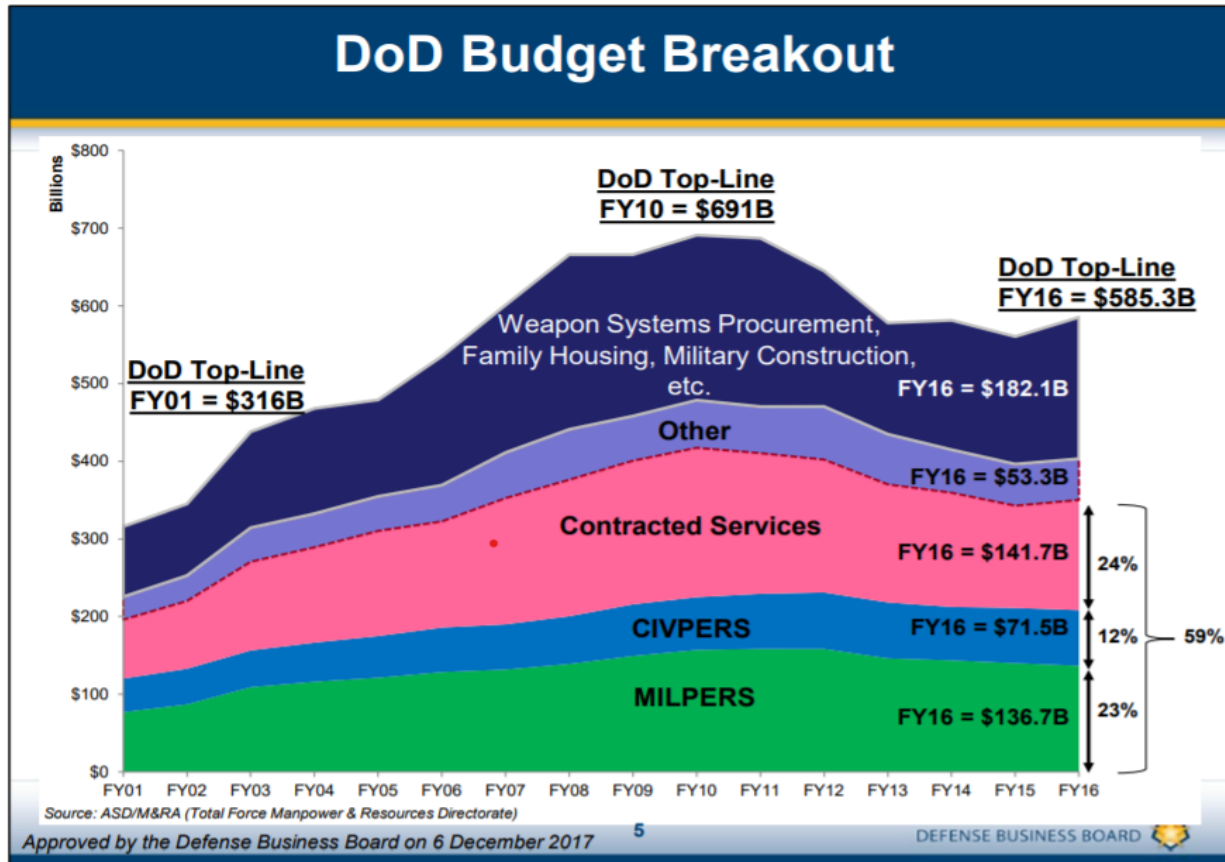


Figure 1: FY16 DoD Budget Estimate

Figure 2 shows that between FY 2001 and FY 2010, contracted services grew particularly fast, and that by FY 2016 contracted services accounted for about 24 percent of the DoD budget.¹⁰

While spending on contracted services accounts for about 24 percent of overall DoD spending, contracted services account for a much greater proportion of DoD spending in theaters of war. Data from USASpending.gov on contracts whose “place of performance” was Iraq or Afghanistan show that over the period 2001–2019, 62 percent of those contracts (in terms of dollars) were for services, including mainly facilities support

⁹Defense Business Board. (2018). Fully Burdened and Lifecycle Costs of the Workforce. Report DBB FY18-01. Washington, D.C.

¹⁰Note that some military contractors, such as Lockheed Martin, provide both contracted goods as well as services (and in the figure above, their services would appear in the middle (pink) tranche, while contracts for equipment and other goods would appear in the upper (dark blue) tranche).

services, as well as engineering, office administration, telecommunications, rental services for vehicles and buildings, and various other miscellaneous services.¹¹

This increased spending on contractors is accompanied by an increased presence of contractors on or near the battlefield and an increase in the ratio of contract employees to military personnel. According to a 2008 Congressional Budget Office (CBO) report, contracting in the post-9/11 era, particularly in Iraq and surrounding countries, reached a ratio of 1:1, which was "at least 2.5 times higher than that ratio during any other major U.S. conflict."¹² While the 1:1 ratio had been reached for the first time a few years earlier, the conflict in the Balkans during the 1990s "involved no more than 20,000 U.S. military personnel at any time, about one-tenth of the total in the Iraq theater as of 2007."¹³

According to the 2019 Congressional Research Service (CRS) report *Department of Defense Contractor and Troop Levels in Afghanistan and Iraq: 2007-2018*, in recent years contractor presence in Afghanistan and Iraq was frequently more than 50 percent of the total DoD presence in the country.¹⁴

A more recent report, published by the Center for Strategic and International Studies (CSIS) in October 2019, found the ratio of contractors to military personnel has continued to increase. "Operational or battlefield contractors outnumber military personnel in the CENTCOM region (53,000 to 35,000), and the ratio of contractors to military personnel has increased from 1:1 in 2008 to 1.5:1 today."¹⁵

Both the ratio and the scale of contracting in the post-9/11 era are unprecedented, in terms of the dollars spent as well as the number of people involved. Next we examine reasons for this growth.

Drivers of Growth in Military Contracting

Profitable industries tend to grow as long as they are profitable, but there are additional factors contributing to the growth of military contracting in particular. This growth may be traced to ideological, political, and economic factors.

¹¹ These services are all those identified by six-digit North American Industry Classification System (NAICS) codes falling between 500,000 and 600,000.

¹² Congressional Budget Office (CBO). (2008). *Contractors' Support of U.S. Operations in Iraq*, 1. <http://www.cbo.gov/sites/default/files/110th-congress-2007-2008/reports/08-12-iraqcontractors.pdf>.

¹³ *Contractors' Support of U.S. Operations in Iraq*, 12.

¹⁴ *Department of Defense Contractor and Troop Levels in Afghanistan and Iraq: 2007-2018*. DoD presence includes both contractors and troops, and therefore, as contractors account for more than 50 percent, this means that contractors outnumber troops.

¹⁵ Cancian, M.F. (2019). *U.S. Military Forces in FY 2020: SOF, Civilians, Contractors, and Nukes*. Center for Strategic and International Studies. https://csis-prod.s3.amazonaws.com/s3fs-public/publication/191024_Cancian_FY2020_OtherForces_v2.pdf?j8LrHnAxmk7kpuQpgSenZf2nfigHeLgS.

Ideological Drivers: Neoliberalism and the Promise of Cost Savings Through Competition

The 1980s brought a wave of privatization of public services, part of the larger movement sometimes referred to as neoliberalism. “Chicago-school” economics, which in the 1970s and 1980s became an increasingly influential school of thought led by Milton Friedman and George Stigler (economists at the University of Chicago), proposed that free markets were superior to government planning and that the government impeded markets and should be deregulated and privatized as much as possible. Conservative think tanks, such as the Heritage Foundation, pushed the idea that private providers would necessarily be more cost-efficient than government due to the nature of competition.¹⁶ In 1983, the OMB issued a revised version of “Circular A-76,” first issued in 1966, which encouraged the commercialization of government activities wherever possible with the aim of increasing efficiencies and decreasing cost. The exception, according to OMB A-76, was for “inherently governmental” activities.

According to this neoliberal economic theory, competitive pressures would drive down costs and increase quality, leading to both cheaper and better products and services than the government could produce itself. Privatization of the public sector was therefore advocated as a way to save taxpayer dollars, with conservative think tanks, powerful corporations, and neoclassical economists exerting increased pressure to contract out services that were *not* “inherently governmental” (though the line between what is and is not inherently governmental has become increasingly blurry). P.W. Singer notes that it was “...the ‘privatization revolution,’ which provided the logic, legitimacy, and models for the entrance of markets into formerly state domains.”¹⁷

Political Drivers: Camouflaging the Level of Deployment and the Number of Deaths

There are many political factors — unique to military contracting — that have led to the growth of the Camo Economy. The political usefulness of military contracting comes in two stages: first, the number of people being sent to war is camouflaged, as contractors supplement and even outnumber the troops being sent overseas; and second, the number of people who are injured or killed in war is also camouflaged, as contractor injuries and deaths are less publicly visible or acknowledged. By hiding the full human cost, military contracting makes war more politically acceptable and less publicly opposed.

Presidents can avoid calling up reservists and national guard members by increasing the use of contractors during wartime. The political expediency of using contractors in this case is well-described by Charles Smith:

¹⁶ From a March 1986 “Backgrounder” by the Heritage Foundation: “To accelerate contracting out, the Administration should change the procedure for awarding contracts so that the bias against private firms is removed. In addition, Congress should overhaul drastically the impediments that it has erected to contracting out. By working together to improve the process, significant reductions in spending could be achieved without reducing services to the American people.” See Moore, S. (1986). *Backgrounder: How to Privatize Federal Services by “Contracting Out.”* The Heritage Foundation.
http://s3.amazonaws.com/thf_media/1986/pdf/bg494.pdf.

¹⁷ Singer, 49.

The use of contractor support appears to obviate what has been called the Abrams' Doctrine. General Creighton Abrams restructured military forces to closely integrate the reserve and guard components with regular Army units. For example, a combat division could not deploy and operate without a reserve transportation unit to move their supplies and a reserve water unit to produce and transport water. There is speculation that Abrams intended this linkage to force leadership to realize that any use of combat forces would require broad support as reserve and guard units were mobilized. Replacing these reserve units with contractors may create a moral hazard in that a President can now commit troops to war without calling up significant reserve and guard units.¹⁸

National guard and reserve troops live throughout the country, work in civilian occupations, and are members of various communities, meaning their absence is felt more widely by business owners, family and friends, and others when they are called to war in comparison to active military members. Using contractors — rather than the National Guard and reservists — enables the military to have the support it deems necessary overseas, while shielding the human costs of war from the American public.

Force management levels, also known as “troop caps,” are limits the executive branch sets on the number of troops that can be deployed. These levels have been reset many times, including by the Obama administration to draw down troops in Afghanistan, Iraq, and Syria,¹⁹ as well as more recently by the Trump administration. According to a 2019 CRS report on contractors, some experts argue that force management levels drive increases in contractor activities, as contract employees are not subject to these caps.²⁰ This is one politically expedient way to increase or maintain a presence in-country while publicly declaring the number of troops is diminishing. DoD's use of contractors also contributes to unending war, enabling the continuation of conflict and the presence of U.S. DoD-related personnel, while creating the public impression (in the U.S., but not abroad) that the U.S. presence is diminishing. The camouflage provided by using contractors diminishes pressure to end a conflict. In this case, continual war may not be driven by contractors, but it is enabled by them.

Unlike with military veterans, the injuries and deaths of military contractors are not recognized or mourned publicly. Even though, since 2001, U.S. contractor casualties have been higher than for troops. The Costs of War Project has estimated that among U.S. casualties, about 8,000 contractors have died in the post-9/11 wars, compared to about 7,000 servicemembers.²¹ While military casualties are closely tracked and publicly

¹⁸ Smith, C.M. (2012). *War for Profit: Army Contracting vs. Supporting the Troops*. Algora, 199.

¹⁹ *Department of Defense Contractor and Troop Levels in Afghanistan and Iraq: 2007-2018*.

²⁰ *Ibid*.

²¹ As of November 2019 estimates, 7,014 U.S. Military, 22 U.S. DOD Civilian, and 7,950 U.S. Contractors have died in the post-9/11 wars, including in Afghanistan, Iraq, Syria, Yemen, Pakistan, and other related areas. See: Crawford, N.C. & Lutz, C. (2019). *Human Cost of Post-9/11 Wars: Direct War Deaths in Major War Zones, Afghanistan and Pakistan (October 2001–October 2019); Iraq (March 2003–October 2019); Syria (September*

recorded, contractor deaths neither receive the same transparency nor an equivalent public acknowledgement. Contractor deaths are less visible to the American public, which is part of the political usefulness of military contracting.

Furthermore, many of the contractors working and risking their lives in these war zones are not U.S. citizens, but rather host-country and “third-country nationals.” In 2017, Noah Coburn documented how many non-U.S. personnel work for U.S. contractors and the abysmal working conditions and human rights abuses they face, in addition to the level of injury and death to which they succumb. This, too, is part of the camouflage provided by military contracting.²²

Economic Factors: Excess Supply Creates Its Own Demand, Sometimes with a Bit of Help

Say’s Law is often invoked (correctly or not) as the idea that “supply creates its own demand.” This is another way of saying “If you build it, they will come.” But just as advertisement and marketing can create new demands from newly-perceived (newly-manufactured) needs, some firms in the Camo Economy have cultivated a perceived need for their services. The ultimate expression of this can manifest as a perceived need for military intervention in order to create a market for military goods and services. Short of this is the marketing—from defense contractors to defense procurement specialists, members of Congress, or other defense decision-makers—of military goods and services that could be used for war or for what is loosely and vaguely called “national security.”

The end of the Cold War brought with it the promise of a peace dividend—that funds, people, equipment, and other national resources that were mobilized against the Soviet Union during the massive Reagan-era defense buildup could instead be channeled to peaceful and productive purposes. Instead, military contractors—both emergent and established—created a new military market for this excess supply of military-related labor, equipment, and manufacturing capacity. Two sets of suppliers appeared: the “market opportunists” and the “market makers.”

Market opportunists and market makers are distinguished by their historical place in the Camo Economy. The opportunists were made up of entrepreneurial veterans and military-adjacent personalities who established new contracting firms, while the market makers were large and established firms who were already embedded within the network of politically-connected contracting firms and who were able to create new or expanded markets for their services by convincing military decision-makers of their need.

2014–October 2019); *Yemen (October 2002–October 2019); and Other*. The Costs of War Project, Brown University Watson Institute and Boston University Pardee Center.
<https://watson.brown.edu/costsofwar/files/cow/imce/papers/2019/Direct%20War%20Deaths%20COW%20Estimate%20November%2013%202019%20FINAL.pdf>.

²² Coburn, N. (2017). *The Guards, Cooks, and Cleaners of the Afghan War: Migrant Contractors and the Cost of War*. The Costs of War Project, Brown University Watson Institute.
https://watson.brown.edu/costsofwar/files/cow/imce/papers/2017/CoW_Coburn_Migrant%20Contractors_Aug%2023%202017.pdf.

The market opportunists established what are sometimes referred to as “Private Military Companies” (PMCs) or “Private Military Firms” (PMFs). Many of these PMCs/PMFs were service-oriented and included the provision of security as well as various logistics in order to supplement or replace military force. One well-known example is the firm Blackwater, which was started in 1997 by former Navy SEALs Al Clark and Erik Prince as a shooting range and target manufacturer. Clark and Prince quickly turned it into a billion-dollar security enterprise, saying, “We are trying to do for the national security apparatus what FedEx did for the Postal Service.”²³ In 2001, the CIA hired Blackwater to provide security for their officers in their hunt for Osama bin Laden, and the firm went on to secure various contracts in Afghanistan and Iraq.

Meanwhile, a major innovation in the commercialization of the military was being created that would bring contracting to a new level. “Market makers,” firms that had already established commercial relationships with the military, found a way to create opportunities that would secure or expand demand for their products and services. The market-making strategy, which proved to be quite lucrative, involved DoD hiring contractors to assess military preparedness and provide solutions, which unsurprisingly led to the contractors recommending that the DoD should rely upon them more heavily to meet contingency operations, such as those that would ultimately arise in Afghanistan and Iraq. The best and perhaps most obvious example of this is KBR (Kellogg, Brown & Root). By integrating itself as part of the logistics planning operation, KBR (at the time, Brown and Root), was able to create a market for exactly the types of services that it could then provide.

The “Logistics Civil Augmentation Program,” known as LOGCAP, was first established by the U.S. military in 1985 in order to plan the augmentation and support of military forces in contingency operations. According to the CBO, “LOGCAP is the Army’s primary means of providing support service for military personnel. Contractor personnel provide a wide range of services under LOGCAP, such as operating food service and dining facilities, storing and supplying ammunition, distributing fuel, maintaining equipment, and managing procurement and property.”²⁴

In 1992, LOGCAP awarded a five-year umbrella contract, known as “LOGCAP I,” to Brown & Root (a subsidiary of Halliburton; eventually to become KBR), under then-Secretary of Defense Richard Cheney. Immediately preceding this, Cheney had:

... tasked Brown and Root with planning and budgeting the theoretical logistical support for more than a dozen different fictional scenarios that could require the deployment of twenty thousand troops in five base camps for six months. The resulting still-classified report apparently convinced Cheney of the utility of having one megacontractor with an open-ended and overarching capability to manage logistics

²³ Blackwater USA: Hearing before the Committee on Oversight and Government Reform, House of Representatives. (2007), 110th Cong. <https://oversight.house.gov/sites/democrats.oversight.house.gov/files/documents/20071127131151.pdf>.

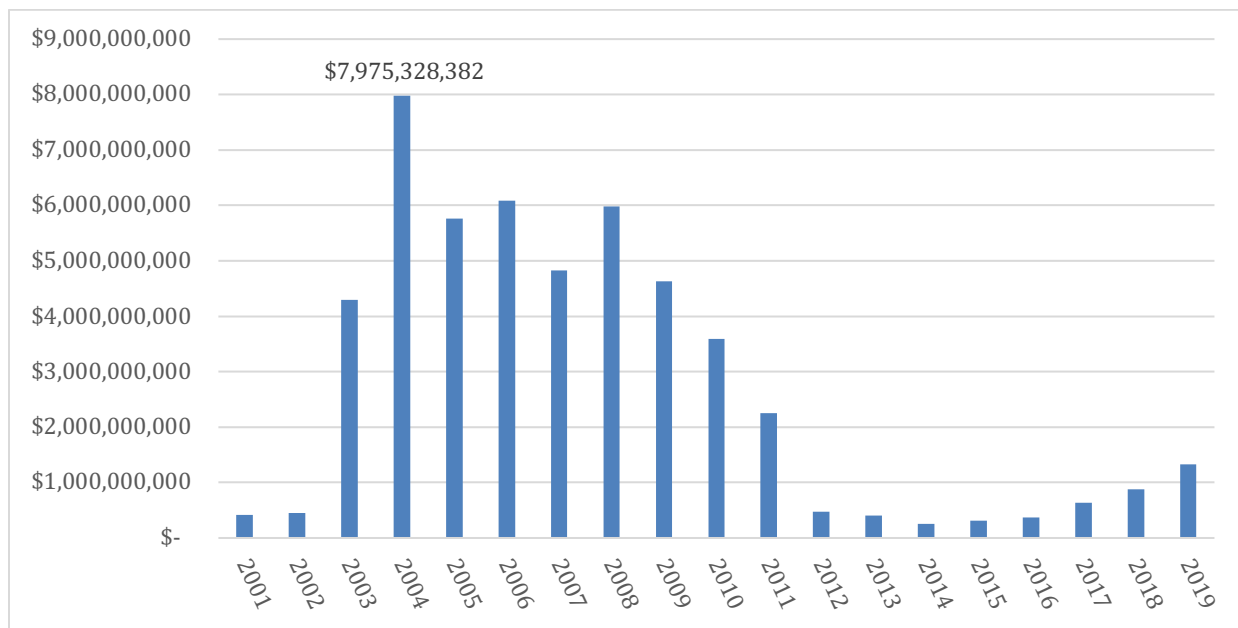
²⁴ *Contractors’ Support of U.S. Operations in Iraq*, 4-5.

support, since Brown and Root soon after netted the army's first five-year umbrella LOGCAP contract.²⁵

Brown & Root was contracted for military interventions in the Balkans, Somalia, and elsewhere in the 1990s, and was at the ready to take on the largest military service contract ever for a ten-year term immediately after the 9/11 attacks. This contract, known as “LOGCAP III,” was worth over \$37 billion by July 2011.²⁶

It is no coincidence that both the study of the potential need for contractors and the resulting award of the first megacontract went to Brown & Root. Though semi-privatized, the world of military contracting is not an open market. So, it is often connections, more than competitions, that garner and extend contracts. In between his time as Secretary of Defense (1989–1993) in the George H.W. Bush administration and as Vice President in the George W. Bush administration (2001–2009), Cheney served as CEO of Halliburton, the owner of subsidiary Brown & Root. According to data from USASpending.gov, KBR has captured over \$50 billion in contracts from DoD between FY 2001 and FY 2019.²⁷

Figure 4. KBR Contracts through DoD, 2001–2019²⁸



As we try to understand the massive contracting increase in the post-9/11 era, it is important to note that political connections and economic opportunities such as these have

²⁵ Pelton, 101.

²⁶ Weinberger, S. (2011, August 30). *Military Logistics: The \$37 Billion (Non)Competition*. Wired. <https://www.wired.com/2011/08/military-logistics-the-37-billion-noncompetition/>.

²⁷ This is KBR or some combination of KBR, Brown & Root, and Kellogg, Brown & Root, since the firm has gone through different manifestations.

²⁸ Source: Author analysis of USASpending.gov data.

gone hand-in-hand to create and sustain ever more profitable business opportunities for contracting firms. In 2019 alone, the firms Boeing, Northrop Grumman, and Lockheed Martin each spent over \$13 million on political lobbying.²⁹ Similarly, contractors who stand to earn significant profits and ensure their continued existence and possible growth have incentives to pressure political decision-makers in order to both engage in and prolong engagement in military conflict. These economic drivers (with political levers) therefore may not only create a rise in contracting but may also create pressures for continual wars.

Why is Military Contracting So Expensive?

Commercial Monopoly and Lack of Competition or Cost-Reducing Incentives

The ideological justification, borne of neoliberal economic theory, is that private firms will produce goods and services at lower cost and higher quality than the public sector. This is due to the nature of competition—if firms are trying to make profits and stay in business, they will try to improve their products and lower their prices to outcompete other firms, whereas the public sector is essentially a monopoly, and with no competition there is no incentive to reduce costs and improve quality.

But are military contractors actually private firms operating in a competitive environment, with incentives to reduce cost and therefore save taxpayer dollars? In this paper, I make the distinction between “privatization” and “commercialization.” I use the latter term when it comes to military contractors, because there are various reasons why these firms do not face the competitive pressures to lower cost and increase quality, and they are not strictly private, as they profit from public funds, serve (ostensibly) a public purpose, and are (theoretically) subject to some level of oversight by DoD. In some ways, this is the worst combination of public and private. Public tax dollars funding private profits without the transparency or collective decision-making that should occur in the public sector or the market pressures that should occur in the private sector.

Rather than a set of firms competing to improve cost and quality, much of the Camo Economy is a private monopoly. However, since the Camo Economy is interlinked with the public sector, I will use the term “commercial monopoly” instead of private monopoly.

Military contracting is in large parts non-competitive, and even when it is competitive (in name), there are limited incentives to reduce costs. This results in the DoD outsourcing to high-cost, non-competitive firms and ultimately wasting tens or hundreds of billions of dollars in taxpayer money each year. Military contracting is inefficient and non-competitive because of:

1. The nature of contracts, including the existence of “cost-type” contracts with no incentive to minimize costs, as well as the existence of “non-competitive” contracts;

²⁹ According to data from the Center for Responsive Politics. <https://www.opensecrets.org/federal-lobbying>. Accessed Feb 26, 2020.

2. Lifetime contracts or sole-supplier contracts (which are related but separate from the first point);
3. *De facto* monopolies, or cases in which competition is theoretically possible but strategically or politically impractical.

The Nature of Contracts

Federal government contracts contain different stipulations of how the contractor will be paid or reimbursed for services performed and also vary in the level and type of competition to which they are subject. How the contractor is paid will determine in part how much of an incentive they have to reduce costs and who will bear the risk of cost overruns — is it the contractor or the government (the taxpayer)? Whether the contract is competitive or not is another factor affecting the incentive to reduce costs. Government contracts are primarily either “cost-type” contracts or “fixed-price” contracts. Some other contract types, such as “time and materials,” also exist, but we will focus here on cost-type and fixed-price contracts, as these represent the vast majority of contracts through DoD.

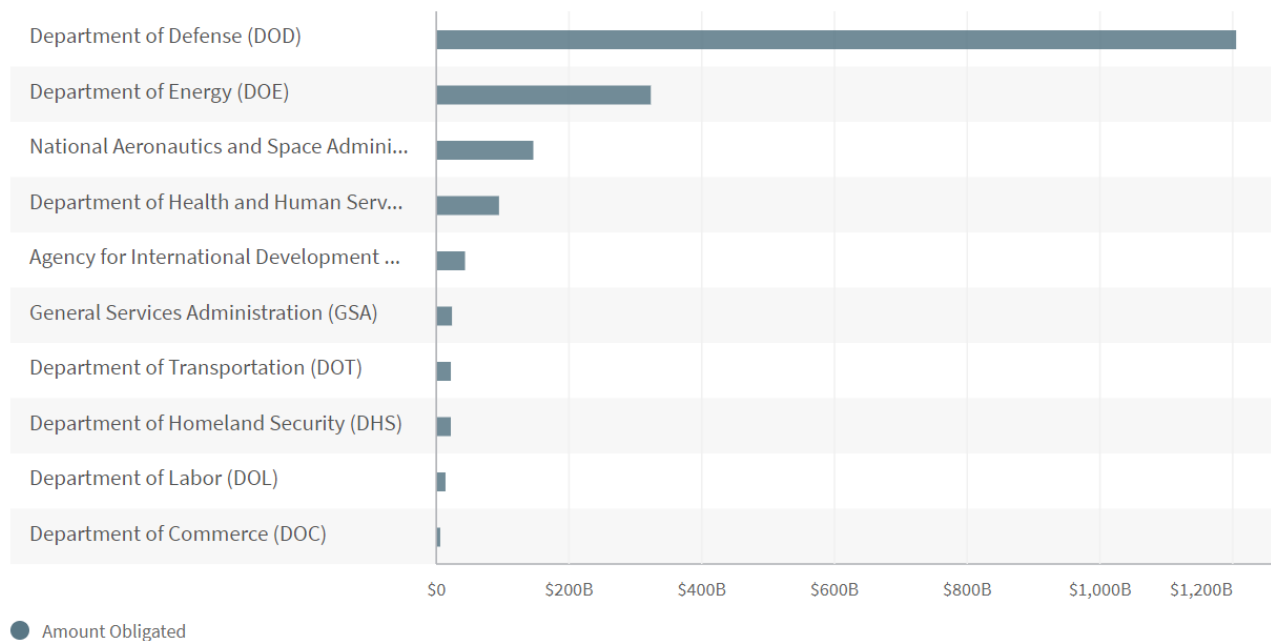
In cost-type contracts, contractors are reimbursed for the costs incurred while producing contracted goods or providing contracted services. Many cost-type contracts also include a fee, which can be either a fixed amount, a percentage, or a fee based upon performance (cost-plus-award or cost-plus-incentive). With fixed-price contracts, contractors bear the risk of cost overruns and reap the benefits of cost savings. In cost-type contracts, the government bears the costs of overruns while the contractor bears none. But there is an asymmetry here: in fixed-price contracts both the benefits and risks accrue to the contractors, whereas in cost-type contracts the government bears the risk of higher costs but rarely experiences the benefit of cost savings, since the contractor has no incentive to minimize cost and pass those savings on to the government.

Cost-type contracts are useful in military operations, in which the exact needs and length of the contract cannot be specified *ex ante*. These types of contracts give the military the flexibility they need to call upon the contractors to provide as much of the goods or services that might be required during a time of conflict. They also provide assurance to the contractor that they will be paid for whatever costs they incur, which reduces uncertainty. The flexibility for DoD, and the guaranteed payment for the contractor, make cost-plus contracts attractive to both parties. However, they also provide no incentive for contractors to minimize costs. Particularly in cost-plus-percentage contracts (which are now rarely used), contractors in fact have the incentive to increase rather than decrease costs.

According to the USASpending.gov data (Figure 5), over the period FY 2008–FY 2019 cost-type contracts totaled in the range of \$80 billion to \$100 billion per year, while fixed fee contracts totaled about \$190 billion to \$260 billion. On average over the period, cost-type contracts generally accounted for about 30 percent of DoD contracts, while fixed-price contracts made up about 70 percent.

While the DoD is not unique in its use of cost-type contracts, its use of these types of contracts far exceeds their use by other government agencies. DOD uses cost-type contracts four times as much as the Department of Energy, and over ten times more than Health and Human Services or the Department of Transportation.³⁰

Figure 5. Cost-type Contracts: DoD and Other Agencies, 2008–2019³¹



Every contract that is a cost-type contract has the potential to unnecessarily increase DoD spending because contractors will have no incentive to reduce costs. While the majority of DoD contracts between 2008 and 2019 were fixed-price, the DoD still spent \$1.2 trillion on cost-type contracts. This represents hundreds of billions of dollars that were not subject to the cost-reducing pressures of private markets.

In addition to specifying how a contractor will be reimbursed—whether it is a cost-type or fixed-price contract—government contracts also vary in their competitiveness. Government contracts can be subject to “full and open competition” or other types of competitiveness; alternatively, they can be “non-competitive,” “not competed,” or “not available for competition.” According to the Federal Acquisition Regulation’s “Fair Opportunity” requirements, a contract may be non-competitive if there is “one sole source” available for the completion of the contract or if the nature of the contract is considered “urgent,” “authorized or required by statute,” for “national security” reasons, or because it is in the “public interest.”

³⁰ By dollar value of contracts, not by number of contracts. Dollar values shown in Figure 5.

³¹ Source: Data compiled by author from USASpending.gov.

In FY 2019, about 45 percent of DoD's \$370 billion in contracts were classified as "non-competitive," with the remainder classified as "competitive." But, even within the category of "competitive" contracts, there is often a lack of competition. This can happen when a contractor initially wins a bid for a competitive contract, but then the contract is renewed or extended for multiple years without any subsequent competition. So, while the database shows a 10-year contract as "competitive," in reality it would be competitive only in its first year, and non-competitive for the remainder.

One way these non-competitive contracts can masquerade as competitive is because of "ID/IQ" or "Indefinite Delivery, Indefinite Quantity" contracts. These provide the military with the flexibility to contract in conflict situations in which there is no clear end-date and they do not want to fix or specify the terms of the contract at the outset. Once a contractor wins a bid for an ID/IQ contract, which may be competitive, they maintain the contract for a number of base years plus additional option years. For example, the LOGCAP III contract mentioned previously, which was awarded to KBR in 2001 included one base year plus nine option years.

"Sole Source" and "Captains of Industry" Contracts

Oftentimes, there is only the guise of competition. While some contracts can technically be competed for, only one viable candidate actually exists. Other contracts become sole source because the contractor specifies that all subsequent spare parts and/or maintenance for a system must be supplied by the original equipment manufacturer (OEM). A competitive contract for goods then becomes a monopoly on later services. A DoD competition report analyzing FY 2014 notes:

The competitive percentages are lower in organizations that buy major systems (including weapons, automated information systems and Foreign Military Sales), specialized equipment, spares and upgrades that may need to be purchased from the original equipment manufacturer (OEM) or supplier. These programs may require sole source extensions of contracts that were originally competed because the programs have moved past the stage in their lifecycle where competition is economically viable.³²

Relatedly, the "lifetime service contract" is a type of monopoly established in the post-9/11 era. For example, Lockheed Martin holds a contract to provide lifetime service for the F-35 planes they are selling to the military. Procurement of a good, such as a weapon system or vehicle, used to be a time-limited endeavor, meaning the contract had an end date. Military personnel serviced their weapons, vehicles, and other equipment—this was considered a critical function, an "inherently governmental activity," that should not be outsourced. Now, however, this is a regular occurrence. This outsourcing of services like weapons maintenance not only has negative security implications (as the military becomes

³² U.S. Department of Defense (DoD). (2015). *Competition Report for Fiscal Year 2014*. https://www.acq.osd.mil/dpap/cpic/cp/docs/DoD_FY_2014_Competition_Report.pdf.

dependent on contractors, including during battle), but also leads to the creation of monopolies.

De Facto Monopolies

Some military services are theoretically subject to competition, but for practical reasons competition may not actually occur. This can happen, for instance, as a firm wins a competitive bid to provide food services or logistical support on or near the battlefield. While the bid may be subject to renewed competition each year or every few years, in many instances the fixed costs and time involved in switching to a new contractor mid-mission would be prohibitive. Furthermore, as contractors often work in closely integrated ways with military personnel, field commanders will develop preferences to maintain use of the same contractor rather than re-competing the contract and adjusting to a new service.

As noted by Singer, “ID/IQ” contracts that have indefinite requirements and lifespan (such as the LOGCAP III contract awarded to KBR in 2001), require a large, self-sufficient firm with a global presence.³³ Contracts such as these require firms with the ability to respond immediately with minimal assistance, that can maintain their own lines of communications and supplies, and that have the financial ability to sustain themselves for long periods before being reimbursed. All this means that only large, well-established firms, or sometimes only one firm, can feasibly offer these services. And once such a firm establishes itself in the theater of war it essentially becomes a monopoly. It has constructed buildings to house its employees, bases for the troops, infrastructure to support itself and the military force it is there to serve. It has established all the material and logistical requirements. Given all of these realities, it would be highly improbable, even if not technically impossible, for another firm to replace it. Once a large corporation has such a significant contract, it is very difficult and possibly a threat to the military’s security for it to pull out during a time of war—the military would be vulnerable or even incapacitated while awaiting its replacement.

De facto monopolies come into being not only because a contractor may have unique experience in a particular region or in providing a particular good or service, but also because military commanders develop a familiarity and comfort in dealing with a particular contractor and do not wish to adjust to new contractors. This is true even if other contractors are available to compete for provision of the good or service and could provide it at lower cost. Charles Smith, who served for many years as a contract manager in the armed forces, writes:

This phenomenon of commanders’ unwillingness to change support contractors was a powerful constraint on inducing competition into the LOGCAP program. Change can be disruptive, and commanders naturally avoid it. The contractor also becomes adept at integrating his staff into the commander’s staff. The contractor becomes the staff expert on service support. As officers rotate through the operation the contractor

³³ Singer, *Corporate Warriors*.

personnel often become the most experienced members of the staff. In 2010, the Army made a significant decision to retain KBR as the life support LOGCAP contractor in Iraq, even though savings from competition were available.³⁴

Non-competitive contracts, competitive in name only contracts, and ID/IQ contracts all grant a type of monopoly to the contracting firm. The firms who win these contracts are not subject to competitive pressures that would lower costs. Likewise, cost-type contracts give firms no incentive to reduce costs, even in contracts that are technically labeled “competitive.” Further, some military contracting firms end up with *de facto* monopolies because of geography or preferences or other reasons that make competition practically unfeasible. In reality, military contracts don’t lower costs. All they do is replace the public monopoly with commercial monopolies whose costs are at least as high as the public sector, and in most cases higher, since these firms must build profit into their cost estimates.

Profitability Raises Costs and Leads to Fraud, Abuse, and Other Distortions Caused by Political Power of Contractors

Military contracting can be incredibly lucrative. Lockheed Martin earns about 85 percent of its revenues through government contracting, and about 10 percent of all military contract dollars (roughly \$40 billion per year). Since 2001, their annual profit levels have been in the \$4-8 billion range, steadily and quickly growing in recent years.³⁵ High profit levels create incentives for military contracting firms to lobby for additional military contract spending and generally to create political pressure for continued war in the name of national security.

Opportunities to profit, especially on something like war, create incentives for fraud and abuse. As shown below, the waste, fraud, and abuse of spending on contractors in the wars in Afghanistan and Iraq have been extensively documented in court cases, by government officials, and the media. There are several reasons for this, including the rapid pace of increased spending at the outset of a war, or the fast scaling up that happened during the 2008 troop surge, which makes due-diligence impossible or impractical. Additionally, the multiple layers of contracting and sub-contracting mask true costs and build in layers of profits. Finally, government oversight is insufficient or lacking because of inadequate planning or inadequate staffing levels. The “Afghanistan Papers” published by *The Washington Post* in late 2019 found that:

The scale of the corruption was the unintended result of swamping the war zone with far more aid and defense contracts than impoverished Afghanistan could absorb.

³⁴ Smith, 36.

³⁵ Based on data compiled by the author from Lockheed Martin 10-K Annual Reports.

There was so much excess, financed by American taxpayers, that opportunities for bribery and fraud became almost limitless, according to the interviews.³⁶

Various lawsuits against wartime contractors have documented the corruption and waste. For example, the government filed a lawsuit against KBR, which was one of the main contractors in Iraq. KBR billed for water testing services that were contracted but never performed. They also inflated the number of meals they served (and charged the government for) by encouraging people to over-scan their meal ID cards. A DoD audit discovered a rate of 36 percent meal inflation, or billing for 136 meals for every 100 served.³⁷

On an annual basis, government inspectors, including the Special Inspector General for Iraq Reconstruction (SIGIR) and the Special Inspector General for Afghanistan Reconstruction (SIGAR), investigate fraud and abuse. These investigations often lead to criminal charges and in some cases recovering stolen funds and other assets.³⁸ Acknowledgment of the prevalence of the problem led Senators Jim Webb (D-VA) and Claire McCaskill (D-MO) to create the bipartisan “Commission on Wartime Contracting in Iraq and Afghanistan,” which concluded in its final (2011) report that “between \$31 billion and \$60 billion of taxpayers’ funds have been lost to contract waste and fraud in Iraq and Afghanistan,” or up to approximately 30 percent of the total of \$206 billion spent on contingency contracts from FY 2002 to FY 2011.

There is also a fairly well-recognized problem (and the term “problem” is an understatement) that a significant portion of post-9/11 wartime contract dollars have ended up in the hands of the insurgents that the U.S. military is fighting. For instance:

Gert Berthold, a forensic accountant who served on a military task force in Afghanistan during the height of the war, from 2010 to 2012, said he helped analyze 3,000 Defense Department contracts worth \$106 billion to see who was benefiting. The conclusion: About 40 percent of the money ended up in the pockets of insurgents, criminal syndicates or corrupt Afghan officials.”³⁹

³⁶ Whitlock, C. (2019, December 9). The Afghanistan Papers: A Secret History of the War. *Washington Post*. <https://www.washingtonpost.com/graphics/2019/investigations/afghanistan-papers/afghanistan-war-corruption-government/>.

³⁷ Weinberger, *Military Logistics: The \$37 Billion (Non)Competition*.

³⁸ See, for instance, the 2013 Final Report issued by SIGIR, or the quarterly reports issued by SIGAR, such as the January 2020 report that can be found here: <https://www.sigar.mil/pdf/quarterlyreports/2020-01-30qr.pdf>.

³⁹ Whitlock, The Afghanistan Papers: A Secret History of the War; Similarly, a 2016 SIGAR report found that through corruption at various levels, “U.S. money was flowing to the insurgency.” See: Special Inspector General for Afghanistan Reconstruction. (2016). *Corruption in Conflict: Lessons from the U.S. Experience in Afghanistan*. <https://www.sigar.mil/pdf/lessonslearned/SIGAR-16-58-LL.pdf>.

The scale and pace of post-9/11 interventions made them a breeding ground for fraud, corruption, and waste. The U.S. military's over-reliance on contractor services led to problems of money flowing out too quickly, getting into the wrong hands, all without proper oversight.

The profitability of contracts becomes an even bigger problem as contracts are further contracted out to sub-contractors. Military contracts can either be prime contracts, which are those between a contractor and the Department of Defense, or sub-contracts, which are between the prime contractor and another contractor. But these sub-contracts can be further sub-contracted, creating multiple layers of contracts and contractors for fulfillment of a prime contract. At each layer of the contract, there is an opportunity for potential fraud and abuse. But even without the presence of corruption, the profit built into a sub-contract is then passed on as a cost to the prime contractor, who adds in their own profit as a cost to the government. With each layer of contract, there is a layer of profit. With cost-type contracts in particular, this can quickly inflate costs to the government, since each layer of contract builds in profit, and the cost billed to the government can be multiple times the cost of the actual good or service provided.

Next we turn to the consequences of the high costs and profitability of the Camo Economy.

Increased Military Contracting Constrains Decisions on Federal Spending

At the aggregate level, the commercialization of military activities leads to federal overspending. Spending more than necessary on military contractors, which is part of the larger problem of having an inflated military budget, then constrains public decisions on federal spending. High levels of military spending increase the deficit, public debt, and interest payments. This creates two budgetary options: first, increased defense spending creates pressure to reduce non-defense spending in order to minimize the increases in debt and interest payments. Funding for non-defense discretionary programs, such as Supplemental Nutritional Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), or Energy Efficiency and Renewable Energy (EERE) is cut, as they were in the FY 2020 Budget of the United States. A range of programs that are important to the American public, including climate change mitigation and adaptation, infrastructure, education, and healthcare go underfunded.

The second option, rather than cutting non-defense programs now, is to continue increasing deficits and the debt, pushing off obligations to taxpayers in future years. As national debt increases, interest payments on the debt grow. As shown in this author's 2020 paper *The Cost of Debt-Financed War*, even if the U.S. ceases fighting and funding the post-9/11 wars, the interest payments on the debt incurred for those wars will outpace the war spending itself by 2030, and by 2050 cumulative interest payments will be more than three times the amount of war spending, even with no additional war spending past

2020.⁴⁰ Between 2001 and 2019, \$2 trillion was spent for Overseas Contingency Operations (OCO) and the “Global War on Terror,” in addition to the DoD base budget. The \$2 trillion of war spending will result in cumulative interest payments of \$6.5 trillion by 2050. These interest payments crowd out opportunities to fund all other types of government programs—both defense and nondefense. The CBO projects net outlays for interest on all public debt will rise from 1.7 percent of GDP in 2020 to 2.6 percent of GDP by 2030, accounting for 11 percent of government outlays by 2030.⁴¹

Overspending on military contractors, then, leads to reduced opportunities to spend public funds on non-defense activities, either by creating political pressures to reduce non-defense spending in the short term, or by increasing public debt and interest payments, which will crowd out future opportunities at an even greater scale. By pushing payments out to the future, rather than reducing military contracting and limiting defense spending, the use of public debt to fund war not only unjustly burdens future generations and limits their opportunities, it also contributes to the invisibility of war.

Military Contracting Distorts the Labor Market

Military contract firms, through their high profits and low input costs, are able to offer higher salaries than those offered by the military and by other civilian firms. This not only creates upward pressure on federal wages, but also makes it more difficult for the military and for non-military firms to attract or retain needed talent.

The high profit levels earned by contracting firms enable them to offer wage premiums, making contracting an attractive option not only for veterans, but also for current servicemembers, leading to what is known as “labor poaching.”⁴² High profits also enable military contracting firms such as Lockheed Martin, Raytheon, General Dynamics, and others to attract talent in engineering, physics, math, and other technical occupations. This distorts the civilian labor market in addition to the military market—making it difficult for other important and socially beneficial industries to attract the same level of talent.

In addition to inflated profits enabling military contractors to offer high wages, the contractors who employ military veterans also forgo most of the expensive training and recruitment costs borne at the public’s expense. As Singer shows in *Corporate Warriors*, contractors’ recruitment costs are relatively low, since they have access to significant amounts of information about an ex-servicemember’s record and their likely future performance. Further, the military—using public funds—has invested in the training and

⁴⁰ Peltier, H. (2020). *The Cost of Debt-Financed War: Public Debt and Rising Interest for Post-9/11 War Spending*. The Costs of War Project, Brown University Watson Institute and Boston University Pardee Center. <https://watson.brown.edu/costsofwar/files/cow/imce/papers/2020/Peltier%202020%20-%20The%20Cost%20of%20Debt-financed%20War.pdf>.

⁴¹ Congressional Budget Office (CBO). (2020). *The Budget and Economic Outlook: 2020 to 2030*. <https://www.cbo.gov/publication/56073>.

⁴² For more on labor poaching in the context of military contracting, see Singer, *Corporate Warriors*.

preparation undergone by the servicemember, saving contractors those expenses. High profits and low input costs then combine to enable contractors to offer higher pay and to recruit veterans or poach current servicemembers. Public funds subsidize contractors' labor costs and put them at an advantage over other industries, even those that might be important to the voting and taxpaying public.

High salaries by military contractors have led to serious retention problems for DoD, as servicemembers are lured to the private war industry rather than remaining in the service. One strategy to recruit new members and to retain those in service has been to increase pay; recent years have seen significant pay raises for military personnel, including a 3.1 percent increase in pay for 2020. While pay increases may certainly be warranted, they also create upward pressure on the federal budget, leading to an impetus to contract out even more as in-house talent becomes more expensive.

The labor market distortions created by military contractors create a vicious spiral for the federal budget and the workforce:

1. The government hires contracting companies because of theoretical cost savings and the need for flexibility.
2. Contracting firms offer wage premiums over the public sector and other private firms. As military contracting increases, and contracts become more inclusive and longer-lived, the military's own capabilities and workforce get hollowed out. This puts upward pressure on the federal defense budget, as DoD raises pay to retain its talent; in-house costs rise while concomitantly contract payments increase.
3. Increased defense spending is then met with calls for reduced non-defense spending, or is paid through increasing debt, which not only burdens future generations with higher interest payments but also reduces their capabilities to spend public funds for their own defense or non-defense needs. This will make it increasingly difficult to increase labor demand in sectors such as infrastructure or clean energy, which would both call upon the skills of ex-servicemembers and serve public interests.

Conclusions

The hidden costs of the Camo Economy must be included in a tally of the consequences of the post-9/11 wars. This paper has documented the enormous growth in military contracting in the post-9/11 era, as well as the reasons for that growth and the implications for the federal budget and for labor markets. It has argued that contracting increased over the past several decades due to ideological drives toward privatization and the promise of cost savings, as well as the political expediency that makes contracting attractive to the administration and the economic opportunities that make contracting attractive for the contractors themselves. While DoD spending overall rose as a result of the post-9/11 wars, the rise in contracting—in terms of both people and dollars—grew disproportionately.

The rise in contracting did not engender the promised cost savings. Reasons for this are varied, including:

1. The nature of the contracts themselves (cost-type contracts or non-competitive contracts) which minimized or eliminated the competitive forces that would drive down costs;
2. The monopolies that arose due to lifetime service or sole supplier contracts, and the *de facto* monopolies due to conditions and preferences in the theater of war;
3. The profitability of contracting, which led to fraud, abuse, and waste because of the scale and pace of spending coupled with insufficient oversight, and the profits built into layers of contracts and subcontracts that when combined with cost-type contracting, quickly and significantly inflate the cost to government and taxpayers.

Military contracting at its current scale is detrimental in many ways. Private firms are not subject to the same levels of transparency as the public sector, and the profitability of contractors combined with disincentives to reduce costs leads to an increase in federal spending on military contractors. Additionally, military contracting distorts labor markets, as profitable firms are able to offer wage premiums over military occupations or similar civilian occupations in other private firms.

Policy Implications

These conclusions suggest several opportunities for reform. The first step would be to reduce military spending generally by ending the post-9/11 wars. As of January 2020, there are over 50,000 contractors working in Afghanistan, Iraq, Syria, and other CENTCOM areas, about half of whom are in Afghanistan.⁴³ Ending U.S. interventions in these areas, and concomitantly reducing spending for DoD and related contractors, would be the first step toward addressing the problems laid out in this paper.

Secondly, DoD should reduce the percentage of its funding that is channeled to contractors, keeping more of its services in-house, particularly those services that are vital to the military's own capabilities, including servicing weapons and equipment.

Thirdly, the military's contracting process itself should be reformed such that contractors must compete to provide the goods and services that are not inherently governmental activities. This would mean reducing and reforming "cost-type" contracts and non-competitive contracts, so that military contractors are actually competing and thus bringing down costs. If some policymakers consider government-provided goods and services inefficient because of the potential for public monopoly, they should consider that allowing for the kinds of commercial monopoly that currently exist in military contracting

⁴³ U.S. Department of Defense (DoD). (2020). *Contractor Support of U.S. Operations in the USCENTCOM Area of Responsibility*. https://www.acq.osd.mil/log/PS/.CENTCOM_reports.html/5A_January_2020.pdf

ultimately just substitutes one monopoly for another. A significant difference between commercial monopoly and public monopoly, however, is that the former generates profit for private companies. Thus, the commercial monopoly of military contracting ultimately transfers funds from U.S. taxpayers to private pockets.

Reducing the amount of contracting and reducing the profitability of contracting will correct distortions in the labor market. As the scale and the profit levels of military contracting decrease, the Camo Economy will generate less of a pull on the labor supply, which should make it easier for the military to attract and retain servicemembers. It should also make it easier for firms in infrastructure, clean energy, and other sectors whose occupations have significant overlap with military and contractor occupations (such as engineers, electricians, and managers) to be competitive with military contractors.

Methodological Appendix: How Do Salaries Compare?

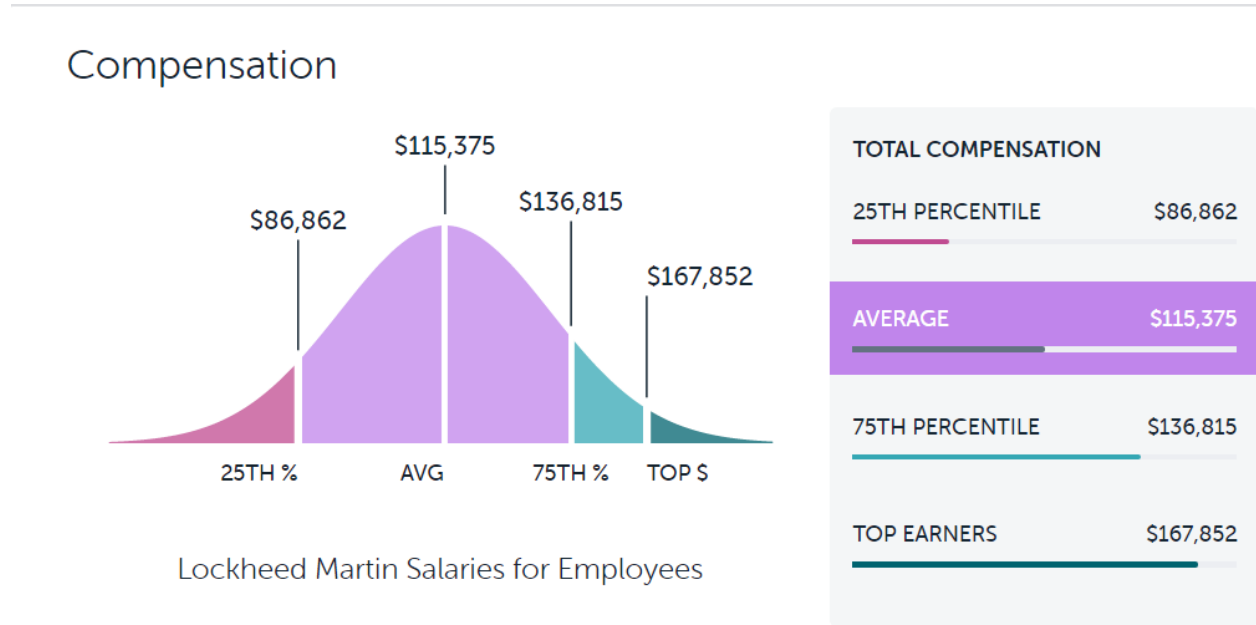
It is difficult to compare the salaries and occupations of military members with those of the employees of military contracting firms. This is largely because contractors are private entities that are not required to publicly disclose data on personnel, particularly the detailed data on occupations and wages that would be useful for researchers to assess labor market disparities (and that would be useful for DoD management and other public officials to know as well). Even publicly traded companies only need to report top-line numbers on personnel, such as the total number of employees in the firm. However, to get a sense of the magnitude of wage differences, I use data from the Department of Labor (DoL), which provides a “crosswalk” for military and civilian occupations. I then compare the occupational pay nationally, using Bureau of Labor Statistics (BLS) data on wages and salaries, and the occupational pay offered by certain military contractors, using data privately collected by the site Paysa.com.

The DoL sites such as O*NET “My Next Move for Veterans” provide some sense of what occupational salaries will be for military ex-servicemembers who take civilian jobs. An enlisted person working as a small arms repairer or technician in the Marine Corps (MOC 2111) might be categorized as “repair and maintenance workers, general,” with occupational median wages in the civilian sector of \$38,300 annually (as of 2018). An electronics engineering technician, working in the Army as a utilities equipment repairer (MOC 91C) would find a median salary of \$64,330 in the civilian sector (as of 2018).⁴⁴ Mechanical Engineers, who might work as Naval Reactor Engineers in the Navy (MOC 122), earn a median civilian salary of \$87,370 nationally (as of 2018). Electrical Engineers, such as those working in the Air Force (MOC 32E1E), earn a median annual civilian salary of \$96,640 (2018).

Next, to examine the pay discrepancy between military contractors and other firms that might recruit for similar positions, I use privately collected data on military contractor firms and compare that to the BLS average salaries for those occupations nationally. Data on salaries for occupational groups can be found for certain large contractors, including for Lockheed Martin. The website Paysa.com has collected salary information for Lockheed and finds that the average salary for all employees at this firm is \$115,375 and the average for mechanical engineers is \$125,000 (with a range of \$110–\$137 thousand; see Figure 6). We can compare this with data from the BLS “Occupational Handbook,” which shows that the 2018 median salary for mechanical engineers across all industries was \$87,370. This means that Lockheed Martin offers a 43 percent wage premium, paying an average of \$125,000 per mechanical engineer in comparison to the national average of \$87,370.

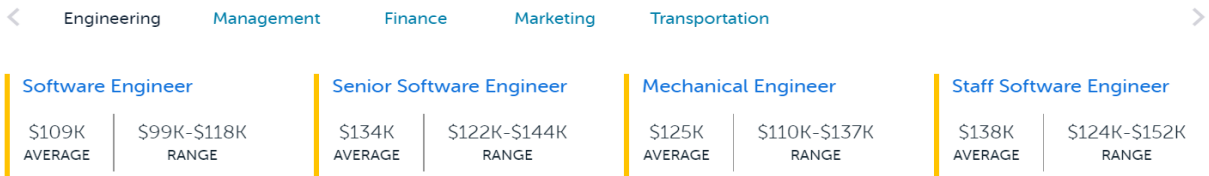
⁴⁴ Note that “MOC” stands for “Military Occupational Code”; MOCs are similar in structure but different in titles and codes from civilian occupations, which are categorized under the system of “Standard Occupational Codes” or “SOC.”

Figure 6. Salaries for Lockheed Martin Employees, 2018⁴⁵



Lockheed Martin Salaries by Department

Engineering refers to application of science, math and evidence-based facts to design, innovation, construction, and operations within an organization. In businesses this is often applied to the its internal processes and tooling, structured access to external processes, and products for its customers. Good engineers are required to have a high degree of understanding in applied mathematics and/or sciences.



Next we look at a different example, that of a contractor who specializes in overseas logistical operations, construction, and other services. KBR, who has been one of the main contractors supporting the U.S. military in Iraq, offers an average salary of \$104,304 (as of 2018; see Figure 7).

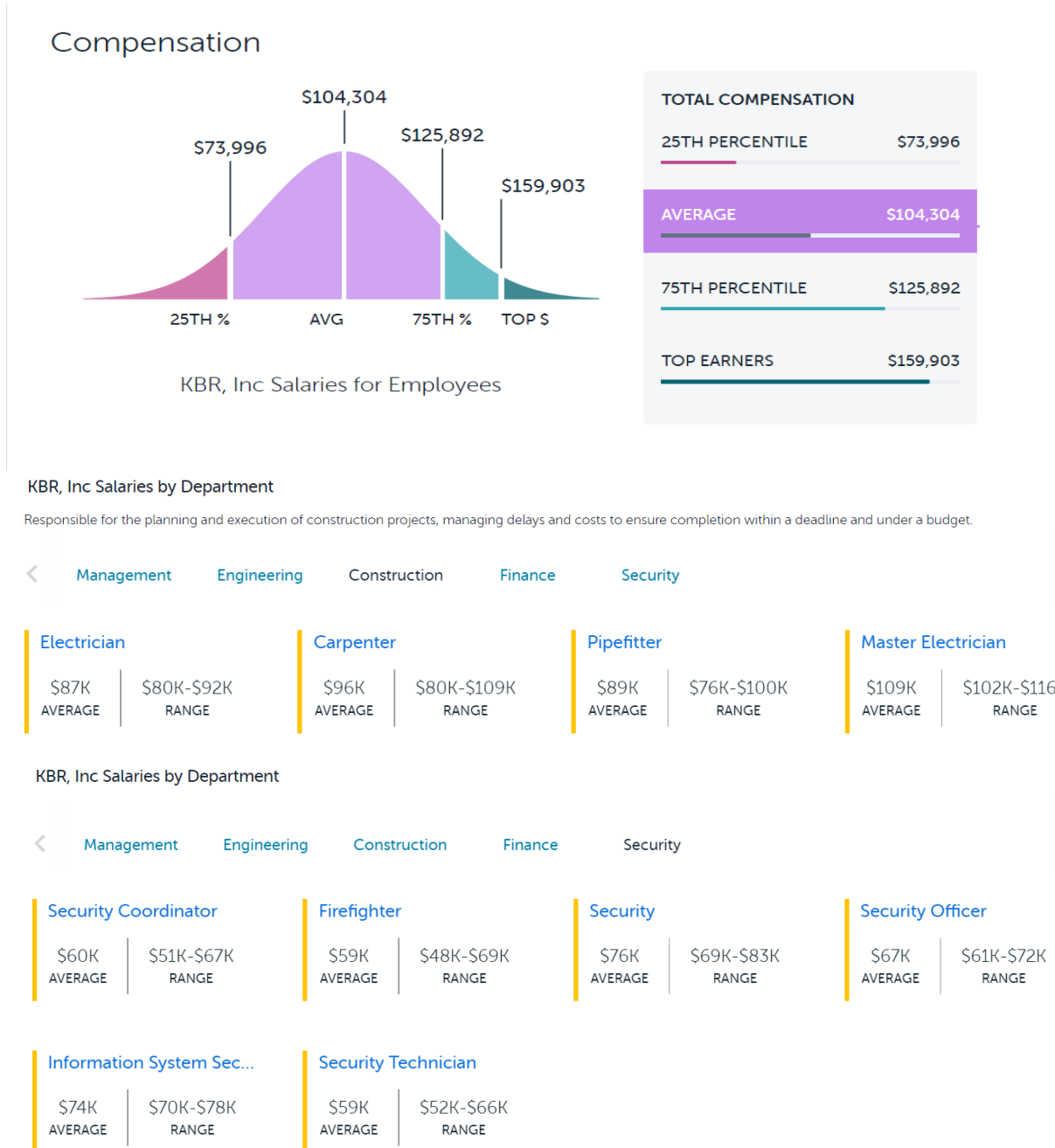
Within KBR, salaries for “Electricians” average \$87,000. Meanwhile, according to the BLS, the median annual wage for electricians nationally was \$55,190 in 2018.⁴⁶ Thus, KBR offers a wage premium of 58 percent over the national average for electricians.⁴⁷

⁴⁵ Paysa. Lockheed Martin Salaries. <https://www.paysa.com/salaries/lockheed-martin>.

⁴⁶ Bureau of Labor Statistics, U.S. Department of Labor. Occupational Outlook Handbook. <https://www.bls.gov/ooh/home.htm>.

⁴⁷ Ibid.

Figure 7. Salaries for KBR Employees, 2018⁴⁸



Similarly, as shown above, “Security” occupations at KBR earned an average of \$76,000 in 2018, while the national average according to the BLS for this occupational category was \$28,530 for security guards and \$63,380 for police and detectives. This is a wage premium of 20 percent to 166 percent offered by the military contractor over equivalent civilian occupations.

⁴⁸ Paysa. KBR, Inc Salaries. <https://www.paysa.com/salaries/kbr,-inc>.