

# Military Expenditures and Terrorism: Assessing Correlation Between Terror Attacks and Global Military Spending

Elizabeth Smith

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## Abstract

The Global Terrorism Database is an extensive dataset with over 200,000 individual entries of terror attacks across the world, spanning from 1970 to 2020. This project investigates the connections and correlations between terror attacks and military expenditure, ultimately comparing three different datasets. The Global Terrorism Database provided detailed descriptions of nearly every international and domestic terror attack, and Statista provided two datasets surrounding the countries with the highest military expenditure in 2021, and a compilation of global military spending from 2001-2021. Focusing on the terror attacks from 2012-2020 and the accompanying military spending (both globally and by country), this project compare these to see if measures taken by countries to ward against terrorism have been successful, bearing in mind that terrorism is a multifactorial issue and is not defined by only one single factor of military spending. Many other explanatory factors could contribute to the increase or decrease of these attacks, including poverty, internal and regional political stability, culture and ethnic divisions, globalization and trade, economic investment and development which all have some degree of correlation with terrorist attack frequency themselves. This project is solely looking at the comparisons between military spending (globally and by country) to identify any patterns. After visually synthesizing these three datasets, there is a correlation between higher military spending (both by country and globally) and a decrease in global terror attacks.

## Introduction

Terrorism is the threatened or actual use of illegal force and violence to attain a political, economic, religious or social goal through fear, coercion or intimidation. It is used against noncombatant targets by individuals or non-state groups (whether centralized or decentralized) for various purposes (McAllister). The violence, or threatened violence, is designed to have far-reaching psychological implications extending beyond the original targets of the attacks. It is a force multiplier and is effective at prolonging civil wars. In recent years especially, terrorist groups are becoming harder for democratic states to counter due to the increased decentralized and lone wolf actors. In recent years, the most pressing threat against states is becoming domestic terror acts instead of international threats, especially after the War on Terror.

There are various types of terror attacks, including ethno-nationalist, state-sponsored, religious, and suicide terror acts, many which are documented within the GTD. Ethno-nationalist terrorism is when there is a struggle for modifications to an existing political structure to accommodate different ethnicities or nationalities, like the Irgun in British-occupied Palestine. State-sponsored terrorism involves government funding or support of terrorists, which has been present in nations like Iran, and with Egypt's sponsorship of the Palestinian Liberation Organization and other associated groups. Religious terror imperative motivates terrorism in whole or in part, where violence becomes a divine duty, or acts committed are perceived as sacramental enacted based on a theological demand. This includes many Iranian-backed Islamic groups, like Hezbollah, Sunni-backed Islamic groups, like Al-Qaeda, or like American Christian white supremacists (McAllister). Suicidal terror attacks are ones in which the perpetrator intends to die, like the Al-Qaeda attacks in the United States on 9/11, or Hamas in Israel.

Military spending can include counter terror measures, which according to the US Army Field Manual, include any offensive operations and measures that are taken to prevent, deter, preempt, and respond to terrorism (Rinehart, 31). This description is very open ended, covering anything and everything, and unspecific purposefully to allow for flexibility within spending and actions taken against potential threats. Deterrent, preemptive, defensive, and criminalization measures can be utilized as counterterrorism and counterinsurgency methods.

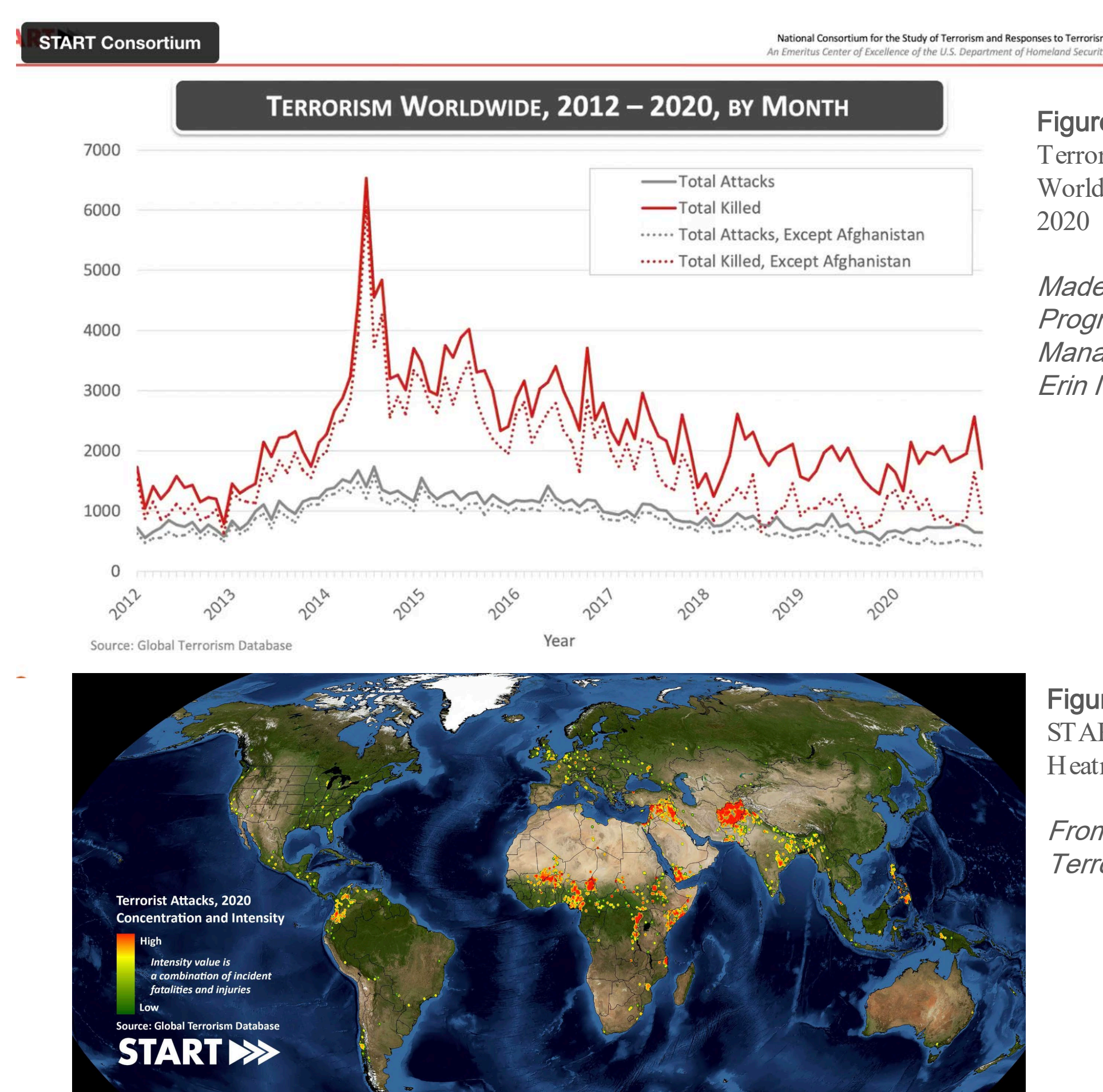
## Methodology

I utilized START, the National Consortium for the Study of Terrorism and Responses to Terrorism's Global Terrorism Database (GTD) and visualizations made by GTD Program Manager Dr. Erin Miller and Statista's two datasets entitled "Global Military Spending from 2001 to 2021 (in Billion U.S. Dollars)," and "Countries with The Highest Military Spending Worldwide in 2021 (in Billion U.S. Dollars)." Creating my own visualizations with Tableau with the Statista datasets, I looked at the various peaks and valleys and overall trends of these three datasets over various periods of time (2012-2020 for the GTD, 2001-2021 for the global military spending dataset, and 2021 for listing of individual countries' military expenditures) to try and find a story within these datasets.

The GTD's dataset was extremely extensive, with over 200,000 individual entries and 108 different categories dating from 1970 to 2020, each row filled with details ranging from the exact geographical coordinates of each attack to the subtype of weapon or attack method used.

This data was collected and assessed upon on several factors. The incident needed to have been intentional, a conscious choice and calculation by the perpetrator or group. There needed to be some level of violence attached to the act, or threat of violence. There also needed to be sub-national perpetrators present, meaning at the time of the attack, the group perpetrating the attack couldn't be exercising sovereignty, deeming it a non-state actor (LaFree and Dugan).

There are many limitations of this approach. This is a single factor model of looking at and analyzing terrorism utilizing military budgets to determine if there is a story surrounding these two datasets as a potential explanatory factor for either an increase or decrease in the amount of terrorist attacks in the past 10 years. Terrorism a very much a multifactorial issue, many other explanatory factors could include poverty, internal and regional political stability, culture and ethnic divisions, globalization and trade impacts, economic investment and development, remnants of imperialism, and so many other factors that defining this issue by one measure is impossible. This project is aimed at seeing if there is a correlation between solely two factors of military spending (and counterterror measures) to see if there is any impact on terrorist actions over the past several years. Overall, this project is investigating the connections between terror attack's frequency around the world in comparison with global military spending, and spending by country to see if there is a strong correlation in the three datasets.



## Results

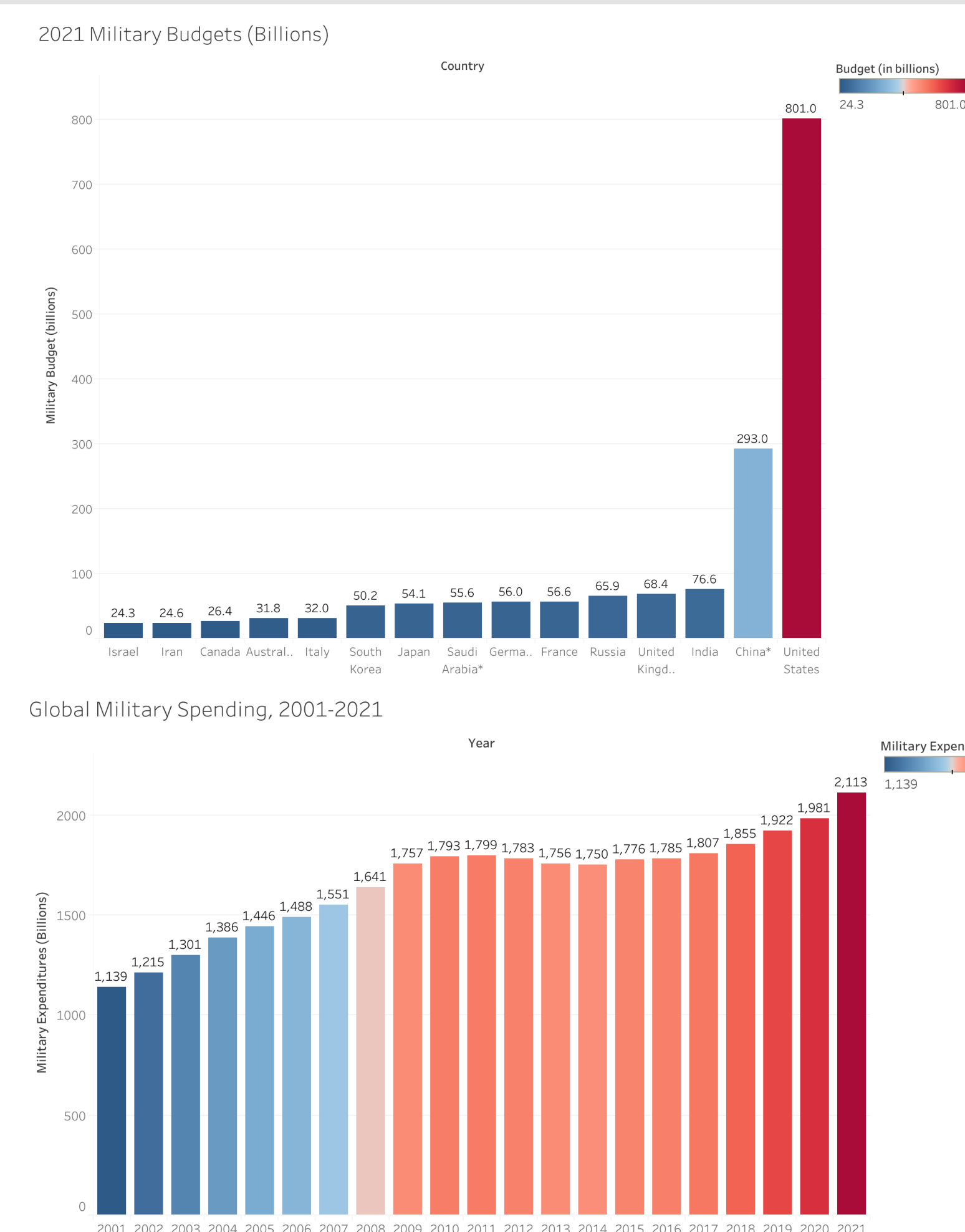
As we can derive from the visualizations of the datasets, there is a correlation between a decrease in the number of attacks (in frequency and severity) and the amount of money put into military spending, globally and on a country-by-country basis.

In Figure 1, Dr. Erin Miller visualizes worldwide terrorism spanning 2012 to 2020, with four different lines showing the total number of attacks (grey), total killed (red) which include Afghanistan, and the two dotted lines of grey and red show the number of attacks excluding Afghanistan (grey) and total killed excluding Afghanistan (red). Following the total number of attacks since 2012, the most attacks occurred in 2014/2015, and these attacks had the highest death tolls, reaching over 6,000 people killed. There is a small, but steady decline in number of attacks after 2015 with a one spike in 2016, but as of the end of 2020, the data reaches the lowest number of attacks. The overall trend of this graph is a steady and slight decline in the number of terror attacks. Similarly, the number of people killed also is on a downward trend, which is to be expected considering there have been fewer attacks, indicating that the severity of attacks is also on the downward trend, apart from a few events.

Figure 2 is the 2021 terror attack heatmap from START using the GTD. The most attacks are concentrated in the Middle East, in Afghanistan, Syria and Iraq, in Yemen near the Gulf of Aden and the Red Sea. Outside the Middle East, there are other small areas of attack concentrations around the Burkina Faso and Mali border, in Colombia, the Philippines, and with scattered lower concentration areas around Europe.

Figure 3 shows the 2021 Military Budgets organized by country, using billions as the metric in US dollars. The United States' military budget is the highest by far, spending \$801 billion on the military in 2021 alone. China comes next with \$293 billion. Israel and Iran are on the opposite end of the graph, spending \$24.3 and \$24.6 billion, respectively.

Figure 4, which is the global total of military spending by year from 2001 to 2021 in billions, shows a steady increase in annual military expenditures. A steady incline from 2001 to 2011, where annual spending increases from \$1,139 billion to \$1,799, before it drops slightly from 2012 to 2014, before resuming at a similar upwards rate until 2021, where the total military spending of every country added up to about \$2,113 billion.



## Conclusions

There is a negative correlation between military spending on the global scale, and on a country-by-country base, with frequency of terrorist actions and attacks. As global spending on military has increased, the amount of terror attacks have decreased, suggesting the more a country spends on its military (especially on counterterrorism) the lower the chance of a terror attack to take place in their country is. As the frequency of attacks over time are trending down, so is the severity and cost to human life associated with these attacks.

We can also determine from the data that while terror attacks are centralized around the Middle East, the locations with attacks included the US and in many places across Europe. This provides some rationale as to why many Western nations have higher budgets as they are still under attack, but also begs the question: why have their high military budgets still allowed for attacks to occur? The United States spends the most on its military budget. They have had a decrease in the number of attacks on their soil, especially from international terrorist groups, yet there has been an increase in domestic terror attacks. Perhaps the budget should be redistributed to work on countering domestic attacks as those are the ones occurring more frequently. On the other hand, Iran and Israel spend the least on their military budget (compared to the 15 countries in the dataset) and they have been subject to frequent attacks according to the GTD and the heatmap.

The latest numbers in the GTD show that 2020 had the least amount of terror attacks, and the total global military spending was also high. This correlation is interesting; however, these numbers may be skewed due to the Covid-19 pandemic.

In terms of military spending and the associations between the frequency and geographical locations of terror attacks, counterterror is not the only factor that contributes to a decrease in terrorist actions. There are numerous factors that contribute to terrorism and terrorist actions. Counterterrorism solutions need to be more extensive than simply bulking up the military and need to involve more well-rounded and multifactorial approaches. Again, terrorism cannot be defined and explained using one variable of analysis. There are countless factors that contribute to the existence of terrorist groups that could all have similar correlations, and while this data suggests that there is a correlation between increased military spending and a decrease in terror attacks, it is not the only conclusion and explanatory statement one can make about terrorism.

## Future and Ethics Statement

In future studies involving the terrorism and the GTD, multiple factors should be considered and analyzed to see all possible correlations. Due to the time allotted for this investigation, only one factor could be looked at, but the GTD is so extensive that there are many possibilities for other types of analyses.

The datasets themselves also have a few shortcomings. For the military spending datasets, nations have to truthfully report their military spending, which is perhaps not information that governments want easily accessible to the general public. The classifications for committing a terrorist act to be input into the GTD is also strict, and suspected terrorists in the US may not be tried for acts of terror but for other offenses, but could have still committed an act of terror. The GTD claims that domestic terrorism is part of the dataset, yet many states may be reluctant to share terrorist threats from their own citizens. There is also a possibility for discrepancies in the reporting of crimes, and most of the research used to collect data was based on secondary sources, media, books, journals. Similarly, there could also be a scarcity of data on terrorist organizations and states that is used against their own citizens.

Future studies could use more recent data, and see if the new US budget is still astronomical and if it is impacting terror tactics domestically or internationally. Overall, future studies should conduct more robust analyses comparing more datasets and factors to gain a better understanding of the contributing factors of terrorism, and assess various correlations.

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