ChanR GMO Project: Exploratory Data Analysis

Sudharsan Gopalakrishnan

This document was created using the $\mbox{\sc IAT}_{\mbox{\sc EX}}\mbox{\sc P}\mbox{\sc T}$ programming language.

1 Overview:

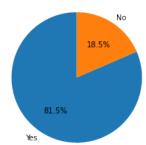
The first part of my GMO project is to survey several people and ask them questions related to GMOs to get an overall idea of their general knowledge of the topic. I asked them 18 questions, 17 of which were multiple choice. The remaining one asks to write the full form of the word GMO. After surveying them, I performed some data analysis on the data I received. All the survey data was stored in a Google spreadsheet. As I wanted to get more responses overtime, I used a Google Spreadsheets API to directly access the data from the spreadsheet rather than downloading a csv of the data multiple times. Using a Python based Jupyter Notebook, I created a Pandas DataFrame and plotted the percentages of the people that got each question right and those who got them wrong.

2 Survey Questions:

Notes: Question 2 asks to write the full form of GMOs. Because people would have either used or not used capitalization in their response the same as each other, making a pie unreasonable.

2.1 Yes/No Format(1-8):

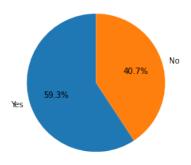
Question 1: Have you ever heard about the word GMOs?



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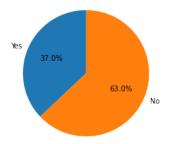
Question 3: Are you aware of the objective of GMOs in the market?

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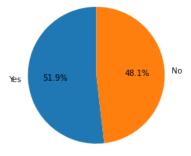
Question 4: Are you aware of any health benefits/risks of GMOs?

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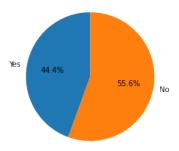
Question 5: Are you aware of any products of GMOs today in the market?

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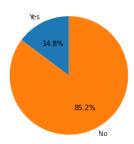
Question 6: Are you aware of the similarities AND differences between organic crops and GMOs?

6) Are you aware of the similarities AND differences between organic crops and GMOs?



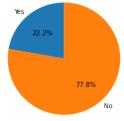
Question 7: Are GMOs made by just injecting something with a syringe?

7) Are GMOs made by just injecting something with a syringe?



Question 8: Are Non-GMO labels used properly on commercial foods today?

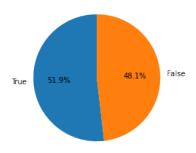
8) Are Non-GMO labels used properly on commercial foods today?



2.2 True/False Format(9-16):

Question 9: Organic food is proved to be safer than GMOs.

9) Organic food is proved to be safer than GMOs.



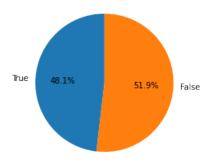
Question 10: GMOs are purely artificial.

10) GMOs are purely artificial.



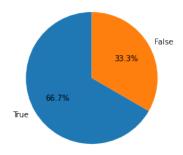
Question 11: GMOs are a novel aspect of today.

11) GMOs are a novel aspect of today.



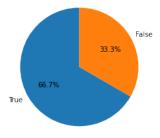
Question 12: GMOs are very common in the world today.

12) GMOs are very common in the world today.



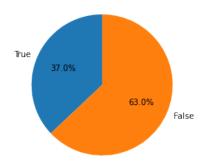
Question 13: GMOs can be pest resistant and can therefore reduce the necessity of chemicals.

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Question 14: GMOs are more harmful than beneficial.

14) GMOs are more harmful than beneficial.



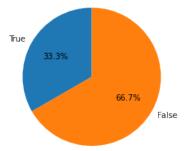
Question 15: GMOs have lowered the level of responsibility of farmers to take care of crops in general.

15) GMOs have lowered the level of responsibility of farmers to take care of crops in general.



Question 16: GMO consumption can cause autism and obesity.

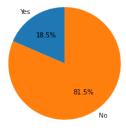
16) GMO consumption can cause autism and obesity.



2.3 Yes/No Format(17-18):

Question 17: Since the arrival of GMOs have increased the use of GMO-resistant Glyphosate, does this indicate that the use of Glyphosate is better than GMOs?

17) Since the arrival of GMOs have increased the use of GMO-resistant Glyphosate, does this indicate that the use of Glyphosate is better than GMOs?



Question 18: Are GMOs a solution to issues regarding food sustainability?

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