

EconoFact Chats: Understanding Defense Spending in the U.S.

Michael E. O'Hanlon, The Brookings Institution

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I'm Michael Klein, executive editor of EconoFact, a non-partisan web-based publication of the Fletcher School at Tufts University. At EconoFact, we bring key facts and incisive analysis to the national debate on economic and social policies, publishing work from leading economists across the country. You can learn more about us and see our work at www.econofact.org.

Michael Klein

The United States faces a range of military and defense-related challenges, including from countries like China and Iran, in its support of Ukraine after the Russian invasion, and from non-state actors. There's a saying that freedom isn't free, an expression of gratitude to those serving in the military. Freedom's also not cheap. The United States Department of Defense budget request for fiscal 2024 was \$842 billion, about 3% of national income, and almost half of all federal discretionary budget outlays. Something this big a part of the national economy, to say nothing of its size of the federal budget deserves to be well understood by the public. How has defense spending evolved over time? How are decisions made about the size and type of expenditures? At the time of ballooning budget deficits, are there ways to trim defense spending without compromising national defense? To address these questions and others, I'm pleased to welcome to EconoFact Chats, Michael E. O'Hanlon.

Michael is a senior fellow and the Director of Research in Foreign Policy at the Brookings Institution. He also serves as a member of the Defense Policy Board at the U.S. Department of Defense, and was a member of the External Advisory Board at the Central Intelligence Agency from 2011 to 2012. Michael, thanks for joining me today.

Michael E. O'Hanlon

Michael, it's a real pleasure to be with you. Thanks for having me.

Michael Klein

Even though I study, teach, and write on macroeconomics, Mike, I have to admit I'm pretty ignorant about this large part of the federal budget. To begin with, how big in historical context are the numbers I cited in the introduction, that the Department of Defense budget request was about 3% of GDP and a bit under half of all federal discretionary spending?

Michael E. O'Hanlon

Yeah, great question. Well, first in absolute dollar terms, adjusting for inflation, it's only been higher really during World War II, and marginally higher during the peak of the Iraq and Afghanistan missions, but we're almost back to that level. So, we are at a higher level in inflation adjusted dollars than at any point of the Cold War, which is rather fascinating given the severity of the risks we faced then. But today's military is smaller than it was in the Cold War, so it's gotten more expensive per person. You mentioned GDP and percent of gross domestic product, 3%, today's level is, or a little more than 3, is relatively low by Cold War standards. Actually, it's

quite low by Cold War standards because the economy, of course, was smaller. And so in the 1950s and then through the Vietnam era of the 60s, defense spending was typically 9 to 10% of gross domestic product, so three times more than now. And then we had the drawdown after Vietnam through the Ford and Carter presidencies when defense dropped to around four and a half percent of GDP, went back up to 6% under Ronald Reagan. And then when the Cold War finally ended, we dropped it down to roughly the 3% range in the Clinton period. And then it went up in the Bush and Obama periods with the Iraq and Afghanistan conflicts back up over four. But it's come back down even as our concern about China and Russia and a return to great power competition has arguably increased the magnitude of the potential threats.

Michael Klein

Mike, I found your 2021 book, 'Defense 101,' a really good introduction to this topic. In that introduction, you present the data that shows that the United States accounted for almost 40% of all the world's military spending in 2019. I imagine that statistic hasn't changed too much since then. Is that correct?

Michael E. O'Hanlon

You're right, although both China and Russia have beefed up since then. So, China is basically linking its military budget to the size of its GDP. So, when you get a quote on how fast China's economy grew, usually you can use the same percentage change for its military. The problem is that the Chinese military budget is hard to track. And so even though we can see the trend line, we don't always know the absolute number. And the estimates are all over the place from, let's say, roughly \$250 billion equivalent up to \$500 [billion] or more dollars. Everybody agrees it's less than ours. But some people think it's approaching ours. And again, with growth rates that are typically in recent years, 4-5% percent a year, that kind of thing. Russia, of course, has beefed up enormously just in the last 24 months with the war in Ukraine. And so those two countries have also substantially increased their military spending in recent years. And there are a couple of others as well. But I would say that generally speaking, your point is valid, that the United States is still accounting for more than 35% of world military spending.

Michael Klein

The table that you present in your book, which shows the spending in 2019, it shows that the percentage of GDP was higher in the United States than any other major industrial country. The countries with a higher percentage of military spending to GDP included Israel, Jordan, Pakistan, Iraq and Iran. But of course, data were not available for countries like North Korea.

Michael E. O'Hanlon

Right. Well, there's no doubt that North Korea spends a higher fraction of its GDP on its military than we do, because back when the intelligence community and the Pentagon thought it was worth the trouble to estimate North Korean military spending as a percentage of GDP, the numbers were in the 20-30% range. So North Korea is the number one big military spender on the planet relative to the size of its economy. Also, by this point, Russia certainly rivals or even exceeds us in the fraction of its economy that it spends on its military. I think it's safe to say that Russia is probably spending more than 5% of its GDP on its military now as it ramps up. And as you know, Michael, it's outproducing the entire Western world in areas like artillery. But that's the big picture story I would tell. Russia is spending quite a bit of its economy and GDP on its

military. North Korea takes the cake. Otherwise, as you say, the biggest spenders relative to GDP are mostly in the Middle East. And East Asia, where, of course, economies are growing fast and where we have a lot of our current strategic concerns, is actually not really in an arms race. Most countries there are spending around 2% of GDP on their military, including, as best we can tell, China.

Michael Klein

So, I find that this statistic relative to GDP seems the most relevant one. But I also have this question. Is it comparing apples and oranges a little bit? For example, we have an all volunteer army which requires higher salaries and benefits than a conscription force. And we don't have a government arsenal, but we buy weapons by companies like Lockheed Martin, Raytheon and General Dynamics. So, in other countries, would things just not get counted in a way, or the price would be lower, so, the spending to GDP ratio is, again, like apples and oranges a bit?

Michael E. O'Hanlon

You're right. The all-volunteer American military and the expensive contractor base, the civilian employee workforce of the Department of Defense, all of these things cost us a lot of money. And we wind up spending ball-park half of our total defense budget on people in one way or another, whereas other countries don't have to spend as much in many cases. However, we would also argue that the quality of our all-volunteer force, which is so much better than the quality of our military, let's say from Vietnam or that era, is worth the money and that you get what you pay for. So, if what you're looking for is maneuver warfare with high tech equipment, or carried out by a very sophisticated and well-trained military, then you might say that all this expense for our volunteer force is worth it.

Michael Klein

So you mentioned, Mike, that about half the budget is on personnel. How much is on weapons and what else is the money spent on?

Michael E. O'Hanlon

So here's how the defense budget breaks down. There are a number of ways to break it down. But let me use the appropriations title as Congress terms the categories. And there you would have military personnel as one big category, military procurement – buying stuff as another, research, development, test and evaluation would be a third. Operations and maintenance would be a fourth. And then there are smaller, almost subcategories or minor categories for military construction and family housing. So, they're really six, but only four are in the big, you know, \$100 billion or more range. And out of that, just to paint with a very broad brush, you mentioned that the defense budget is about \$850 billion, let's say, in rough numbers. You're right. It's a little less if you look at the Department of Defense alone. But if you add in the nuclear weapons activities at the Department of Energy, as we normally do for the formal national defense budget, it's a little more. Let's just say \$850 billion for sake of argument. Out of that money, almost \$200 billion a year is military personnel. And that's the salaries and benefits and retirement accrual for the men and women in uniform, active and reserve. Then there is operations and maintenance. Let me let me go to that one next, because operation and maintenance is a very complex category that actually includes the salaries of all 750,000 full time civilian employees of the Department of Defense. We have about 1.3 million uniformed troops in active-duty service and another

800,000 in various components of the reserve and National Guard. So that's a total of 2.1 million Americans in uniform today. But we also have 750,000 full time civilian employees of the Department of Defense. Their salaries are over in the O&M budget. So, I was adding those to the military personnel account earlier when I talked about how the defense budget was really made up more or less half of paying people, because a lot of contractors are paid out of the procurement and research development tests and evaluation accounts. Anyway, sorry for the long explanation. Almost \$200 billion in military personnel, almost \$300 billion or \$300 billion-ish in the operations and maintenance. Military procurement is in the range of \$175 billion. And then research, development, tests, and evaluation is surprisingly high because it involves a lot of prototyping and testing. So it's almost \$150 billion. So hopefully my numbers added up to something in the rough vicinity of \$850 billion. But again, almost \$200 billion for personnel, military personnel, almost more than \$300 billion for operations and maintenance, \$175 billion for procurement, \$150 billion for research, development, tests, and evaluation.

Michael Klein

So my calculation is that's \$825 of the \$848 billion dollars. You did a good job. I mean, what's another like \$23 billion among friends?

Michael E. O'Hanlon

Exactly.

Michael Klein

One thing that's both politically and I think economically important are domestic military bases. And these aren't evenly distributed across states. And we often see Congress people fighting very hard to keep them in their districts, and keep them going. What can you say about domestic military bases, you know, their cost and perhaps their benefit to local economies?

Michael E. O'Hanlon

Well, it's interesting. If you don't mind my bringing in a Massachusetts Congressman, a good friend of mine, Seth Moulton, who was in the Marine Corps for a while and served in Iraq – and he's become a critic of how we have almost consolidated our bases too much, in his opinion, because his view is in the interest of trying to be more economical and counter this parochial tendency of earlier congresses to want to protect bases in their district, we created a process that I'll explain in a second called the Base Realignment and Closure Commission process that actually has made these mega bases in certain parts of the country. But to your point, even though all the parochial pressures you mentioned are powerful and still exist, in the 1980s, in one of the fascinating examples of government solving a problem, that we decided needed to be addressed, Congress and the Pentagon figured out a way to overcome this parochialism in the interest of more efficient defense basing. And what they did was to say, let's create an independent commission staffed by professionals that will go around and gather data, or be provided data by the Pentagon, but evaluate data that shows where we have efficient bases and where we have inefficient ones, and then create a list of bases we would like to close or realign in order to make the military, especially the post-Cold War military, more efficient. This was primarily happening from 1988 through 2005, so the early period of the post-Cold War. And it was quite a success. We carried out five rounds. They've saved a fair amount of money. We do have a more efficient military based structure, Congressman Moulton's critique, notwithstanding.

And Congress only had the right to vote the entire list up or down. So, it's sort of like free trade agreements where Congress had the same kind of concern about parochialism preventing the nation from doing what was in its broader interest, and so created a mechanism where individual members of Congress couldn't create amendments or single out specific bases to protect or to augment. And so we've done pretty well with that particular concern. In fact, if anything, as Congressman Moulton points out, we may have done too well because now the military is present en masse in certain parts of the country and pretty much absent in others.

Michael Klein

When President Eisenhower retired from office, he had a famous speech where he warned of the military industrial complex. And earlier, I mentioned some of the big defense contractors, as did you. Corporations like Lockheed Martin, Raytheon, General Dynamics. I could add Boeing. You mentioned Northrop Grumman and others. How are the contracts with these corporations structured, and do they tilt towards advantaging the corporations over the public purse?

Michael E. O'Hanlon

It's a great question. And we've certainly had procurement problems and scandals before. I don't think they're as bad right now as, let's say, that in some of the Reagan buildup period when there was a big impetus to reform through the Packard Commission and a lot of talk about how the Reagan buildup in the 1980s was sending too much money too quickly to weapons manufacturers. There's certainly plenty of waste and inefficiency in the system, but there haven't been, for the most part, quite the scale of scandal that we have sometimes seen in our history. Generally speaking, in the military, you have a few kinds of contracts, but the most traditional kind is essentially a "cost plus" contract where DoD needs documentation from the manufacturer of all the specific ways in which costs were incurred making something. And so there's a lot of paperwork, but that paperwork is then used to justify, let's say, a 12% profit margin on top of all the costs. That's one way to do it. The problem is then everybody has an incentive to gold plate whatever weapon is being built to make it more expensive because the contractor makes a higher profit in absolute terms if the weapon system costs more, since it's being paid as a percentage of the base cost.

So, in some contracts, especially where you have mature technology or where you really want to force a competition to keep prices down and make price control an equally important priority to weapon system performance, there are other mechanisms used. And just to give one example, you could actually have a 'cost plus incentive' contract where the contractor makes, let's say, if it comes in at the price at bid, and was awarded the contract based on that bid, and then if it comes in at that cost, it makes the prescribed 12%. But if it can somehow produce the weapon for less, it actually earns a higher percent profit such that its overall net profit per output will be greater than it would have been if the weapon had been more expensive. So, you sometimes do that or you just have a fixed cost contract like, you know, like you would in a lot of other kinds of government contracting where you're not trying to build fancy, stealthy fighter jets or what have you. You're not as worried about pushing the technological barriers and you just want a good deal. And now there's one last piece to this, Michael, if I could. We've actually gotten to the point where we often just have one or two manufacturers of key types of military technology, for example, attack submarines, where we make them in two different places, one in Virginia, one in Connecticut. And we've ascertained, we've determined as a strategic community that we actually

can't make enough submarines for the moment, given the strategic utility of these in addressing the China challenge, among other things. So, we're actually now trying to pump subsidies into the submarine manufacturing base to expand capacity, which is not really where you want to be. But we wound up getting ourselves there by almost downsizing it too much and making ourselves almost too efficient in the 1990s and 2000s and 2010s.

So, there are these various contracts because sometimes the problem is people are gold plating or, you know, adding costs and you don't want that. Sometimes the problem is you're inventing new technology, and it's hard to forecast what it will cost. Sometimes the defense manufacturer maybe did get a little greedy or sloppy, and you want to make sure you can either penalize that behavior or disincentivize it. And sometimes we've actually gotten too lean, and we've discovered this of course with COVID, and now with the Ukraine crisis, where, as we try to ramp up production of weapons we didn't really think we would need in such numbers, we can't because either the contractor or the subcontractor base doesn't have the excess capacity. So unfortunately, there's not just one problem we're trying to solve with military procurement pricing, it's a multitude of problems, some of which pull you in different directions.

Michael Klein

Mike, we talk about the politics of domestic bases, but there's also a lot of politics having to do with overseas bases, with some candidates saying that this is a drain on the United States. But you have an interesting argument, what economists would call the opportunity cost of maintaining these bases. And you're saying that the opportunity cost is not really that high for a given level of readiness. Can you explain that?

Michael E. O'Hanlon

Yeah, if you're going to keep a certain military unit in your force structure and you've already decided that, and the question is, do you base it at home or base it abroad, typically speaking, in the major economies where we have most of our overseas presence in East Asia or Europe, you typically are not spending more money to maintain those forces abroad as you would to maintain them at home. In other words, quite often, whatever additional costs you have for moving people around, for building a school for kids because you're overseas, those kinds of incidental costs are typically less than the main costs of salaries and equipment, which are basically the same, regardless of where that combat unit is deployed or stationed. And also, sometimes the host government covers some of the local costs. Having forces abroad is only more expensive when you're in the process of transition, or when there's a hardship associated with this. So, if you're in a war zone, when you're in Iraq or Afghanistan and you've got forces abroad, that's a lot more expensive, not just because they're firing ammunition, and taking casualties, but also because they're building up infrastructure, carting over fuel, having all their meals brought over or developed off economies that may struggle in some of these areas. So, you've got to go to herculean efforts to provide food and shelter and operating facilities. But if you're talking about an established base in, let's say, Japan or Germany, which are the places we have the most forces abroad, it's more or less a wash how much it costs to have that unit abroad. Now, the question would be, do you need that unit in your force structure? If you somehow decide you're no longer going to protect South Korea, you want to break off the US-ROK alliance, and now the 30,000 US troops who are currently all the time in Korea might not just be brought home and based somewhere else. They might be essentially, you know, their units might be dissolved and the

military might shrink by 30,000 people, as a result. If that's the choice you think you have before you, then obviously it does cost a lot more to have the force abroad because it's a force that you otherwise would not need to pay for at all. But that's rarely the way we do our defense budgeting, because most combat forces have multiple potential uses. And so just because a force may be based in country X, Y or Z does not mean it's only going to be used in country X, Y or Z. And in fact, there really could be benefits for us to having the force closer to the potential combat zone, because then if you do have a war, it's easier to get to. And hopefully you'll prevent the war by convincing a potential adversary that American resolve is on the line, and we would fight in defense of this ally. And therefore you save huge amounts of money by deterrence, by preventing a war, you might otherwise have to fight. In other words, we haven't had World War III during the time when we've had all these forces abroad, because having these forces abroad signals our commitment to be willing to fight in the defense of the countries where those forces are based. At least that seems to be the dynamic.

Michael Klein

Yeah, I thought that was a really interesting application of the economics idea of opportunity cost. And as you mentioned, if you want to talk about reducing the overall size, well, that's a different question, and that's related to this idea of readiness. In your book, you say readiness can be a political football. There are complaints a few years ago that the U.S. military had been hollowed out, that it wasn't ready. In fact, it was compared unfavorably with the Russian military. How do the Joint Chiefs of Staff define readiness? And why does Columbia University Professor Richard Betts title a chapter in a book that you call seminal, the chapter's titled 'Lies, Damn Lies and Readiness?'

Michael E. O'Hanlon

There's no doubt that if you get into this debate about military readiness, you have to be prepared for a couple of inevitable dynamics. One of them is there's always going to be some part of our military that's not ready. So, if you cherry pick your data, you can always find some units that are excellent, even in a generally unready military. And you can always find some units that are atrocious or badly maintained or prepared, even in an otherwise very good military. So, you need to use enough data, and look broadly enough across readiness indicators that you're getting a fair, comprehensive picture. But quite often when people are trying to make a case for a larger military budget, they will cherry pick examples of problems in readiness to paint this image of a military in dire distress that needs enormous injections of funding. Or there could be a different agenda besides that as well. So, these are the kinds of things we see historically and based on some of the idiosyncrasies of readiness statistics, the problem can really get even worse, especially because some of the numbers are classified.

So, I'll give you one example. In the late 1990s under President Clinton, we deployed a couple of brigades to Bosnia and Kosovo in peacekeeping missions after the wars there in those two countries. And when we took a brigade, which is basically one third of the combat capability of a U.S. division, we would take a brigade out of a given division, leave two thirds of the division back home, take one third of the division, one of the brigades over to, let's say, Kosovo. When we did that and then you look at the entire division as a whole, that division is now considered to be unready because it's been split in two. And then what happened was a newspaper reporter figured that out, even though the statistics were supposed to be classified and published it in the

fall of 1999. And then the next summer, during the Republican National Convention, future Vice President Cheney talked about how the Clinton administration had done such a bad job maintaining military readiness, that two of our ten active duty army divisions were deemed not ready, not fit for combat. So that would be, to me, a completely misleading use of statistics because, in fact, the brigade that was in Bosnia could have been pulled out if we really had something more urgent somewhere else. And the two brigades back home as part of the original division were available and quite ready, in very good shape. So, you have to be careful how these numbers are utilized. And the general rule of thumb is you've got to look broadly enough, not only across the force structure, but across a time period to get us a fair sense of what the trends are in readiness and what the overall areas of strength and weakness are, because any one snapshot can be very misleading.

Michael Klein

So, Mike, I'd like to conclude with another topic that's gotten a lot of political attention. And that is about the provision of U.S. materiel to countries like Ukraine, Israel and others. How does this actually operate? Just very briefly, how... Is the money provided to these countries? Are arms directly provided? Who pays for it and so on?

Michael E. O'Hanlon

Well, with Ukraine, both have happened. We've given them money in the form of security aid they can use to buy military necessities. We've also given them economic support. And by the way, so have the Europeans, Canadians and Japanese, and we are by no means the most generous contributor. Europe has contributed substantially more when you look at all those categories of aid, economic aid, humanitarian aid, security aid. But back to the United States, we have provided a little more than half of the overall security aid. And much of that has been in the form of so-called presidential drawdown authority. In other words, we tap into American weapons stocks. We take out of our own inventory, so that we can rapidly give Ukraine weapons that it needs immediately, and not have to go through a contracting process and a procurement process, which is what would normally happen for our own acquisition of military materiel, or for any other country, usually buying stuff from American defense contractors. They would have to place an order and wait months or years for the delivery of that equipment. We didn't want to wait in this case. So, under the Foreign Assistance Act, the President was able, with congressional blessing, to access up to a certain amount of value in terms of our own stocks of equipment. And the Pentagon was involved in the discussion, of course, to figure out what weaponry we could safely provide Ukraine that we wouldn't need ourselves. And then you figure out later whether you need to replenish your own stocks. That's a separate decision. That would require additional dollars for appropriations because the Presidential drawdown authority doesn't actually require money. It does require permission from Congress. But you've already got the stuff. So you're just taking stuff off the shelf, giving it to Ukraine. In a best case, you wouldn't even need that stuff. Maybe it's something that we don't think we need as much of as we've got. And so then it's essentially cost free. But more likely we're going to go and replenish it later. And now we've run out of that authority. That's what's going on. As of February 22nd on Capitol Hill, the debate continues, of course. But Biden doesn't have authority to do this any longer because Congress has not provided him the next tranche of allowance, so to speak, to tap into American stocks and provide them to the Ukrainians.

Michael Klein

And then if the Pentagon restocks, it'll be buying mostly from American companies that we mentioned before, right? So it's actually sort of supporting the economy through the domestic purchase of arms to restock what was provided to places like Ukraine.

Michael E. O'Hanlon

Yeah. And you know, the politics are getting tough when people start making that argument boldly and bluntly about an ongoing war, because usually people feel a little hesitant to say this is a jobs program, when in fact it's motivated by the desire to help Ukraine survive as a nation. But in recent weeks, we've heard that argument made more often. And it is correct. You're right. But usually people are a little politically shy about making it when it may sound callous or insensitive in the middle of a war. But at this point, people are using any argument that's valid to try to persuade Congress to let us help Ukraine further because Ukraine is starting to run out of stuff.

Michael Klein

Mike, we've talked about a lot of things today, the defense budget, the politics of it, the implications of it. And as I mentioned at the outset, this is a really important part of the economy. And so, to get a greater understanding of it, I think is key for looking at a range of issues. So thank you for clarifying these things and for joining me today on EconoFact Chats.

Michael E. O'Hanlon

Michael, it's been a pleasure. Thanks for what you do up there. And it was a privilege for me to be on your show.

Michael Klein

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