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Math 171

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1. The question that will be analysed and responded to will be on one of the many problems of this country which is social security and how much money is being spent on it. The information that will be used in this report comes from a general social survey which was created by the National Opinion Research Centre at University of Chicago. From the way the research is gotten, the data is random and representative. The variables are if the money spent is too much, about right, or too little. The methodology of how the data is collected is properly effective and credible as it considers different demographics and different types of people from different regions. The survey is voluntary and though this brings about people who willingly want to take part, it could also bring about the extremist as they are particularly passionate about a certain research. The GSS survey is done fact to face which could cause discomfort or a cause bias in the respondents.

2.

From a general social survey, the sample was asked on their thoughts on how much money they think was spent on social security. These were the results and how they compared to my expectations of them.

| Variable | Observed Counts | Expected Frequency |
| --- | --- | --- |
| Too much | 144 | .35 |
| About Right | 922 | .45 |
| Too Little | 1690 | .20 |
| Total | 2756 | 100 |

From the data above, it can be seen that my expectations of the results were completely different from what the actuality of the survey was. Therefore my expectations did not match or come close to matching the data.

3. In a survey, 2756 people replied to their thoughts on what amount of money was being spent on social security. Of this sample, 144 of them said ‘too much’, 922 of them said ‘about right’, and 1690 of them said ‘too little’.

Firstly, we would have to establish what the proportion is and that would be p= the proportions of opinions about social security. Then, by using the chi square goodness of fit test, we find the SRS if there is any, and then the expected costs must be equal or greater than 5. In this situation, the SRS is random and representative. The expected counts of this sample is p1= .144\*.35, p2= .922\*.45, p3= .1690\*.20. Therefore all the expected counts are above five. Then the null hypothesis and the alternative hypothesis need to be established. The Ho: p1= .35, p2= .45, p3= .20 and the Ha= At least one proportion is different. After all that, the calculation come into play as the goodness of fit test is used to find chi square X^2 (2)= …….. and the P(value)= 0

In conclusion, there is significant evidence that the proportions of the amount spent on social security is significantly different from the expected/initial impression.

4. From the general social survey on social security, after doing a goodness of fit test and checking all the conditions for our hypothesis test, we have concluded that our inferential conclusion does not match our initial impression. The initial impression was substantially different from the actuality of the survey. The proportion where way off in terms of significance.