The Relationship between Military Spending & Inequality: A Review

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Military spending, often a significant portion of federal budgets, can either increase or decrease inequality. It can decrease inequality by creating jobs and opportunities for advancement, or it can increase inequality by disproportionately benefiting the already well-off segments of society by diverting resources away from programs that help the less wealthy. This essay reviews various studies – covering a range of countries and time periods – that examine the "inequality-widening," "inequality-narrowing," and mixed effects of military spending. Overall, the preponderance of evidence supports the theory that increased military spending leads to greater inequality.

Military expenditures often account for a significant portion of national budgets, particularly in the United States, where defense spending makes up about half of all discretionary federal spending and 3 percent of GDP.[1] Given the size of the military budget, it is important for policymakers and voters to know how military spending contributes to economic growth or decline, on the one hand, and to any increase or decrease in inequality, on the other.[2]

This essay provides an overview of the theories and evidence on the causal relationships between military spending and inequality. I do not put forth any new model or theory but rather review both the theories linking military spending and outcomes as well as the methods and data used to support or refute those theories.

To situate this discussion, it is useful to first understand the controversy over the effect that military spending may have on economic growth. On the one hand, proponents argue that military spending creates jobs and stimulates the economy, leading to greater manufacturing output, new technologies with commercial spin-offs (such as drones, GPS, and various computing applications), and higher levels of employment. In the 1970s, for example, economist Emile Benoit found a positive relationship between military spending and economic growth in a cross-country comparison of less-developed countries. On the other hand, economists such as Kenneth Boulding have referred to the military-industrial complex as an "economic cancer": the military and related industries amass resources at the expense of other more productive and socially useful sectors of the economy.

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Military expenditures may crowd out other types of investments and lead to lower overall growth.[3]

While the relationship between military spending and growth has been the focus of a significant body of scholarship, the effects of military spending on inequality have been less studied. Within this area of research, three general strands emerge: 1) the inequality-widening hypothesis, which holds that increased military spending leads to greater inequality; 2) the inequality-narrowing hypothesis, which holds that increased military spending reduces inequality; and 3) the neutrality hypothesis, which holds that military spending neither exacerbates nor improves inequality. I will explore each of these in turn, laying out the arguments that support each theory and the evidence and models that various researchers have used to support their claims. I will also explore other alternatives, including the possibility of reverse causality or bidirectional causality (that is, that inequality drives military spending and/or that military spending and inequality reinforce each other). In some cases, the path from spending to inequality goes through growth (that is, spending leads to more or less growth, and that change in growth leads to more or less inequality), and I will briefly explore that channel.

Why does this matter? Widening inequality leads to the concentration of not only wealth but also political power in the hands of the few, weakening and eroding democratic institutions. As discussed in political scientists Suzanne Mettler and Robert C. Lieberman's 2020 book *Four Threats: The Recurring Crises of American Democracy* and in Lieberman's contribution to this volume, the concentration of wealth and power endangers democratic processes, as political spending and lobbying sway elections, leaving ordinary citizens with an unequal voice in the voting process.[4] Furthermore, as more military spending flows to private contractors, those contractors use their profits and seeming importance to lobby politicians and fund campaigns, reinforcing the idea of the contractors' economic necessity and expanding their political influence. This is the part of the perpetual cycle of ever-higher U.S. military spending, a cycle in which defense spending begets more defense spending (see also Robert Jay Lifton's discussion in this volume), and military contractors skew the political process.[5]

If military spending exacerbates inequality, then policymakers may want to know so they can either reduce military spending or counteract its effects through additional redistributive programs or social spending, thereby helping to safeguard democratic processes and participation. If military spending reduces inequality, then it may be less objectionable to have higher military budgets. I note that this discussion leaves out other consequences of military spending, including environmental impacts, effects on public health and casualties from war, destruction of infrastructure, or other impacts of peacetime or wartime military expenditures.

According to the Pew Research Center, inequality in the United States has risen since 1970. The richest members of society now hold a significant share of the

nation's wealth, while the middle class's share of wealth has fallen and the share held by the poorest segment has remained relatively steady. In 1970, the middle class held 62 percent of U.S. aggregate household income, but that dropped to 43 percent by 2018. Meanwhile, the share held by the upper income group grew from 29 percent in 1970 to 48 percent in 2018. The share held by the lowest income group fell from 10 percent to 9 percent over that period.[6] It is the "super rich," in particular, who have most benefited from the upward shift in wealth distribution. As of 2024, the bottom 50 percent of households held only 2.5 percent of national aggregate household income, while the top 0.1 percent held 13.5 percent of the aggregate.[7] Over the same period – from 1970 to 2023 – U.S. federal spending on "national defense" rose more than 30 percent (from $521.7 billion to $680.4 billion, in constant FY 2017 dollars).[8]

In the discussion below, I show that the preponderance of both theory and evidence supports the inequality-widening hypothesis: that higher levels of military spending lead to larger gaps in income, wealth, and skills, and that increased military spending may therefore weaken democracy. I also present an appendix with tables summarizing the various theories and pathways, the data sources and methods used by the authors surveyed here, and the models and findings that support the various theories (see page 206). I now turn to a discussion of the main hypotheses put forth in the literature on military spending and inequality.

The theory that military spending will shrink income disparities or narrow the income distribution is fundamentally a Keynesian hypothesis. The inequality-narrowing hypothesis posits that military spending can be used as a countercyclical policy, meaning that when unemployment is high and the growth of the national economy is slow, the government can choose to increase military spending to stimulate demand for new goods and services and thereby create more jobs.

If the jobs created through military spending are widely distributed, and if military spending is relatively labor-intensive (so that more of the spending is used for wages and salaries, and proportionally less for equipment and buildings), then military spending could reduce both poverty and income inequality. This notion of "military Keynesianism" has been around since World War II, when the mobilization of the U.S. economy in the war effort contributed to ending the Great Depression. The link between this and inequality is much more recent.

Also in support of the inequality-narrowing hypothesis is the notion that military spending produces technologies that have socially productive "spinoffs." If military spending leads to technologies that are helpful to the poor, it may shrink economic disparities and provide a leveling force. One example of a spinoff with economic leveling capabilities is cell phone technology, which was first developed for military applications, but has since reached all parts of the world. Cell

phone technology has allowed some less-developed countries to bypass installing expensive infrastructure for landline telephones, while enabling access to phone services to large segments of their population. Canned food is another technology that was developed for military use but is now almost universally available, and is useful particularly in areas where fresh fruits and vegetables are scarce.

Similarly, the military can be an equalizing force through its impacts on human capital. If people on the lower end of the income distribution join the armed forces and benefit from higher wages and greater skills acquisition than they would experience in the civilian economy, the military could lessen disparities in human capital and income. In this way, the military can be a "pathway out of poverty" for some who enlist, giving them an opportunity to earn a steady paycheck through full-time employment, which is especially important for people with lower levels of education and who are lacking employable skills, or who live in communities without decent job prospects.

One recent study analyzing fourteen NATO countries from 1977 to 2007 supports this hypothesis.[9] The authors – economists Michael Chletsos and Stelios Roupakias – expect that military spending will lead to increased income inequality, based on theory and previous evidence, yet their analysis finds the opposite is true: military spending lowers income inequality. The authors note that the findings are sensitive to the variables used (they include several proxies within their models). They examine both directions of causality, to test whether the military spending leads to changes in inequality, or whether inequality drives military spending, and find that only one direction is significant: military spending lowers income inequality.

Chletsos and Roupakias find that in lower income countries, military spending can increase growth and improve the distribution of income, particularly by employing people with lower skill levels in labor-intensive military production. In situations in which unemployment is high, military spending that is labor intensive can therefore reduce the gap between unemployed or low-skilled workers and higher-skilled, higher-paid workers.

Economists Thomas Udimal, Zwane Talent, Biyase Mduduzi, and Eita Hinaunye report evidence of inequality narrowing in a study of BRICS countries (Brazil, Russia, India, China, and South Africa) over the period of 1990 to 2017.[10] While these five countries have very different levels and trends of income inequality, the authors find that increases in military spending led to decreases in inequality over this period. As in the Chletsos and Roupakias study, the inequality-narrowing effects result from military spending that is labor-intensive (rather than capital-intensive), creating employment opportunities for lower-skilled workers.

The research suggests that military spending may lower inequality if it is labor-intensive and provides employment and advancement opportunities for lower-skilled and unemployed workers. It may also shrink inequality by producing tech-

nological spinoffs that are useful to low-income people, including telecommunications, transportation, food storage, and other innovations that improve standards of living and productivity.

The theory that military spending leads to greater inequality is known as the inequality-widening hypothesis. There are numerous channels through which military spending might exacerbate inequalities. Spending can worsen inequalities directly by impacting certain groups of people differently from others (such as if there are racialized or gendered differences in military practices or military spending); income inequality could be widened directly if military spending benefits those who are already faring better economically while not helping or worsening the situation of people at the lower end of the income distribution; and income inequality could be worsened indirectly if military spending causes a reduction in other programs or funds available to lift people up from the lower end of the income distribution.

Perhaps most well-known or most discussed among the potential negative consequences are the "crowding-out" hypothesis and the idea of "opportunity costs." According to the crowding-out hypothesis, military spending could "crowd out" other types of spending, particularly if there are budget constraints and a government must reduce spending in one area to increase it in another. If military spending comes at the expense of other types of social spending, inequality could be exacerbated. This is particularly true if the crowded-out spending includes transfers or social spending that is directly targeted to people in poverty (for example, food aid programs, housing subsidies, cash transfers, or other types of welfare spending). It can have a longer-term crowding-out effect if an increase in military spending leads to decreases in spending in areas such as health care and education. If people at the lower end of the income distribution benefit most from these types of government expenditures, then they will be unjustly or disproportionately hurt by military expenditures that crowd out these types of social spending.

The "opportunity cost" of military spending is the trade-off or foregone opportunity that results from not pursuing an alternative pathway. The cost includes lower educational and health outcomes, but could also include indirect effects on incomes through impacts on employment: if more jobs are created through health care and education spending than through the military, then increased military spending has the opportunity cost of reduced employment, which might also influence inequality.

One important paper in this area is a World Bank and International Monetary Fund (IMF) study from 1996 on the "peace dividend," which refers to the hypothesis that post–Cold War reductions in military spending would lead to increases in other public spending that would have positive social impacts.[11] While that paper fo-

cuses mainly on growth rather than inequality, the authors find that military spending reduces the amount of alternative resources available to the economy (notably, productive capital, education, and market-oriented technological innovation) and "may aggravate distortions that reduce the efficiency of resource allocation."[12] They note, however, that not all military spending is unproductive. In some cases, it can be socially useful by enhancing security and the enforcement of property rights, which encourages private investment. Additionally, military capital spending may generate some socially productive technologies and infrastructures.

A 2017 meta-analysis by economists Edward Anderson, Maria Ana Jalles D'Orey, Maren Duvendack, and Lucio Esposito finds that government spending for social welfare and other social spending leads to reductions in inequality.[13] Therefore, if military spending crowds out other types of social spending that would have reduced inequality, military spending may have an inequality-widening effect. Other economists have found evidence that the crowding-out hypothesis holds true for welfare expenditures: Antonella Biscione and Raul Caruso report that an increase in military expenditures in transition countries in the period of 1990 to 2015 led to lower levels of transfers and subsidies and therefore worsened income inequality.[14] They test whether reduced spending on health care and education leads to similar crowding-out effects, but find limited impact. They suspect that since education and health care spending are often mandatory and not discretionary, military spending increases may not lead to significant decreases in these types of social spending.

A paper by economists Adem Yavuz Elveren and Valentine M. Moghadam explores the gendered impacts of military spending, theorizing that if military spending crowds out spending for education and health, then women may be disproportionally affected, as working-class and low-income women rely more heavily on these types of social spending.[15]

Finance matters. How military spending is financed may lead to crowding out, either in the short run or the long run. In the short run, crowding out would imply that as military spending increases, other spending must decrease. This is particularly true in contexts of budget constraints. Alternatively, increased military spending could be funded by an increase in taxes or through deficit spending (and greater debt). Either of these mechanisms could lead to crowding-out effects in the long term. If taxes increase, productive investment is likely to fall or stagnate, reducing after-tax wages for individuals and households; but if debt increases, then spending will be constrained in the future, as more of the government budget will be used for interest and debt payments, and thus the crowding-out effect will be delayed.[16] Inequality can increase through these short-run or long-run crowding-out effects that disproportionately impact the poor.

At a more micro level, military spending can create inequalities within the workforce. Even if military spending does have a Keynesian impact, creating jobs

economy-wide, the way that spending is channeled may contribute to an increased divide between first- and second-tier workers, between less-skilled, lower-paid, unorganized (nonunionized) workers, and higher-skilled, higher-paid, unionized labor. This is true particularly when military spending is capital-intensive, as fewer workers would be needed and those workers would need more advanced credentials. In other words, the more labor-intensive the spending is, the more likely it will decrease inequalities; the more capital-intensive, the more likely it will widen inequalities between workers.

Economist Hamid E. Ali's study of global data in the Cold War period finds that inequality rises in response to defense spending, since "labor in a defense-related industry is more specialized and inelastic in supply."[17] As defense spending grows, pay in defense-related industries rises in relation to pay in civilian industries, increasing the pay gap between defense and nondefense sectors.

In a 1994 study, economist John D. Abell examines the effects of military spending on inequality through the channel of workforce differences.[18] Abell notes that military-related jobs (both in the military and in contracting firms) are primarily held by men, and that as military spending increases employment among contractors, it exacerbates the wage differentials among people (primarily white and male) who work for them and creates fewer opportunities – and lower-paid opportunities – for women and minorities. Military spending widens income inequality and racial and gender inequalities in three ways: First, as military spending becomes more capital-intensive, fewer jobs are created, and the jobs that are created are for higher-skilled workers. Second, military spending crowds out other types of domestic spending, creating fewer jobs for women and minorities in other sectors, further exacerbating the divide. And third, military contracting is highly profitable, and as profits to contractors increase, wealthier members of society who are the owners and shareholders of those firms further benefit.

As shown in my own report from 2020, the average salary for occupations in some of the major military contracting companies in the United States is between 20 percent and 160 percent above the economy-wide average for that occupation (for example, mechanical engineers at Lockheed Martin earned an average annual income of $125,000 in 2018 compared with an average of $87,370 for mechanical engineers across all sectors).[19] If increased military spending leads to increased spending on military contractors, then pay dispersion and inequality will increase. Additionally, if the military creates fewer jobs than sectors such as health care or education, then inequality increases both because fewer jobs are created and those that are created lead to a widening gap among lower-paid and higher-paid workers.[20]

Economists Unal Töngür and Adem Yavuz Elveren examine the nexus of economic growth, military expenditures, and inequality.[21] They hypothesize that if military expenditures crowd out certain types of spending – in particular, educa-

tion spending – then this will widen the income distribution, as the poor are likely to have higher fertility rates and lower levels of education. Not only does this result in lower growth overall, but it is one pathway through which higher military spending could lead to widening income inequality.

Finally, a 2024 study by economists Alper Sönmez and Abdoul-Kader Sidi Gandou finds that inequality widens in response to increases in military spending as a result of three possible channels: First, military spending crowds out other government spending on health, education, and welfare. Second, military spending worsens inequality in the workforce by increasing the wage gap and skills gap between defense and nondefense workers. And third, military spending is energy-intensive, leading to higher energy prices, which then has a more adverse impact on the poor.[22]

In addition to potential widening or narrowing effects on inequality, I examine possible mixed or ambiguous effects, including inequality-neutral military spending and bidirectional or reverse causality. Military spending may have a minimal effect on inequality, particularly if it is a small and therefore relatively insignificant portion of a government's budget. In this case, economic inequalities are generated by other forces, and are neither improved nor exacerbated by military spending. Similarly, if the military labor force makes up only a small portion of a country's total labor force, then an increase in military spending or the wages paid to military-industry workers will have a negligible impact.

Military spending may also be the result of inequality rather than its cause. Various authors have examined this "reverse causality," or whether the relationship between military spending and inequality is bidirectional, with an increase in one leading to an increase in the other. As one example, Ali's study examines various internal and external conflict variables as both cause and response to military spending. He reports that since inequality is a source of tension, military spending can sometimes be a response to that tension, and therefore not only does military spending increase inequality (as discussed above), but inequality also drives military spending. His study thus finds support for bidirectional causality.[23]

Another way in which military spending can have both narrowing *and* widening effects on inequality is if the short-run and long-run impacts differ. Economists Malcolm Knight, Norman Loayza, and Delano Villanueva note that in the short run, an increase in defense expenditures could have a Keynesian effect, increasing aggregate demand and employment; but in the long run, the impact of increased military spending is to crowd out productive investment, at least partly because the increase will need to be financed by higher taxes or by borrowing, which increases interest rates and future taxes.[24]

The effects of military spending on inequality may also depend on the type of spending. If military spending is considered in aggregate, then measures such as

total military spending, or military spending per capita, will lead to potentially unambiguous effects of increased or decreased income inequality. However, some authors posit that not all military spending will have the same effect. For example, spending on personnel might have a different effect than spending on equipment.

Sociologists Jeffrey Kentor, Andrew K. Jorgenson, and Edward Kick hypothesize that different types of military spending will have different effects on income inequality.[25] If the pathway from spending to inequality is through wages, then it matters whether military spending is labor-intensive or capital-intensive. Does it support high-paid, high-skilled, high-tech jobs? Or lower-skilled jobs that are easier for people on the lower end of the income distribution to access? High-tech militaries require fewer people, who in turn are better paid. This would erode "the military's traditional function as a pathway of upward mobility and as an employer of last resort."[26] This is, in fact, what Kentor, Jorgenson, and Kick show. By analyzing eighty-two countries over a forty-year period, the authors find that more capital-intensive military spending leads to fewer employment opportunities, and that those military-related jobs are geared toward higher-skilled workers. Thus, military spending widens income inequality by offering fewer pathways out of poverty and favoring workers who are not on the lower end of the pay distribution.

Economist Julia Gledhill further disaggregates military spending to show that the effects differ for the four main types of federal military spending (personnel, procurement, research and development, and operations and maintenance).[27] Gledhill notes that more capital-intensive military spending both limits opportunities for upward mobility (by providing fewer jobs) and disproportionately benefits organized labor. Gledhill finds that operations and maintenance and procurement lead to increased income inequality. She hypothesizes that personnel spending will reduce inequality, though the evidence supporting this hypothesis is mixed depending on which model is used.

In recent years, military spending has become increasingly capital-intensive, as investments and production of digital and information technology products have become a focus of "modern" war. Products such as unmanned spacecraft, artificial intelligence, and other cyber technologies require a highly skilled, highly trained workforce, unlike the low-skilled, labor-intensive occupations and industries that might provide opportunities to reduce inequality. The increasing shift toward information technology in the military further exacerbates inequality.

Additional disparities may be generated beyond the economic ones, including differences in casualties and in how transferable skills are. Most research in this field, and most studies surveyed in this essay, relate military spending to *income* inequality. However, military spending can grow or shrink inequalities in other forms, including if there are disparate casualty rates for dif-

ferent groups (for example, race or gender) or if other aspects of military spending or military service exacerbate group differences. There are three points in which between-group inequalities can be created or widened: differences in recruiting rates, differences in casualty rates (which is generally tied to occupational sorting), and differences in post-service experiences.

For example, economists Douglas L. Kriner and Francis X. Shen explore what is called the "casualty gap," wherein there are possible differences in who serves and who is wounded or killed in the military. They observe that "Americans who die or are wounded in war are disproportionately from poorer parts of the country."[28] They find that the American soldiers who served in the wars in Afghanistan and Iraq were primarily from the working class, and that "inequalities in pre-service opportunities can translate into inequality in post-service health outcomes."[29] They find that nonfatal casualty rates are 50 percent higher in the lowest three income deciles than in the upper seven deciles. The authors note that compared with past wars, this gap is greater, and as recruitment for the armed forces has become more difficult, they have reached out to younger, poorer, and less skilled recruits. While the military could theoretically narrow the income gap through skills-acquisition and promotion, the authors find that "occupational sorting" within the military leads to a casualty gap, as enlisted personnel are injured or killed at higher rates than officers. These inequalities are exacerbated post-service, as veterans from poorer communities have inferior access to quality health care and there are fewer social supports available to them and their families.

Military spending – and military service – can also lead to worsening inequality if the types of skills gained through different occupations in the military are not equally transferrable. Transferability, or convertibility, refers to how the skills acquired during military service apply to civilian occupations post-service. Military service can widen inequalities if the skills of some people in the military are more transferable to the civilian economy than others – this is particularly true if different demographics have different types of jobs within the military (occupational sorting) and if there are different returns to those jobs when they enter or reenter the civilian labor force (occupational returns). Disparities can be exacerbated at the point of recruitment, when positions are assigned, and when promotion decisions are made.

Political sociologist Yagil Levy takes a more theoretical approach to the reproduction of social differences and inequality.[30] He finds that differences pre-service are reinforced by the military hierarchy: poor people and people of color find lower-skilled positions lower in the hierarchy, which tend to lead to blue-collar jobs in civilian life. Meanwhile, higher socioeconomic status white people are more likely to be officers and service members with positions higher in the hierarchy, and tend to find higher-skilled jobs with greater pay and social status when they enter or reenter the civilian workforce. As society becomes further militarized, transfer-

ability of skills post-service becomes both easier and more important, deepening the divide. As Levy writes, "Overall, equality/inequality in the military is structurally transmitted to the civilian sphere, in situations in which disadvantageous/advantageous positions in an ethnically divided military coincide with, and amplify, the previously constructed structure of the civilian labor market."[31]

The devastating effects of war are physical, economic, social, emotional, and environmental. The effects of war include not only the destruction of human lives but also damage to the built environment and natural resources that enable people to live their lives. Inequality is affected by the destruction of infrastructure, including changes in access to health care facilities, schooling, food and water supplies, and energy systems. It is not only the level of devastation that matters, but also which populations generally access or most need access to the destroyed infrastructures. Physical impacts of war will show up more quickly, leading to immediate changes in growth and inequality, while impacts on human capital (through schooling and health care, for example) can have longer term effects on growth and inequality. In a study of 128 countries from 1960 to 2004, economists Çağatay Bircan, Tilman Brück, and Marc Vothknecht find that violent conflict has the greatest effects on inequality in the first five years post-conflict.[32] The authors also note that violent conflict can exacerbate inequality by both depriving people on the lower end of the income distribution of access to infrastructure and livelihoods (including markets in which to sell their agricultural or other products), and enabling war profiteers, often from wealthier segments of society, to get richer. Furthermore, increased military spending during wartime can come at the expense of lower social spending, worsening inequality both in the short run and in the long run (through lower human capital).

Inequality can be both a cause and a consequence of conflict, as summarized in a 2019 Oxfam brief.[33] Inequality peaks during conflict and immediately afterward. Violent conflict exacerbates inequality by creating or worsening political instability, causing social disruption, displacing people, and leading to conditions that exacerbate hunger and the spread of disease. War can affect not only the country experiencing the conflict but also its neighbors, as trade and economic transactions are reduced and changed, livelihoods are destroyed, and the costs of reconstruction grow. The authors of the Oxfam brief also argue that protracted or repeated conflicts can prevent rebuilding, which worsens both the political and economic situations and in turn leads to increased social unrest and conflict.[34]

The preponderance of evidence surveyed here supports the hypothesis that increases in military spending exacerbate inequality. The studies surveyed in this essay use a variety of approaches and economic models to examine different geographic areas in different time periods. Some do find support for

inequality narrowing, showing a Keynesian effect of military spending, which creates jobs and opportunities for members of the armed forces and workers in the defense industry. However, by far, many more studies support the inequality-widening hypothesis – that military spending leads to greater inequality. This is true partly because military spending is capital-intensive, increasing pay disparities within the workforce, as military-related jobs are higher skilled, higher paid, and more often unionized, and the military produces fewer jobs than more labor-intensive sectors like education and health care. Furthermore, military spending that is channeled to contractors contributes to increased inequality by concentrating wealth and skewing the labor market. Military spending therefore benefits a small segment of the population: namely, the owners of military contracting firms and the workers who were already faring better than average. This effect then widens the divide between higher-skilled and lower-skilled workers and generally exacerbates inequality between white male workers and workers of color and female workers.

Military spending can also widen inequalities by crowding out other forms of investment. As funding for the military rises, there are declines in welfare-spending and other types of social support that benefit people on the lower end of the income distribution (including health care and education). The studies surveyed here show mixed evidence – some report little crowding out of health care and education, while others reveal a significant effect. More robust evidence is presented to show the crowding out of transfers and social spending directly on the poor, with a few studies supporting the inequality-widening hypothesis through this pathway. Inequalities are also exacerbated by recruiting practices, occupational sorting within the military, and differences in occupational returns. Rather than offering a pathway out of poverty, the military likely reinforces and exacerbates differences in gender, race, and socioeconomic status. While more research may be needed to provide evidence for the impact of military spending on inequality overall, the results here are telling: greater military spending generally leads to worsening inequality.

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ENDNOTES

[1] Both values are 2023 estimates from the Office of Management and Budget, OMB Table 5.6, "Budget Authority for Discretionary Programs: 1976–2029," and OMB Table 6.1, "Composition of Outlays: 1940–2029" (accessed October 18, 2024).

[2] For the purposes of this essay, I will generally refer to income inequality when discussing the relationship between spending and inequality.

[3] Readers who are interested in the debate on economic growth and military spending may refer to overviews by J. Paul Dunne on the topic: J. Paul Dunne, "Economic Effects of Military Spending in LDCs: A Survey," in *The Peace Dividend*, ed. Nils Petter Gleditsch, Adne Cappelen, Olav Bjerkholt, et al. (Emerald Publishing Group Limited, 1996), 439–464; and J. Paul Dunne, Ron P. Smith, and Dirk Willenbockel, "Models of Military Expenditure and Growth: A Critical Review," *Defence and Peace Economics* 16 (6) (2005): 449–461, https://doi.org/10.1080/10242690500167791.

[4] Suzanne Mettler and Robert C. Lieberman, *Four Threats: The Recurring Crises of American Democracy* (St. Martin's Press, 2020); and Robert C. Lieberman, "The State, War-Making & Democratization in the United States: A Historical Overview," *Dædalus* 154 (4) (Fall 2025): 31–47, https://www.amacad.org/daedalus/state-war-making-democratization-united-states-historical-overview.

[5] See also Robert Jay Lifton, "War Begets War," interview by Neta Crawford and Matthew Evangelista, September 4, 2024, North Truro, Massachusetts, *Dædalus* 154 (4) (Fall 2025): 181–191, https://www.amacad.org/daedalus/war-begets-war; and Heidi Peltier, "We Get What We Pay For: The Cycle of Military Spending, Industry Power, and Economic Dependence" (Costs of War, Watson School of International and Public Affairs, Brown University, 2023).

[6] Julian Menasce Horowitz, Ruth Igielnik, and Rakesh Kochhar, "Most Americans Say There Is Too Much Economic Inequality in the U.S., But Fewer Than Half Call It a Top Priority," Pew Research Center, January 9, 2020, https://www.pewresearch.org/social-trends/2020/01/09/most-americans-say-there-is-too-much-economic-inequality-in-the-u-s-but-fewer-than-half-call-it-a-top-priority.

[7] "Wealth Distribution in the United States in the Second Quarter of 2024," Statista, https://www.statista.com/statistics/203961/wealth-distribution-for-the-us (accessed July 29, 2025).

[8] OMB Historical Tables, "Table 6.1–Composition of Outlays: 1940–2029," https://www.govinfo.gov/app/details/BUDGET-2025-TAB/context (accessed February 28, 2025).

[9] Michael Chletsos and Stelios Roupakias, "The Effect of Military Spending on Income Inequality: Evidence from NATO Countries," *Empirical Economics* 58 (3) (2020): 1305–1337.

[10] Thomas Udimal, Zwane Talent, Biyase Mduduzi, and Eita Hinaunye, "The Nexus between Military Spending and Income Inequality in BRICS Nations," *The Journal of Developing Areas* 57 (4) (2023): 351–366.

[11] Malcolm Knight, Norman Loayza, and Delano Villanueva, "The Peace Dividend: Military Spending Cuts and Economic Growth," Policy Research Working Paper 1577 (The World Bank, 1996).

[12] Ibid., 1.

[13] Edward Anderson, Maria Ana Jalles D'Orey, Maren Duvendack, and Lucio Esposito, "Does Government Spending Affect Income Inequality? A Meta-Regression Analysis," *Journal of Economic Surveys* 31 (4) (2017): 961–987.

[14] Antonella Biscione and Raul Caruso, "Military Expenditures and Income Inequality: Evidence from a Panel of Transition Countries (1990–2015)," *Defence and Peace Economics* 32 (1) (2021): 46–67.

[15] Adem Yavuz Elveren and Valentine M. Moghadam, "Militarization and Gender Inequality: Exploring the Impact," *Journal of Women, Politics & Policy* 43 (4) (2022): 427–445.

[16] Ibid.

[17] Hamid E. Ali, "Military Expenditures and Inequality: Empirical Evidence from Global Data," *Defence and Peace Economics* 18 (6) (2007): 519–535.

[18] John D. Abell, "Military Spending and Income Inequality," *Journal of Peace Research* 31 (1) (1994): 35–43.

[19] Heidi Peltier, "The Growth of the 'Camo Economy' and the Commercialization of the Post-9/11 Wars" (The Watson School of International and Public Affairs at Brown University and the Pardee Center for the Study of the Longer-Range Future at Boston University, 2020).

[20] Ibid.

[21] Unal Töngür and Adem Yavuz Elveren, "The Nexus of Economic Growth, Military Expenditures, and Income Inequality," *Quality and Quantity* 51 (4) (2017): 1821–1842.

[22] Alper Sönmez and Abdoul-Kader Sidi Gandou, "Military Expenditures and Income Inequality: Evidence from a Panel Analysis," *Fiscaeconomia* 8 (3) (2024): 1085–1099.

[23] Ali, "Military Expenditures and Inequality: Empirical Evidence From Global Data."

[24] Knight, Loayza, and Villanueva, "The Peace Dividend."

[25] Jeffrey Kentor, Andrew K. Jorgenson, and Edward Kick, "The 'New' Military and Income Inequality: A Cross National Analysis," *Social Science Research* 41 (3) (2012): 514–526.

[26] Ibid.

[27] Julia Gledhill, "An Empirical Analysis: The Effects of Defense Expenditures on Income Inequality" (undergraduate thesis, Colorado College, 2019).

[28] Douglas L. Kriner and Francis X. Shen, "Invisible Inequality: The Two Americas of Military Sacrifice," *The University of Memphis Law Review* (2016): 545–635.

[29] Ibid., 547.

[30] Yagil Levy, "Militarizing Inequality: A Conceptual Framework," *Theory and Society* 27 (6) (1998): 873–904.

[31] Ibid., 880.

[32] Çağatay Bircan, Tilman Brück, and Marc Vothknecht, "Violent Conflict and Inequality," *Oxford Development Studies* 45 (2) (2017): 125–144.

[33] Solveig Svendsen, Alex Shoebridge, Maren Steller, and Alexandre Gernigon, "Inequality and Conflict" (Oxfam International, 2019).

[34] Ibid., 3.

Appendix

Overview of Studies: The Pathways That Lead to More or Less Inequality

Table 1 lists the various studies surveyed in this essay, showing the study area and time frame, the pathway or mechanism by which the authors hypothesize that inequality will grow or shrink in response to an increase in military spending, and their ultimate findings. In subsequent tables, I show the measures and data used, as well as the types of models employed.

Table 1
Overview of Studies and Findings

Author	Time Frame	Area	Overview and Takeaway
Ali	1987 – 1997	Global	Military spending (MS) is inelastic; as MS increases pay in its industry, interindustry pay dispersion will increase. Increases in MS widen inequality.
Biscione & Caruso	1990 – 2015	Eastern and transition countries	MS crowds out subsidies and transfers; MS may also affect inequality through reductions in health and education spending. MS increases inequality (though the opposite may be true in wartime).
Abell	1972 – 1992	United States	Wage gap between military and nonmilitary sectors increases as MS rises, and top income deciles benefit most from profitability of military contracting. MS increases income inequality through pay disparities.
Kentor, Jorgenson & Kick	1970 – 2000	82 countries at different levels of development	MS is more capital-intensive and increases pay disparities between "high-skilled" and unionized jobs compared with nonmilitary sectors. MS increases income inequality through pay disparities.

Gledhill	1980 – 2010	United States	Disaggregated military expenditures: labor-intensive military expenditures will reduce inequality while capital-intensive spending will increase it. Procurement and operations and maintenance expenditures are capital-intensive and widen inequality.
Töngür & Elveren	1988 – 2008	82 countries	Higher inequality reduces human capital and slows growth; if MS crowds out education spending, this lowers growth via human capital. MS lowers growth; income inequality slows growth in most countries except for higher-income countries.
Chletsos & Roupakias	1977 – 2007	14 NATO countries	Hypothesis is that military spending widens inequality but their modeling shows the opposite: defense spending decreases inequality.
Knight et al.	1972 – 1990	124 industrial and developing countries	MS spending distorts resource allocation decisions, and the finance of MS (through taxes or debt) reduces investments in productive capital. Military spending crowds out productive (socially useful) investment.
Elveren & Moghadam	1990 – 2017	133 countries	Militarization exacerbates gender inequality by crowding out social spending. Both militarization (higher MS) and conflict lead to widening gender inequality, with worse impacts in less-developed countries.
Helms & Kilburn	2006 – 2015	2,298 counties in the United States	Militarization of police correlates with inequality (bidirectional). Greater racial inequality leads to more police militarization.
Udimal et al.	1990 – 2017	BRICS countries	Defense spending can lead to inequality narrowing if it is domestic and labor-intensive. MS is inequality-narrowing.
Sönmez & Gandou	2001 – 2019	52 countries	Three channels lead to inequality widening: crowding out; pay and skill differentials; energy price increases. MS is inequality-widening.
Bircan et al.	1960 – 2004	128 countries	War exacerbates inequality through destruction of physical and human capital. Inequality rises during war and particularly in the first five years post-war.

A Review of the Statistics, Measures, and Data Sources

The studies included in this essay use a variety of indexes and statistics to capture inequality, as well as different measures of military spending or militarization. Table 2 is a nonexhaustive sample of the most widely used measures in the models (discussed in the next section). The table lays out the names and descriptions of the measures and which studies use them, as well as provides data sources in which various inequality, military spending, and other economically relevant data used in these studies can be found.

Table 2
Measures and Data Sources

Variable or Index	Description	Studies
Theil index	A measure of inequality that can be decomposed into within-group and between-group components	Ali; Biscione & Caruso; Töngür & Elveren
Gini coefficient	An index from 0 to 1 that measures the level of inequality within or between countries	Biscione & Caruso; Gledhill; Chletsos & Roupakias; Abell; Udimal et al.; Sönmez & Gandou; Bircan et al.
Difference between upper- and lower-income quintiles	Income of top 20 percent of population minus income of bottom 20 percent	Abell
Military spending (MS), aggregate total	Annual amount of MS by a country's government	Biscione & Caruso; Sönmez & Gandou
Per capita MS	MS divided by total population	Ali; Biscione & Caruso
Growth rate of MS	Annual percentage growth in MS	Abell
Size of the armed forces	Number of people serving in the armed forces	Ali
MS as percentage of GNP or GDP	MS divided by total national income, also known as "military burden"	Biscione & Caruso; Töngür & Elveren; Chletsos & Roupakias; Knight et al.; Elveren & Moghadam; Abell; Udimal et al.

Share of military government spending	Military expenditures divided by total government spending	Elveren & Moghadam
Share of nonmilitary government spending	Nonmilitary government expenditures divided by total government spending	Chletsos & Roupakias
MS per soldier	MS divided by the size of the armed forces	Kentor, Jorgenson & Kick
Internal and external security threats	Various conflict variables, including duration and magnitude of death, in both civil and international wars	Ali
Human capital index	Index based on years of schooling and returns to education	Töngür & Elveren
Gender Inequality Index	Gender disparities in reproductive health, empowerment, and the labor market	Elveren & Moghadam
Global Militarization Index	Military expenditure, military personnel, and heavy weapons	Elveren & Moghadam

Data Source	**Description**	**Some Studies That Use This**
University of Texas Inequality Project	Comprehensive data on industrial pay inequality	Ali; Gledhill; Töngür & Elveren; Chletsos & Roupakias
U.S. Department of State, Bureau of Verification and Compliance	Military expenditures per capita; imports of military and civilian goods	Ali
Stockholm International Peace Research Institute	Global data on military expenditures	Töngür & Elveren; Chletsos & Roupakias; Knight et al.; Sönmez & Gandou
Penn World Tables	Income level and GDP growth	Ali; Udimal et al.
Heidelberg Institute for International Conflict Research	Various conflict variables, including for both civil and international wars	Ali
Global Income Dataset	Contains various consumption and income-related statistics, including Theil index and Gini coefficients	Biscione & Caruso

Standardized World Income Inequality Dataset	Gini coefficients, measuring inequality for 192 countries from 1960 to close to present	Biscione & Caruso; Chletsos & Roupakias
Congressional Budget Office	Various data, including annual U.S. military expenditures	Gledhill
World Bank World Development Indicators Database	Various economic indicators, including capital formation, labor force, and income	Töngür & Elveren; Udimal et al.; Sönmez & Gandou
United Nations Development Program	Various indicators, including the Gender Inequality Index	Elveren & Moghadam
Bonn International Center for Conversion	Global Militarization Index	Elveren & Moghadam
United Nations University World Institute for Development Economic Research	World Income Inequality Database, version 2.0	Bircan et al.
Uppsala Conflict Data Program and International Peace Institute	Armed Conflict Dataset Codebook	Bircan et al.

A Review of the Models and Findings

Table 3 provides an overview of the models used in the various studies reviewed here. These data show the time period, study area, model, and general findings. For more specific details on each model, readers are encouraged to consult the source itself, as this essay offers a survey of the various models without the specific model details.

Table 3
Models and Results

Author	Time Frame	Study Area	Model Used	Results
Ali	1987 – 1997	Global	Panel regression; two-stage least squares	Military spending (MS) increases pay inequality
Biscione & Caruso	1990 – 2015	Transition economies	Panel regression	MS increases inequality (as measured by both Theil index and Gini coefficients)
Kentor et al.	1970 – 2000	82 countries at different levels of development	Generalized least squares; random effects	Inequality widens: capital-intensive militaries reduce employment opportunities and favor more highly skilled workers
Gledhill	1980 – 2010	United States	Ordinary least squares (OLS)	MS impact on inequality depends on type of spending (capital-intensive MS widens inequality)
Töngür & Elveren	1988 – 2008	82 countries	Augmented Solow growth model (OLS, fixed effects, and generalized method of moments)	MS lowers economic growth, less so for arms importing or exporting countries; human capital has a positive effect on economic growth; inconclusive whether MS crowds out education spending

Chletsos & Roupakias	1977 – 2007	14 NATO countries	OLS; and two-stage least squares with instrumental variables	Defense spending lowers income inequality, though is sensitive to which proxy is used
Knight et al.	1972 – 1990	124 industrial and developing countries in full sample; 79 countries in reduced sample	Augmented Solow growth model; Solow-Swan model; panel data estimation	MS reduces productive investment and growth
Elveren & Moghadam	1990 – 2017	133 countries	Fixed effects; instrumental variable, two-stage least squares	Higher militarization leads to higher gender inequality
Helms & Kilburn	2006 – 2015	2,298 counties in the United States	OLS	More urbanized areas and areas with greater economic inequality have greater police militarization
Abell	1972 – 1991	United States	OLS	Higher MS leads to worsening distribution of income
Udimal et al.	1990 – 2017	BRICS countries	Panel autoregressive distributive lag	Greater MS reduces inequality
Sönmez & Gandou	2001 – 2019	52 countries	Panel regression, random effects	Military spending widens inequality
Bircan et al.	1960 – 2004	128 countries	Panel data using both OLS and fixed effects	Inequality increases during war and especially five years post-war

Works Cited

Abell, John D., "Military Spending and Income Inequality," *Journal of Peace Research* 31 (1) (1994): 35–43.

Ali, Hamid E., "Military Expenditures and Inequality: Empirical Evidence from Global Data," *Defence and Peace Economics* 18 (6) (2007): 519–535.

Bircan, Çağatay, Tilman Brück, and Marc Vothknecht, "Violent Conflict and Inequality," *Oxford Development Studies* 45 (2) (2017): 125–144.

Biscione, Antonella and Raul Caruso, "Military Expenditures and Income Inequality: Evidence from a Panel of Transition Countries (1990–2015)," *Defence and Peace Economics* 32 (1) (2021): 46–67.

Chletsos, Michael and Stelios Roupakias, "The Effect of Military Spending on Income Inequality: Evidence from NATO Countries," *Empirical Economics* 58 (3) (2020): 1305–1337.

Gledhill, Julia, "An Empirical Analysis: The Effects of Defense Expenditures on Income Inequality" (undergraduate thesis, Colorado College, 2019).

Elveren, Adem Yavuz and Valentine M. Moghadam, "Militarization and Gender Inequality: Exploring the Impact," *Journal of Women, Politics & Policy* 43 (4) (2022): 427–445.

Helms, Ronald and John C. Kilburn, "Minority Communities, Economic Inequality, and Police-Military Resource Sharing in the United States," *Journal of Ethnicity in Criminal Justice* 20 (4) (2022): 271–293.

Kentor, Jeffrey, Andrew K. Jorgenson, and Edward Kick, "The 'New' Military and Income Inequality: A Cross National Analysis," *Social Science Research* 41 (3) (2012): 514–526.

Knight, Malcolm, Norman Loayza, and Delano Villanueva, "The Peace Dividend: Military Spending Cuts and Economic Growth," Policy Research Working Paper 1577 (The World Bank, 1996).

Sönmez, Alper and Abdoul-Kader Sidi Gandou, "Military Expenditures and Income Inequality: Evidence from a Panel Analysis," *Fiscaeconomia* 8 (3) (2024): 1085–1099.

Töngür, Unal and Adem Yavuz Elveren, "The Nexus of Economic Growth, Military Expenditures, and Income Inequality," *Quality and Quantity* 51 (4) (2017): 1821–1842.

Udimal, Thomas, Zwane Talent, Biyase Mduduzi, and Eita Hinaunye, "The Nexus between Military Spending and Income Inequality in BRICS Nations," *The Journal of Developing Areas* 57 (4) (2023): 351–366.