

27 March 2015

Are Nuclear Weapons Worth the Cost?

Is it wasteful for the United States to spend \$348 billion on its nuclear forces over the next decade, as the Congressional Budget Office predicts? John Klein isn't convinced. He argues that a robust nuclear arsenal is essential for international stability and therefore worth the high cost.

By John J. Klein for ISN

The role of nuclear weapons and their associated expense are topics of debate among defense analysts and nonproliferation advocates. The information in a January 2015 [report by the Congressional Budget Office](#) (CBO) will likely continue to fuel this debate. In this report, the CBO estimates that over the next decade (2015–2024), the United States will spend [\\$348 billion](#) on its nuclear forces. Many critics have concluded that spending money on nuclear weapons is wasteful and that conventional forces are just as capable of providing the same level of security and deterrence. Despite the seemingly high expense, however, maintaining a robust nuclear arsenal is a cost-effective means of providing needed stability in the international community.

The Congressional Budget Office report

The current strategic nuclear forces—consisting of submarines that launch ballistic missiles (SSBNs), land-based intercontinental ballistic missiles (ICBMs), long-range bombers, and the nuclear weapons they carry—are reaching the end of their service lives. Over the next two decades, the U.S. Congress will need to make decisions about the extent to which U.S. nuclear delivery systems and weapons will be modernized or replaced with new systems. To help make those decisions, the [National Defense Authorization Act of 2013](#) required the CBO to estimate the 10-year costs of the Administration's plans to operate, maintain, and modernize U.S. nuclear forces. The recent CBO report is in response to this legal requirement.

The CBO estimate of \$348 billion over the next decade, or an average of about \$35 billion a year, as the cost of the Administration's plans for nuclear forces is close to the previous figure of \$355 billion for the 2014–2023 period. The most recent estimate relies largely on official government figures, the CBO authors say, and does not include costs associated with missile defense, nonproliferation efforts, and related intelligence programs. The figure does, however, include the cost associated with strategic nuclear delivery systems and weapons; tactical nuclear delivery systems and weapons; Department of Energy nuclear weapons laboratories and their supporting activities; and nuclear-related command, control, communications, and early-warning systems; and additional costs incurred by estimated program cost growth rates.

Differences between the current and previous estimates are a result of changes in both the Defense

and Energy departments' nuclear programs, with the result that cost projections have increased in some areas but have declined in others. Current cost projections reflect a change in the plans for modernizing the Minuteman III ICBMs. Those added costs would be partially offset by cost decreases from the Defense Department's plans to reduce headquarters staffing, as part of a department-wide effort to lower costs for command and control. The Department of Energy's decrease in projected costs is primarily the result of its plans to postpone or reduce the scope of some weapon modernization programs and infrastructure construction projects. While some of those costs could still be incurred, it would be after the end of the current 10-year projection period.

Taken as a whole, the CBO estimates that the costs of nuclear forces represent [5 percent to 6 percent](#) of the total costs of the Administration's plans for national defense for the next 10 years.

Cost critics and the fiscal squeeze

[Frank Kendall](#), the Pentagon's Under Secretary of Defense for Acquisition, Technology and Logistics, recently noted in a March 4, 2015 Senate Armed Services strategic forces subcommittee hearing that the plan to modernize the U.S. nuclear arsenal will face an "[affordability problem](#)" starting in fiscal year 2021. Emphasizing his point, Kendall, who is also a senior member of the Nuclear Weapons Council, told the subcommittee that the affordability problem will arise in next year's budget, when the Department of Defense will begin to have a problem finding ways to afford future nuclear systems. Kendall explained that the current U.S. nuclear force was built during the Cold War and most of the weapons are reaching the end of their service lives. The Defense Department and the National Nuclear Security Administration are pursuing several multibillion-dollar programs to replace the nation's strategic submarines, bombers and intercontinental ballistic missiles and to extend the life of aging warheads. In the conclusion of written testimony before the subcommittee, [a warning was given](#): "We have reached a point where we have removed all flexibility from the nuclear weapons life extension programs and have worked with the U.S. Strategic Command to accept lower stockpile requirements where possible." The fiscal squeeze is expected to continue through the 2020s and 2030s, as the replacement and modernization programs move into the production phase and compete against other non-nuclear priorities.

One of the criticisms levied against the cost of maintaining a nuclear deterrent is that the expense is excessive considering that conventional, [non-nuclear forces are just as capable](#) of providing any needed military effect. This view contends that because conventional weapons provide the same explosive power as nuclear weapons, nuclear weapons are not relatively cost-effective because of their associated expense. Cost critics have estimated the total expense of having U.S. nuclear weapons programs to be almost double the figure provided by the CBO, stating that the U.S. is on track to spend approximately [\\$640 billion](#) on nuclear weapons and related programs over the next decade. This higher number includes estimates related to environmental and health costs, nuclear threat reduction, missile defense, and incident management. Still others say the cost associated with modernizing and maintaining the nation's nuclear arsenal is so high that it [cannot realistically be implemented](#), and that given current budget constraints, implementing all of the modernization programs simultaneously would result in these major projects being canceled midstream.

Affordable deterrence?

Perhaps one of the most remarkable turnarounds in public comments regarding the need for nuclear weapons came from former Secretary of Defense Chuck Hagel. In May 2012, the arms control group [Global Zero](#), of which Hagel was a member, argued for the U.S. to reduce its reliance on nuclear weapons during the next 10 years, estimating the associated cost to exceed [\\$1 trillion over the next decade](#). Global Zero stated that the world can ill afford to lavish scarce resources on nuclear forces and that the huge investments in modernization plans are being driven by outmoded, Cold War logic.

Yet in November 2014, Hagel [announced](#) that the U.S. must take action to ensure that its nuclear arsenal remains safe, secure, and effective in the future. He stated that the [nuclear deterrent plays a critical role](#) in ensuring U.S. national security and is the Defense Department's highest priority mission. Hagel argued that the nuclear triad deters nuclear attack on the U.S., its allies, and partners. In particular, nuclear deterrence prevents potential adversaries from trying to escalate their way out of failed conventional aggression. Additionally, nuclear weapons provide the means for effective response should deterrence fail. Because of the role they play, [billions of additional dollars](#) in upgrades are needed in support systems to keep the nuclear arsenal reliable. Hagel said that a [10 percent increase](#) is needed for the nation's nuclear infrastructure in the next five fiscal year budget requests.

The projected expense of \$348 billion over the next decade is indeed a large sum of money. Consequently, how these funds are allocated should be vigorously debated to ensure that the nuclear arsenal can support U.S. national security objectives in the future. Such debate is especially meaningful because of the recent nuclear negotiations with [Iran](#) and Russia's purported [incursion into Ukraine](#). Despite their expense, the budget for the U.S. nuclear forces only represents about [5 percent](#) of the total cost for national defense spending.

It may be something of a paradox, but nuclear weapons help provide the deterrence that has led to greater peace and stability among the global community. In 1943, over [15 million](#) people died as a result of war, but since the end of the Second World War, deaths as a result of war or conflict dropped to about [1-2 million per year](#) and have remained near that level ever since. In fact, the last decade has seen [fewer war deaths](#) than any decade in the past 100 years. This lower number is due, in part, to the deterrence effect provided by nuclear weapons. Considering the low percentage relative to the overall defense budget, along with the associated benefits to peace and security, maintaining an effective and reliable U.S. nuclear arsenal is a good investment.

John J. Klein is a Distinguished Analyst at Analytic Services in Falls Church, Virginia and writes frequently on national security, military strategy, and nuclear deterrence. The views expressed in this article are solely those of the author and do not necessarily reflect those of Analytic Services or those of the United States Government.

Publisher

[International Relations and Security Network \(ISN\)](#)

Creative Commons Attribution-NoDerivatives 4.0 International

For more information on issues and events that shape our world, please visit the [ISN Blog](#) or browse our [resources](#).

<http://www.isn.ethz.ch/Digital-Library/Articles/Detail/?id=189300&lng=en>

ISN, Center for Security Studies (CSS), ETH Zurich, Switzerland