A Missed Cut

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Once upon a time the United States had a space program in which they took immense pride. Essentially, the race to the moon was a medium for international powers to prove their supremacy over one another. But, this competition between powers had many more implications than space exploration. Due to Cold War influences during the 1960’s, national space programs were viewed as a measure for a country’s power. Space programs were used to develop nuclear weapons, so during the Cold War when nations were stockpiling nuclear weapons, the condition of the space program was paramount to national security. The peak of the NASA program was the Apollo program in which the United States sought to have a man walk on the moon. During the peak of the Apollo program NASA’s share of the entire U.S. budget was around 4.5%. Today, their share is less than 1% of the U.S. budget.

The rise of the tremendous national debt has shifted the focus of the American people away from NASA which may be why it has lost a significant amount of funding. Currently the United States is about eighteen trillion dollars in debt. After 9/11, the United States took a stance on global terrorism and began spending their money on national defense. Our defense spending reached the point where we were spending more on the military than the next 26 countries combined. With this rise in defense spending, cuts in other parts of the budget had to be made.

The following graphic helps put in perspective the severity of the budget cuts NASA has incurred. Keep in mind that the Figure 1.1 is built upon data collected up until 2008:
Figure 1.1

2008 Federal Budget Allocation
(not inclusive: just comparative)

- NASA: 17.31
- Federal Highway Administration: 40.3
- Veterans Affairs: 41.76
- Department of Agriculture: 99.3
- "War on Terror" (Iraq, Afgh.): 141.7
- Department of Education: 145.4
- DOD: 482
- Interest on Debt: 615
- Social Security: 656.2
- Total Defense Spending: 685.46
- Federal Wall St. Bailout: 807

* "Total Defense Spending" includes DOD, VA and War on Terror monies.
* Interest on debt does not include interest on bailout debt.
* This chart compares a few agencies and excludes many others.

1 http://img.gawkerassets.com/img/17nnljushvpcjjpg/original.jpg
Although Figure 1.1 may be dated, it clearly demonstrates the United States mentality during the 2008 recession and the war in Iraq. The United States allocated a significant amount of their money to keeping their heads above water through the Wall Street Bailout. This makes sense, because a space program cannot be sustained without a functioning economy. However, today the economy is in a better condition, but still NASA has not received increased funding. The following graphic, Figure 1.2, demonstrates what programs the United States funds the most:

Figure 1.2\textsuperscript{2}

\textsuperscript{2}https://static.nationalpriorities.org/images/fb101/2014/presidents-proposed-discretionary-spending.png
The pie chart clearly shows that in 2014 the military accounts for 55% of budgetary spending while all of the science departments are only allocated 3% of the budget. Six years after the recession, NASA and other science programs are still not viewed as important. As a political science major this fascinates me because over the past fifty years there has been such a dramatic shift in opinion as to what areas are of the most importance to fund. Once the focal point of American society, NASA has spiraled into an afterthought. It is a shame because our prowess in space was a testament to the greatness of the United States. To make matters worse, as NASA slides downward the space programs in Russia and China are gaining speed. China is rising as a world economic power due to their massive population, relaxed labor laws, and industrial
economy. The Chinese realize that the most assertive way to prove one’s power is through the advancement through the sciences, and it is here where the United States fall short.

The massive national debt is primarily owed to China. So, our debt to China, their advancing space program, and their rising economy are all factors which are making them the leading world power. Unfortunately, the United States government has forgotten that our dominance in space was a main factor in keeping the United States as the most dominant power. Today, NASA is more dependent on private funds rather than the U.S. budget. In addition, Robert Bigelow believes that a Mars exploration is out of the question unless there is a significant increase in independent financiers to sustain the project. The underutilization of NASA is frightening because it can benefit the United States in so many different ways. NASA has the potential to be used as a means for economic stimulation: “A report by the Space Foundation estimated that the space related actives contributed $180 billion to the economy in 2005.” The subject line of Amadeo’s article reads “$1 of NASA spending is a catalyst for $10 economic benefit.” Amadeo explains that by funding NASA, other industrial and commercial industries, and other budgets within the United States (Department of Defense, Department of Energy) are supported as well which has a positive effect on the economy.

The above pie charts help to show how poorly the United States allocates their resources. None of the most heavily funded programs have the potential to accomplish more than their designed purpose. Military spending, which eats up 55% of the budget is

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used to support current wars/conflicts, and industrially mass produce modern
technologies that are needed. However, NASA has the potential to expand modern day
materials and benefit different aspects of society. Provided with adequate resources,
NASA researchers could explore different sources of energy, create different types of
weapons, and venture out into space with new and more far reaching goals. While our
space program is dwindling, the programs of Russia and China are expanding and gaining
support. Eventually, this will put these countries at an advantage to discover new
technologies (could be military technologies) before the United States. This would put
the United States in a position to play “catch up,” a position many people would rather
avoid. Maybe not now, but a few years down the road, Russia and China may be able to
separate themselves into a higher tier of power than the United States due to their
technological breakthroughs. In order to begin acting on this problem today, budgetary
adjustments need to be made as soon as possible, preferably when the new Congress
takes office. The disgusting amount of defense spending that has occurred over the past
few years should be reallocated to provide NASA with some breathing room.

The scary thing is that the real war may not be on the battlefield, but in the
laboratory. A major source of power between foreign countries is the energy field,
specifically oil reserves. The backbone of Iraq’s economy is their plethora of oil
reserves. When the United States entered into Iraq in 2003, they nearly collapsed this
market. As soon as Barack Obama took office in 2009, he led a campaign to withdraw
United States troops from Iraq. This campaign led to the increased independence of Iraq,
and the heightened potential of their oil market. The only problem is that oil is not
sustainable, it is a finite resource. Iraq and other countries may be fine right now because
oil is the major source of energy. However, once this limited resource begins to dwindle, the country that creates/disCOVERs the next form of sustainable energy will gain a substantial amount of power in the international sphere. Currently, the United States, Russia, China, and India are all countries with stout economies who are in positions to explore new forms of energy. Russia and China are two countries who are funding their space programs while the United States is squandering their resources in defense spending.  

From learning more about astronomy, my cosmic perspective has developed and led me to believe that funding NASA should be at the top of the United States domestic priorities. Making NASA a priority is a result of the harm humans have inflicted on the Earth. The Earth is dying, and there is no way around that fact. The carbon dioxide emissions humans have been emitting for the past 100 years cannot be sustained long term, so a new clean energy source must be found. If the United States wants to back up their reputation of being a world leader, then we should lead this campaign of clean energy. Unless humans plan on living on another planet, this change needs to happen very soon. Also, it is human nature to be curious. People (like myself) want to know about the universe and learn about new discoveries that provide answers to mysteries. Curiosity is a beautiful thing, it is what leads to great discoveries, theories, inventions, etc… I cannot make sense of why the United States would not want to support mankind’s natural curiosity. In order to keep up with other world powers in many different arenas and create a greener and higher quality society, the United States must start funding NASA appropriately.

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5 Salem, P. "Iraq's Tangled Foreign Interests and Relations." Columbia International Affairs. 2013.