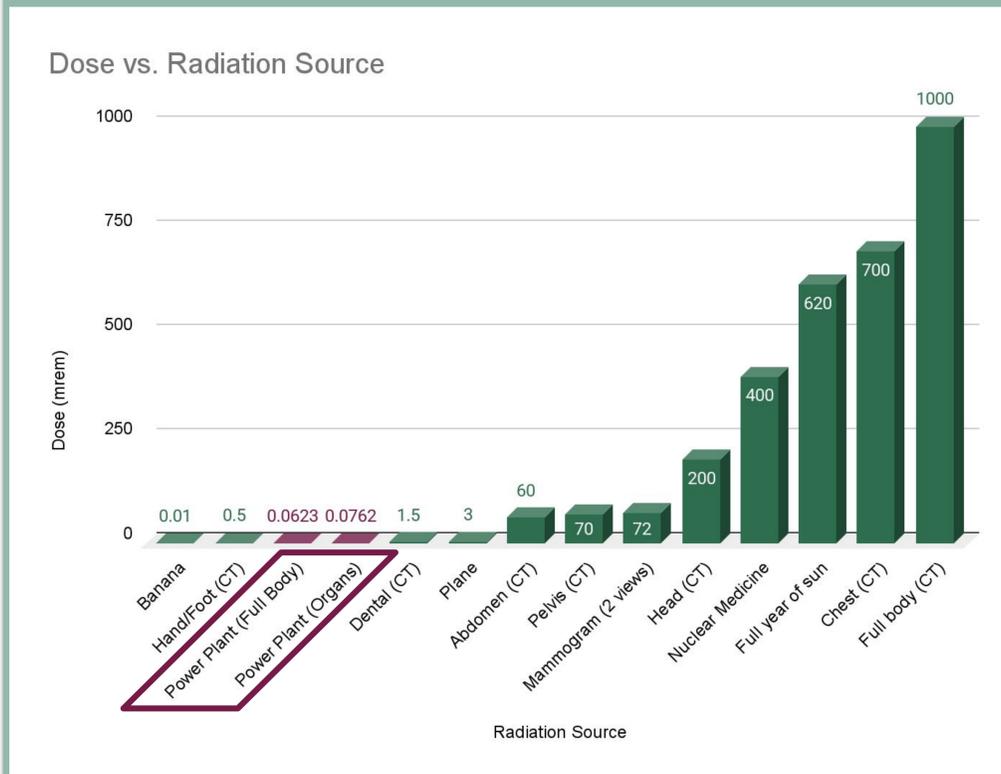


## INTRODUCTION

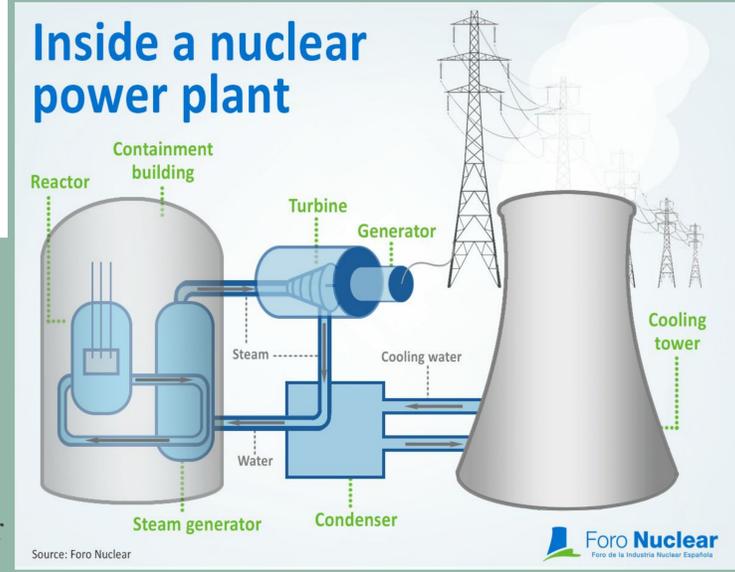
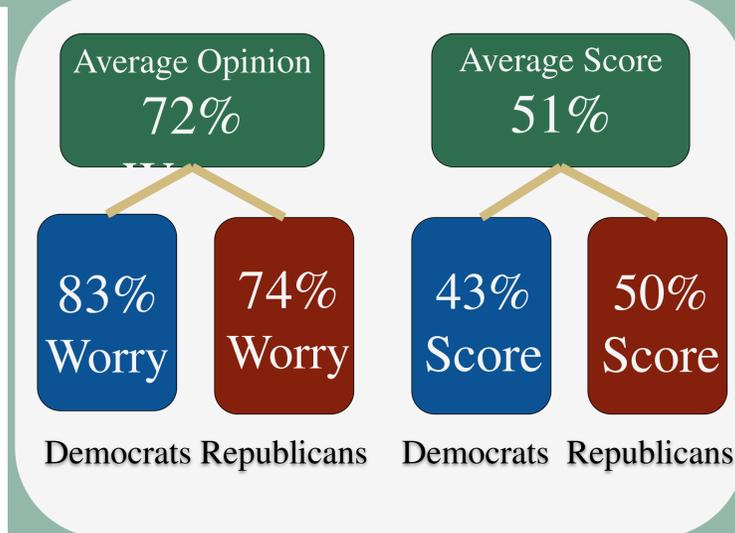
Nuclear power is 8000 more efficient than fossil fuels and has no carbon emissions. In a state like that of our Earth we need to be carbon neutral by 5 years ago. Nuclear energy is a very controversial and debated topic because of many stipulations and stereotypes surrounding it. Shows like the Simpsons and Chernobyl display a dangerous green glowy goop of nuclear energy. This has harmed the perception of nuclear energy. Here are some beneficial facts on nuclear energy:

- Less than 1% of power plants close due to major failures the rest close to politics
- The biggest problem with nuclear energy is storing the waste because communities are scared
- Plants actually use steam generated by heat from the fission reaction to power turbine generators

## DATA AND FINDINGS



Overall survey taker's confidence on their knowledge of nuclear power



## CONCLUSION

People's perceptions of scientific things like nuclear energy are heavily influenced by politics and a lack of understanding. It is natural for us to humans to not be able to understand everything so we often rely on others, whether they even know more than us, for our knowledge. Unfortunately in today's world lots of this is caused by an absence of knowledge by voters. I hope to create both a more positive look on nuclear energy as well as convincing the nuclear industry as a whole to market and strategize better.

## RESEARCH METHODOLOGIES

1. Acquire most recent year (2021) radioactivity data in MREM (milirems) for every power plant in the US
2. Release survey to public (115) responses
3. Scrub through Radioactivity data and find averages for every power plant
4. Attain survey and scrub responses
5. Separate responses for different political views and scores
6. From here I analyzed all the data against each other to come to about a 5.5 confidence rating with a 50% average score.

## DISCUSSION, ANALYSIS, AND EVALUATION

The data shows a common phenomenon in the public called the Dunning-Kruger effect. This effect is described as the less one knows, the more confidence one has initially. For example in the data it shows that Democrats have a higher rate of worrying about the safety of nuclear power while also having a 43% average score on the quiz. Democrats are more often antinuclear most likely because of nuclear weaponry during the Cold War that was often protested against more commonly by Democrats. It is easy to correlate this two things even though they have very separate effects.

My data shows the difference between different medical scans like CT scans and the radioactivity in power plants. A full body ct scan has around 1000 mrem which is still very low while samples from outside of a power plant is less than 1 showing how little the effects of nuclear energy is.

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Full Research Paper:

