



THE REAL COST OF ICBMS

U.S. ECONOMIC DEVELOPMENT BEYOND
DEFENSE SPENDING

Emma Claire Foley

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About Global Zero

Global Zero is the international movement for the elimination of all nuclear weapons.

Since its launch in Paris in December 2008, Global Zero has grown to include 300 eminent world leaders and half a million citizens worldwide; hosted four Global Zero summits and numerous regional conferences; built an international student movement with hundreds of student campus chapters in dozens of countries; produced the acclaimed documentary film, *Countdown to Zero*, with the team behind *An Inconvenient Truth*; and launched cutting-edge international campaigns in key countries with compelling high-production content to reach millions of people worldwide with an empowering call to action.

Senior political leaders around the world have endorsed Global Zero, with President Barack Obama declaring, "Global Zero will always have a partner and me and my administration." Leading newspapers—including *The New York Times*, *The Economist*, and *the Financial Times*— have backed Global Zero's plan, the *Financial Times* concluding that, "Global Zero's plan has shown the direction to be travelled; the world's leaders must now start moving."

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List of Abbreviations

AFB..... *Air Force Base*

BRAC..... *Base Realignment and Closure*

DERP..... *Defense Environmental Restoration Program*

FEMA..... *Federal Emergency Management Agency*

FERA..... *Federal Emergency Relief Administration*

FUDS..... *Formerly Used Defense Sites*

GAO..... *Government Accountability Office*

GBSD..... *Ground-Based Strategic Deterrent*

ICBM..... *Intercontinental Ballistic Missile*

NDAA..... *National Defense Authorization Act*

New START..... *New Strategic Arms Reduction Treaty*

OEA..... *Office of Economic Adjustment*

OLDCC..... *Office of Local Defense Community Cooperation*

USACE..... *United States Army Corps of Engineers*

Executive Summary

The U.S. intercontinental ballistic missile (ICBM) force is based in underground silos spread across five states of the Upper Midwest and Mountain West. Colorado, Montana, Nebraska, North Dakota, and Wyoming are known to some as the “nuclear sponge,” nicknamed by nuclear war planners for the fact that they are meant to “absorb” a Russian ICBM strike. Since 1961, the region has hosted some of the most powerful weapons in the U.S. nuclear arsenal in fields of underground silos clustered around three Air Force bases.

After six decades of the nuclear sponge, the Air Force and nuclear weapons advocates insist that the force is in need of modernization: complete overhaul and replacement with new missiles. The Ground-Based Strategic Deterrent (GBSD) program, recently dubbed the LGM-35A Sentinel, will replace all existing Minuteman III ICBMs at an estimated lifetime program cost of \$264 billion.¹

Meanwhile, many experts suggest that the U.S. doesn’t need these weapons for nuclear deterrence purposes, and that they are in fact a security vulnerability. ICBMs are designed to be launched rapidly to avoid being destroyed by an incoming Russian ICBM attack, increasing the likelihood of a first strike to prevent a perceived imminent attack, or a launch in response to a false alarm. They can be launched in less than one minute once launch crews receive orders. Once launched, they cannot be recalled. Global Zero’s Alternative Nuclear Posture Review recommends eliminating U.S. ICBMs and relying on submarine-launched nuclear weapons supported by a reserve bomber force as a step toward full disarmament.²

The GBSD program is only one reason why the U.S. nuclear weapons budget continues to grow, even as the U.S. faces multiple ongoing crises that demand comprehensive government action. Over two years into the COVID-19 pandemic with over one million Americans dead and ever escalating sums dedicated to weapons of war, more people are seriously questioning the benefit of current defense spending levels.

The United States has a choice: it can allow the Russian invasion of Ukraine and a national narrative of inflation to justify dramatic increases in defense spending overall—and nuclear weapons investments in particular—committing

1. “Fact Sheet: U.S. Intercontinental Ballistic Missiles - Center for Arms Control and Non-Proliferation,” Center for Arms Control and Non-Proliferation, accessed April 14, 2022, <https://armscontrolcenter.org/fact-sheet-u-s-intercontinental-ballistic-missiles/>.

2. Bruce Blair, Jessica Sleight, and Emma Claire Foley, “The End of Nuclear Warfighting: Moving to A Deterrence-Only Posture,” (Washington, D.C.: Global Zero, September 2018) <https://www.globalzero.org/wp-content/uploads/2018/09/ANPR-Final.pdf>.

to a future where nuclear weapons continue to be used. Or, it can address public concerns around nuclear weapons and ambivalence to the ICBM force by redirecting defense spending to broadly popular policies that create more, better jobs and support communities' long-term health and prosperity.

The U.S. defense industry has long portrayed itself as a uniquely effective job creator. Northrop Grumman, the sole bidder for, and winner of, the GBSD contract, has claimed that the program will provide work to 10,000 employees.³ This claim is impossible to verify, but its prominence in the company's messaging highlights its critical importance as a political tool. These claims obscure the complex network of institutions and individuals that work tirelessly to maintain official and popular support for defense spending in general, and the ICBM force more specifically. The Senate ICBM caucus, made up of senators from the five states where the weapons are based plus Utah, maintains close ties with the defense industry as well as local authorities and business leaders in the cities adjacent to the Air Force bases that host the ICBM force. It has been a powerful voice for maintaining the ICBM force as currently composed.⁴

These networks extend far beyond Congress. Each city has its own lobbying group, established by the local Chamber of Commerce or other authority in the late 1990s or early 2000s to lobby against reductions in local defense spending during rounds of the Base Realignment and Closure (BRAC) process. These organizations include business leaders, local government officials, and other community members; in some cases, their purview has expanded to include general economic development.

Local (and in some cases, state) governments, as well as the Air Force bases themselves, publish estimates of the economic impact of the bases and the number of people they employ. In general, estimated dollar amounts of impact are less dramatic (around 1-1.5% of state GDP) than the estimated employment impact, perhaps because these states are some of the most rural in the country. To give one example, F.E. Warren Air Force Base is the largest employer in the state of Wyoming.⁵

But any claim that the ICBM force—and defense spending in general—is a uniquely effective job creator is dubious and should be subject to careful public scrutiny. Research shows that a range of industries where the U.S. (and the ICBM region in particular) urgently needs additional investment, including healthcare, non-fossil fuel energy, infrastructure, and education, are all more effective at creating jobs given comparable levels of government investment.⁶

3. "Northrop Grumman Announces Nationwide Team for Ground Based Strategic Deterrent (GBSD) Program," Northrop Grumman Newsroom, September 16, 2019, <https://news.northropgrumman.com/news/releases/northrop-grumman-announces-nationwide-team-for-ground-based-strategic-deterrent-gbsd-program>.

4. William Hartung, "Inside the ICBM Lobby: Special Interests or the National Interest?" (Washington, D.C.: Center for International Policy, March 2021).

5. Ibid.

6. Heidi Garrett-Peltier, "Job Opportunity Cost of War," Watson Institute of International and Public Affairs, Brown University, May 24, 2017.

Further, there is no comprehensive, public, up-to-date assessment of the economic impact of the ICBM program (or their host bases). Nor is there consistent, reliable independent assessment of the military and defense industry's job creation claims in general. All available estimates are generated by the Air Force using economic impact multipliers that are over two decades old and were originally created to estimate the impact of removing, not maintaining, base personnel and missions—a very different proposition with very different effects.

There must be a transparent, publicly funded study on the full economic impact of the ICBM force and its associated bases on the ICBM states to inform claims about its power as a job creator. Creating a requirement for similar studies for subsequent major weapons programs or new defense investments would help dispel the false notion that defense spending is an effective way of creating stable, high-quality jobs.

Canceling the GBSD program and eliminating the ICBM fleet would save money without compromising security. The money saved could be invested in securing long-term economic stability for the communities that have lived for decades in the shadow of U.S. land-based nuclear missiles.

Eliminating the ICBM force would mean major changes for these local and state economies. But there is plenty of precedent for a shift toward a more sustainable economic, environmental, and national security status quo. This report's recommendations draw on this precedent to chart a better path forward for the ICBM states.

An economic impact replacement program for the ICBM force must:

- Provide employment equivalent to 10% of the current number of people employed in the immediate metropolitan area, with substantial additional opportunities for employment or business development in the towns spread across the missile fields.
- Display the potential for indefinite economic prosperity. Weapons programs with 30-year timelines may provide some benefit to the areas where they are produced and based during that time, but an alternative should have a sustainable, flexible economic composition without this relatively short expiration date.
- Adequately cover the three major areas of focus a conversion effort would have to take into account: the contractors that benefit directly from defense spending, military bases and other facilities, and the labor market

in the surrounding areas that experiences indirect job creation benefits from defense investment.

- Provide an alternative for indirect economic benefits to municipalities generated by defense investment, including education funding through property taxes financed by Department of Defense and Veterans Administration-dependent incomes and local sales tax.

Three Pathways to a Stable Future for the ICBM States

These three broad visions can be used to guide thinking and policy planning for replacing the economic impact of the GBSD program if it is canceled or reduced, or U.S. ICBMs in the event they are partially or completely eliminated:

1. **Close a base** and replace its economic impact through the Base Realignment and Closure (BRAC) process, potentially with expanded access to funding.

Developing a better alternative to the ICBM program means recommitting to the Base Realignment and Closure (BRAC) process. The last round of BRAC took place in 2005; the FY2015 NDAA explicitly prohibited further rounds. A “Green BRAC” means prioritizing long-term environmental and economic health for the region at all steps of the process. This entails increasing available funding for replacement industry or mission selection, as well as expanding and adequately funding the military role in infrastructure maintenance, construction, and environmental cleanup.

A commitment to timely rounds of BRAC as defense missions change is itself a step in the direction of environmental health, as the essential environmental cleanup aspect of the BRAC process can help control potential long-term impacts of environmental contamination originating from a former military facility. Beyond this, efforts must be made to ensure a transparent, independent, and fair process for future rounds of BRAC.

2. **Repurpose a base** with a new military mission or a mandate to address real urgent security challenges such as climate change. Such a step would not be unprecedented: Ellsworth Air Force Base, in South Dakota, was given a new mission after its ICBMs were retired. This option could

accommodate a range of more or less ambitious policy proposals, from a conventional mission reassignment to a broadening of the U.S. military's role as a force for climate change mitigation. This option could include expanding the activities of the Army Corps of Engineers (USACE) to address specific regional needs and supporting the long-term bipartisan effort to reform and build public trust in USACE.

3. **Create a regional development entity** by agreement between interested cities and states in the ICBM region to distribute federal funds currently available for climate change mitigation and infrastructure renewal, as well as potential future funding made available to facilitate the region's transition away from the ICBM as an economic anchor.

Such a program could efficiently distribute existing and future federal funding through the BRAC process, economic recovery legislation, and existing infrastructure funding as well as other sources, providing expertise and legal and regulatory frameworks to guide local implementation of an economic development program for the ICBM states.

In combination or separately, these pathways can lead to a more stable, prosperous long-term future for the ICBM states than the status quo can offer.

Introduction

The U.S. intercontinental ballistic missile (ICBM) force is based in underground silos spread across five states of the Upper Midwest and Mountain West regions. Colorado, Montana, Nebraska, North Dakota, and Wyoming are known to some as the “nuclear sponge,” nicknamed by nuclear war planners for the fact that they are meant to “absorb” a Russian ICBM strike. These states also make up almost one fifth of the surface area of the continental United States. They contain some of the country’s most valued and recognizable landmarks and national parks: Yellowstone, Mount Rushmore and Crazy Horse, as well as thousands of precious acres of tribal land. They are also an essential part of the U.S. domestic economy. These states rank among the top producers of key agricultural products that feed the United States and the world, help maintain the United States’ position as the world leader in oil production, and draw crowds of tourists every year to enjoy their natural beauty.

Since 1961, the region has hosted some of the most powerful weapons in the U.S. nuclear arsenal in fields of underground silos clustered around Air Force bases. The simple fact of the ICBMs’ presence in these states—and the existential threat they pose to life there—can be easy to miss in a region defined by its remoteness from the ostensible centers of American power. Farmers signed away portions of their land in perpetuity to the federal government to meet siting requirements determined by men in faraway offices, men often with little or no direct knowledge or experience of the regions impacted by their decisions. The missile silos sit three miles apart, guaranteeing that, in the event of a Russian strike, these fields of alfalfa and wheat would be utterly destroyed, caught in the immediate blast radius of a nuclear weapon 25-35 times stronger than those dropped by the United States on Hiroshima and Nagasaki.

Today, the region is at a crossroads: After six decades as the “nuclear sponge,” the Ground-Based Strategic Deterrent (GBSD) program, recently dubbed the LGM-35A Sentinel, will replace all existing Minuteman III ICBMs at an estimated lifetime program cost of \$264 billion.⁷ But cracks are showing in the consensus that supports the continuation of the nuclear weapons status quo.

7. “Fact Sheet: U.S. Intercontinental Ballistic Missiles,” Center for Arms Control and Non-Proliferation, January 28, 2021, <https://armscontrolcenter.org/fact-sheet-u-s-intercontinental-ballistic-missiles/>.

CHAPTER 1

THE ECONOMIC IMPACT OF THE ICBM PROGRAM

Defense spending—and especially a major program with no end date and the full support of one branch of the military, like the ICBM program—is heralded by the defense industry and its supporters in government as an invaluable source of economic prosperity for the towns and states of the nuclear sponge. Northrop Grumman, the sole bidder and awardee for the GBSD contract, trumpets its role as key job creator to both lay and professional audiences through a charm offensive of billboards, sponsored friendly media coverage, and corporate social responsibility initiatives. On the government side, the Pentagon’s Office of Local Defense Community Cooperation (OLDCC) serves as a hub for the complex network of industry representatives, lobbyists, contractors, political representatives, and government employees who sustain defense spending’s reputation as a uniquely powerful force for domestic economic development. Those who argue for even a modest reduction in defense spending are faced with the insistence that these programs are good for communities, even if they place them under direct threat of nuclear annihilation.

After over two years of the COVID-19 pandemic and the associated economic downturn, simultaneous housing, healthcare, and unemployment crises, cracks are showing in the once virtually invulnerable political armor of the defense industry, as the idea of large-scale funding shifts across budget priorities has filtered into an increasingly broad range of political demands. This has only been intensified by progressive disappointment in the Biden administration’s failure to pass the Build Back Better Act and stand up to pharmaceutical companies to break the patent on the life-saving COVID-19 vaccine, all while approving the one of the largest-ever dollar amounts for a National Defense Authorization Act (NDAA) which lays out defense funding for the fiscal year. The 2022 NDAA approved \$777.7 billion for defense programs, an increase of over \$30 billion from the previous year, including funding for Trump-era programs President Biden had promised to rein in during his presidential campaign.⁸

This moment has been a long time in the making. The War on Terror ushered in a precipitous rise in defense budgets and solidified the Congressional bipartisan commitment to national security and military spending as the first, nonnegotiable priority for government spending. The rising power and increasing militancy of far-right elements in the Republican Party, as well as an increasing Democratic consensus on austerity when it comes to the U.S. welfare state, set the country up disastrously for the COVID-19 pandemic in 2020.

8. “If future budgets reverse the choices we’ve made, and pour additional money into a nuclear buildup, it hearkens back to the Cold War and will do nothing to increase the day-to-day security of the United States or our allies.” “Biden Would Push for Less US Reliance on Nukes for Defense,” Associated Press, accessed September 21, 2020, <https://apnews.com/article/election-2020-nuclear-weapons-elections-joe-biden-russia-1299ae16f3f21db12e4a41ce2392a0f7>.

Though progressives may be the tip of the spear, there is a broad base of support for responsibly shifting federal money away from unnecessary military programs to urgent domestic policy priorities. Polling shows voters have long been ambivalent about U.S. defense spending, and recent polls show a majority would prefer to cut the military budget specifically to fund domestic programs.⁹ Meanwhile, public opinion research has long suggested a public preference for increasing spending on core public welfare issues such as education, healthcare, infrastructure development and maintenance, and housing.¹⁰

Polling on the U.S. ICBM program in particular indicates that voters by no means agree that it is irreplaceable either as a guarantor of national security or as a jobs program for missile silo host states.¹¹ 61% percent of national respondents said they support phasing out ICBMs “provided that guaranteed job and income opportunities are created to support those who are economically harmed in the process.” In the ICBM states, the number was only slightly lower, at 58% support.¹²

Defense Conversion: Turning Swords into Ploughshares

The idea of defense conversion—transferring funding, manufacturing, and personnel capacity from the military to civilian control, often as a means of addressing a non-war emergency situation—is by no means new. Military resources and personnel have been used by governments for civilian purposes in and out of wartime for as long as there have been armies maintained during peacetime. States undertaking major expansions of social spending and domestic infrastructure in the late nineteenth and twentieth centuries consistently drew on their militaries as existing reserves of resources and trained and available workforces, particularly following the First World War.¹³ During the Second World War, the United States saw substantial conversion of infrastructure and facilities built during the New Deal, particularly airports. After 1945, the industrial capacity developed to produce armaments went on to fuel the postwar economic boom.

This flexibility stemmed in part from the fact that the defense industry was still relatively small, and much less politically influential than it is today. Companies that had once made tanks could convert to making cars and washing machines with relatively little effort, especially when there were major

9. Mark Pocan, “The American People Agree: Cut the Pentagon’s Budget,” Data For Progress, accessed January 7, 2022, <https://www.dataforprogress.org/blog/2020/7/20/cut-the-pentagons-budget>.

9. Mark Pocan, “The American People Agree: Cut the Pentagon’s Budget,” Data For Progress, accessed January 7, 2022, <https://www.dataforprogress.org/blog/2020/7/20/cut-the-pentagons-budget>.

10. Pew Research Center, “Little Public Support for Reductions in Federal Spending,” Pew Research Center - U.S. Politics & Policy (blog), April 11, 2019, <https://www.pewresearch.org/politics/2019/04/11/little-public-support-for-reductions-in-federal-spending/>; Federation of American Scientists, “Public Perspectives on the US Intercontinental Ballistic Missile Force,” Federation Of American Scientists, accessed November 29, 2021. <https://fas.org/gbsd-polling/>.

11. Federation Of American Scientists, “Public Perspectives.”

12. Ibid.

13. See Robert D. Leighninger, Jr., *Long-Range Public Investment: The Forgotten Legacy of the New Deal, Social Problems and Social Issues* (Columbia: The University of South Carolina Press, 2007), Ch. 4.

profits to be made.¹⁴

But this changed with the rise of the military-industrial complex during the 1950s. The rapid expansion of the U.S. national security state following the war and the beginning of the nuclear arms race helped create a new model of a privately-owned company that relied on a steady supply of government contracts (and thus a guaranteed buyer with deep pockets) rather than traditional markets to sell their goods. These companies produced technologically advanced products with little crossover application to any broader customer base. The economic power of the military-industrial complex that then-President Dwight D. Eisenhower warned against proved stronger than the cost-saving impulse that justified the initial development of the ICBM force, and the military budget continued to grow.¹⁵

Arguments in favor of defense conversion have gained currency at moments when the U.S. military draws down forces or operations, opening space for public debate about reducing the military budget. The first of these moments occurred in the late 1960s, as public resistance to U.S. military involvement in Vietnam reached its peak. As the end of the war came into view, defense companies and their political supporters on the right, as well as liberals and the left who opposed the war, saw a potential moment of reckoning for the military-industrial complex.¹⁶ John Kenneth Galbraith's 1969 book, *How to Control the Military*, articulates the relationship between the companies that produced the materials for U.S. wars and the Department of Defense, and calls for civilian oversight and restraint:

*That we should pretend that the big specialized military contractors, those that do all or the bulk of their business with the Pentagon, much of it as the only source of supply, are really private firms—a stalwart manifestation of private enterprise—seems to me a unique bit of nonsense. There would be many advantages in recognizing the reality which is that they are public extensions of the Pentagon.*¹⁷

However, as detailed by Michael Brenes in his book *For Might and Right*, the increasingly organized American right wing had allied with military public relations and defense companies under the broad banner of anticommunism and was pushing for maintaining vigilance—in the form of level defense spending despite the end of a major military engagement.¹⁸

14. J. Davidson Alexander, "Military Conversion Policies in the USA: 1940s and 1990s on JSTOR," *Journal of Peace Research* 31, no. 1 (February 1994): 19–33.

15. Dwight D. Eisenhower, "Farewell Address," Eisenhower Presidential Library, accessed January 24, 2022, <https://www.eisenhowerlibrary.gov/research/online-documents/farewell-address>.

16. John E. Lynch, *Local Economic Development after Military Base Closures*, Praeger Special Studies in U.S. Economic and Social Development (New York: Praeger Publishers, 1970), 3.

17. John Kenneth Galbraith, *How to Control the Military* (Garden City, NY: Doubleday and Co., Inc., 1969), 7.

18. Michael Brenes, *For Might and Right: Cold War Defense Spending and the Remaking of American Democracy* (Amherst: Boston: University of Massachusetts Press, 2020), 20.

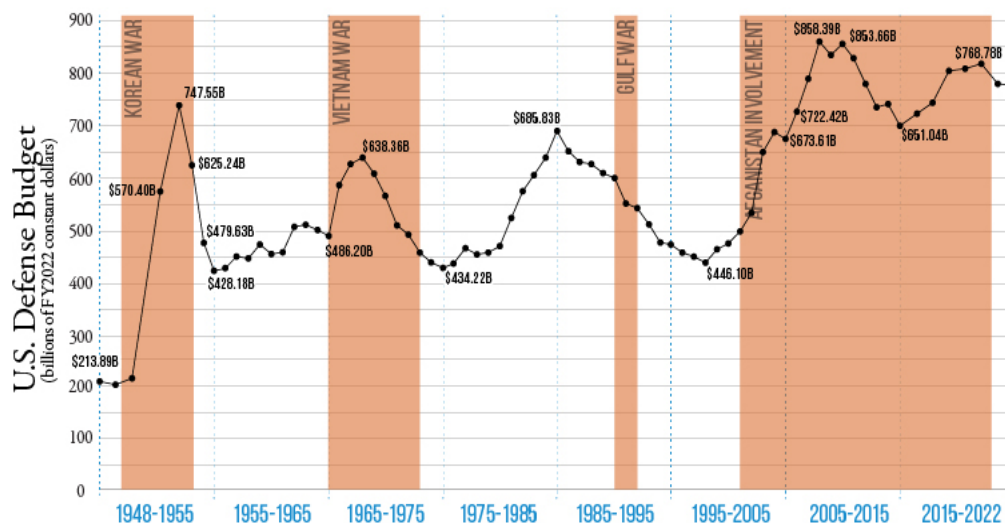
The early 1970s was indeed a watershed moment, but one that solidified, rather than weakened, the relationship between the U.S. government's war making arm and the manufacturers that served it. The 1971 government bailout of Lockheed Martin was an early "too big to fail" moment, demonstrating the extent to which the defense sector could count on government support at the expense of taxpayers.¹⁹ Instead of seeing a reduction, rates of defense spending around the time of the U.S. withdrawal from Vietnam declined only slightly before beginning once again to steadily increase.²⁰ Under the Reagan administration, the military budget would more than double, going from \$143.7 billion in 1980 to \$321.9 billion in 1989.²¹

19. "Lockheed Bailout Largest by U.S.," *The New York Times*, August 2, 1979, sec. Archives, <https://www.nytimes.com/1979/08/02/archives/lockheed-bailout-largest-by-us.html>. For an extended discussion, see William Hartung, *Prophets of War: Lockheed Martin and the Making of the Military-Industrial Complex* (New York, NY: Nation Books, 2011), Ch. 5.

20. David K. Henry and Richard P. Oliver, "The Defense Buildup, 1977-1985," *Monthly Labor Review*, August 1987.

21. In current-year dollars. See World Bank, "Military Expenditure (Current USD) - United States | Data," World Bank, accessed January 15, 2022, <https://data.worldbank.org/indicator/MS.MIL.XPND.CD?locations=US>.

FIGURE 1: U.S. DEFENSE SPENDING SINCE 1945 AND MAJOR U.S. WARS



Source: "National Defense Budget Estimates for FY 2022" (Office of the Under Secretary of Defense (Comptroller), August 2021), https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2022/FY22_Green_Book.pdf.

During the economic crisis of the early 1970s, concern over the decline of U.S. industry rose and defense conversion gained popularity as a pointed critique of U.S. investment in its military at the expense of more active efforts to develop and maintain other industries. Leading defense conversion theorists such as Seymour Melman attributed the global economic slump of the period to explicit policy choices that allowed infrastructure and business assets in the U.S. to go unmaintained while investment went disproportionately to military manufacturing.²²

In a moment when many sought an explanation for global economic decline, Melman and others traced the deleterious effects of the expansion of the U.S. defense industry to the heart of the problem. Melman argued that the

22. Seymour Melman, *The Demilitarized Society: Disarmament and Conversion* (Montreal: Harvest House, 1988), Prologue.

defense industry, with a guaranteed buyer, practiced “cost maximizing” and sucked private investment away from other areas of American manufacturing that had to minimize costs in order to maintain profitability.²³ The trend, he argued, gave rise to a massive coterie of managers trained in cost-maximizing as a fundamental principle of their professional practice, making them less fit to work in other industries and spreading the rot into the federal bureaucracy. Melman’s vision of economic conversion in its fullest form would have entailed substantial changes to the structure of the U.S. economy, including the founding of a national governing body to direct economic conversion and alternative-use committees at important plants that included labor and community input, as well as the redirecting of funds to defense-dependent communities. In its slightly less ambitious form, defense conversion, or “economic conversion,” was the watchword for a vision of rigorous regulation which managed firm-level transitions to the production of goods for civilian markets combined with a gradual drawdown in military spending.

23. Ibid., 11-12.

The argument that the growth of the defense industry is at fault for the decline of American manufacturing and the economic downturn of the early 1970s is, at best, an overstatement. But the two phenomena are likely related: The growth of the defense industry and the U.S. government’s deepening commitment to large-scale defense spending were almost certainly driven by a need to secure private profits for politically influential business leaders in a time of profound economic instability. As unemployment rose, this instability was felt at all levels of society. It was at this moment that the argument that the defense industry was an essential source of domestic jobs gained popularity.²⁴

24. Brenes, personal communication.

These arguments would reappear in the 1990s, following the collapse of the Soviet Union. A sizable reduction in U.S. defense spending, combined with a now firmly entrenched belief in the direct connection between defense spending and domestic employment levels, prompted renewed interest in converting defense funding and infrastructure for civilian purposes.²⁵ However, defense budget reductions once again remained moderate, and serious interest in conversion remained mostly confined to policy circles. Funding levels would hold relatively steady throughout the decade before their sharp rise following 9/11.²⁶

25. An n-gram search reveals peaks for “economic conversion” and “defense conversion” occurred between 1969-1973 and 1991-1995.

26. “SIPRI Military Expenditure Database,” Stockholm International Peace Research Institute, accessed January 15, 2022, <https://www.macrotrends.net/countries/USA/united-states/military-spending-defense-budget>.

The 21st century has seen an increase in military spending that dwarfs that of previous eras. The War on Terror provided a blank check for military expansion as the United States attempted to wage a frontless war with no price too high to pay in pursuit of domestic security. But when calls for government investment in healthcare, education, and housing are met with concern from

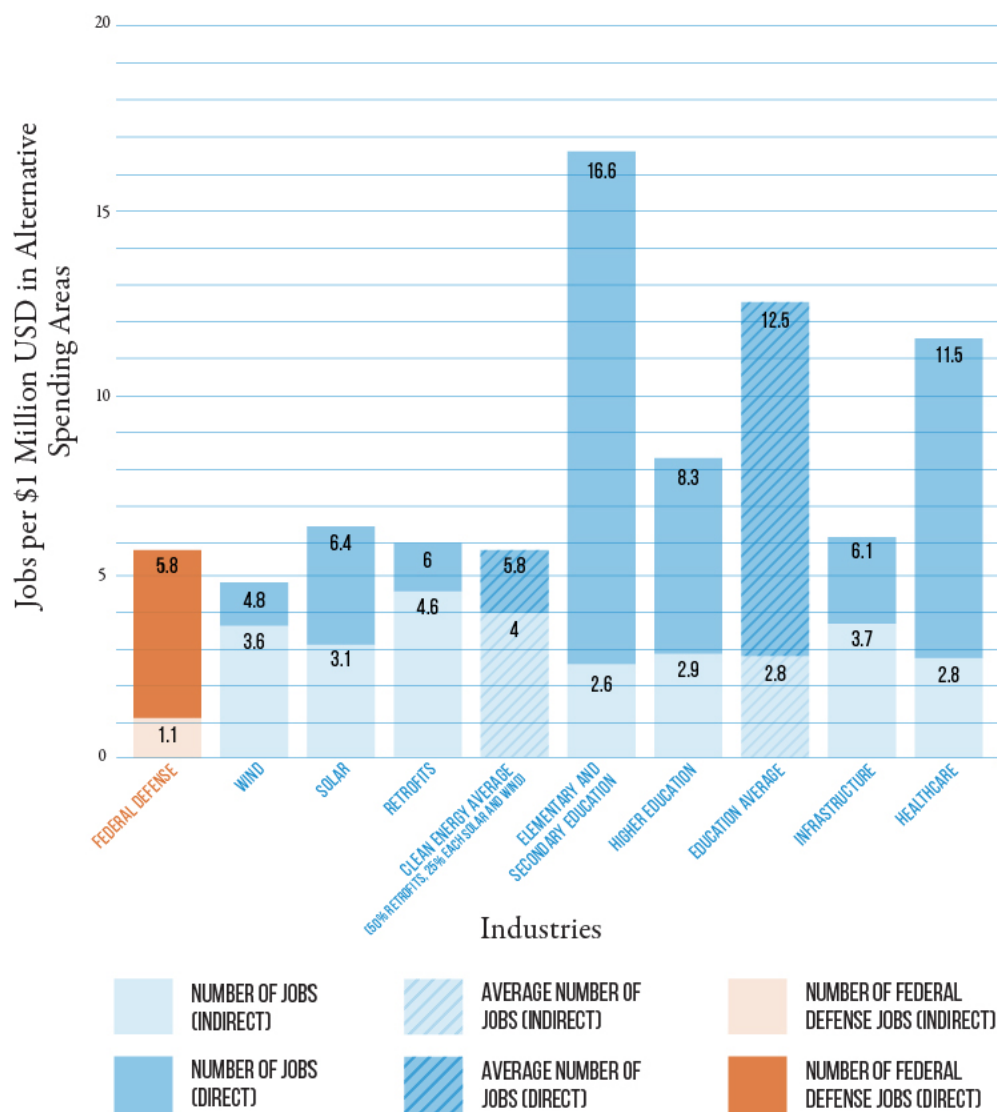
lawmakers over the potential consequences of deficit spending, defense conversion can create opportunities for policymaking that prioritizes real fiscal responsibility, economic development, and meeting Americans' basic needs.

Research has found that while investment in infrastructure has been shown to increase profitability of private business, investment in defense shows no such side benefits. Inasmuch as it takes the place of government investment in basic infrastructure, it reduces the overall rate of profit for private companies.²⁷ And, as will be discussed in depth later in this report, a similar effect can be seen where jobs are concerned: defense is one of the least productive industries where investment translating to job creation is concerned.²⁸ Whether or not the rise of the defense industry can be credited with destroying the global economy and American post-war economic prosperity, earlier work on defense conversion critically examined an industry that all too often escapes close scrutiny. This work produced insights into what it would take to transition a company from producing weapons of war to ventilators (to recall a recent example) and other essential goods.

27. "Research studies have suggested that investments in core infrastructure have a direct impact on the performance of the private economy (Heintz, 2010; Aschauer, 1989; Munnell, 1990). This is in addition to the direct benefits that public investment confer to the population – i.e. roads help people get around as well as improving the efficiency of businesses. However, investments in defense assets do not show a similar positive effect on economic performance (Aschauer, 1989). To the extent that investment in defense displaces public investments in basic infrastructure, the productivity of the private sector suffers." James Heintz, "Military Assets and Public Investment," (Providence, RI: Political Economy Research Institute, June 14, 2011), 2-3.

28. Heidi Garrett-Peltier, "Job Opportunity Cost of War," Watson Institute of International and Public Affairs, Brown University, May 24, 2017.

FIGURE 2: DEFENSE INDUSTRY JOB CREATION COMPARED WITH OTHER INDUSTRIES



Source: Garrett-Peltier, "Job Opportunity Cost of War."

Today, we find ourselves at an inflection point: just as in the early 1970s and 1990s, the U.S. has just ended a major military engagement, this time in Afghanistan. The past two years have demonstrated how investing in the military to the exclusion of all other sectors can profoundly compromise the United States' ability to address real security threats. Yet even now, the Biden Administration, with support from many members of Congress, is pushing to increase the defense budget by tens of billions of dollars, citing the war in Ukraine as a major motivation.²⁹ Now is the time to revisit earlier arguments and strategies for reducing military spending with a focus on building a livable future for the long term.

29. "The Department of Defense Releases the President's Fiscal Year 2023 Defense Budget," U.S. Department of Defense (blog), accessed March 28, 2022, <https://www.defense.gov/News/Releases/Release/Article/2980014/the-department-of-defense-releases-the-presidents-fiscal-year-2023-defense-budget/>; Peter Musurlian; "40 Lawmakers Call for 5% Increase in Defense Budget," Federal News Network, March 24, 2022, <https://federalnewsnetwork.com/federal-newscast/2022/03/40-lawmakers-call-for-5-increase-in-defense-budget-2/>.

Why Nuclear Weapons?

U.S. investment in nuclear weapons has increased in recent years: the Trump administration approved two new nuclear weapons programs that were maintained in the Biden administration's first budget proposal and approved by Congress for funding for the 2022 fiscal year.³⁰ The U.S. has reached a high point of nuclear overkill for the post-Cold War period, despite expert consensus that it could eliminate a substantial number of the nuclear weapons in its arsenal without compromising security. The ICBM program in particular has faced longstanding credible arguments for its status as a security vulnerability. It has seen a movement to explore other alternatives to its replacement.

The strategic landscape has changed considerably since ICBMs were introduced as an affordable way to guarantee U.S. security. The “nuclear triad”—air-, sea-, and land-based nuclear weapons—has been accepted as the fundamental tenet of U.S. weapons strategy, vigorously and publicly defended by military and civilian supporters of its nuclear weapons program.³¹ This is despite the fact that the “triad” concept took shape largely as an *ex post facto* justification driven by how the weapons themselves were developed, rather than as a consciously crafted, coherent strategy.³²

These weapons also present a profound existential risk—particularly, though by no means exclusively, to the region where they are based. ICBMs are kept on launch-ready status, meaning that they can be launched within minutes of receiving an order. Current U.S. launch protocol leaves less than 15 minutes for the President to decide whether to order a nuclear strike on warning of a possible incoming first strike. Once an ICBM is launched, it cannot be recalled. This leaves ample room for false information to lead to an accidental first strike; there are well-documented “near misses” that could have led to nuclear catastrophe.³³ Once an ICBM strike is launched, its recipient may see little reason not to immediately launch one in return, knowing that otherwise their own force will be rendered unusable in just a few minutes.

The United States can meet its strategic needs without land-based missiles, instead relying on nuclear-armed submarines and a reserve force of bombers. Unlike land-based missiles, which are vulnerable to a first strike by a U.S. adversary, submarines make up a survivable second-strike force capable of deterring potential first strikes and are less vulnerable to the “use-it-or-lose-it” pressures of the land-based force. Within the realm of nuclear weapons infrastructure, a much more urgent priority would be to strengthen U.S.

30. Adam Smith, “Text - H.R.4350 - 117th Congress (2021-2022): National Defense Authorization Act for Fiscal Year 2022,” legislation, March 1, 2022, 2021/2022, <https://www.congress.gov/bills/117th-congress/house-bill/4350/text>.

31. Matt Korda, “Siloed Thinking: A Closer Look at the Ground-Based Strategic Deterrent,” *Federation Of American Scientists* (blog), accessed January 24, 2022, <https://fas.org/pub-reports/siloed-thinking-a-closer-look-at-the-ground-based-strategic-deterrent/>.

32. Donald MacKenzie, *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance* (Cambridge, MA, USA: The MIT Press, 1993).

33. Jessica Sleight, “Seven Things Mistaken for an Incoming Nuclear Attack,” *Global Zero*, May 26, 2016, <https://www.globalzero.org/updates/seven-things-mistaken-for-an-incoming-nuclear-attack/>.

command, control, and communications infrastructure to ensure a survivable U.S. nuclear retaliatory strike capability.³⁴

It is worth dwelling for a moment on the deadly paradox that underlies the presence of the ICBM force in the states of the “nuclear sponge.” Though exact launch protocol for ICBMs has varied over the system’s lifetime, these weapons are meant to be used en masse, not one at a time, in order to make sure Russia’s own silo-based ICBM force is destroyed.³⁵ Each of the 400 warheads carried by the U.S. ICBM force has a payload of either 300 or 335 kilotons—roughly 20 times the explosive force of the bomb dropped on Hiroshima.³⁶ Russia’s ICBM force is positioned to leave the ICBM states vulnerable to a strike of similar severity. The destructive impact of such a strike on the U.S. would by no means be localized to the areas where the weapons had been based. Nowhere and no one on earth would be able to escape the extended effects of such an exchange, which would disrupt global food supplies, cause a global economic upheaval that would dwarf that precipitated by the COVID-19 pandemic, and create environmental damage far beyond the borders of the United States. But the area around the missile fields, said to benefit so fundamentally from their presence, would be completely destroyed, blanketed with deadly radiation, and rendered unsuitable for agriculture for years.

It is urgent to cancel the program sooner rather than later. When Congress approves a defense contract, they cannot necessarily obligate future Congresses to commit funding to those contracts. Contracts can be terminated “for default” if the contractor, for whatever reason, cannot complete the project. But if the project is deemed unnecessary because of changing strategic requirements—or changing funding priorities—a contract can be terminated “for convenience.”

Individual contracts have clauses specifying the necessary procedures for cancellation—specifically, how much the government is obligated to pay in the case that they cancel the contract. In addition to this, contracts are gradually paid out throughout the duration of the contract period. A defense contract moves through a series of set stages: Basic Development, Full-Scale Development, Initial Production, and Full-Rate Production. Contracts are moved through the stages by the Defense Acquisition Board, a subsidiary of the Joint Chiefs of Staff. Once a contract moves into Initial Production, it is all but impossible to cancel—the bulk of the investment in research and development and new production capacities has already been made.

This means that time is of the essence to recoup as much money as possible

34. For a report-length exploration of this argument, please see Global Zero’s Bruce Blair, Jessica Sleight, and Emma Claire Foley, “The End of Nuclear Warfighting: Moving to A Deterrence-Only Posture,” (Washington, D.C.: Global Zero, September 2018), <https://www.globalzero.org/reaching-zero/the-end-of-nuclear-warfighting/>.

35. Gretchen Heefner, *The Missile Next Door: The Minuteman in the American Heartland* (Harvard University Press, 2012), 25.

36. By way of comparison, the bomb dropped on Hiroshima had a 15-kiloton payload, and the bomb dropped on Nagasaki had a 21-kiloton payload. “Minuteman III,” *Missile Threat*, accessed January 24, 2022, <https://missilethreat.csis.org/missile/minuteman-iii/>.

from the GBSD contract. Compelling arguments have been made for extending the life of the existing ICBM force before considering its replacement or elimination.³⁷ But these arguments make little sense from the perspective of potential reinvestment, as refurbishing existing weapons would save relatively little money as compared with replacing them. The perspectives and recommendations presented in this report presume cancellation of the program and redirection of its full cost, though depending on the stage of the contract when it is canceled the amount of money recouped may be somewhat less.³⁸

Networks of Support

Supporters of the U.S. ICBM program within Congress are highly organized. Though there is no true broad base of public support for the program, there is a complex network of supporters in Washington, the defense industry, and the ICBM states that has worked hard for decades to maintain the missile program and the bases that house it. Members of the Senate's ICBM Caucus, most of whom represent the ICBM states, lead the charge on Capitol Hill to make sure the program is not reduced or eliminated.³⁹ Military leaders and members of Congress consistently cite the program's perceived importance to national security as well as its role as a key source of employment for the ICBM states.

The economic benefits of the program for the ICBM states are, based on available data, neither unique nor irreplaceable. But the economic benefit of the program for the Members of Congress who go to bat for it—in the form of generous donations from industry—is clear and easily traced. From 2012 to 2020, Northrop Grumman and its major subcontractors gave nearly \$1.2 million to members of the Senate ICBM coalition, including over \$600,000 to Mitt Romney during his presidential campaign. Spending on lobbying has been even more monumental: the top 11 contractors working on the ICBM program spent nearly \$120 million on 380 lobbyists in 2019 and 2020 alone. The fruits of this effort have been many. The ICBM coalition has mobilized to defeat efforts to explore alternatives to replacing the ICBM force, blocked attempts to reduce or eliminate ICBM funding, and even limited the New Strategic Arms Reduction Treaty (New START)'s reduction of the ICBM force.⁴⁰

The effort to maintain support for the program extends far beyond the congressional level. A complex network of local government and business leaders, military officials, and defense contractors (both in ICBM states and in Washington) advocate for maintaining the bases and the ICBM mission and encourage public acceptance of its ongoing presence.

37. See Korda, "Siloed Thinking," 91-106.

38. This approach can be justified as a way of providing a general set of alternatives tailored to the states in focus in the event of the elimination of the ICBM program; in theory, money for reinvestment in these communities could come from another source. Also, it is generally expected that the GBSD program will experience typical cost overruns, meaning that the amount actually saved by cancelling the program could be even greater than the initial lifetime estimated value of the contract. By way of illustration, see how much has already been tacked on to the contract: https://www.usaspending.gov/award/CONT_AWD_FA821920C0006_9700_-NONE_-NONE-.

39. "Senators from states with an economic stake in the ICBM mission have included Republican senators John Hoeven (N.D.), Kevin Cramer (N.D.), Steve Daines (Mont.), Mitt Romney (Utah), Mike Lee (Utah), and John Barasso (Wyo.) and Democratic Senator Jon Tester (Mont.). Senator Cynthia Lummis (R-Wyo.), who replaced Senator Mike Enzi (R-Wyo.) at the end of 2020, has been a vocal proponent of ICBMs and the ICBM mission and introduced several pro-ICBM amendments while a member of the House of Representatives." 1. "Inside the ICBM Lobby: Special Interests Or the National Interest? | Arms Control Association," accessed March 4, 2022, <https://www.armscontrol.org/act/2021-05/features/inside-icbm-lobby-special-interests-national-interest>.

40. Ibid.

Local advocacy groups, created and supported by Chambers of Commerce or other local government entities in the major cities near the Air Force bases, serve as hubs for lobbyists, military officials, and defense industry representatives who visit the states of the nuclear sponge from Washington, D.C. and elsewhere to encourage community support for continued defense investment. At the same time, these groups hire their own lobbyists (paid for by funds apportioned from sales tax revenue for job creation as well as private donations) who specialize in base and contract retention. These groups emerged out of the Base Realignment and Closure (BRAC) process during the 1990s as states and municipalities jockeyed to preserve local defense installations.⁴¹ They have also in some cases successfully advocated for increased investment around the budget and contract award process.⁴²

The relationship of defense companies to the Department of Defense is highly cooperative and collaborative when it comes to securing Congressional approval for new programs and their implementation. This is all the more true now that resistance from within Congress has made another round of BRAC—which would require the Department of Defense to recommend bases for closure—in the near future seem unlikely.⁴³ These relationships are sustained by regular visits by high-level officials, including Secretaries of Defense, to the communities around the bases.⁴⁴ The Air Force also employs Civil Liaison Officers, whose job it is to maintain relationships with community members and ensure continuing acceptance of the Air Force's presence.⁴⁵

State-Level Economic Effects of the ICBM Program

Claims about the economic impact of the ICBM program must be carefully evaluated. To date, there has been no comprehensive independent study of the economic effects of the program on the region where the weapons are based. This report gathers existing claims and figures to suggest necessary parameters for an economic development program to replace the possible full extent of the program's economic impact. But such a study is sorely needed to bring clarity and accuracy to policy conversations around the issue. The recommendations will suggest possible models for the scale and stakeholders for such a study.

It is very difficult to accurately evaluate claims about the program's benefit to the cities and towns of the ICBM states, particularly specific job counts or income numbers that come from the program. Northrop Grumman's website claims that ICBM jobs will be spread across 125 facilities in 32 states and that the GBSD program will "involve over 10,000 people across the United States directly working on this vital national security program"—a verbal sleight-

41. Chapter 2 discusses the BRAC process and its implications for ICBM elimination in depth.

42. I am particularly grateful to Tricia White for sharing her insights on this topic. "Task Force History," *Minot Daily News*, November 12, 2017, <https://www.minotdailynews.com/news/local-news/2017/11/task-force-history/>; "BRAC," *Great Falls Tribune*, February 18, 2005; Greater Cheyenne Chamber of Commerce, "Wyoming Business Advocates," Greater Cheyenne Chamber of Commerce, January 11, 2019, <https://www.cheyennechamber.org/post/wyoming-business-advocates>.

43. Lou Barletta, "Text - H.R.3979 - 113th Congress (2013-2014): Carl Levin and Howard P. 'Buck' McKeon National Defense Authorization Act for Fiscal Year 2015," legislation, December 19, 2014, 2013/2014, <https://www.congress.gov/bill/113th-congress/house-bill/3979/text>.

44. Robert Burns, "Pentagon Chief Visits Nuke Base to Highlight Weapon Spending," *Associated Press*, February 20, 2020, <https://apnews.com/article/a0601c7a0b6025deaa06d0cccd444497>.

45. I am grateful to the activist who told me in an interview that a ballot measure to reduce the nuclear force in the 1980s was defeated when these officers "spoke to every clerk and recorder in Montana."

of-hand that further obscures how many new jobs will actually result from the program.⁴⁶ These claims are impossible to evaluate based on publicly available information. More relevant, however, is the fact that the states that play host to land-based missiles are not hubs for research and development or manufacturing, which would presumably absorb the strong majority of the job-creation benefits of the GBSD program.⁴⁷

The Department of Defense, by its own admission, spends relatively little in terms of direct investment on the ICBM states. With the exception of Colorado, which hosts several other major military facilities—as well as extensive research and development facilities for more than one major defense company—these states rank dead last in per-state defense spending.⁴⁸ This spending also makes up a relatively low percentage of these states’ gross domestic product (GDP) relative to other states, calling further into question the idea that the relatively low numbers have to do with these states’ relatively low populations.⁴⁹ However, because these are rural states, the impact of this spending is somewhat magnified, both by the bases’ historical role as central economic engines for major cities and because of additional services which they provide that extend past state borders, such as road maintenance.

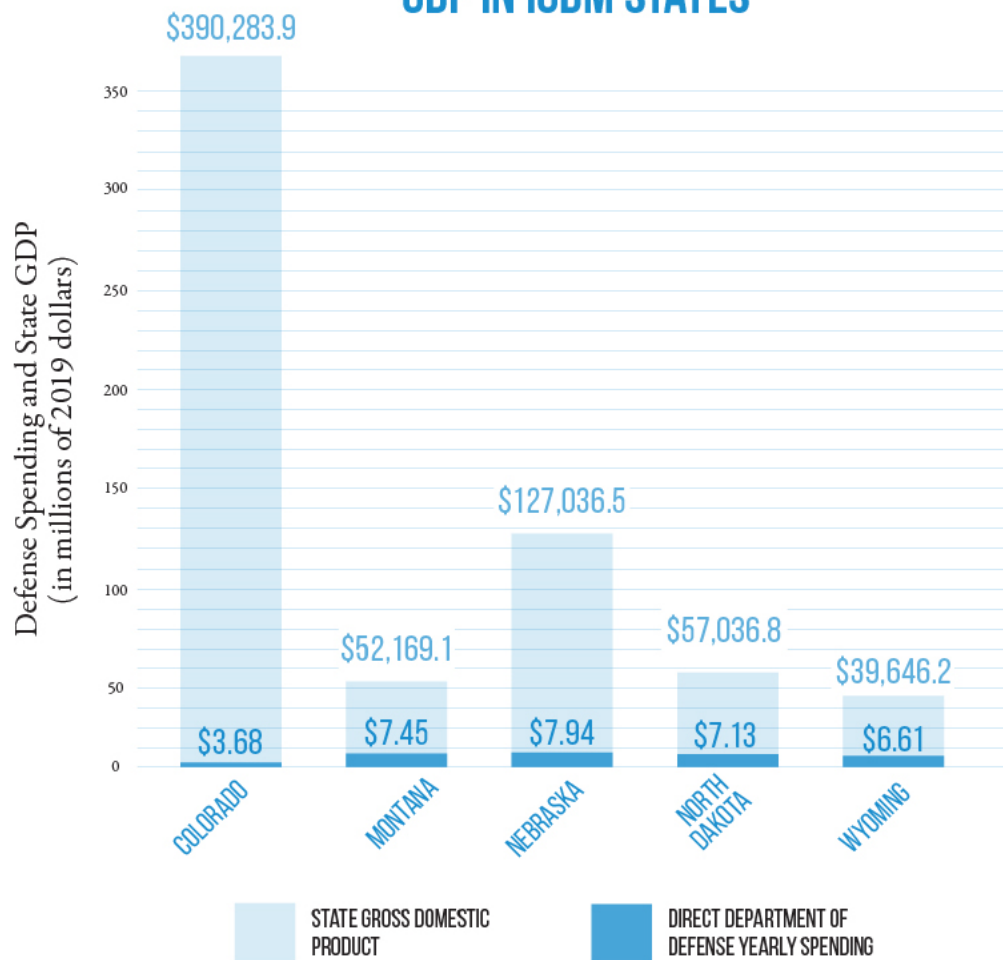
46. “Northrop Grumman Announces Nationwide Team for Ground Based Strategic Deterrent (GBSD) Program.” Northrop Grumman Newsroom, accessed March 20, 2022, <https://news.northropgrumman.com/news/releases/northrop-grumman-announces-nationwide-team-for-ground-based-strategic-deterrent-gbsd-program>. Also see Hartung, “Inside the Arms Control Lobby” (article).

47. By way of a rough illustration, the Northrop Grumman “Ground-Based Strategic Deterrent Careers” page lists jobs in Utah, Colorado, Nebraska, and Alabama—only one of which (Colorado) has ICBM silos. “Ground Based Strategic Deterrent Careers,” Northrop Grumman, accessed March 4, 2022, <https://www.northropgrumman.com/ground-based-strategic-deterrent-careers>.

48. Montana ranks 47th of the 50 states and DC, at \$700 million; North Dakota 45th, at about \$800 million; South Dakota 49th, at about \$600 million; Wyoming 50th, at about \$600 million; and Colorado 17th, at \$10.6 billion. All figures drawn from the U.S. Department of Defense Office of Local Defense Community Cooperation Defense Spending by State Fiscal Year 2019 report: “Defense Spending by State, Fiscal Year 2019” (Arlington, VA: US Department of Defense Office of Local Defense Community Cooperation, 2019).

49. As of March 2021, Colorado ranks 16th, Nebraska 35th, North Dakota 46th, Montana 47th, and Wyoming 49th. “U.S. Gross Domestic Product (GDP), by State 2020,” Statista, accessed March 20, 2022, <https://www.statista.com/statistics/248023/us-gross-domestic-product-gdp-by-state/>.

FIGURE 3: DEFENSE SPENDING RELATIVE TO STATE GDP IN ICBM STATES



Source: U.S. Department of Defense Office of Local Defense Community Cooperation, "Defense Spending by State, Fiscal Year 2019;" Statista, "U.S. Gross Domestic Product (GDP), by State 2020."

To arrive at an accurate estimate of the total economic benefit of ICBMs to the states and communities where they are based, the full range of sources of funding and the pathways through which it is spent must be considered. Most obvious among these sources is money from the military budget which is allocated to weapons programs and related infrastructure and then doled out to contractors, who in turn hire workers and build facilities. However, there are additional pathways through which the Department of Defense and other federal agencies invest money in creating and maintaining the necessary infrastructure to allow defense production to continue. For example, there are the businesses that open or relocate to areas where either defense production is centered or where troops and facilities are based as a response to the needs of a growing population. And there is the additional factor of corporate spending on towns and cities where their facilities and personnel are based in the form of philanthropic and corporate social responsibility initiatives.

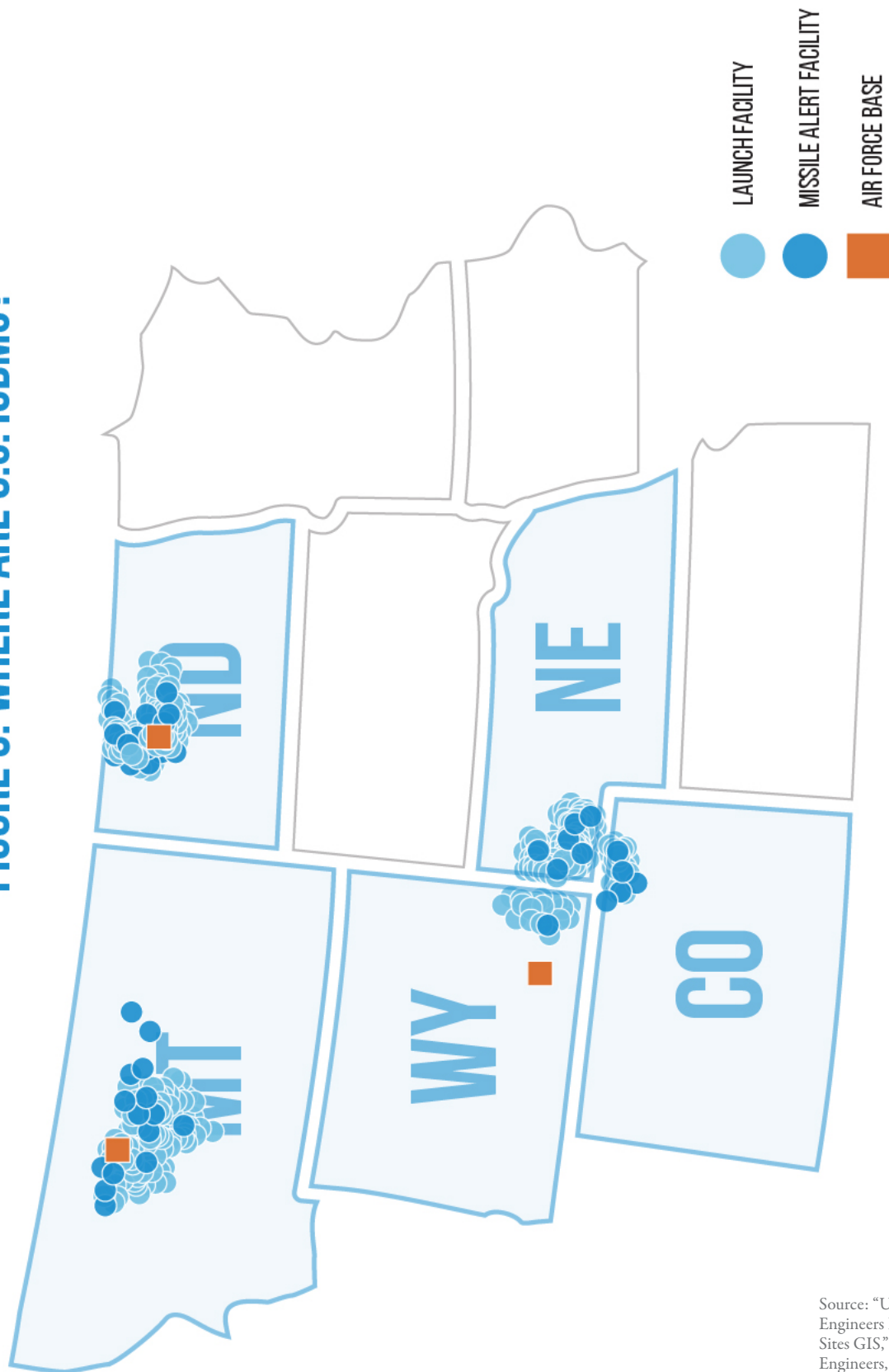
The complexity of state and local economies, along with limits on the amount of publicly available details on defense and corporate spending, make it very difficult to construct precise estimates of the economic impact of the ICBM program in its host states. When specific estimates of economic impact are available, they are generally derived from assessments produced by the Air Force, with little transparency on how their estimates were calculated. Accurately estimating this impact is further complicated in the ICBM states by the dispersed nature of the ICBM silos, where missileers stock up for long shifts in the small towns that dot the missile fields, thus increasing the number of municipalities that can claim significant economic benefit from the program. However, by consulting reports by city and state governments, defense contractors, and the federal government (as well as existing independent research), it is possible to arrive at an approximation of the perceived economic impact of the ICBM force, and the potential economic impact of the GBSD program. This estimate can be used to design alternatives to continued over-investment in defense that provide durable economic benefit to impacted communities.

The cities where these bases are located grew along with the bases themselves. What became F.E. Warren Air Force Base had been a military installation since the 1860s and was active through World War II before being converted to an Air Force base in 1947. Cheyenne is unique among the base-connected cities of the nuclear sponge in being a state capital. As such, it is arguably less dependent on the base as a source of economic activity and population fluctuation, but the fortunes of the base have still been closely tied to those of the city. Cheyenne's highest jump in population was tied to the arrival of the Air Force Mission: a spike of 42.1% between 1940 and 1950.⁵⁰ Similar figures can be cited for Minot and Great Falls, with a 38.9% and 40.9% increase respectively for the decades during which the Air Force bases were established.⁵¹

50. "Historical Decennial Census Population for Wyoming Counties, Cities, and Towns," U.S. Bureau of the Census, accessed January 10, 2022, http://eadi.state.wy.us/demog_data/pop2000/cnty_city_hist.htm.

51. "Decennial Census of Population and Housing," U.S. Bureau of the Census, accessed January 10, 2022. <https://www.census.gov/decennial-census>.

FIGURE 5: WHERE ARE U.S. ICBMS?



Source: "U.S. Army Corps of Engineers Formerly Used Defense Sites GIS," U.S. Army Corps of Engineers, <https://www.usace.army.mil/Missions/Environmental/Formerly-Used-Defense-Sites/FUDS-GIS/>.

The states report a somewhat greater overall economic impact from the presence of the bases than the cities that surround them. The Montana state legislature cited a total “economic impetus” of Malmstrom AFB at \$655 million in a bill for the current 2021-2022 economic session, up from \$610 million in the 2013-2014 session. Additional benefits are cited: “more than \$53 million” in contracts to local developers, “more than \$9.4 million” spent by the base on utilities, and 7,500 miles of roads maintained by the base.⁵⁷ These figures also come from the Air Force, and recent legislation having to do with the economic impact of the bases on the states cites Air Force figures as well.⁵⁸ F.E. Warren Air Force Base is the largest employer in the state of Wyoming, providing about 1.3% of total statewide employment and 7.2% of local employment, and Minot Air Force Base accounts for 1.5% of employment in the state of North Dakota.⁵⁹ An independent study of the Department of Defense’s economic impact on Colorado included county-by-county employment figures, but no separate analysis of the impact of the ICBM silos specifically.⁶⁰

Each of the three bases releases an annual economic impact analysis. In some cases, state and city financial departments produce estimates of military-related employment or other related measurements that can provide information about the economic impact of the base. In 2015 the Colorado Department of Military and Veterans Affairs conducted a study of the full economic impact of military activities in the state; a subsequent report was commissioned from a private firm in 2018.⁶¹ No state regularly conducts a holistic assessment of the economic impact of military presence in the state.⁶²

This lack of objective data makes sense from a political perspective: economic impact assessments are produced primarily as a rhetorical tool to argue for the continuation of the bases and their missions. They tend to be focused on influencing the BRAC process, as legislators and advocates within states work to prevent the shift of reallocated defense dollars away from their interests. At moments when there have been strong grassroots movements for eliminating the ICBMs, competing economic assessments have served as a resource for anti-nuclear activists.⁶³

How Are These Estimates Calculated?

Dollar estimates of economic impact conducted by the Department of Defense use tools called multipliers to estimate the economic impact of spending on a given area and determine approximate effects of economic impact of spending

57. Roger A. Hagan, “An Act Establishing a Military Strategic and Economic Impact Task Force Concerning Retention and Development of Military Installations and Force Structures to Provide Economic Development Opportunities in Montana; Allocating the Task Force to the Department of Commerce for Administrative Purposes; Providing for Task Force Membership, Expense Reimbursement, and Duties; Providing Appropriations, and Providing an Effective Date,” Pub. L. No. HB 579, February 16, 2021, <https://leg.mt.gov/bills/2021/LcHtml/LC0998.htm>.

58. Ibid. I am grateful to the staff of the Montana State Legislature and state-level agencies who kindly helped me verify the source of this data.

59. Hartung, “Inside the ICBM Lobby,” (report), 20-21.

60. Larimer and Logan counties, which host the vast majority of Colorado’s ICBM silos, were among the least impacted by DoD spending of any kind. Paul Rochette, Shannon Anderson, and Tom Binnings, “The Economic Impact of Department of Defense, Veterans and Military Retirees, and the Department of Veterans Affairs Activities in Colorado,” (Summit Economics, LLC, 2017).

61. Paul Rochette, Shannon Anderson, and Tom Binnings, “The Economic Impact of Department of Defense, Veterans and Military Retirees, and the Department of Veterans Affairs Activities in Colorado.”

62. Ibid., 19. Analyses of the economic impact of military spending on states have had to grapple with the opacity and complexity of how operations and construction of military facilities are funded, both of which would obviously be major components of the economic impact of GBSD.

63. See Mark Anderlik, “The Economic Impact of Malmstrom Air Force Base on North-Central Montana: The Rest of the Story” (Missoula, MT, June 1987).

on a given area and determine approximate effects of economic changes on employment in a given area.⁶⁴ In this case, the economic impact of a base is estimated by tallying “final user expenditures,” defined as “people and organizations that purchase a finished or final product.” This includes payroll, construction, and utilities, as well as goods and services. A previously calculated multiplier is then applied to determine the amount of income that will be generated for military staff and contractors, income transferred over to the local merchants and business owners at whose establishments it is spent. The job creation impact of a given amount of spending is estimated from this number. Air Force guidance on producing economic impact reports specifies that the primary job creation mechanism assumed by this process is increased income to local businesses precipitating additional hiring, as well as the hiring or relocation of additional Air Force personnel.⁶⁵

Economic impact information is periodically updated based on changes in fundamental economic data for a given area, but the multipliers used to estimate the potential employment benefit to a given area from new or continued military investment have not been tailored to the particular economic conditions of each state, nor have these calculations been updated in nearly 30 years to reflect the profound economic changes that have occurred during that time.

Air Force-produced assessments that cite a source for the multipliers they use reference a process developed by the Office of Economic Adjustment, an office in the Department of Defense which oversaw the BRAC process during the 1995 round. But research conducted by the Government Accountability Office (GAO) and others has suggested that the Air Force multipliers might exaggerate the actual number of jobs created.⁶⁶ The GAO review of the methodology used to calculate the multipliers cited several issues which might have led to an overstated employment impact. This includes a reliance on data from relatively populous areas, which could lead to an overstatement of the jobs impact of spending on rural areas, an issue of obvious relevance for the ICBM states which rank near last in population size. There were also concerns stemming from a review by the Department of Commerce’s Bureau of Economic Adjustment which determined that multipliers were not tailored to the particular areas where they were used. Additionally, they did not account for the reutilization of land that had previously been part of a military installation or potential employment opportunities that might flow from it. As a result, estimates produced using these multipliers might paint an unnecessarily dire picture of post-base closure economic prospects.⁶⁷ While a

64. “IMPLAN Pro: Case Study - Working with Military Bases: Examining Base Closure,” IMPLAN Group, accessed January 20, 2022, <https://support.implan.com/hc/en-us/articles/115009542347-IMPLAN-Pro-Case-Study-Working-with-Military-Bases-Examining-Base-Closure>.

65. “Air Force Manual 65-506”, U.S. Air Force, September 6, 2019.

66. Benjamin Zycher, “Economic Effects of Reductions in Defense Outlays” (Washington, D.C.: Cato Institute, August 8, 2012), <https://www.cato.org/policy-analysis/economic-effects-reductions-defense-outlays>.

67. Later research shows that land reutilization and the increase in property tax revenues resulting from privatization of land has been in many cases the deciding factor in increasing economic prosperity in an area after base closure. For referenced criticisms of the multiplier, see Government Accountability Office, see “Military Bases: Analysis of DoD’s 1995 Process and Recommendations for Closure and Realignment” (Washington, D.C.: Government Accountability Office, April 1995).

2019 Air Force manual mandates the use of alternate multipliers to estimate economic impact, recent impact reports issued by the bases appear to use the earlier methodology.⁶⁸

68. Glenn Robertson, "2019 Economic Impact of F. E. Warren." Once again, I am grateful to Tricia White for sharing her insights on the multiplier issue from her unpublished work on the topic.

There are several additional issues with this approach: First, the original calculation was made to predict jobs taken away in the event of a base closure. To use the same calculation to understand the addition of new missions to an existing base ignores the very different scale and composition of the changes in the labor market that would come from the replacement of an existing missile mission. Second, an accurate assessment of the indirect employment effects of a given program requires a more nuanced sense of how large-scale changes in economic inputs reshape the economy of an area, beyond simply expanding the capacity of existing businesses to hire additional workers. An assessment of the economic impact of the GBSD program meant not to reassure and shore up support for the program, but to enable informed policy choices, should take into account the particular economic situation of the given area, evaluate continued large-scale defense investment as one of several choices to allow for long-term, sustainable prosperity, and draw on a broad base of local expertise.

It is clear that the vast majority of available information about the economic impact of Air Force bases, the ICBM program, and defense spending in general is geared toward maintaining the impression of its economic indispensability. A successful, just economic transition for the ICBM states will have to take into account the many pathways by which the money invested in the ICBM program (and the money committed to GBSD) reaches, or is perceived to reach, communities on the ground in the ICBM states. A comprehensive, rigorous economic study of the full impact of the bases and the ICBM program on these states would provide an invaluable resource for advocates, legislators, and local governments to craft a practical, workable vision for a future beyond dependency on excessive defense spending, as well as for state officials and economic researchers.

Existing economic modeling tools used for economic impact analysis have been used to approximate the economic impact of base closures and the reapportionment of staff and missions.⁶⁹ These are potentially useful tools, but a publicly funded, methodologically transparent study would benefit from access to information and expertise on the intricacies of defense spending and acquisitions, as well as the ability to determine precisely which funding streams can be traced back to specific missions such as the ICBM force.

69. "IMPLAN Pro: Case Study - Working with Military Bases: Examining Base Closure."

Replacement Program Parameters

The available data suggests useful concrete parameters for conceiving of the necessary scale of an effective economic development program. A replacement program must:

- Provide employment equivalent to 10% of the current number of people employed in the immediate metropolitan area, with substantial additional opportunities for employment or business development in the towns spread across the missile fields.
- Present the potential for indefinite economic prosperity. Weapons programs with 30-year timelines may provide some benefit to the areas where they are produced and based during that time, but an alternative should have a sustainable, flexible economic composition without this relatively short expiration date.
- Take into account three major areas of focus vital for a conversion effort: contractors that benefit directly from defense spending, military bases and other facilities, and the labor market in the surrounding areas that experiences indirect job creation benefits from defense investment.
- Provide an alternative for indirect economic benefits to municipalities yielded by defense investment, including education funding through property taxes financed by Department of Defense and Veterans Administration-dependent incomes and local sales tax.

The next section will present three potential pathways for ICBM states to transition away from the ICBM mission that would allow for the full range of concerns listed here to be taken into account.

CHAPTER 2

PATHWAYS & RECOMMENDATIONS

Comprehensive economic analysis of the true economic impact of the Air Force bases, the current ICBM program, and the GBSD program is urgently needed. However, that does not mean there is no point in imagining alternatives to these programs. Although the scope of base closures that would likely take place if the ICBM program were to be canceled in its entirety is difficult to imagine in our current political moment, there is extensive precedent for such a decision. This chapter examines such precedent and attempts to draw lessons from it to suggest three broadly defined “pathways” that could be used to plan for a stable and economically prosperous life after the ICBM.

Learning from the COVID-19 Pandemic Response

There are myriad examples of how allowing national security agencies and imperatives to guide the development of domestic infrastructure and institutions leaves communities’ needs unmet and cuts off the possibility of the public deriving long-term benefit from government investment. Indeed, arguments against cancelling or realigning defense programs that center potential negative impacts on local communities reveal the essential precarity and contradiction of supporting local communities for the long term while trying to maintain an effective defense posture, which naturally requires periodic reevaluations of where and how money is spent. The COVID-19 pandemic, and the crises in healthcare, housing, and unemployment that it precipitated, provided an opportunity to address the cumulative consequences of a half-century of consistent prioritization of defense spending and tax cuts for wealthy Americans even as basic social programs were cut and wages stagnated.

The year 2021 saw legislative efforts to redirect spending on weapons programs towards more urgent national priorities such as vaccine research and production, as well as unusually vocal and organized criticism of U.S. military spending levels.⁷⁰ The pandemic was heralded as a chance to rebuild basic social programs in the United States. Instead of building robust public health infrastructure that might bring the United States closer to universal vaccination and prepare it for the next pandemic, however, national security agencies and the military stepped in to provide the logistical support for vaccine distribution.⁷¹ While this in itself is not necessarily obstructive to building permanent healthcare or other infrastructure, the failure to then create programs to rapidly produce and distribute vaccines or treatment for the next pandemic (most famously typified by the shameful failure to lift patent

70. Edward J. Markey, “S.982 - 117th Congress (2021-2022): ICBM Act,” legislation, March 25, 2021, 2021/2022, <https://www.congress.gov/bill/117th-congress/senate-bill/982>.

71. Shireen Bedi, “Air Force Medics Continue Deployments to Civilian Hospitals and Care Facilities,” Air Force, accessed March 4, 2022, <https://www.af.mil/News/Article-Display/Article/2947429/air-force-medics-continue-deployments-to-civilian-hospitals-and-care-facilities/>.

restrictions on vaccines, which would allow vaccines to be produced cheaply by other countries and thus increasing the likelihood of bringing the pandemic to an end in the foreseeable future) has left the United States unprepared for future public health crises, allowed for many thousands of preventable deaths, and done nothing to disrupt national security's place as the only non-negotiable funding priority of either political party.

This doesn't mean it's too late. The past few years have seen an explosion of creative thinking and political enthusiasm from those who have long supported a shift in U.S. policy priorities away from over-investment in defense and the COVID-19 pandemic has prompted a questioning of what actually constitutes security and economic prosperity. The following recommendations offer a range of approaches to rebalancing two core mandates of the U.S. government: providing for the common defense and promoting the general welfare.

Local vs. Federal Programs: It Doesn't Have to Be an Either-Or

The complex and often adversarial relationship between state governments and the federal government has been a persistent feature of American politics since the country's foundation. To this day, the balance of authority among different levels of government continues to shape political debates. A well-designed approach to replacing the economic impact of defense spending must be sensitive to this tension if it is to be effective. Fortunately, there are plenty of lessons to be learned from the narrow legacy of earlier BRAC processes as well as from federal-level development programs. Time and again, with project after project, federal mandates that work with existing power structures and social networks on the ground in the states and municipalities where they are implemented are more successful than those primarily directed by a central authority with little input or capacity for adjustment based on actual conditions.

The establishment and construction of the ICBM silos and associated infrastructure is itself a lesson in this matter. The process was standardized as part of the overall mission of the program as a low-cost alternative to maintaining a massive standing army in the post-World War II period, making it difficult to adjust to locals' needs—a difficulty that was compounded by administrators' lack of familiarity with the areas where the missiles were to be based. Sites for missile silos were chosen by officials who worked far away from the ICBM states, mostly unfamiliar with the areas, and certainly unaware of whether the field where they hoped to site a missile was in fact particularly productive or necessary as

farm or ranchland. Compensation rates were standardized and did not take into account the long-term drawbacks of living in close proximity to a nuclear missile. The federal response to resistance from farmers (who were highly organized and forthcoming with their preferred terms for turning their land over to the federal government to host missile silos) remained stilted and inflexible.⁷²

72. Heefner, *The Missile Next Door*, Ch. 4.

By contrast, large-scale public works programs have adopted a variety of approaches to balance federal mandates with existing local networks and power structures. An early New Deal program, the Federal Emergency Relief Administration (FERA) was able to rapidly provide direct cash payments, food coupons, and jobs by setting up regional offices and working with county and local authorities and state relief boards that had formed in response to the humanitarian crisis precipitated by the Great Depression.⁷³ The Office of Economic Adjustment, which was responsible for redeveloping closed domestic military facilities from its founding in 1961 until the beginning of the BRAC process, put local agencies in charge of decisions relating to what happened to land where bases had been, with federal employees playing an advisory role.⁷⁴ The office continues to collaborate with local and state-level economic development offices.⁷⁵ A productive balance is one where the bulk of project planning and hiring are done by established local agencies, but in accordance with strong federally-determined guidelines with ample oversight and opportunity for consultation with experts.

73. Leighninger, *Long-Range Public Investment*, 45.

74. In rare cases, federally-sponsored public service corporations were substituted for strict local control; the base closure recommendation section will delve into this as much as is useful. See "The National Economy and the Vietnam War" (New York, NY: Committee for Economic Development, April 1968); John E. Lynch, *Local Economic Development after Military Base Closures*, Praeger Special Studies in U.S. Economic and Social Development (New York: Praeger Publishers, 1970), 21.

Conversion: Beyond Budget Math

It's important to consider the full consequences of reducing the role of defense in the balance of U.S. government activity beyond simply shifting money from one column to the other. Conversion efforts must take into account the full implications of these shifts for different stakeholders:

75. It was renamed the Office of Local Defense Community Cooperation by the FY2021 NDAA. Adam Smith, "H.R.6395 - 116th Congress (2019-2020): William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021," legislation, January 1, 2021, 2019/2020, <https://www.congress.gov/bill/116th-congress/house-bill/6395>.

Business

Defense companies maintain a relatively robust industrial base and close preexisting ties with the federal government.⁷⁶ There is plenty of precedent for conversion in the strict sense, where facilities originally designed for producing defense material are converted to producing goods for civilian needs, often at a strictly controlled or reduced price.⁷⁷ The U.S. has a range of options to prepare

76. Alex Ward, "The Defense Production Act, Explained," Vox, March 18, 2020, <https://www.vox.com/2020/3/18/21185333/coronavirus-defense-production-act-trump>.

for the next pandemic or major public health crisis that will require a rapid expansion of healthcare facilities or equipment; one such option is to task the companies it relies on to produce tanks and planes to produce respirators and masks. In any case, defense companies and their investors will likely (and understandably) be resistant to any policy change that potentially jeopardizes their expectations of ongoing financial support from the federal government or requires a major restructuring of facilities or administrative apparatus. A comprehensive approach to canceling the GBSD program and drawing down the ICBM mission must anticipate this. One potential way to handle this resistance, particularly in the absence of sufficient political pressure to overwhelm the awesome lobbying power of the defense industry, is to provide an alternative source for the government contracts generated by the continued existence of ICBMs that might better serve the needs of Americans. Small- and medium-sized businesses in the sponge states that rely on the bases for income must also be granted similar consideration in transition plans.

77. President Trump did use the act to order GM to produce ventilators. “Defense Production Act: Trump Signs Memorandum Requiring GM to Make Ventilators - CNNPolitics,” March 27, 2020, <https://www.cnn.com/2020/03/27/politics/general-motors-ventilators-defense-production-act/index.html>. There were also conversion efforts as part of the United Kingdom’s pandemic response. See “From Arms, Planes and Racing Cars to Ventilators: Industrial Conversion during the Covid-19 Crisis | SGR: Responsible Science,” Scientists for Global Responsibility, December 10, 2021, <https://sgr.org.uk>. For a longer overview of postwar conversion efforts in the U.S., see David F. Eisler, “A Brief History of Military-to-Civilian Conversions in the Department of Defense, 1965-2015” (Alexandria, Virginia: Institute for Defense Analyses, 2016).

Military Facilities

Air Force bases are duly recognized as hubs of economic activity for the areas in which they are located. Closing bases presents opportunities for more productive land and facility use. All three recommendations in this report address the central question of what to do with these facilities in the event that the ICBM mission is canceled or reduced.

Communities & Labor

The issue at the heart of understanding the “economic impact” of the ICBMs and the GBSD program is how to maintain the same number of similarly desirable jobs for the people who live in the shadow of U.S. land-based nuclear missiles. Proposed solutions should address these three key elements in a way that makes moving on from the ICBM program politically and logistically possible and puts community needs first.

Beyond the ICBM: Pathways for Transition

The following pages explore three pathways for planning a future for the ICBM states: closing the Air Force bases that support them, repurposing these bases, and creating one or more government entities to administer a regional

economic development program. These recommendations are sorted into three distinct paths in order to explore each one thoroughly. Though they are presented as distinct scenarios, they are not mutually exclusive; all three could be simultaneously implemented depending on community preferences and needs.

Path 1: Close a Military Base

The U.S. ICBM mission is the *raison d'être* for the Air Force bases that steward them: F.E. Warren Air Force Base in Wyoming; Malmstrom Air Force Base in Montana; and Minot Air Force Base in North Dakota. In turn, the bases are widely perceived as the economic anchors of their host cities. This was not an accident. When the ICBM program was being developed, the Air Force, immersed in the dynamics of inter-service rivalry, worked hard to secure a close connection between the bases and a lucrative long-term program and maintain support from communities that rapidly grew up around the bases. Prospects for the Air Force's long-term presence in a region was among the criteria used to select prospective sites for the ICBM force in the late 1950s and early 1960s.⁷⁸

78. Heefner, *The Missile Next Door*, 69.

Base Closure: A Brief History

At the time when the Air Force was reviewing potential ICBM sites, base closures and other methods of military downsizing were understood as an integral part of U.S. defense planning. After a precipitous buildup of domestic and international military facilities during the Second World War there was a wave of base closures as the United States adjusted to the new post-war normal. There was consistent support at the highest levels of the U.S. government for reducing defense spending as well as the overall size and role of the military and nuclear weapons arsenal following the end of the Korean War in 1953. From 1961 to 1969, nearly a thousand defense installations were closed or had their missions reduced, with the elimination of nearly a quarter-million civil and military positions and as many personnel relocations.⁷⁹ These facilities were converted into industrial parks, educational facilities, and municipal airports by local governments with the help of federal advisors, or were alternatively repurposed for use by other government agencies.⁸⁰

79. John E. Lynch, *Local Economic Development after Military Base Closures*, ix.

80. *Ibid.*, 9.

The economic turmoil of the 1970s heralded a change in the way Americans viewed defense spending, and thus the dynamics of base closure.

Growing support for reducing the defense budget at the end of the Vietnam War was thwarted by the role of military spending in response to the recession of the early 1970s, when the industry and its allies (including some local governments) urged an increase in federal investment in defense as a response to the unemployment crisis.⁸¹ In 1977, Congress imposed stringent restrictions on the base closure process, in response to allegations that the two most recent rounds of base closures in 1973 and 1976 were in part an attempt to punish members of Congress who supported reducing defense spending.⁸² The law effectively limited base closures by requiring lengthy review and approval processes above a very low threshold for the number of civilian jobs that would be affected by a potential facility change, reflecting Congress' acute awareness of the bases as employers.

These restrictions led to a pause on base closures through the late 1970s and early 1980s. In 1988, then-President Ronald Reagan (increasingly amenable to budget reductions after the large-scale deficit spending of his first term) signed a bill authorizing closure of military bases deemed unnecessary by a Department of Defense commission. This was the first round of the modern BRAC process which would be repeated in 1991, 1993, 1995, and again in 2005.⁸³ The collapse of the Soviet Union created an increased appetite for base closures as well as reductions in defense investment overall, increasing support for a relatively large-scale and rapid series of base closures.⁸⁴ Ninety-seven bases and hundreds of smaller facilities were closed as a result of the four rounds of BRAC that took place in the 1980s and 1990s, saving an estimated \$104.9 billion through 2022.⁸⁵

Base Realignment and Closure (BRAC)

The modern BRAC process was structured to facilitate a compromise between the executive and legislative branches, and to minimize opportunities for undue favoring of a certain Congressional district. During the appropriations process, the Department of Defense notifies the Armed Services Committees of both houses of Congress of its intent to submit a list of bases for consideration for closure or realignment. Once Congress approves, the Department of Defense submits its list to an independent BRAC commission whose members are appointed by the President and approved by the Senate. The commission, typically made up of former high-level government and military officials and members of Congress, is empowered to modify the list, which is then sent to the President for approval. The list is then sent to Congress, which must

81. Brenes, *For Might and Right*, 13.

82. Kenneth R. Mayer, "The Base Realignment and Closure Process: Is It Possible to Make Rational Policy?" (New York, NY: John Brademas Center for the Study of Congress, NYU Robert F. Wagner School of Public Service, December 2007), 5.

83. George Schlossberg, "How Congress Cleared the Bases: A Legislative History of BRAC," *Journal of Defense Communities* 1 (n.d.).

84. Gwen Ifill, "Powell Urges U.S. to Be 'Vicious' In Closing Wasteful Military Bases," *The New York Times*, April 27, 1991, sec. U.S., <https://www.nytimes.com/1991/04/27/us/powell-urges-us-to-be-vicious-in-closing-wasteful-military-bases.html>.

85. In 2003 dollars. Eric Schmitt, "States and Communities Battling Another Round of Base Closings," *The New York Times*, March 20, 2005, sec. U.S., <https://www.nytimes.com/2005/03/20/politics/states-and-communities-battling-another-round-of-base-closings.html>.

approve or reject the list in its entirety, thus avoiding a situation where members of Congress might fight for changes to the list of bases in the interest of their district.⁸⁶

The implementation process for modern BRAC has been similar to that of earlier base closures in its reliance on communities to shape and carry out the process. Generally, once a base or facility is approved for closure, the governor of its host state (or another state or county authority) creates a body comprising local and state government and business leaders to direct the process. This group works with federal agencies and businesses interested in using former base property to determine what parts, if any, of the former base will remain in federal possession for other use, transfer the property to the municipality (or in some cases, tribal ownership), and secure long-term leases for business. In some cases, there is greater public involvement through volunteer advisory boards.⁸⁷

Base Closure: Challenges

Today, it seems unthinkable to suggest closing a domestic military base. The last round of base closure recommendations was made in 2005, with a recommendation to revisit the question in 2015. However, with increasing bipartisan support for maintaining or growing the defense budget, the 2014 NDAA explicitly prohibited additional rounds of BRAC recommendations.⁸⁸ The depth of opposition to base closure as such is suggested in the provision in the 2021 NDAA that officially renamed the Office of Economic Adjustment the Office of Local Defense Community Cooperation.⁸⁹

The 1980s and 1990s BRAC processes are generally regarded as successful from the point of view of the economic outcome for base host communities, but concerns that the process of selecting which bases to close would be guided by political biases have dogged the process for decades. Existing concerns about political bias were further inflamed in 1991, when then-Secretary of Defense Dick Cheney attempted a round of base closures without using the established BRAC process and was broadly criticized for disproportionately choosing bases in Democratic districts.⁹⁰ This was also the first round where extensive public comment on the process was allowed, setting off the first local anti-BRAC lobbying efforts.⁹¹

The 1990s BRAC rounds (compounded by the fall of the Soviet Union and the assumption that it might bring further bilateral nuclear weapons stockpile reductions) sent shockwaves through existing supporters of the ICBM force.

86. Colonel Stephen Schwalbe, "An Exposé on Base Realignment and Closure Commissions," (Air War College, n.d.).

87. Office of Local Defense Community Cooperation, "McClellan Air Force Base, Colorado: Previously the Single Largest Industrial Facility in Northern California, the McClellan Business Park Now Hosts 300 Private and Public Organizations with Approximately 17,000 Employees," Office of Local Defense Community Cooperation, accessed March 6, 2022, <https://oldcc.gov/project/mcclellan-air-force-base-colorado-previously-single-largest-industrial-facility-northern-0>.

88. Theodore E. Deutch, "H.R.3304 - 113th Congress (2013-2014): National Defense Authorization Act for Fiscal Year 2014," legislation, December 26, 2013, 2013/2014, <https://www.congress.gov/bill/113th-congress/house-bill/3304>.

89. "Office of Economic Adjustment Officially Renamed," Association of Defense Communities, January 7, 2021, <https://defensecommunities.org/2021/01/office-of-economic-adjustment-officially-renamed/>.

90. Schlossberg, "How Congress Cleared the Bases."

91. Mayer, "Rational Policy?," 9.

By the time preparations were taking place for the 2005 round of BRAC, states were preparing to shield themselves from possible selection for closure or realignment with massive investments in lobbying.⁹² As detailed in the previous chapter, the ICBM states were no exception to this trend—though, perhaps because of the size of the bases relative to the local economy, their efforts to lobby against the BRAC process began relatively early. The fact that some of these initially BRAC-focused advocacy organizations have persisted as general economic development organizations suggests that, for this region more than others, military investment has set the pattern for what economic growth looks like.

Despite resistance to further BRAC rounds from Congress, the defense industry, and local leadership, there is broad and longstanding bipartisan support for the BRAC process within both the electorate and the Department of Defense. The Pentagon itself has reported that it has over 20% more base capacity than it needs.⁹³ General James Mattis expressed his support for BRAC at the beginning of his tenure as Secretary of Defense for the Trump administration.⁹⁴ Polling of the ICBM states suggests there is no particular attachment to the missile program itself as an economic engine, provided that its impact is replaced.⁹⁵

Some support for another BRAC round can be attributed to the fact that the Pentagon tends to do “stealth BRACs”: quietly removing staff and assets from bases that are no longer strategically useful instead of undertaking the lengthy and politically contentious formal process.⁹⁶ This places an economic burden on the surrounding communities that surround these bases, which cannot reap the benefits of federal support through BRAC: bases are not subject to property taxes, and these often very large areas are not generating any economic activity. There is also very frequently the problem of environmental contamination. The BRAC process allows for a collaborative approach to estimating and covering the costs of cleanup so that former military sites can be used for other purposes, without this process there is no support for communities where often the environmental fallout from military activities extends well beyond the borders of the base.⁹⁷

Closing a base is by no means an unprecedented step nor, if done correctly, an economically foolhardy one. In fact, long-term assessments of the economic fortunes of communities surrounding a closed base suggest that most communities have emerged economically stronger from base closures, possibly because the land when well-utilized is often more economically productive in

92. Eric Schmitt, “States and Communities Battling Another Round of Base Closings,” *The New York Times*, March 20, 2005, sec. U.S., <https://www.nytimes.com/2005/03/20/politics/states-and-communities-battling-another-round-of-base-closings.html>.

93. Rebecca Kheel, “Pentagon Says 22 Percent of Military Bases Will Be Excess by 2019,” *The Hill*, April 15, 2016, <https://thehill.com/policy/defense/276528-pentagon-22-percent-of-bases-to-be-surplus-by-2019/>.

94. Eliana Spitzer, “Defense Secretary James Mattis Tells Congress That Shuttering Unnecessary Bases Could Save Billions,” *The Week*, accessed March 5, 2022, <https://theweek.com/speedreads/731712/defense-secretary-james-mattis-tells-congress-that-shuttering-unnecessary-bases-could-save-billions>.

95. “Public Perspectives on the US Intercontinental Ballistic Missile Force,” *Federation Of American Scientists* (blog), accessed November 29, 2021, <https://fas.org/gbsd-polling/>.

96. Nick Cleveland-Stout, “The Case for a ‘Green BRAC,’” *Marcellus Policy Analysis* (John Quincy Adams Society, Spring 2021), 2.

97. “Investigating PFAS in CO and SD,” *Agency for Toxic Substances and Disease Registry*, April 20, 2021, <https://www.atsdr.cdc.gov/pfas/activities/map/region8.html>.

its afterlife than it was as a base.⁹⁸ Overall, the majority of communities affected in 1988 have fared as well or better than they did previous to base closure. But many decades have elapsed since those closures, making it difficult to isolate the effects of even a major closure or realignment that took place in the 1960s or 1970s.

98. Chris Preble, communication with author.

Nevertheless, the challenges of successful base closure in rural areas, where the base represents a more substantial portion of the economy than in more densely settled areas, must not be taken lightly. The relatively spread-out nature of the missile fields means that not only the major cities connected to the bases, but also an array of small towns that surround them, receive some small economic benefit as missileers patronize their bars, restaurants, and stores to fortify themselves for long shifts. This chapter examines precedents for base and facility closure in similar contexts, drawing lessons from them as well as from the particular economic profiles of the areas surrounding the ICBM bases to demonstrate how a future without the ICBM force can be economically prosperous for those who currently live in its shadow.

The Office of Economic Adjustment

The Office of Economic Adjustment (OEA) was founded in 1961 within the Department of Defense to oversee the closure of military bases and advise municipalities on replacing their economic impact. It was supported by an Advisory Committee to the Secretary of Defense tasked with helping to manage the effects of base closures.⁹⁹

99. "Following a mandate from the 1961 State of the Union. "The committee was chaired by the Secretary of Commerce and included representatives from the Department of Labor; Agriculture; the Interior; Health, Education and Welfare; and Housing and Urban Development, as well as the Council of Economic Advisors and the Small Business Administration." See Lynch, *Local Economic Development*, 5-6."

The OEA was relatively small and shrank over time. From eight professional and three administrative support staff at the time of its founding, it was reduced to a total staff of seven by the end of the 1960s.¹⁰⁰ The office's role was largely organizational, with the ability to coordinate the federal response to base closures. Around the same time that the OEA was created, the Secretary of Defense also established a "central personnel referral activity" to reassign career civil servants to new positions in the event of base closure or realignment. Every such employee was guaranteed another job offer.¹⁰¹

100. *Ibid.*, 22.

101. *Ibid.*, 27.

The base closure process during this period used existing federal grant programs for local economic development and did not provide additional funding sources.¹⁰² The value added by their role in the process was thus primarily advice and perspective, as well as attention to the specific challenges of a given base closure or realignment. The OEA handled the transfer not

102. *Ibid.*, 15.

only of the property previously occupied by the base, but also that of existing facilities and any equipment not needed for other Department of Defense requirements that could be shown to be useful for a community's agreed-upon plan for reuse. Cities were able to purchase the water and sewer systems of the base at a steep discount, and facilities that were repurposed for public service (such as schools, hospitals, and airports) were transferred for free or at a sharply reduced price.¹⁰³ In addition, the OEA would emphasize pre-existing personnel with special training in the community as an inducement to private industry to set up shop in a former military facility.¹⁰⁴

103. Water systems were sold to cities at a 40-50% discount; sewer systems were transferred for free. Ibid.

104. Lynch, *Local Economic Development*, 27.

The base closure process as it was structured before 1988 left the selection of bases to be closed as the sole prerogative of the executive branch, leaving plenty of room for accusations of favoritism.¹⁰⁵ Ultimately, this led to the creation of the BRAC process.

105. Schlossberg, "How Congress Cleared the Bases," 2.

Learning from Earlier Base Closures

The ICBM bases present a relatively rare profile as far as domestic U.S. military facilities are concerned: They are physically large (Malmstrom AFB tops out the three at 28,606 acres, with Minot and Cheyenne at 4,480 and 6,000 acres respectively) and employ a relatively high percentage of the population in a low-population area. Thus, while there have been numerous successful base closures with civilian employment numbers as high or higher than those of the ICBM bases, their relative importance in the overall economic situation of the area must also be carefully considered.

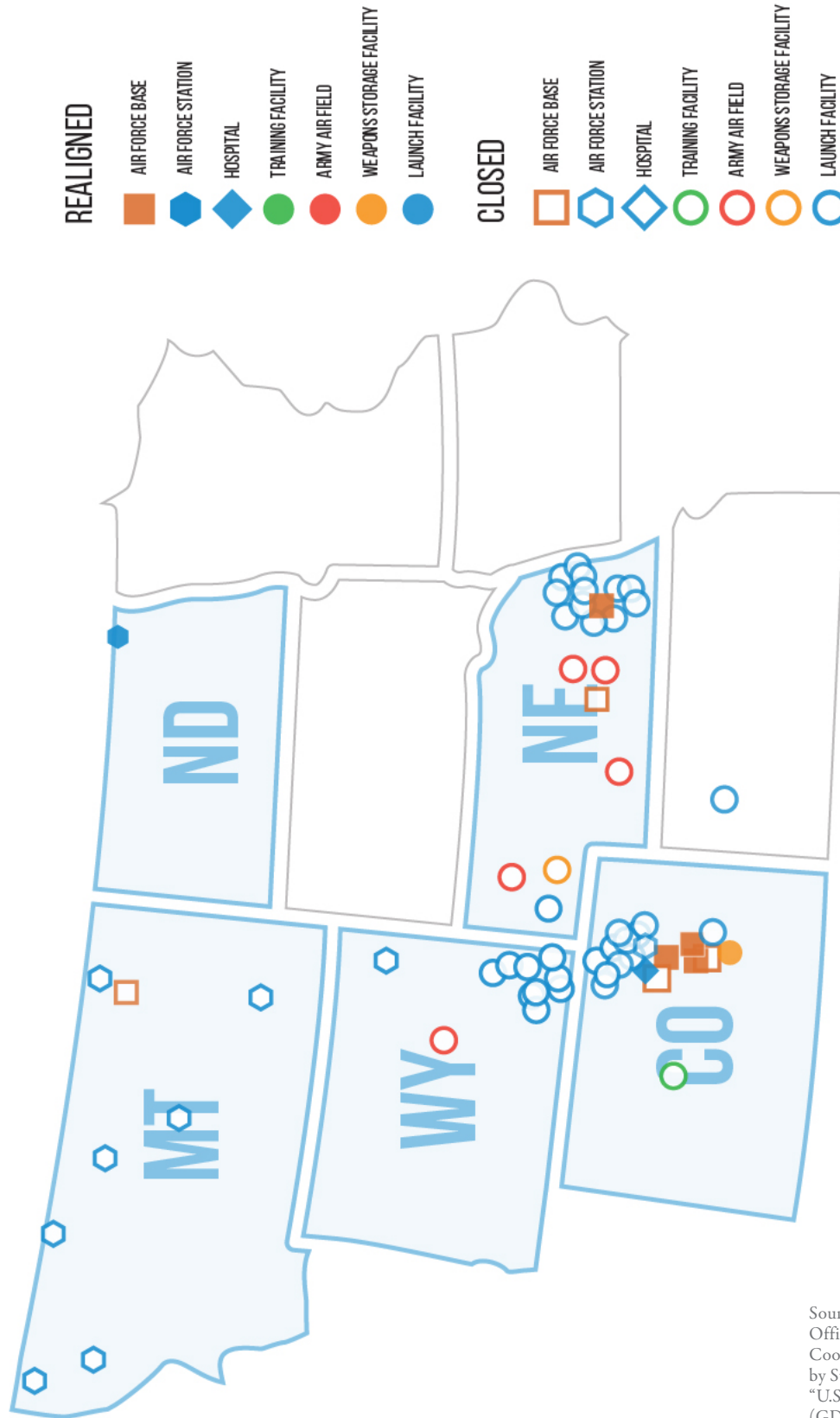
Going by available numbers for the economic impact of the bases, it would be useful to look at comparison cases where the total estimated economic impact of a replaced base totaled around \$600 million, and with a job loss count of around 4,000 (or roughly 10% of the workforce of the major metropolitan areas where the Air Force bases with ICBM missions are located). Further, it's useful to look at examples where Air Force bases in particular were closed, for those mindful of the internal and inter-service dynamics and their effects on funding allocations.

Fortunately, there are several cases of rural Air Force bases being successfully closed and redeveloped, both within the ICBM states and elsewhere. Chanhassen Air Force Base, a former Minuteman training site in east-central Illinois roughly equidistant between Springfield and Indianapolis, was closed in September 1993 after being selected in the 1988 BRAC process. Though it was also originally planned as a civilian airport, it has primarily become a business

and industrial center, producing parts for Jeep and Dodge trucks. It also hosts a motel, a retirement home, and privately owned residential properties. With approximately 80% of the former base site currently in use despite ongoing environmental remediation, civilian employment from the site has increased 250% from when it was used as a base.¹⁰⁶

106. "Chanute Air Force Base, Illinois," The Military Standard, accessed March 6, 2022, <http://www.themilitarystandard.com/afb/il/chanute.php>.

FIGURE 4: FORMER MILITARY FACILITIES IN THE ICBM STATES



Source: U.S. Department of Defense Office of Local Defense Community Cooperation, "Defense Spending by State, Fiscal Year 2019;" Statista, "U.S. Gross Domestic Product (GDP), by State 2020."

Williams Air Force Base, located outside of Phoenix, Arizona, was recommended for closure as part of the 1991 BRAC process, and closed in 1993.¹⁰⁷ The site was redeveloped into community colleges and a commercial airport, relieving congestion from the Phoenix area's existing airport. The Williams AFB Economic Reuse Planning Advisory Committee, created by the Governor of Arizona to direct the effort, comprised representatives not only from Phoenix but from all neighboring towns and cities, Maricopa County, and the State of Arizona.¹⁰⁸ This breadth is crucial for a rural base whose economic impact extends beyond a single host city, as with the ICBM bases and the silo fields they oversee.

The success of the Williams base closure has been closely intertwined with the rapid growth of the Phoenix metro area during that time, and thus is difficult to measure as an isolated phenomenon. In 1991, Arizona had a population of 3,762,000, with just over two million living in the Phoenix metro area. Its population has since doubled to 7,279,000.¹⁰⁹ This brings up the important question of base redevelopment as an engine and beneficiary of population growth. A community cannot be expected to take a chance that a single development project, no matter how large-scale and well-supported with federal funding, will by itself drive a successful economic transition away from dependence on Pentagon outlays. But it does highlight the importance of choosing replacement industries and institutions that by their nature promote growth. Airports and educational facilities, two common uses for former bases, could both be beneficial for an area that is already seeing population growth motivated by other factors. This is already the case in parts of the ICBM states, as people working remotely at jobs based in higher-cost areas move in seeking lower cost of living and the solitude and natural beauty offered by the region.¹¹⁰

The populations of the cities near the ICBM bases are currently much smaller than that of Phoenix before the base closure. But interestingly, while most other major cities in the ICBM states have been experiencing steady population growth, the base cities have been gradually shrinking, or growing at a slower rate than other cities with a different economic base. As is shown by the phenomenon of the "stealth BRAC," when staff are moved out of a military facility without its closure, staffing levels are more responsive to shifts in military requirements than to the existence of bases themselves, and communities have little recourse to prevent these changes for economic reasons. Choosing industries with a potential for growth not limited or shaped by military requirements would allow for former base communities to catch up to the growth trends of other cities in the region. This growth could be

107. Office of Local Defense Community Cooperation, "Williams Air Force Base, Arizona Redevelopment Profile," Office of Local Defense Community Cooperation, accessed February 14, 2022, <https://oldcc.gov/project/williams-air-force-base-arizona-redevelopment-profile>.

108. Ibid.

109. Ibid.

110. Yellowstone Public Radio, "As U.S. Population Stayed Relatively Flat, Montana's Grew 1.6% during the Pandemic," Montana Public Radio, January 3, 2022, sec. Montana News, <https://www.mtpr.org/montana-news/2022-01-03/as-u-s-population-stayed-relatively-flat-montanas-grew-1-6-during-the-pandemic>; "Census: North Dakota's Oil Counties, Cities See Big," USnews accessed Aug 12, 2021, <https://www.usnews.com/news/best-states/north-dakota/articles/2021-08-12/census-north-dakotas-oil-counties-cities-see-big-growth>.

further encouraged by incentivizing defense and other companies to invest in educational facilities and conduct research and development or production at former base sites in the ICBM states, developing institutions that could be more easily self-sustaining in the event of a change in military or corporate strategy.

This approach comes to make even more sense when the longer-term potential for growth is considered. The GBSD program has a 50-year funding horizon—relatively long if the time horizon of government spending planning is considered in toto. Assuming the new missiles are maintained and neither used nor retired for their full lifespan, the region is guaranteed a few decades more at its current relatively steady economic level. However, it's clear from a close examination of the fruits of the BRAC process that economic growth post-transition from military use is a gradual process. The often-impressive increase in civilian employment from stable industries with undefined end points has a much better multi-year prognosis than a weapons program—even a major one—with an end date after which the community may need to scramble once again to simply maintain the status quo.

The Williams and Chanute base closures also demonstrate the potential of increased federal investment in environmental cleanup focused on former military sites. Both bases are Superfund sites, with environmental cleanup ongoing even as they are in heavy use.¹¹¹ A renewed BRAC could be an opportunity to increase and expand the federal commitment to environmental remediation at former military sites, increasing their suitability for long-term habitation and work. Such a commitment could even serve as a conduit for work in this area extending beyond the borders of the former base, as will be discussed in the next section. Agriculture and tourism, the two biggest industries in the ICBM region, are both suffering from the effects of climate change, and could both be well served by such an expanded commitment.

Conclusion: OEA for a New Era

The base closure process has been a collaboration between federal and local authorities from its earliest days, when community members in Salina, Kansas conducted a study in response to a federal initiative to close an air base in the city.¹¹² The work of base closure and economic redevelopment, when done well, is necessarily responsive and reciprocal. A revamped BRAC must also be informed by this approach, responding to new community needs and meeting dug-in trepidation around the process with adequate federal support.

111. The Williams AFB cleanup effort was estimated to cost \$4.1 million; Chanute AFB, \$43.5 million (both in 1995 dollars.). Office of Local Defense Community Cooperation, "Williams Air Force Base;" General Accounting Office, "MILITARY BASES: Case Studies on Selected Bases Closed in 1988 and 1991," (General Accounting Office, August 1995).

112. Lynch, *Local Economic Development*, Introduction.

With this in mind, a new round of BRAC could once again see the Office of Local Defense Community Cooperation (formerly the OEA) coordinate consultation and involvement from a range of other agencies as well as local stakeholders. The process could also be used to distribute expanded funding from infrastructure, climate change, or social program legislation as was attempted with the Build Back Better Act.¹¹³ The original BRAC process made funding available from a range of federal agencies including Office of Economic Adjustment planning grants, Economic Development Administration grants, Federal Aviation Administration grants, and grants to support job training programs from the Department of Labor.¹¹⁴ Expanding this range, or the total funding available through a provision in a defense budget bill or separate legislation could provide security to communities nervous about the transition away from military facilities in the form of an initial economic boost.

The third chapter of this report provides a “case study” of Montana as an ICBM state, including a more detailed scenario for how a geographically targeted round of BRAC might work. This could in turn be used as a model for other states with less amenable political geographies.

Path 2: Repurpose a Base

Base closure is not necessarily an inevitable outcome of the elimination of the ICBM force. There are also ample opportunities to repurpose a base to a variety of ends. At the less radical end of the spectrum, bases could simply be assigned a new military mission. The fact that the process has been on long-term hold means there is an opportunity now to reimagine the possibilities of such a transition to meet the rapidly growing need for infrastructure development and maintenance and other basic services across the United States.

In the absence of any public awareness of viable alternatives, the “closure” aspect of BRAC is frequently mobilized as a threat or warning by those who would oppose it. However, in many cases, bases that undergo the BRAC process cleave relatively closely to their previous mission, either maintaining some (possibly reduced) military mission or transitioning to use by companies that contract with the Department of Defense.¹¹⁵ This means that were the ICBM program to be eliminated, the bases could be given new missions as part of the established BRAC process bringing in input and support from local residents.

113. John A. Yarmuth, “Text - H.R. 5376 - 117th Congress (2021-2022): Build Back Better Act,” legislation, November 19, 2021, 2021/2022, [https://www.congress.gov/bill/117th-congress/house-bill/5376/text](https://www.congress.gov/bills/117th-congress/house-bill/5376/text).

114. Government Accountability Office, “MILITARY BASES: Analysis of DoD’s 1995 Process.”

115. This is the case with the former Grand Forks Air Force Base, discussed below.

The ICBM states are no strangers to the BRAC process, as nearly every state where the missile silos are located has been host to several significant examples of military facility repurposing. In general, these areas have weathered such changes well; while the facilities have mostly maintained a military-adjacent purpose through use by major contractors, the employment and economic impact of the BRAC process has been overall positive, with employment levels approaching their pre-BRAC levels over time.

Perhaps the most relevant example of a successful base realignment in the sponge states is that of Ellsworth Air Force Base near Rapid City in western South Dakota. The base was given a Minuteman I ICBM mission in 1962. In the early 1990s, however, under the requirements of the START-1 treaty, the ICBM mission was removed from the base, a process that lasted from 1991-1994. The base continues to operate as an Air Force facility, hosting the 28th bomb wing, although narrowly missing closure through the 2005 BRAC process thanks in part to pressure from South Dakota Senator John Thune.¹¹⁶

A more recent example is Grand Forks, in eastern North Dakota. The base was included in the 2005 BRAC process, though all of its land was retained for defense purposes until 2014. Through a partnership between state and local governments, defense contractors, and the University of North Dakota, the base has become a hub for unmanned aerial systems development.¹¹⁷

“Green BRAC”: The Role of the Military in Maintaining Civilian Infrastructure

A more imaginative approach to repurposing a base could engage and even broaden the military’s work on infrastructure maintenance, climate change preparation, and environmental remediation. The majority of the Department of Defense’s work on climate change and environmental remediation focuses on making sure that facilities will remain useful for their military purposes even in the event of a significant change in climate or associated effects, such as a rise in sea levels.¹¹⁸ Further work in this area that overlaps with civilian infrastructure, such as roads, is mostly guided by military requirements for use of that infrastructure.

The military is the government’s largest and most technologically advanced tool for rapidly developing or changing U.S. domestic infrastructure overall, and it contains a wealth of institutional knowledge and context for what is required for the task. The Air Force bases are established hubs for personnel

116. Seth Tupper, “From BRAC to B-21s: The 14-Year Fight to Safeguard Ellsworth AFB,” Rapid City Journal Media Group, accessed April 21, 2019, https://rapidcityjournal.com/news/local/from-brac-to-b-21s-the-14-year-fight-to-safeguard-ellsworth-afb/article_172b5488-cf8b-575d-8d44-e16b8f62387e.html.

117. “Grand Forks Air Force Base, North Dakota Redevelopment Profile,” Office of Local Defense Community Cooperation, accessed March 7, 2022, <https://oldcc.gov/project/grand-forks-air-force-base-north-dakota-redevelopment-profile>.

118. Emma Newburger, “U.S. Army’s First Climate Plan Calls to Slash Emissions and Build Electric Vehicle Fleet,” CNBC, February 8, 2022, <https://www.cnbc.com/2022/02/08/armys-climate-plan-will-slash-emissions-build-electric-vehicle-fleet.html>.

and technology with well-developed connections to civilian communities and local governments. In a region that is increasingly feeling the devastating effects of climate change—which comes with its own worsening economic impacts—the bases could be reimaged as a powerful resource for ensuring the long-term prosperity and environmental health of the region.¹¹⁹ These bases could be repurposed as hubs for infrastructure development as needed based on the specific region, perhaps led by USACE, an existing center of military-led infrastructure development and climate change response. This section will explore this possibility, providing an overview of the range of activities USACE does or could undertake as leaders in the fight to shore up U.S. domestic infrastructure against a changing climate.

Since its founding in 1802, USACE has been a major force in shaping U.S. basic infrastructure, been a major force in shaping U.S. basic infrastructure, planning and building roads, canals, ports, lighthouses, bridges, and urban sanitation systems along with its wartime mission of battlefield exploration, preparation, and the disruption of enemy infrastructure. It expanded massively during World War II as a hub of wartime construction and built many of the major landmarks of the U.S. nuclear establishment, such as Los Alamos, Hanford, and Oak Ridge during this period, as well as the Pentagon.¹²⁰

USACE's work is organized into several missions: civil works, military, environmental, emergency operations, research and development, and sustainability.¹²¹ Perhaps most visibly, it maintains U.S. waterways, dredging rivers and harbors and constructing and maintaining locks and dams.¹²² Recently, its responsibility as the primary agency in charge of flood control has become all the more relevant with the increasing frequency of highly visible natural disasters. Though it receives relatively little press coverage, attitudes toward USACE have been mixed in recent years perhaps due to perceptions that large-scale engineering projects have come with undesirable environmental and social impacts after having been undertaken with little or no input from communities (or in the face of resistance from those communities).¹²³ USACE gained notoriety in the aftermath of Hurricane Katrina along with the Federal Emergency Management Agency (FEMA) when it was blamed for faulty construction of the levees meant to protect New Orleans from storm surges, destruction of the wetlands that had served as natural storm protection as well as a source of valuable biodiversity, and worsening the effects of the storm on the city with poorly considered environmental engineering projects.¹²⁴ USACE has also been deeply involved in ongoing water rights and pipeline controversies, most prominently at Standing Rock in the Dakotas, as it

119. "Montana Fly-Fishing Guide Sees Effects of Melting Glaciers Firsthand," Yale Climate Connections, March 15, 2022, <http://yaleclimateconnections.org/2022/03/montana-fly-fishing-guide-sees-effects-of-melting-glaciers-firsthand/>.

120. Todd Shallat, "The U.S. Army Corps of Engineers in American History," Foreign Policy Research Institute, accessed August 28, 2010, <https://www.fpri.org/article/2010/08/the-u-s-army-corps-of-engineers-in-american-history/>.

121. U.S. Army Corps of Engineers, "Missions," U.S. Army Corps of Engineers Headquarters, accessed February 9, 2022, <https://www.usace.army.mil/Missions/>.

122. Shallat, "Army Corps of Engineers."

123. For example, see Paul Van Develer, *Coyote Warrior: One Man, Three Tribes & the Trial That Forged a Nation* (New York, NY: Little, Brown & Co., 2005).

124. "The Threatening Storm - Hurricane Katrina - Two Years Later," Time, August 27, 2007, https://web.archive.org/web/20070827053327/http://www.time.com/time/specials/2007/article/0,28804,1646611_1646683_1648904,00.html.

continues to conduct surveys for major infrastructure and water management projects.¹²⁵

USACE's work under its environmental mission is highly relevant to the question of closing or repurposing bases. Through the Army's Formerly Used Defense Sites (FUDS) program, it oversees cleanup and maintenance at thousands of such sites across the country, including dozens in the sponge states.¹²⁶ The program is part of the Defense Environmental Restoration Program (DERP) under the Comprehensive Environmental Response, Compensation, and Liability Act.¹²⁷ It applies to sites identified as eligible for cleanup prior to October 1986, when the program was established; it thus includes some military facilities closed under the pre-BRAC process but does not include any sites closed as part of BRAC.

USACE reported the FUDS program was at an \$11 billion funding deficit as of September 2019 given estimates of how much it would cost to clean up the nearly 1,800 sites left from its initial mandate; it receives \$250 million average annual appropriations as part of the NDAA.¹²⁸ This contrasts sharply with its Civil Works budget, which consistently receives annual funding above its requests.¹²⁹

USACE possesses the experience and knowledge base to conduct large-scale environmental remediation. In the event of a cancellation or downsizing of the ICBM program, an Air Force base could be repurposed as a "hub" for military-civilian collaboration on environmental cleanup on the base as well as the surrounding areas. A similar approach could be taken to the military's responsibility for transit infrastructure maintenance in these states, expanding the area covered to include roads, bridges, etc. not directly useful to base activities, and even having bases serve as a research, training, and implementation center for new transit and environmental infrastructure projects. From a funding perspective, it could also be more straightforward or politically expedient to route funding for such projects through the defense budget.

Path 3: Green Jobs for the ICBM States

In 1937, Senator George W. Norris of Nebraska proposed the creation of "seven little TVAs," or Tennessee Valley Authorities – regional planning authorities covering the entire country charged with overseeing power generation and distribution as well as flood control.¹³⁰ Remarkably, this was

125. "Sioux Tribe Withdraws as Cooperating Agency Over Dakota Access Pipeline Threat," Common Dreams, accessed February 8, 2022, <https://www.commondreams.org/news/2022/01/27/sioux-tribe-withdraws-cooperating-agency-over-dakota-access-pipeline-threat>.

126. "FUDS Annual Report to Congress - 2019," accessed February 8, 2022, <https://ags03.sec.usace.army.mil/portal/apps/webappviewer/index.html?id=5a541ac5c0064c01a685a72f16854fbf>. Also relevant may be its Formerly Utilized Sites Remedial Action Program (FUSRAP) program, established in 1974. The program investigates and cleans up sites contaminated from early nuclear programs.

127. U.S. Army Corps of Engineers, "Formerly Used Defense Sites: Frequently Asked Questions," U.S. Army Corps of Engineers, accessed March 7, 2022, <https://www.usace.army.mil/Missions/Environmental/Formerly-Used-Defense-Sites/Frequently-Asked-Questions/>.

128. Ibid.

129. "Army Corps of Engineers: FY2022 Budget Request" (Washington, D.C.: Congressional Research Service, n.d.).

130. William E. Leuchtenberg, "Roosevelt, Norris and the 'Seven Little TVAs,'" *The Journal of Politics* 14, no. 3 (August 1952), 418, <https://www.journals.uchicago.edu/doi/10.2307/2126212>.

only one especially ambitious proposal of dozens to create regional planning authorities circulating through Congress at the time.¹³¹

131. Ibid.

The last, and perhaps most ambitious path, would take inspiration from Senator Norris to invest in the ICBM states beyond mitigating the loss or change of the ICBM mission. Alternately maligned and celebrated as utopian, too ambitious, and too vague, the idea of a Green New Deal—a large-scale policy plan for environmentally responsible infrastructure renewal and buildout with a substantial social spending component—has its roots in the U.S. Green Party platform of the early 2000s.¹³² The Green New Deal has functioned as a broad umbrella concept, generating a number of well-developed policy plans across diverse issue areas. An approach to regional planning guided by these plans' basic features (jobs programs focused on climate-resilient infrastructure and basic services) could provide a robust long-term solution to the perceived necessity of defense spending as an engine of economic development.

132. United States Green Party, "Green New Deal - www.gp.org," United States Green Party, accessed September 30, 2021, https://www.gp.org/green_new_deal.

Because the Green New Deal has functioned in recent years as a mandate rather than a well-defined platform, it is important to pause and draw out its basic elements that might appeal to a broad public base. Perhaps the most comprehensive outline of what a Green New Deal policy program would look like can be found in a 2018 report released by Data for Progress. The plan provides for a rapid transition away from fossil fuels by 2035, with a full transition to electric-powered transit and buildings by 2050; upgrades to water systems to address contamination and affordability; landscape and agricultural reform with long-term sustainability in mind; and a jobs program to create 10 million jobs over 10 years through a jobs guarantee.¹³³ These principles have been applied to a wide range of policy problems through ambitious proposals: A Green New Deal for Public Housing would respond to a nearly \$90 billion need for repairs to existing public housing by 2030 by retrofitting over one million existing public housing units to reduce carbon emissions, improve resilience against extreme weather events, and resolve existing health hazards, creating nearly a quarter-million jobs in the process.¹³⁴ A Green New Deal for Public Schools would invest 1.4 trillion dollars over a decade into retrofitting and improving public educational facilities, increasing funding for curriculum development, creating 1.3 million jobs, and deepening community involvement in local public school systems.¹³⁵ Polling by Data for Progress and others has shown the broad popularity of four of the basic concepts guiding the Green New Deal:

133. "A Green New Deal," Data For Progress, accessed September 30, 2021, <https://www.dataforprogress.org/green-new-deal-report>.

134. "Green New Deal For Public Housing," Data For Progress, accessed September 30, 2021, <https://www.dataforprogress.org/green-new-deal-public-housing>.

135. "Green New Deal for Public Schools," Green New Schools, accessed February 11, 2022, <https://greennewschools.com/>.

Infrastructure for the Long Term

Despite the passage of a historic infrastructure bill in November 2021, the United States remains unprepared to deal with the rapidly worsening effects of climate change. More is needed to make U.S. infrastructure resilient against the myriad effects of climate change as well as the effects of regular use. Critics of the bill have pointed out that, while it provides for funding to be distributed by states and regions for infrastructure problems (some of which have been left to worsen for years in the absence of funding), the majority of the funding comes without any requirements for long-term resilience against climate change in favor of giving states more control over how the money is spent.¹³⁶

This approach makes sense from a political standpoint when skepticism about all aspects of climate change is constantly weaponized for political ends, but it sets the United States up for vastly increased costs down the road as its effects worsen. As this section will discuss in detail, the most effective federal programs for combating climate change have used a more collaborative approach to directing federal funds, combining well-defined requirements and ample opportunity for local authorities to work with subject matter experts with a high degree of autonomy for regional and local authorities to direct the process.

Jobs

Recent years have seen increased interest in policies that provide a safety net through a jobs guarantee or a universal basic income.¹³⁷ This is reflected in the way that the Biden administration promoted the infrastructure bill as well as the Build Back Better Act, two large-scale domestic policy packages that together promised to create over a million new jobs.¹³⁸ Though defense spending is widely regarded as a “job creator,” as discussed above, defense is a very inefficient industry for job creation when compared to other major U.S. industries. The jobs that are created are disproportionately relatively specialized, requiring advanced degrees—a far cry from the well-paying, widely accessible positions conjured up by industry rhetoric.

Previous jobs programs and other similar programs created in the United States have shown that it is more difficult to win and keep support for jobs programs that are perceived as simply putting people to work, rather than filling an essential function.¹³⁹ This is all the more reason to connect future attempts to manipulate the labor market to real human needs—such as healthcare, education, and housing—that have been proven to more reliably create

136. Jake Bittle, “The Incoherence of the Bipartisan Infrastructure Bill” The American Prospect, accessed December 13, 2021, <https://prospect.org/infrastructure/building-back-america/incoherence-of-the-bipartisan-infrastructure-bill/>.

137. Gabriela Schulte, “Poll: 79 Percent Support Federal Jobs Program for the Unemployed” The Hill, accessed July 10, 2020, <https://thehill.com/hilltv/what-americas-thinking/506777-poll-79-support-federal-jobs-program-for-the-unemployed>.

138. “President Biden’s Bipartisan Infrastructure Law,” The White House, accessed February 14, 2022, <https://www.whitehouse.gov/bipartisan-infrastructure-law/>.

139. Leighninger, *Long-Range Public Investment*, Introduction.

employment opportunities. Further, this should be part of a holistic approach to economic development that prioritizes “creating jobs” that do not expire at the end of a contract or project, and instead create the conditions for long-term economic prosperity shaped by community needs.

Climate Resiliency is Fiscal Responsibility

An overall theme of this report is correcting course to smart long-term investment: while continuing to invest in nuclear weapons as a regional development strategy focuses on the short-term (and is economically inefficient), directing investment to meet real human needs while making sure that the U.S. is ready to weather the worsening effects of climate change means a reduced need in the future to spend even more on remediation in the aftermath of a disaster and on even more dramatic overhauls to U.S. infrastructure. Those sounding the alarm on climate change point out the certainty that doing nothing will inevitably be more costly than even the most extensive legislation on the table.¹⁴⁰ This insight can guide action in the present even for those whose political identities are based on the stated value of keeping government spending low by making sure that money committed to this essential work is used as efficiently as possible.

140. Christopher Flavelle, “Climate Change Could Cut World Economy by \$23 Trillion in 2050,” *New York Times*, November 4, 2021, <https://www.nytimes.com/2021/04/22/climate/climate-change-economy.html>.

Building and Rebuilding Robust Public Institutions

A public authority, or a public-benefit nonprofit corporation, is a nonprofit corporation typically chartered by a state government to manage a charitable or publicly beneficial purpose. They were first created during the 1930s to help cities with limited savings front the money to finance large-scale infrastructure projects through a publicly owned, independent corporation that could issue bonds. Relatively independent from the governments that create them, they allow for a freer hand in borrowing money to finance projects, as well as less public oversight. These features are used to argue for their efficiency, especially in war or other emergency situations, as well as to criticize their role in making government more labyrinthine and opaque.¹⁴¹

Local governments often create authorities to manage economic development (see the case of Williams Air Force Base discussed above, as well as others). A regional development authority could be created by the federal government to cover the region as a whole, or alternatively a smaller area depending on interest and agreement from state and local governments. This could then serve as a

141. Gail Radford, *The Rise of the Public Authority* (Chicago; London: University of Chicago Press, 2013), Introduction.

demonstration for how a new model of federal investment in these states could work.

The question of public versus private control of institutions is close to the center of some of the longest-standing U.S. political disputes. The Green New Deal draws its inspiration from the original New Deal, which created many of the best-known public programs that exist today. While in reality, a lot of the building which took place using federal funding during the New Deal was completed by private contractors, rather than people directly employed by government programs, the most enduring legacies of that period were the public programs and facilities that are still serving Americans today. A flexible approach to this question, beginning with more receptive cities and states and privileging local control and implementation, could gain support from a public already demonstrably interested in jobs-focused economic development.

For the purposes of this report, the ICBM states have been discussed as a cohesive region. However, there may be little reason for this beyond the presence of the missile program, and their often competitive approach to lobbying around the BRAC process suggests that there is little sense of the shared presence of ICBMs as a useful basis for cooperation. A green jobs-focused legislative approach to replacing the economic impact of the ICBM program could even take the form of a comprehensive program of infrastructure renewal conceived of at the regional level. An authority or other responsible entity could be created by agreement among interested cities and potentially states to manage the program, with room for expansion should others like what they see. The BRAC process—or a renewed version of it—could serve as one model for federal collaboration with local and regional authorities, contributing funding, regulation, and advisory capacity to a locally-guided implementation effort.¹⁴²

142. A similar principle informs many Green New Deal proposals—for example in the Green New Deal for Public Schools, which privileges Local Educational Agencies for guiding implementation. See “Green New Deal for Public Schools.”

Recommendations

Empower Advocates and Communities

An essential element of a potentially successful effort to get rid of land-based nuclear missiles is the organization of groups of advocates tethered to communities living and working around bases. Advocacy groups meant to guard against a certain base being chosen for a round of BRAC have been effective, and serve as hubs for government, military, and defense industry representatives traveling to the ICBM states as part of maintaining elite

consensus around the program. Those working to secure a better alternative for the region must form equally strong and functional networks of stakeholders: organizers, community members, policy experts, and political leaders who represent the full range of experiences and perspectives present in the communities that host the ICBM force. This critical step of coalescing existing support for alternatives to land-based nuclear missiles will allow advocates to effectively contest the narrative of unquestioning local support and bring community members meaningfully into the process of fighting for a better, more just alternative.

In the event that one of these bases did get approved for realignment or closure, members of these groups would be natural fits for the committees that are frequently appointed by city governments to direct the process. In order to make sure that a potential conversion process is designed for success, having people who support conversion trained and ready to participate in these commissions will make it more likely that such efforts will succeed.

Anti-corruption and Community Incentives

Public trust is essential for effectively using both the BRAC process and the deep expertise and logistical capabilities of USACE. In both cases, a firm commitment to transparency, public review, and the prevention of politically biased intervention at all levels is absolutely essential for ensuring effectiveness. Reforming USACE has been a relatively high-profile focal point of bipartisan collaboration, most prominently championed by former Senators Russ Feingold and John McCain.¹⁴³ For BRAC, states and cities facing selection can be incentivized to view it as a boon, rather than a threat. Expanding funding for selected communities and guaranteeing contracts to small- and medium-sized businesses used to working with a base could go a long way to ease the transition. On the other side of the equation, the Department of Defense could be encouraged to push for a new BRAC process by allowing cities to charge property taxes on military facilities that have seen a substantial drop in military and civilian staffing levels, mitigating some of the burden of the “stealth BRAC.”¹⁴⁴

143. “Feingold, McCain Continue to Hold Army Corps Accountable,” news release, <https://www.mccain.senate.gov/public/index.cfm/2009/11/post-0382f7e7-c7a3-4b21-e294-bf4a05966689>.

144. Nick Cleveland-Stout, “Why We Need a ‘Green BRAC,’” Responsible Statecraft (blog), June 18, 2021, <https://responsiblestatecraft.org/2021/06/18/why-we-need-a-green-brac/>.

Environmental Health Is Economic Health

The current U.S. approach to environmental cleanup is fragmented and underfunded. It has rightly been cited as opaque and vulnerable to corruption,

compounded by the particular importance of maintaining critical infrastructure when the United States lacks an adequate social safety net or funding for emergency management. Environmental remediation is often dismissed as a potentially massive investment with poorly defined economic benefits. Besides the obvious fallacy of such thinking when there remains a finite amount of land and natural resources on Earth with which humans must make do as best they can, existing research suggests that properly investing in environmental cleanup can have substantial economic benefits.¹⁴⁵

145. Daniel Raimi, “Environmental Remediation and Infrastructure Policies Supporting Workers and Communities in Transition” (New York, NY: Environmental Defense Fund, September 2020).

Green BRAC

Developing a better alternative to the ICBM program means recommitting to the Base Realignment and Closure process. A “Green BRAC” prioritizes long-term environmental and economic health for an affected region at all steps of the process. This entails adequate funding to replacement industry or mission selection, as well as expanding and adequately funding the military role in infrastructure maintenance and construction and environmental cleanup. Further, a commitment to timely rounds of BRAC as defense missions change shape is itself a step in the direction of environmental health, as the essential environmental cleanup aspect of the BRAC process can help control potential long-term impacts of environmental contamination originating in a former military facility.

Federal Programs, Local Control

Those planning a regional development alternative to nuclear weapons spending should draw from the long history of federally founded and funded regional development programs implemented in collaboration with existing community institutions. A development authority defined by a state or region could effectively allocate federal funds to address the particular needs of the cities and states of the nuclear sponge while allowing them to direct the process according to particular communities’ needs.

These recommendations are relatively granular and leave plenty of space for an incremental reform approach. But when it comes down to it, a responsible approach to the aftermath of military activity must be a policy priority—not solely for any moral reason, but because it will yield real benefits down the line, some of which are difficult to foresee. Healthy communities and land have potential for real long-term growth and prosperity; this insight must guide all efforts to imagine a future beyond the ICBM.

CHAPTER 3

CASE STUDY: MALMSTROM AIR FORCE BASE AND MONTANA

Besides a shared military mission and geographical proximity, the states that host the ICBM force are very different from one another. Economic development recommendations for North Dakota, a state experiencing rapid economic and population expansion because of its fast-growing oil industry, would look very different from recommendations for Colorado, whose relationship with the defense industry is much more diversified beyond the ICBM force, and much more heavily weighted toward the research and development facilities which do receive some job-creation benefits from government investment in new weapons programs.

In fact, beyond their common fate of having ICBMs (and the geographical and demographic factors that led to their selection for the mission in the first place), there is little that unites them as a region. Most other systems of regional classification split them up. At the Congressional level, there is cooperation in the form of the ICBM caucus, but below that it quickly fragments as cities and states, mindful of the possibility that the ICBM force could be merely reduced instead of eliminated, jockey to make sure they maintain their own portion of it for as long as possible.

This is an opportunity for—as much as a hindrance to—thinking holistically about economic alternatives to the ICBM. As proposed in the previous chapter, a redevelopment program at any scale could focus on one or more states inside the ICBM region according to interest and political opportunities. This chapter offers a more in-depth account of the economic and political profile of Montana to shed light on the opportunities for and challenges of coming up with satisfactory alternatives to medium-term defense spending as an engine of economic development. It draws on interviews with Montanans from many walks of life—journalists, small business owners, union members, activists, long-term and new residents—all with a substantial personal stake in the fate of their state. The goal is not to propose a developed replacement for the ICBM; that process must be led by Montanans and guided by their needs and priorities. Instead, this chapter will identify some of the issues that might be affected by such a program as a resource for researchers and advocates planning the state and the region's long-term future.

Why Montana?

Even without the poignancy of knowing that it all could be utterly destroyed in less than an hour, Montana's natural beauty speaks for itself. Its residents speak with pride about how Montanans spend more leisure time out of doors than

people in any other state in the country, in and around the eight national parks that generate roughly as much revenue as the estimated economic impact of Malmstrom Air Force Base, located in the city of Great Falls, each year.¹⁴⁶

Montana was the first state to receive ICBMs for practical reasons, characteristic of the tendency for nuclear weapons doctrine and policy to take its cues from the technological limitations and advantages of a given weapons system. In mid-1959, when the program was still in development, it became clear that the missiles could not travel as far as had been anticipated. Malmstrom Air Force Base was far enough north, and at a high enough altitude, that missiles based nearby could reach the Soviet Union by flying over the North Pole.¹⁴⁷

The state typifies many of the overarching trends common to the ICBM states, while also lacking conditions that would make it especially difficult to imagine an alternative to the missile program. It is not dominated by a single rapidly-growing industry driven by out-of-state actors, like North Dakota's oil fields, and its relationship with the defense industry is more typical of the ICBM states, unlike Colorado, which is a hub for defense research and development and has several other major military missions. As with much of the ICBM region, it is mostly rural, with one of the lowest populations of any state in the country. But it also has several significant urban centers, allowing for serious consideration of a broader range of alternatives to the ICBM force.

Geography & Demographics

Like many of the sponge states, Montana has experienced a steady rise in population aided by the pandemic.¹⁴⁸ Though its population remains low, it had the second-highest population growth rate in 2020.¹⁴⁹ Short-term growth is part of a longer-term trend: 2020 census data shows a 9.6% growth in population over the preceding decade, enough to give it a second seat in the House of Representatives.¹⁵⁰

Nevertheless, public perceptions about the effects of this change focus on the rise in property values, particularly in cities seen as attractive to young, highly paid remote workers looking for a cheaper, more scenic place to live with the amenities of a city like Missoula, Bozeman, or Helena relatively close at hand—a sense borne out by data as the state experiences the housing crisis that has struck the U.S. as a whole. There is also a sense, particularly among politically conservative Montanans, that the influx of new residents is changing

146. "Montana (U.S. National Park Service)," National Park Service, accessed March 14, 2022, <https://www.nps.gov/state/mt/index.htm>.

147. Heefner, *The Missile Next Door*, 59.

148. Yellowstone Public Radio, "As U.S. Population Stayed Relatively Flat, Montana's Grew 1.6% during the Pandemic."

149. Mike Schneider, "Census: Montana Sees Major Population Growth While Majority of US Does Not," *Helena Independent Record*, accessed March 12, 2022, https://helenair.com/news/local/census-montana-sees-major-population-growth-while-majority-of-us-does-not/article_36029cb5-014a-5eac-8f25-d8399a238b88.html.

150. Eric Dietrich, "Census Releases Detailed 2020 Counts — with an Asterisk," *Montana Free Press*, August 12, 2021, <http://montanafreepress.org/2021/08/12/census-releases-detailed-montana-population-data/>.

the political character of the state, aligning it more closely with Democratic Party policy priorities, despite strong evidence to the contrary from the last election. Several people the author spoke with lamented a lack of investment in the shared values of Montanans, particularly the accessibility of the state's natural beauty to everyone. One interviewee described people moving in from the coasts, purchasing land, and attempting to close it off to public access—contrary both to the law and the expectations of those with deeper roots in the state.

Census data suggests the advent of widespread remote work for middle-class professionals did not cause the extreme shifts in population distribution many anticipated, though the state is subject to broader continuing dynamics of population shift to cities and away from rural areas.¹⁵¹ The state is also experiencing a similar trend to the rest of the country, with an aging population largely centered in rural areas as younger people move into cities.¹⁵²

Montana's politicians have spoken positively about encouraging migration into the state as a means to combat declining birth rates and relatively high death rates, and a consistent majority of people who move to Montana are under the age of thirty. An economic alternative to the ICBM could take this into account by providing, as many state-level economic development policies have attempted to do, incentives for people to relocate long-term to Montana, particularly younger people at the beginning of their careers.¹⁵³

As with many American states, Montana also has a broad regional divide, with its eastern part perceived as more rural, more conservative, and more along the lines of social and political stereotypes of the Mountain West shaped by tales of renegade ranchers. Indeed, the majority of the state's cities—and the fastest-growing ones—are in its west, and western counties have seen a higher rate of growth overall in recent years.¹⁵⁴ The missile fields straddle the divide, with Great Falls and Malmstrom Air Force Base in the central-west of the state. Cascade County, where the base is located, experienced a relatively low rate of growth, at 3.9% or just over 3,000 new residents. Similarly, the counties hosting the missile fields either experienced very low population growth or moderate loss over the preceding decade, in contrast to surrounding areas.¹⁵⁵

All of these changes have had a substantial effect on the state's political dynamics. The Mountain West and upper Midwest are often written off as so solidly Republican voting that Democratic efforts in the area would be wasted. This is an oversimplification, but only partially. While this split in party affiliation does typically run along the urban-rural divide (with most cities electing Democrats in local and precinct-level races) trends in state-level

151. Yellowstone Public Radio, "U.S. Population."

152. Eric Dietrich and Brad Tyer Montana Free Press, "How, Where and Why Montana Became the Grayest State in the West," Choteau Acantha, March 12, 2020, http://www.choteauacantha.com/article_82d5b418-62ff-11ea-9485-67ec33532233.html.

153. Mike Schneider, "Census: Montana Sees Major Population Growth While Majority of US Does Not," Helena Independent Record, accessed March 12, 2022, https://helenair.com/news/local/census-montana-sees-major-population-growth-while-majority-of-us-does-not/article_36029cb5-014a-5eac-8f25-d8399a238b88.html.

154. 2020 county-level census data has the majority of counties with growing populations in the west of the state, with some seeing growth rates of 20-40%. Eric Dietrich, "Census."

155. Ibid.

politics suggest that this, as well as the dominance of the Republican party at all levels, may not be set in stone.

The Political Landscape

Nevertheless, the 2020 election solidly favored the state's Republican candidates: the party won the governorship, attorney general, state auditor, secretary of state, state superintendent of public schools, and the open House of Representatives seat. Democratic Party strategy in the state focuses heavily on urban areas that typically favor the party's candidates. Indeed, the Democratic Party lacks the infrastructure to even contest races in nearly a third of the counties in the state, where they do not maintain formal party structures.¹⁵⁶ Significantly, Cascade County, where Great Falls is located, was a key site for the state's shift to the right. Once considered solidly Democratic, every Democratic candidate lost there in the 2020 election.¹⁵⁷

Montana's electoral swing to the right is a relatively recent phenomenon, following national trends. From 2005-2021, the state was led by Democratic governors before current Governor and former House of Representatives member Greg Gianforte won the office with 54.4% of the vote. Gianforte, though known for his vocal support of the Trump administration and mainline Republican causes, presents himself as a champion for jobs programs for his home state, including a scholarship and training program for low-income students and veterans and the Better Montana Jobs program.¹⁵⁸ These achievements are presented in the same breath as celebrating tax cuts and regulatory repeals, suggesting the deeper ideological differences that have long undergirded the broad popularity of job creation as a political message.

All the sponge states have a historical legacy of some resistance to the ICBM and participating in anti-nuclear activism more generally.¹⁵⁹ Though their connections with broader peace, anti-militarism, and anti-nuclear movements deepened over time, particularly in the second half of the 1980s, these movements were largely local and rooted in community concerns. Their legacy persists, partially in that many of the participants are still alive and somewhat politically engaged, but also in the apparently widespread admission across the political spectrum that the primary benefit of the missile program to the state of Montana is an economic one. Many people the author spoke to brought up this aspect independently and stressed its importance, echoing polling results which have shown that residents of the ICBM states are fundamentally agnostic about the necessity specifically for the program within the states.¹⁶⁰

156. Mike Dennison, "As 2022 Campaign Season Kicks off -- Can Montana Dems Bounce Back?," KTVH, January 12, 2022, <https://www.ktvh.com/news/montana-politics/as-2022-campaign-season-kicks-off-can-montana-dems-bounce-back>.

157. Ibid.

158. "About Greg Gianforte & Kristen Juras," Office of Governor Greg Gianforte, <https://governor.mt.gov/about>.

159. Heefner, *The Missile Next Door*, 140. Heefner emphasizes the local nature of the anti-missile protests, rooted in the concerns of the communities surrounding the silos: "Protestors in the rural West were certainly inspired and in some cases assisted by the peace movement. But usually their protests were small and took shape with very little outside involvement. They were the product of grassroots organizing centered on highly local concerns, namely, the plight of small-scale agriculture. Where the global antinuclear movement of the 1980s highlighted the emotional and psychic toll of the nuclear arms race, antimissile activism could demonstrate its daily costs—in dollars, land, crops, and community."

161. Federation of American Scientists, "Public Perspectives on the US Intercontinental Ballistic Missile Force."

Representation

Both of Montana's senators, Republican Steve Daines and Democrat John Tester, are members of the Senate ICBM caucus.¹⁶¹ Its Representative in the House, Republican Matthew Rosendale, is a consistent vocal supporter of the ICBM mission. John Tester, first elected to the Senate in 2006, maintains a reputation as a moderate Democrat, and has drawn a substantial amount of attention as part of Congressional Democratic efforts to find opportunities for bipartisanship.

Tester has shown himself to be closely focused on the impact of federal-level policy on the employment landscape in the state of Montana. He was one of two Democrats who voted to filibuster the 2011 American Jobs Act on the grounds that it would not bring a substantial number of jobs to his state.¹⁶² His office's messaging around other major federal spending programs, however, suggest that like many of his constituents, he has no deeply rooted ideological opposition to federal programs in the state provided there is a clear benefit to the Montana workforce.¹⁶³ An ICBM replacement program based on accurate, transparent economic research and designed in collaboration with state and local leaders with clear benefits to the working people of Montana could potentially appeal to the values demonstrated by Tester's policy and voting record.

The state legislature is relatively uninvolved with the network that maintains defense spending in the state in comparison with local stakeholders in the Great Falls area and Washington-based political and industry representatives, as well as with other states in the ICBM region. Indeed, the failure of one recent attempt to establish a state-level "military strategic and economic task force" by the state legislature suggests that there may be a higher level of interest at the state level in economic alternatives to military investment than in other states. As referenced in the text of that bill, other states with substantial levels of military investment do maintain a similar state-level task force.¹⁶⁴ The bill's failure to pass at a time when another round of BRAC was still—at least in theory—a near-term possibility could suggest a sense that military investment is not under threat despite warnings from the industry, or perhaps simply a lack of enthusiasm around military spending from state legislators. In either case, concentrated research and advocacy at the state level will be essential for designing a holistic economic program that answers to the specific needs of the state.

Despite Montana's historical role as the first host of the ICBM fleet, Great

161. Matt Rosendale, "I Was Honored to Attend the 9/11 Ceremony at Malmstrom Air Force Base This Past Weekend. Afterwards We Toured the Base and I Was Briefed on Their Critical Mission to Defend Our Nation with ICBMs. <https://T.Co/JbaSlSdQVvk>," Tweet, @RepRosendale, September 14, 2021, <https://twitter.com/RepRosendale/status/1437791649460064269>.

162. Manu Raju and Scott Wong, "Tester, Nelson Unsure on Teachers Bill," POLITICO, October 17, 2011, <https://www.politico.com/story/2011/10/tester-nelson-unsure-on-teachers-bill-066203>.

163. "Tester on 'Unacceptable' Empire Builder Cuts: Amtrak Needs to Give Montanans 'Clear Answers,'" accessed March 25, 2022, https://www.testersenate.gov/?p=press_release&id=7818.

164. Hagan, H.B.579.

Falls-based efforts to advocate for maintaining or increasing defense spending in the area are somewhat newer than those in neighboring states. The Montana Defense Alliance, convened to lobby around the 2005 BRAC process, was modeled on a parallel group in North Dakota and continues today as a dues-based membership organization.¹⁶⁵ Unlike in other ICBM base cities, the organization created to lobby around the BRAC process has not transitioned to function as a general economic development group. The city maintains another group, the Great Falls Development Authority, which has worked to diversify the area's economy beyond defense—another contrast to approaches taken in Minot, North Dakota and Cheyenne, Wyoming.

165. "Montana Defense Alliance," Montana Defense Alliance, accessed March 20, 2022, <https://montanadefensealliance.org/>.

Putting Base Impact Estimates in Context

In Montana as elsewhere, there has been no comprehensive public study providing up-to-date analysis of the economic impact of Malmstrom Air Force Base. The city of Great Falls reports that the base itself has a total economic impact of \$293,969,644, and the Air National Guard an additional \$62,928,564.¹⁶⁶ The total statewide impact numbers for the base used in state-level legislation are somewhat higher, at \$610 million plus \$182 million from the Montana National Guard, less than 1% of the \$51.5 billion state GDP.¹⁶⁷ In both cases, these numbers were taken directly from Air Force calculations using multipliers created as part of the 1995 BRAC process.¹⁶⁸ Even though, as discussed in previous chapters, these numbers do not necessarily paint an accurate picture of the actual economic impact of the base and missions, they are useful both as an indicator of perceived impact, and an important benchmark for any proposed replacement program.

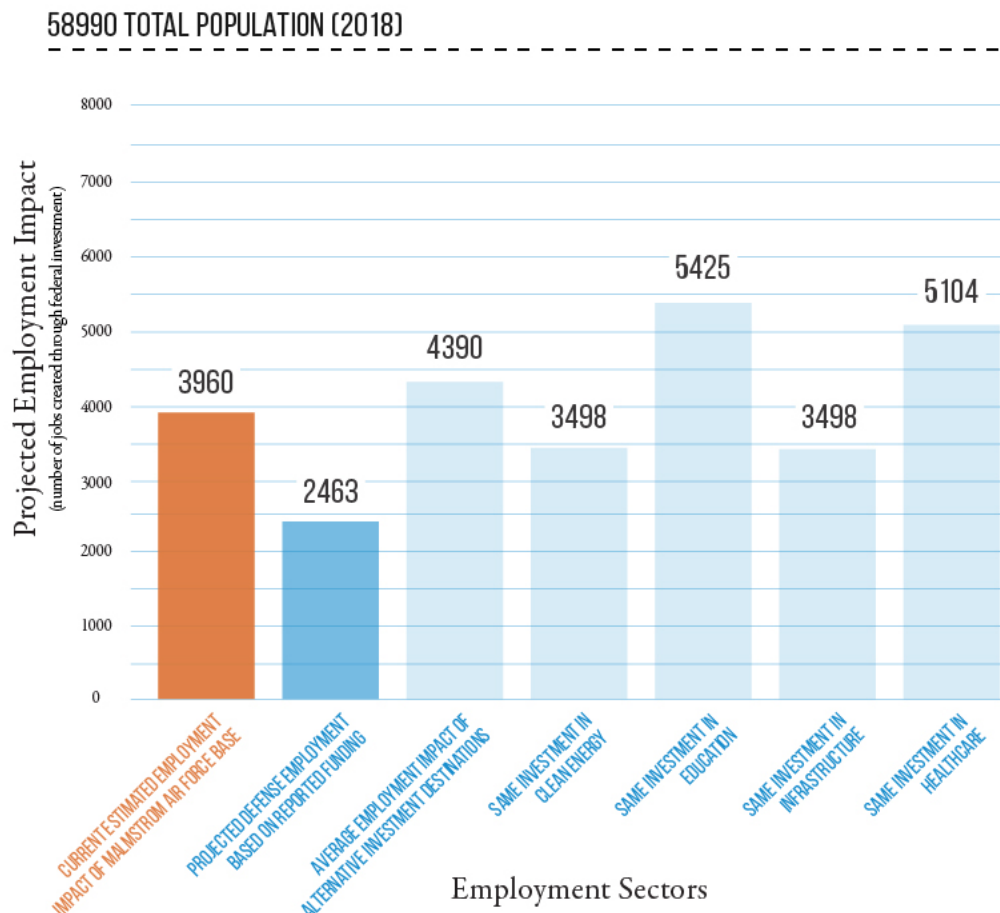
166. Doyon, "Great Falls, Montana."

167. U.S. Bureau of Economic Analysis, "Gross Domestic Product: All Industry Total in Montana," FRED, Federal Reserve Bank of St. Louis (FRED, Federal Reserve Bank of St. Louis, January 1, 1997), <https://fred.stlouisfed.org/series/MTNGSP>.

168. This methodology—and the urgent need to update it—is discussed in detail in Chapter 1. I am grateful to the many Great Falls city and Montana state employees who helped me hunt down the source of these economic impact numbers.

There are also no publicly available estimates of how much of the cost of the GBSD contract is set to flow into Montana directly. However, based on self-reported estimates of base impact and employment levels, we can estimate how much further similar levels of investment would go to better the lives of Montanans.

FIGURE 6: CURRENT EMPLOYMENT THROUGH MALMSTROM AIR FORCE BASE VS. PROJECTED EMPLOYMENT FROM AN ECONOMIC DEVELOPMENT PROGRAM BASED ON GARRETT-PELTIER MULTIPLIERS



Source: Garrett-Peltier, "Job Opportunity Cost of War;" Doyon, "Great Falls, Montana."

In the shorter term, federal funds allocated to the state but not yet allocated or distributed by the state government could be made available to an economic development program within or separate from a BRAC round to address urgent infrastructure needs, create jobs, and ease the transition away from defense spending through guaranteed contracts to small- and medium-sized businesses that work with the base. Depending on the timeline of a transition program, funds from recent relief and reconstruction bills could go toward this purpose, as well as unspent COVID unemployment benefits, tax credits, and tax revenues. As of November 2021, Montana had allocated less than one third of the \$906.4 million made available to the state through the American Recovery Plan Act of 2021—a bill championed by Senator Tester for its ability to create jobs and promote economic recovery—and distributed less than \$20 million.¹⁶⁹ The infrastructure bill signed into law in late 2021 includes approximately \$3 billion for the state, including clean water infrastructure for

169. John Tester, "Tester Statement on Strong Job Growth, Wage Growth as Result of American Rescue Plan," U.S. Senator for Montana John Tester, accessed March 13, 2022, https://www.testersenate.gov/?p=press_release&id=8695.

rural areas, roads, bridges, rail travel and other priorities. Critics of the bill who favored a stronger and more coordinated hand in addressing infrastructure needs have pointed out the free hand given to states to determine how the money is spent; planning for long-term prosperity in the event of base closure could help guide these decisions.

How Would These Three Pathways Work for the State of Montana?

The past decade has seen Montana's economy diversify, a trend driven in part by an awareness of the inherent risks of relying on defense investment for economic stability.¹⁷⁰ The healthcare, education, manufacturing (forestry and food products), and tourism industries have all seen strong growth in the past ten years, and healthcare, education, and tourism have been the strongest drivers of job creation during that time.¹⁷¹

A straightforward BRAC process for Malmstrom Air Force Base would be among the largest such operations ever undertaken, though not without precedent.¹⁷² Nor would it be without precedent for the state itself. Like the other sponge states, Montana has experienced the base closure process—Glasgow Air Force Base, located in northeastern Montana near the border with Canada, was closed in the 1960s (and then used again from 1971-1976) and now serves as an industrial airport.¹⁷³ Perhaps more relevant are the staffing changes at Malmstrom Air Force Base that have occurred in recent years, underscoring a sense of economic vulnerability on the part of the community and prompting ongoing efforts to diversify economically.¹⁷⁴ The base is also host to the Montana National Guard, so even in the event of the elimination of the ICBM force, it could maintain that mission indefinitely.

On a smaller scale, there are plenty of opportunities to expand current military activities that provide benefit to civilian residents of the state and maintain or expand base staff levels. According to the city of Great Falls, the military currently spends about half a billion dollars on environmental remediation in Montana.¹⁷⁵ Military environmental remediation, here as elsewhere, is focused on maintaining the integrity of military assets as well as the 78 FUDS spread throughout the state.¹⁷⁶ The state also has 15 designated Superfund sites, and 724 total sites designated for cleanup by the Environmental Protection Agency. Fully funding cleanup for those projects already under Department of Defense jurisdiction, such as the FUDS, could allow for an expanded military mission or a longer off-ramp to defense funding as a reliable source of revenue for the state as other options are developed.

170. Jeff Windmueller, "Health and Prosperity: Great Falls Benefits by Not Being Military Dependent," Ravalli Republic, accessed March 14, 2022, https://ravallirepublic.com/special-section/montana-economy/health-and-prosperity-great-falls-benefits-by-not-being-military-dependent/article_a1cb26d3-a6c4-5a79-a4f5-8899aeca616.html.

171. For the period 2008-2018. Christopher Bradley, "What Is Montana's Top Industry?" (Montana Department of Labor & Industry, 2018).

172. Some of the most visible—and successful—BRAC processes are also some of the largest, including San Francisco's Presidio and the Brooklyn and Philadelphia Navy Yards.

173. "Saint Marie," Glasgow Area Chamber of Commerce & Agriculture. <https://www.glasgowchamber.net/saint-marie.html>

174. Windmueller, "Health and Prosperity."

175. Gregory T. Doyon, "Great Falls, Montana," (Great Falls, Montana: City of Great Falls, 2020).

176. "FUDS Annual Report to Congress - 2019," Formerly Used Defense Sites Portal - U.S. Army COps of Engineers, accessed February 8, 2022, <https://ags03.sec.usace.army.mil/portal/apps/webappviewer/index.html?id=5a541ac5c0064c01a685a72f16854fbf>.

Transportation

Traveling among Montana's major cities often requires traversing mountain roads that spend months buried in snow. Increased investment in transportation could have a multiplier effect on quality of life and economic growth in the state. The military currently maintains 7500 miles of roads in the state, a fact often brought up as a major benefit of base presence to civilians. However, this accounts for only 5% of the total road mileage of the state, much of which is subject to extreme winter weather conditions requiring additional maintenance, and is geared toward areas where the Air Force operates. The 2021 infrastructure bill includes approximately \$2.82 billion for roads and bridges in the state; expanding the military's role in road maintenance to fill gaps in coverage could extend additional benefits to Montanans, provide a longer off-ramp for current levels of military investment or an indefinite refocused role for the military in the state.¹⁷⁷ A replacement investment program could focus more directly on areas of heavy use by civilians, and especially connecting civilians to essential services. Such an initiative could also fund existing efforts to increase and diversify transit options in the state. Senator Tester included provisions to return furloughed workers from the Empire Builder Amtrak Service back to work in the American Rescue Plan Act, and additional funds earmarked to move the project forward were included in the infrastructure bill.¹⁷⁸

Developments in transit politics could also yield innovative approaches for how to structure new state-level programs. The Big Sky Passenger Rail Authority formed in 2020 and is currently made up of 18 participating counties.¹⁷⁹ The Authority was founded based on a 1990s state law that allows counties to form their own rail authorities by agreement. A similar provision could be reached for other types of large-scale infrastructure projects, including an administrative body whose mandate is to design and implement an economic program to replace the impact of the ICBM force going far beyond the mandate of existing lobbying groups and economic development councils. County-level agreements could be an effective way to begin to address the economic impact of the program and particularly the spread-out nature of the missile fields.

Energy

Montana has a well-established coal mining industry in its southeast around the town of Colstrip; 25% of U.S. coal reserves are located within the state.¹⁸⁰ However, the industry has declined precipitously as a source of employment

177. Tom Lutey, "Billings Gazette: Infrastructure Bill Includes Billions of Dollars for Montana," U.S. Senator for Montana John Tester, accessed March 14, 2022, <https://www.testersenate.gov/?p=news&id=8725>.

178. "BREAKING: Senate Passes Tester Bill to Restore Full Amtrak Service, Employees to Hi-Line," U.S. Senator for Montana John Tester, accessed March 13, 2022, https://www.testersenate.gov/?p=press_release&id=8090.

179. Charlie Ban, "Montana Counties Unite to Revive Passenger Rail Efforts," National Association of Counties, October 11, 2021, <https://www.naco.org/articles/montana-counties-unite-revive-passenger-rail-efforts>.

180. "Montana - State Energy Profile Analysis - U.S. Energy Information Administration (EIA)," accessed April 14, 2022, <https://www.eia.gov/state/analysis.php?sid=MT>.

over the past decade as a result of larger shifts in energy regulations and global energy markets. The state also hosts many longstanding hydroelectric energy facilities. In just the last decade Cascade County has seen an expansion in other renewable energy sources, particularly wind. A replacement plan could include expanded grants and incentives to expand renewable energy generation capacity in the state, and to help develop rural grids to take on the added challenges of a more renewables-heavy energy generation mix.

Healthcare

The healthcare industry has seen rapid expansion in recent years and is projected to continue growing, driven in part by the increasing number of older people in need of more intensive in-home or institution-based care. Healthcare is a potential object of federal investment with incredible potential for job creation: federal investment in healthcare has been shown to create over twice as many jobs as comparable investment in defense, with better returns seen only for education investment.¹⁸¹

Healthcare has been rapidly expanding as a share of the Cascade County economy, as Great Falls becomes a center for specialist care for surrounding rural areas with limited access to advanced healthcare facilities. The healthcare industry has explicitly promoted this shift as beneficial to the area in that it eases the area's dependence on defense spending as a source of economic activity. Benefis Health Care, a hospital nonprofit in the city, has expanded in the past decade, increasingly drawing patients from surrounding rural counties.¹⁸²

181. Based on employment multipliers: defense's 6.9 to healthcare's 14.3. See Garrett-Peltier, "Job Opportunity Cost of War."

182. Windmueller, "Health and Prosperity."

Conclusion

Many of these trends—population movement to urban centers, rural areas equipped with fewer services and people who tend to need them more—are not unique to Montana. But the work that has already been done in the state and the area around the base in particular to begin to move past economic reliance on defense spending, the decreasing role of extractive industries in the state's economy, and its unique political, geographic, and demographic profile make it a potential leader toward a future beyond ICBMs. Planning and creating such a future would require not only widespread political pressure from within the state, but also the collaboration of stakeholders and experts at every level of government. Any state or region that chooses to embark on such an ambitious and transformative project will itself serve as a model, and hopefully an inspiration, for others working toward a long-term future defined by real security.