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The Extent to Which a Government
Regulates Scientific Research

With accusations made against the current government of the United States regarding its alleged lack of belief in scientific studies on the topic of global warming and climate change, many have been voicing their support for either government or science, rather than believing in both or that the two have the ability to work together. Citizens of a particular country are often prone to thinking of their government as the ultimate authoritative power. In many cases, this is the same type of thought experienced by CEOs and researchers belonging to large scientific organizations. Governments can have major effects on the research conducted by big-name scientific societies due to their abilities to fund or defund these associations.

Many countries have multiple societies directing their research towards something very specific in hopes of improving the condition of the entire nation. These major societies more than often rely on the government for much of their financial aid, and the amount of research they may conduct will frequently rely quite heavily on how much money the government is willing to provide for them each year. The United States has planned to make major budget cuts in 2018 to many big scientific organizations. United States President Donald Trump delivered his budget request to Congress on May 23, 2017 (Demarco para 2). Some of the

expected scientific research organizations to be included in the 2018 budget cuts include, but are not limited to, NASA's budget which is expected to be cut by three percent; NOAA's budget which is expected to be cut by sixteen percent; the National Cancer Institute's budget which is expected to be cut by twenty-one percent; and the Environmental Protection Agency's budget which is expected to be cut by thirty percent (Demarco see fig 1). It is clear that the American government's control over technological fieldwork is quite significant, seeing as President Trump has at least eleven large agencies from which he plans to withhold money this coming year. In Emily Demarco's article for *Science News*, she writes about how "many in the scientific community say the proposed cuts would significantly undermine the nation's global leadership role in advancing science. And they doubt the administration's argument that the private sector would make the necessary investments in basic science research" (Demarco 8). U.S. citizens as well as many journalists are conveying concern, showing even moreso that these budget cuts are widely prospected to be harmful, and should be brought to the immediate attention of the public. The Trump administration is, for the most part, made up of fairly conservative Republicans, most of whom are also Anglo-Saxon. Because of these observations, one could draw the conclusion that white supremacy may have something to do with certain governments preventing scientific research. Osagie K. Obasogie of *Scientific American* writes in her piece titled "Revisiting *Gattaca* in the Era of Trump" that "White supremacy under the guise of public health, technological progress or human betterment is nothing new. Thus, the very fields of science and medicine that let down so many during past eugenic eras must now step up to make sure these political fantasies do not taint their endeavors once again" (Obasogie para 11).

With scientific researchers and normally conservative politicians frequently disagreeing on the importance of scientific and technological exploration, it has been argued that perhaps the nation would be in better hands under the control of scientists; for example, founder of Technocracy Inc. Howard Scott saw industry and government as an unjust waste (Finley para 3). He and other scientists like him have had reason to believe that “a new economy run by engineers would be more efficient and equitable” (Finley para 3). Klint Finley writes in his piece for *Wired* titled “Techies Have Been Trying to Replace Politicians for Decades,” that “They (techies) want to replace politicians with engineers and our modern financial system with one backed by the laws of science” (Finley para 1). Many of Scott’s ideas may still be heard around the tech industry today due to modern engineers’ generally negative feelings about the government and its lack of scientific funding. Tech moguls frequently continue to propose new ideas such as “floating city-states” and contribute romanticized, visionary high-tech solutions to serious and widely discussed social issues such as homelessness (Finley para 7). It is always nice to believe that there is an easy solution for the worst of the social problems everyone experiences day-to-day in their own cities, counties, or even countries; however, it is also impossible to know for sure whether something will work or not. For example, the very sizely and sorrowful matter of the rising population of homeless individuals in American and many other places around the globe is something that has never been completely successfully suppressed by any government, especially in the modern era. If no governmental administration has ever been able to fix this magnitudinous problem, then why should those in the technological and scientific fields be believed in their claims regarding their sudden, supposedly genius plans to fix such an affair? On the other hand, the industries have

been able to make incredible breakthroughs that have helped immensely on the global scale in the past, so why should they not be trusted now? This unsureness creates a better understanding of why people should realize that losing all faith in their nations' leaders based on an unevidenced belief that someone else could do something better might be a bit nonsensical. Despite scientists claiming that they know how to fix such problems such as homelessness, one has to consider that solving such a problem most likely involves a knowledge of economics and a nation's financial system. These are things that are probably understood better by politicians and government officials; however, a belief in a government giving more money to scientific and technological associations to build on these claims may not be so illogical. Perhaps the reason people do not have evidence of scientists' abilities to solve social issues is because the government has not provided enough money, if any, to explore these possibilities. The possibilities of people in the technological field bringing about new information and proposals on how to solve these devastating problems.

Despite the repeated conflict seen between those in the field of science and those in the field of politics, the two have formed brief alliances at times and even worked together to create an electronic government. If the boundary between science and politics were to blur somewhat, there may be a stronger alliance formed between the two, and politicians could use modern technology to push their nations in positive directions and spread information more quickly and efficiently, like they tried to do while working on the E-Government. "The blurring of boundaries between science and politics, rather than the intentional separation often advocated and practiced, can lead to more productive policy making" (Guston 399). The electronic government or E-government program was the result of a partnership between the

Department of Energy's Office of Scientific and Technical Information and global government officials. This type of electronic access to governmental information "provides the tools to facilitate the use of scientific knowledge in real-world settings, all at no charge to the user and greatly reduced Federal costs per user served" (Whitson and Davis 80). With this kind of collaboration between two supposed adversaries, it is difficult to continue in the belief that politicians and technicians are truly sworn rivals. It is also difficult to believe, with all of the major scientific advances happening in recent years, that the two will always feud to some extent, whether large or small. The government controls science with its money, but perhaps more politicians should come to the realization that science, in a way, controls them as well. This defunding of societies such as the National Cancer Institute (Demarco see fig 1) could be directly harmful to the politicians themselves, or their families in the future. All medical equipment and knowledge comes from many years of strenuous research by countless scientists and technicians. This exploration in hopes of bettering the health of humans continues today, but how it will continue, specifically in the United States, with such large losses in funding is a mystery.

It has become quite clear that technology is conquering civilization more and more every single day. With the heavily increased utilization of technological gadgets such as cellphones, computers, and many other electronic devices in fairly recent times, it seems as though technology has already formed its own authoritative and nearly governmental position around modern civilization. Medical and environmental scientific research, however, seems to be a specific target for President Trump's 2018 budget cuts (Demarco see fig 1). Despite these budget cuts and a history of disagreement, the government needs science just as scientific

organizations need the government. With countless world leaders owning devices created by technologists, and many of these leaders, if not all, receiving mild to serious medical treatment, it has become apparent that these financial cutoffs may be irrational. The truth is very plain; governments can, and most definitely do, have major effects on the research conducted by big-name scientific societies due to their abilities to fund or defund these associations.

Works Cited

Demarco, Emily. "Trump's Proposed 2018 Budget Takes an Ax to Science Research Funding."

Science News, 26 May 2017,

<https://www.sciencenews.org/blog/science-public/trump-proposed-budget-science-research-funding>. Accessed 2 Nov. 2017.

The main objective of Emily Demarco's article for *Science News* is to educate the public about the expected 2018 budget cuts to major science industries conducting what many consider to be very important areas of research for the future health of America and its citizens. *Science News* has been releasing articles since the early 1920s. An article titled "What's in Trump's 2018 Budget Request for Science?" that was released by *Science* in late May of 2017 contains similar information and replicated facts, along with articles released by *The Washington Post*, *Scientific American*, *The New York Times*, and others. I intend to use this article's facts and statistics as supporting evidence for claims I make regarding the government and the world of technology not always being on the same page, especially as far as beliefs in financial organization and what America, as a whole nation, should be focusing on in order of importance and value to the future of the country.

Finley, Klint. "Techies Have Been Trying to Replace Politicians for Decades." *Wired*, 5 June 2015, <https://www.wired.com/2015/06/technocracy-inc/>. Accessed 2 Nov. 2017.

What Klint Finley was most likely trying to accomplish in writing this article for *Wired* was a clear showing of conflict between the world of technological advances and government, and what they truly think of each other; specifically some scientists'

skeptical view of decisions made by governments based on political reasoning and how this reasoning may be seen as wasteful and unjust. *Wired* is a popular magazine which has been publishing articles surrounding updates and important news centered in the fields of science and technology since the 1990s. The site *Wired* is a periodical, and the article itself includes references to claims made on the US Social Security Administration website, as well as a reference to a 1932 publication in the *New York Harold Tribune*. I intend to use this article to help add evidence on a more personal and historical level to my paper. I hope to find specific examples of old quarrels between researchers in the scientific field and past politicians. I also hope to use the prospect of ‘techies’ trying to replace politicians as an argumentative idea to structure one or more of my paragraphs.

Guston, David H. “Boundary Organizations in Environmental Policy and Science: An Introduction.” *Science, Technology, & Human Values*, vol. 26, no. 4, 2001, file:///home/chronos/u-34eaa1def1303055fd8b4271d15871f74442a611/Downloads/Government%20vs.%20Science%202.pdf. Accessed 2 Nov. 2017.

This article written by David H. Guston for the scholarly journal *Science, Technology, & Human Values* was written with the intention of explaining and analyzing the boundaries between science and politics, and science and regulatory agencies. A regulatory agency may be a government agency or a public authority that oversees human activity within an administrative capacity. The research journal from which I discovered this document has been actively publishing peer-reviewed articles since the 1970s. David H. Guston was a student at The State University of New Jersey.

He has published multiple books, and is currently the school director and professor at the School of the Future of Innovation in Society at Arizona State University. The just-under page-and-a-half-long list of references at the end of his piece provides evidence of the thorough research that was conducted in the process of developing his article. I hope to use Guston's work to display and examine the dividing lines between science and technology, as well as their repeated inability to cooperate with each other on certain, sometimes changing, matters.

Obasogie, Osagie K. "Revisiting *Gattaca* in the Time of Trump." *Scientific American*, 1 Nov. 2017,

<https://blogs.scientificamerican.com/observations/revisiting-gattaca-in-the-era-of-trump/>. Accessed 2 Nov. 2017.

This article focuses in on a twenty-year-old film and how its messages and values apply to what is happening in the colliding worlds of science and politics today. The main purpose of this writing is to revisit scientific studies classified as being focused in on ethical issues, such as genetic technologies, and how people in positions of political power are pushing this research away, and opposing the idea of certain advances for their own reasons. I use genetic technology as an example, because it was a major theme in the film *Gattaca* and is, therefore, a primary topic discussed in Obasogie's article. Obasogie argues that it is important to revisit the iconic science-themed film now due to the recent advances furthering the knowledge of genetics, and the government's threats to cut the budget on research surrounding this and other areas of scientific and technological discovery. *The Scientific American* has

been around since the year 1845; over 170 years ago. The author of this article, Osagie K. Obasogie, is a professor of bioethics at the University of California, Berkeley. He works in the School of Public Health as well as the Joint Medical Program. He is also a senior fellow with the Center for Genetics and Society. I intend to use his piece for *The Scientific American* to explore how the current United States government is affecting modern scientific research, and why many believe that it is important to keep such research highly funded.

Whitson, Thurman L and Lynn Davis. "Best Practices in Electronic Government:

Comprehensive Electronic Information Dissemination for Science and

Technology." *Government Information Quarterly*, vol. 18, 2001,

file:///home/chronos/u-34eaa1def1303055fd8b4271d15871f74442a611/Downloads/Government%20vs.%20Science%201.pdf. Accessed 2 Nov. 2017.

This article written by Thurman L. Whitson and Lynn Davis for the online scholarly journal *Government Information Quarterly* is intended to educate readers about the new breakthrough in electronic government, or E-government, within a situation in which the government partnered with science to create a revolutionary technology with great expectations around the globe. This article was written by researchers from the Office of Scientific and Technical Information; a component of the United States Department of Energy in Oak Ridge, Tennessee. I intend to use this article to show a fairly recent and highly developed example of an instance in which the government, and scientific researchers working specifically in the field of technology, came together to create something which both felt would be of huge assistance to

people of every country, and their corresponding world leaders. I hope to use this as a major argument against the common modern belief that governments often do not believe in technological advances and every area of scientific research, because this is simply an overly exaggerated and untrue statement. There have been plenty of cases in which politics and science did mix harmoniously, and I hope to display that truth through this specific example which had an impact on many.