

The Military and the Environment

Hurry up and pay your taxes, the military needs the money! Did you know that 43% of all taxes collected by the U.S. government in 2007 went towards funding our military and for national defense? (Friends Committee) The average household has an income of \$46,000 with \$24,000 of gross annual income per member. (Census Bureau... Current Population) The average tax per household has been \$19,215 during the Bush Administration. (Heritage Foundation) That means that \$10,027.43 is the average tax per person based on these numbers. Assuming that 43% of taxes still go towards defense, the final result is that each person pays approximately \$4,311.81 each year. What makes national defense so necessary and valuable that so many will pay? Is this true for everyone or just some? Obviously, if people are content with paying for national defense, it must be a worthwhile good, right?

The benefits that national defense provide every American with are numerous and generally undeniable. It was our military that ended two world wars and prevented Cuba from obtaining nuclear missiles that could potentially hit over half of the United States. Defeating Japan and Germany in WWII put an end to the rise of two potentially dominant powers. With much the rest of today's developed countries not doing well economically at the end of WWII, this opened an opportunity for the U.S. to be the dominant power both in raw power and in influence across the globe. It also provided the U.S. with the option of helping rebuild much of Europe which many older European citizens probably still remember. There is a battle group in each of the seven seas at all times

demonstrating our military muscle. It has helped keep the peace in such places as the Taiwanese Strait where in 1996 it the USS *Nimitz* and its show of force to help deescalate the military situation between Taiwan and China.

Perhaps the most important benefit is that our military helps perpetuate peace and promotes democratization across the globe. For conflicts such as in Kosovo, Korea, Afghanistan, and Pakistan, the U.S. has been taken the lead role in the NATO or coalition forces. Historically, democracies are less likely to go to war with each other and the number of democracies has been increasing over time. While Iraq is still an unstable and fairly volatile country, its democratization marks a chance for less conflict far into the future. This is known as the democratic peace theory and is important in U.S. government policy. Additionally, 9 of the top 10 countries that the United States trade with are democracies, with the other being China. (Census Bureau ... Top Ten) Overall, trade leads to increased utility between countries. This perpetuation of peace and democratization leads to increased trade that favors the United States.

National defense is a common or public good, which every citizen benefits from and whose use of national defense doesn't preclude the utility benefits to others.

Military services create utility indirectly for many but there is utility resulting purely from its existence as well. Most citizens gain utility from just knowing that our military has our borders secure and there is peace both now and in the future with no equal formidable foe in sight.

There are several things that the U.S. Department of Defense produces that are not beneficial. It is the largest polluter in the world and produces more hazard waste than the combined pollution of the five largest U.S. chemical companies. (Marshall) This

pollution includes depleted uranium, petroleum, lead and mercury has been attributed to health problems such as miscarriages, birth defects, and cancer. These different types of military pollution can either affect those we target with our weapons directly and those living near military bases and areas of operation both within the U.S. and abroad.

Most military bases are located near large cities and it is estimated that 10% of Americans live within 10 miles a base that is listed as a Superfund priority cleanup site. (Eisler) These sites may be on the National Priorities List which is a list of hazardous waste sites eligible for long-term remedial action which is overseen by the EPA

(Environment Protection Agency), which is funded federally. (Scorecard) As of 2004, however the power that the EPA has over the military has been exercised less with less inspections of these sites and less fines. The Pentagon has used its political power to hinder regulations that may cost the services hundreds of millions of dollars to follow.

Does the military have a right to interfere with the citizens say in these matters? In 2000, the Defense Department allocated \$4.4 billion for environmental security and has since dropped close to 1% of its budget. That's less than \$43.12 per person. (Eisler) It is estimated that the U.S. armed forces contribute 4-10% of all global pollution and approximately 6.5% of all ozone depletion. (Ostling)

Despite the enormous value to everyone, the pollution produced from the military that affects a large percentage of the population and for some makes the military a bad thing. If the marginal private benefit of the military and high pollution is smaller than the social marginal costs, why are there increases to military spending each year and less enforcement of environment controls? What makes this such a difficult thing to change?

Undoubtedly, there is an inefficient amount of pollution and military spending taking place where intervention could prove to increase social welfare.

The answer may seem unclear. Under current allocations it seems that the social value of the military outweighs the social margin costs, and thus military spending are as they should be. However, the regulations and their enforcement continue to be a major problem. These problems come from the decision-making process. In considering the efficient levels and procedures, those with the decisional power consider their own costs and benefits, and not all the social costs and benefits. An example of this would be the congressman on the appropriations committee in charge of all military spending, let's call him Joe. Joe is worried about getting reelected and so will follow policies to do so because the general logic that if he gets reelected the people must be happy with his policies and performance through majority rule. However, in Washington it is considered political suicide to want to reduce military spending because the general population doesn't want it. This leads to a never-ending cycle of increasing military spending on equipment and training that in turn leads to increase pollution. Joe's probably does not consider that fact that most Americans are unaware of the full length that military's pollution affects everyone. It also doesn't take into account the level of losses to the losers. This leads to a decrease in utility to everyone where most are unaware unless severely affected. This example shows the difficulty of arriving at an efficient level because of the complicated decision-making process and is not meant to discredit the government or congress. Undoubtedly, some take into account the social costs when decision-making; but this number is seemingly too low.

Another example would be the poor to low-income family that purchases land near a base unaware of any dangerous pollution. Let's call this family, the Brady's. The Brady's new land has dangerous amounts of asbestos which is very harmful to them and one of the daughters gets cancer. The Brady's are unable to pay for treatment and so the daughter dies. Most medical side-effects impact the poorer citizens because they are less willing or able to move away from dangerous sites or have the soil/environment properly cleaned or taken care of.

The continuation of the military and its pollution could be seen as a potential-Pareto improvement by economists. A potential Pareto improvement is a change that benefits a group more than another group loses, where there is a potential to making everyone better off. One way that this may become a Pareto improvement (everyone is better off), would be tax cuts for those directly effected by the pollution or its side-effects.

Noticeably there are several different approaches to this issue that would require very comprehensive examination in order to grapple the costs and benefits of each. So far I have hinted towards two. One of which looks at the way decisions are made concerning the regulations of the pollution, the endogenous or resulting variable. The second approach would involve the level of military expenditure, which would be the exogenous or input variable.

The first approach would involve trying to approximate how much utility in terms of dollars people are affected by the pollution. For the Brady's, this would be roughly equal to the amount it would cost to remove the asbestos and pay medical treatments. From this information, the EPA could force the Department of Defense to reimburse

those affected. Additionally, measures to reverse pollution effects and to reduce future effects need to be put into place. This could be funded by either increasing taxes for those who receive more utility from national defense than they pay for or forcing the services to spend a specific amount each year. The problem with the utility/volunteer

route is free-riding or people being dishonest about their costs and benefits. The thought behind a free-rider would be, "I benefit from national defense and would be willing to pay more for it, but if others are going to pay for it, I'll be happier not paying for it." Whether the government tried to approximate this value or it became a volunteer program, there would always be this problem.

The most efficient way to finance the military would be to have people pay exactly the amount of utility that they gain from it. This leads to the second approach.

Instead of trying to fix the efficient amount of pollution, we would aim at fixing the efficient amount of military spending and therefore affect future levels of pollution. A way to make this more efficient would be to make half of the taxes currently used towards the military and have them remain mandatory. The other half would no longer be mandatory but would be the recommended amount. Citizens would have the option of voluntarily paying more. This would allow those adversely effected by the pollutants to still benefit from national defense and but not decrease their utility. If the end result is less money for the military, there should be a resulting less pollution in the future.

There is a resulting incentive to dodge the system in both approaches when reporting utility so people pay less than they are willing to which makes finding out individuals' actual utility impossible. This raises the question of who should pay for either the costs to reduce pollution or the costs of the current military.

The quality of the environment is a luxury good. A luxury good is a good where the richer one is, the more he or she is willing to spend on it. Likewise, the poorer a person is, the less the person cares about it and therefore, less willing to spend to improve environmental quality. This is clear within cities where the nicer, cleaner parts of town are generally located in richer neighborhoods. Populations in developing, poorer neighborhoods are concerned more with basic human survival needs (as a portion of their incomes) than those in rich communities. The implication of national defense being a luxury good is the resulting implication that it should be funded by the wealth elite.

By using one of the previous approaches, the result is not likely to provide the efficient levels, but would very likely result in a Pareto improvement or a potential Pareto improvement. Each of these solutions would not be well-liked with those that have to pay more of the bill or those that lose benefit for their same amount of dollar. There would be many objections, but without a system like one mentioned, there will always be an inefficient amount of military spending and pollution.

There will always be incentives for people to try and get more for less. To get the best results and the most efficient levels of pollution possible, the first route seems to be the one with less possible adverse effects and more likely to move pollution levels towards a more efficient level with a Pareto improvement. The current course of allowing the military do as it will is far more costly to the majority of everyone. I believe the first approach that I have outlined would provide the most unbiased and efficient outcome.

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