

# PSY333 RESEARCH PROJECT

First & Last Name: Ryan Untalan

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Name of your Non-Profit Organization (NPO): Homeless Outreach Mobilizing Empowerment (HOME)

Mission & Goals of your NPO:

The mission of HOME is to empower, educate, and provide homeless outreach opportunities to the San Luis Obispo community. Our goal is to mobilize a community and empower individuals to create solutions to homelessness.

Methods:

The participants for this research project included 25 quantitative research methods (PSY 333) students from California Polytechnic State University. I used an online survey website called *SurveyMonkey* to create a 6-question survey for data collection. On May 11<sup>th</sup>, the 25 students answered the survey, with 24 other student surveys, as part of an in-class assignment. With the data, I used SPSS to generate descriptive statistics and create a graph for each survey question. For my statistical analyses, I ran a chi-square test of independence for the variables *Experience* and *Volunteer* (question 1 and 2) and created stacked percent bar graph. For the variables *MentalIllness* and *SES* (questions 3 and 4), I ran a Spearman's Correlation and created a bar graph with error bars. The last two variables, *Religion* and *Volunteer* (questions 5 and 6), I ran a one-way ANOVA and created a bar graph with error bars.

For my two bar graphs with error bars, some error bars were removed from the charts because multiple error bar calculations yielded infinite results. This issue is most likely due to the small sample size. Also, I was unable to perform a post hoc test with the one-way ANOVA because no statistically significant evidence was found and multiple groups have fewer than two cases.

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Here are screenshots of the six survey questions used in the research project:

\* 1. Do you have experience working with homeless people?

- ☐ Yes  
☐ No

\* 3. On a scale of 1 to 10, (1 being doesn't contribute, and 10 being completely contributes) how much do you think mental illness contributes to homelessness?

1  10

\* 5. Which Religion do you associate yourself with?

- |  |                                     |
|--|-------------------------------------|
| <input type="radio"/> Christian              | <input type="radio"/> Hindu         |
| <input type="radio"/> Muslim                 | <input type="radio"/> Atheist       |
| <input type="radio"/> Catholic               | <input type="radio"/> Agnostic      |
| <input type="radio"/> Buddhist               | <input type="radio"/> Non-Religious |
| <input type="radio"/> Jewish                 |                                     |
| <input type="radio"/> Other (please specify) |                                     |

\* 2. How much of a problem do you think homelessness is in San Luis Obispo?

- |  |                                       |
|--|---------------------------------------|
| <input type="radio"/> Not at all a problem | <input type="radio"/> Major Problem   |
| <input type="radio"/> Minor Problem        | <input type="radio"/> Serious Problem |
| <input type="radio"/> Moderate Problem     |                                       |

\* 4. What was your Socioeconomic Status growing up?

- |  |  |
|--|--|
| <input type="radio"/> Lower class        | <input type="radio"/> Upper middle class |
| <input type="radio"/> Working class      | <input type="radio"/> Upper class        |
| <input type="radio"/> Lower middle class |  |

\* 6. HOME (Homeless Outreach Mobilizing Empowerment) is a non-profit organization that focuses on ending homelessness through community involvement and housing-based solutions.

On a scale 1 - 10, (1 being not interested, and 10 being extremely interested) how interested would you be in volunteering with this organization?

1  10

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## Survey Question #1

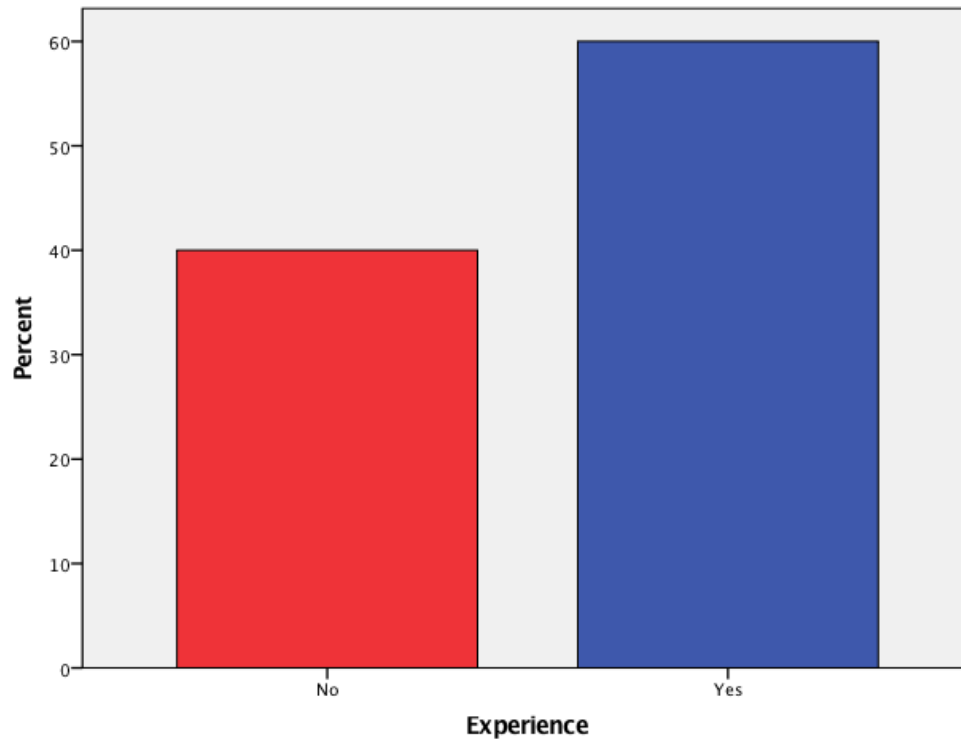


Figure 1. PSY 333 students responded to whether or not they have experience working with the homeless.

PSY 333 students responded to whether or not they have experience working with the homeless. 60% of students said *Yes* and 40% of the students said *No* (Figure 1).

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## Survey Question #2

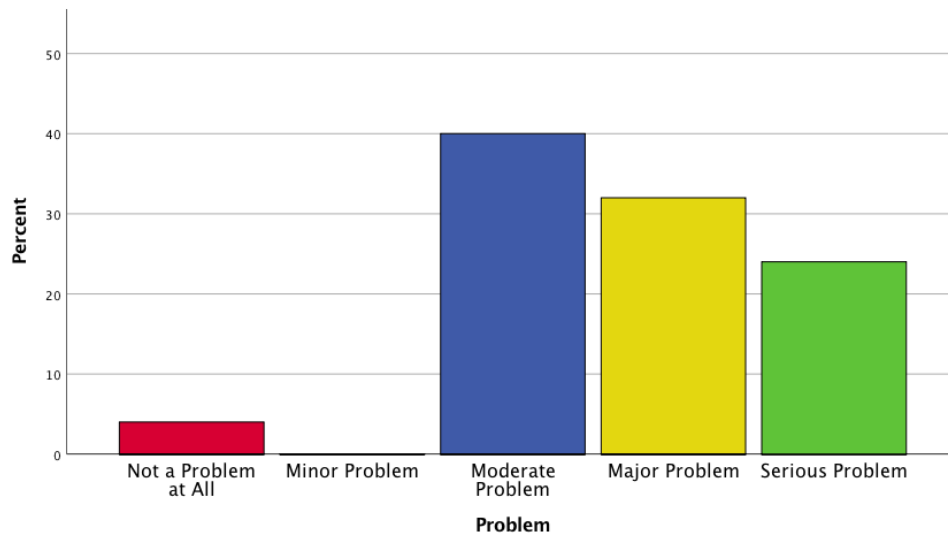


Figure 2. PSY 333 students response to how much of a problem they think homelessness is in San Luis Obispo.

PSY 333 students selecting from five choices ranging from *Not at all a problem* to a *Serious Problem* responded to the following question “How much of a problem do you think homelessness is in San Luis Obispo?” The most frequent response had 40% of respondents choose *Moderate Problem* (Figure 2).

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## Survey Question #3

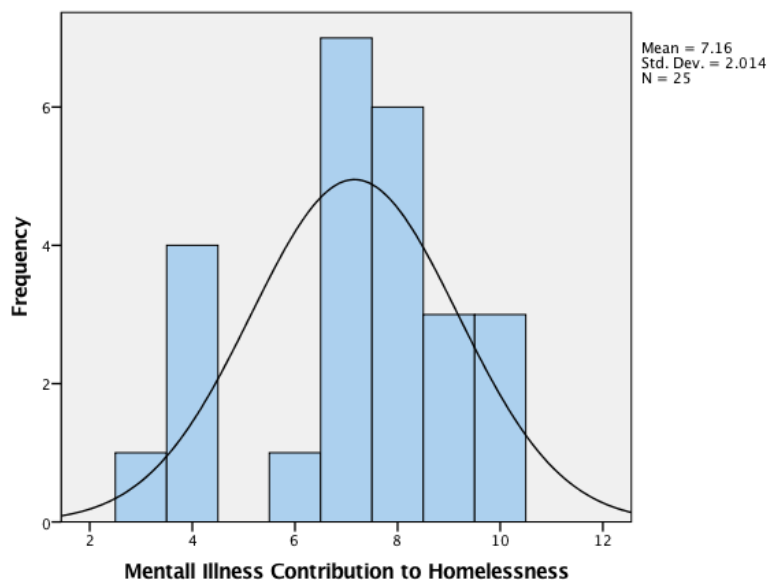


Figure 3. PSY 333 students response to the question: On a scale of 1 to 10, (1 being doesn't contribute at all, and 10 being completely contributes) how much do you think mental illness contributes to homelessness?

PSY 333 students answered the following question “On a scale of 1 to 10, (1 being doesn’t contribute, and 10 being completely contributes) how much do you think mental illness contributes to homelessness” (Figure 3). The responses ranged from three to seven, and the average was 7.16 (SD = 2.014). The most frequently reported value was 7 (28% of participants). The middle fifty percent of students responded between 6.5 and 8.5. Fifty percent of the students reported 7 or higher.

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## Survey Question #4

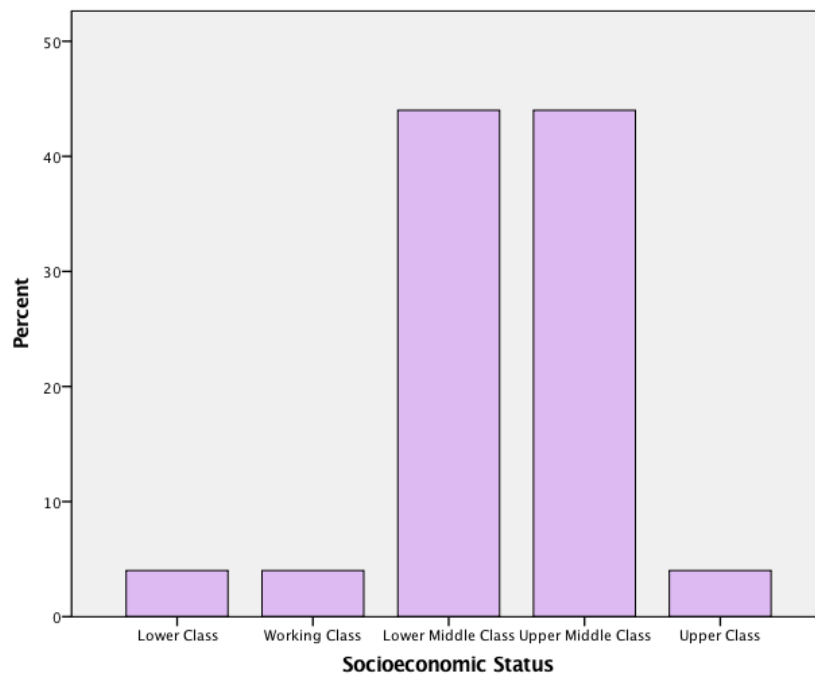


Figure 4. PSY 333 students reported socioeconomic status growing up.

PSY 333 students selecting from five choices ranging from *Lower Class* to *Upper Class* responded to the following question “What was your Socioeconomic Status growing up?” *Lower Middle Class* and *Upper Middle Class* were both the most frequent responses with each being 44% of respondents (Figure 4).

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### Survey Question #5

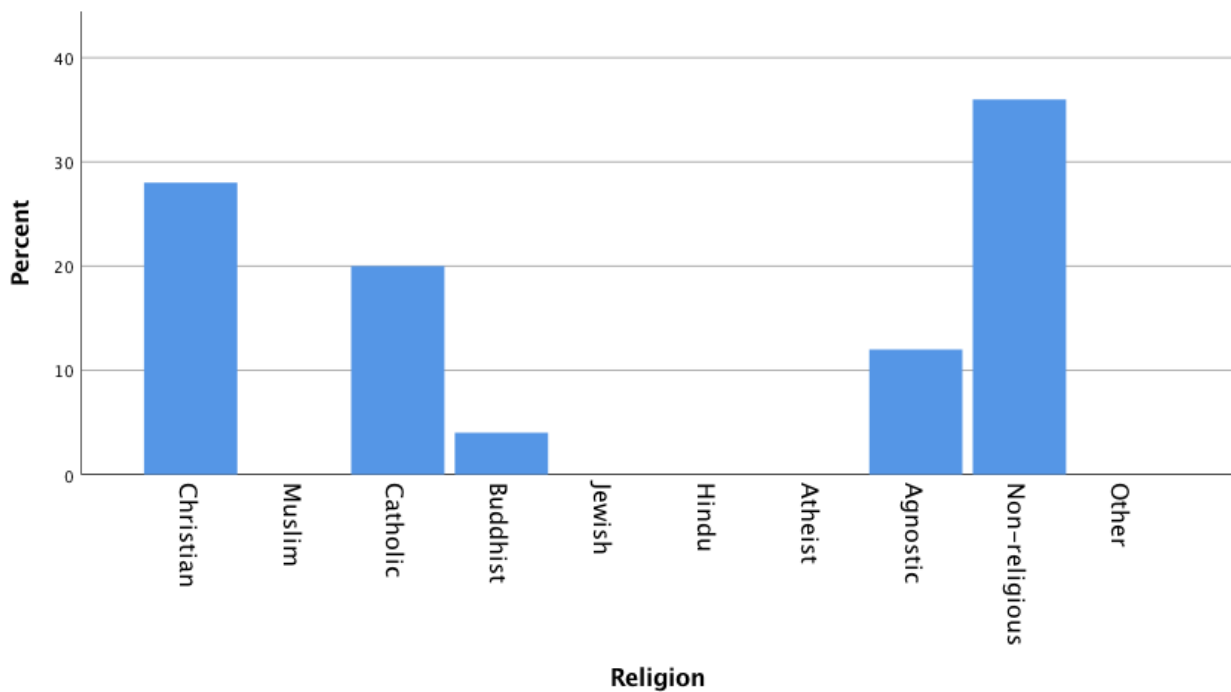


Figure 5. PSY 333 students response to what religion they associate with.

PSY 333 students responded to the following question “Which Religion do you associate yourself with?” (Figure 5) The choices included Christian, Muslim, Catholic, Buddhist, Jewish, Hindu, Atheist, Agnostic, Non-Religious, and Other. However, only Christian, Catholic, Buddhist, Agnostic, and Non-religious were selected as answers. The most frequent response had 36% of respondents answer *Non-Religious*.

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## Survey Question #6



Figure 6. PSY 333 students response to the question: "On a scale 1 – 10, (1 being not interested, and 10 being extremely interested) how interested would you be in volunteering with this organization?" The organization being HOME.

PSY 333 students answered the following question “HOME (Homeless Outreach Mobilizing Empowerment) is a non-profit organization that focuses on ending homelessness through community involvement and housing-based solutions. On a scale 1 - 10, (1 being not interested, and 10 being extremely interested) how interested would you be in volunteering with this organization?” (Figure 6). The responses ranged from one to ten, and the average was 6.04 (SD = 2.731). The most frequently reported value was 8 (24% of participants). The middle fifty percent of students responded between three and eight. Fifty percent of the students reported 7 or higher.



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## First Analysis

1. Which 2 questions are you looking for a relationship between?

I'm looking for a relationship between question 1 and 2.

2. What statistical procedure will you use to analyze this relationship and why are using this test?

I will be using a chi-square test of independence to analyze this relationship because the two variables involved in this statistical procedure are nominal and ordinal.

3. What is your specific hypothesis for the relationship between these 2 questions and why you expect to see this?

My hypothesis is that there would be a significant relationship between student's reported level severity of homelessness in SLO and whether or not a person has experience working with homeless people. I want to see if students' thoughts on the severity of the issue relates to whether or not they actually take action and work with the homeless. I expect to see a significant relationship because I believe one's thoughts affects one's actions.

4. Copy & paste the result table from SPSS for this statistical test:

**Case Processing Summary**

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Experience * Problem	25	100.0%	0	0.0%	25	100.0%

**Experience \* Problem Crosstabulation**

		Problem				Total
		Not a Problem at All	Moderate Problem	Major Problem	Serious Problem	
Experience	No	Count	1	3	4	10
		Expected Count	.4	4.0	3.2	10.0
		% within Experience	10.0%	30.0%	40.0%	100.0%
		% within Problem	100.0%	30.0%	50.0%	40.0%
		% of Total	4.0%	12.0%	16.0%	40.0%
	Yes	Count	0	7	4	15
		Expected Count	.6	6.0	4.8	15.0
		% within Experience	0.0%	46.7%	26.7%	100.0%
		% within Problem	0.0%	70.0%	50.0%	60.0%
		% of Total	0.0%	28.0%	16.0%	60.0%
Total		Count	1	10	8	25
		Expected Count	1.0	10.0	8.0	25.0
		% within Experience	4.0%	40.0%	32.0%	100.0%
		% within Problem	100.0%	100.0%	100.0%	100.0%
		% of Total	4.0%	40.0%	32.0%	100.0%

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**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.361 <sup>a</sup>	3	.501
Likelihood Ratio	2.705	3	.439
Linear-by-Linear Association	.250	1	.617
N of Valid Cases	25		

a. 7 cells (87.5%) have expected count less than 5. The minimum expected count is .40.

5. Insert Figure 7 that corresponds to this analysis:

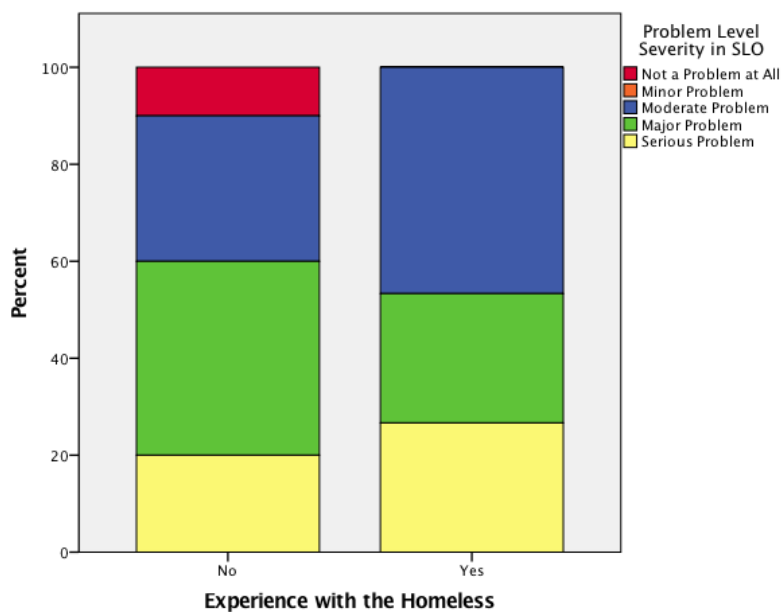


Figure 7. Percentage of PSY 333 students reported problem level severity of homelessness in SLO grouped by whether or not students have experience working with homeless people.

6. Type a paragraph about your results (in APA style) and whether your results supported your hypothesis:

Overall, 60% of students report having experience working with homeless people. Of the students who reported having experience, 46.7% of them reported that the homelessness in SLO is a moderate problem. Of the students who reported not having experience, 40% of them reported homelessness in SLO to be a major problem. Both groups did not report homelessness in SLO to be a minor problem. Students who reported homelessness in SLO to be not a problem at all had no experience working with homeless people. Of the students who reported homelessness to be a serious problem in SLO, 66.7% of them had experience working with the homeless (Figure 7). My hypothesis was not supported,  $\chi^2 (3, N = 25) = 2.361, p = .501$ . The chi-square test is limited by the fact that 87.5% of the crosstab cells have an expected count less than

5.

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## Second Analysis

7. Which 2 questions are you looking for a relationship between?

I'm looking for a relationship between question 3 and 4.

8. What statistical procedure will you use to analyze this relationship and why are using this test?

I will be using a Spearman's correlation to analyze this relationship because the variables involved in this statistical procedure are ordinal and scale. Spearman's correlation is used to test an association between two variables when those variables do not meet the general assumptions of the Pearson's correlation test. In this case, one of my variables is ordinal and so I do not meet that general assumptions.

9. What is your specific hypothesis for the relationship between these 2 questions and why you expect to see this?

My hypothesis is that as the socioeconomic status growing up increases, the higher they would scale how much they think mental illness contributes to homelessness. My hypothesis is based off the assumption that individuals who grew up with higher socioeconomic status are unaware of the lack of affordable housing and thus may base their response on superficial interactions of mentally ill individuals on the street.

10. Copy & paste the result table from SPSS for this statistical test:

### Correlations

		Mentallness	SES
Spearman's rho	Mentallness	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	25
	SES	Correlation Coefficient	-.114
		Sig. (2-tailed)	.587
		N	25

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11. Insert Figure 8 that corresponds to this analysis:

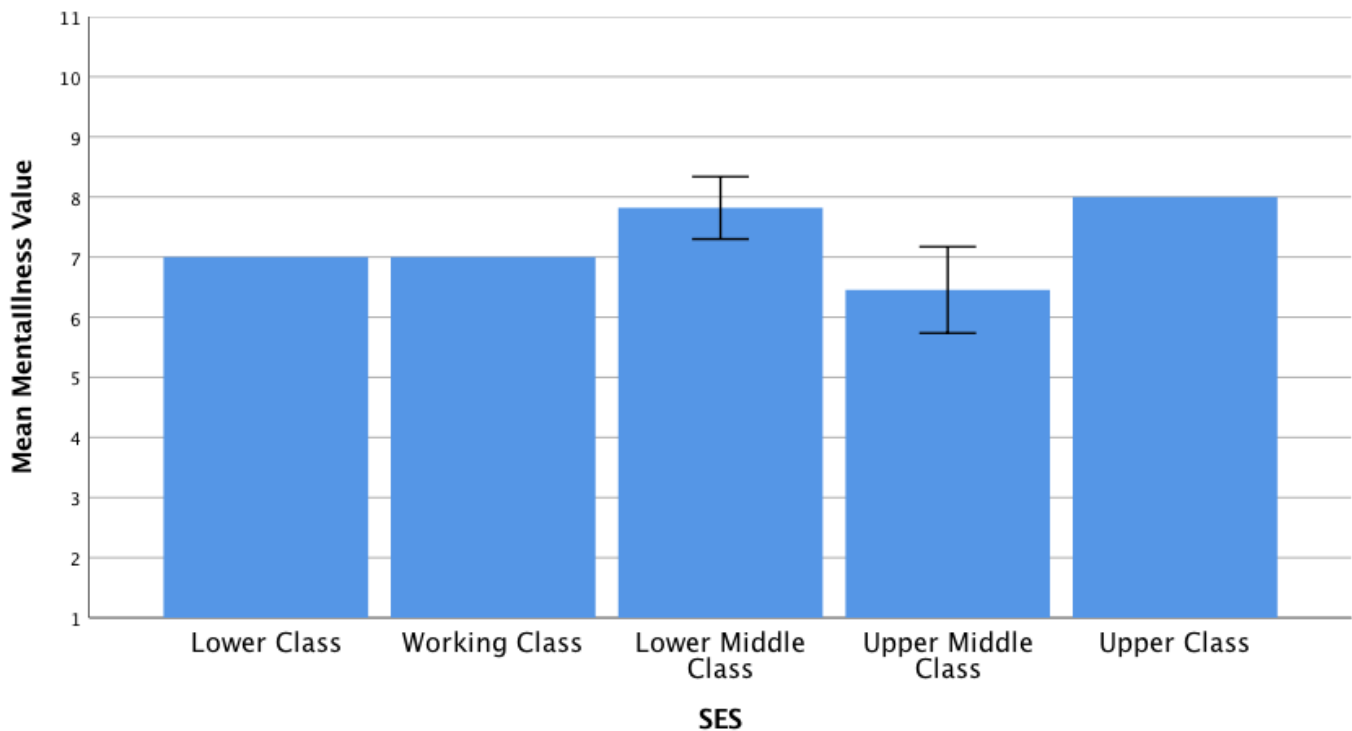


Figure 8. Mean mental illness value (from a scale 1 to 10) as a function of SES growing up. Error Bars: +/- 1 SE.

12. Type a paragraph about your results (in APA style) and whether your results supported your hypothesis:

PSY 333 students reported their socioeconomic status growing up and rated how much they think mental illness contributes to homelessness on a scale of 1 to 10 where 1 is *doesn't contribute* and 10 is *completely contributes* (Figure 8). My hypothesis was that socioeconomic status growing up would be positively associated with how much the students thought mental illness contributes to homelessness, so as SES increases, mental illness value increases. The Spearman's correlation results does not support my hypothesis,  $r_s(23) = -.114, p = .587$ . Some error bars were removed from the graph because multiple error bar calculations yielded infinite results.

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## Third Analysis

13. Which 2 questions are you looking for a relationship between?

I'm looking for a relationship between question 5 and 6.

14. What statistical procedure will you use to analyze this relationship and why are using this test?

I will be using a One-way ANOVA to analyze this relationship because the variables involved in this statistical procedure are nominal (with more than 3 levels) and scale.

15. What is your specific hypothesis for the relationship between these 2 questions and why you expect to see this?

My hypothesis is that there is a significant difference in volunteer interest rating for HOME (on a scale from 1 to 10) for the differing religions and non-religious because certain religions value serving the poor and needy more than others. Also, I'm assuming individuals who are religious may feel more morally obligated to volunteer to help the homeless compared to non-religious people.

16. Copy & paste the result table from SPSS for this statistical test:

### Warnings

Post hoc tests are not performed for Volunteer because at least one group has fewer than two cases.

### Descriptives

Volunteer								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
Christian	7	6.86	2.854	1.079	4.22	9.50	1	10
Catholic	5	4.60	2.074	.927	2.03	7.17	2	7
Buddhist	1	5.00	.	.	.	.	5	5
Agnostic	3	7.00	3.606	2.082	-1.96	15.96	3	10
Non-religious	9	6.00	2.915	.972	3.76	8.24	2	9
Total	25	6.04	2.731	.546	4.91	7.17	1	10

### Test of Homogeneity of Variances

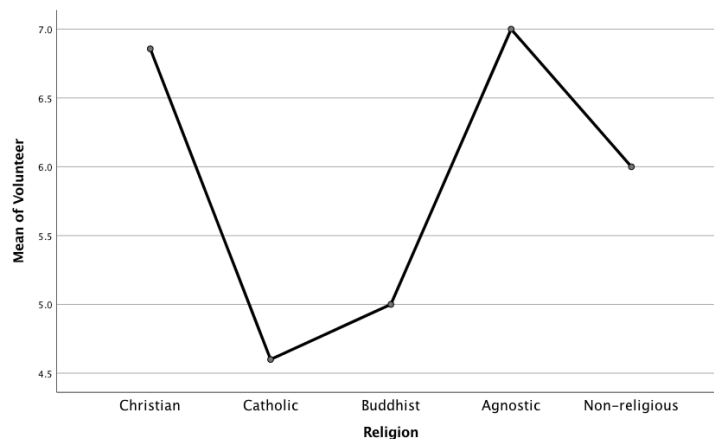
		Levene Statistic	df1	df2	Sig.
Volunteer	Based on Mean	.452	3	20	.718
	Based on Median	.216	3	20	.884
	Based on Median and with adjusted df	.216	3	16.580	.884
	Based on trimmed mean	.450	3	20	.720

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## ANOVA

Volunteer

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.903	4	4.726	.591	.673
Within Groups	160.057	20	8.003		
Total	178.960	24			



17. Insert Figure 9 that corresponds to this analysis:

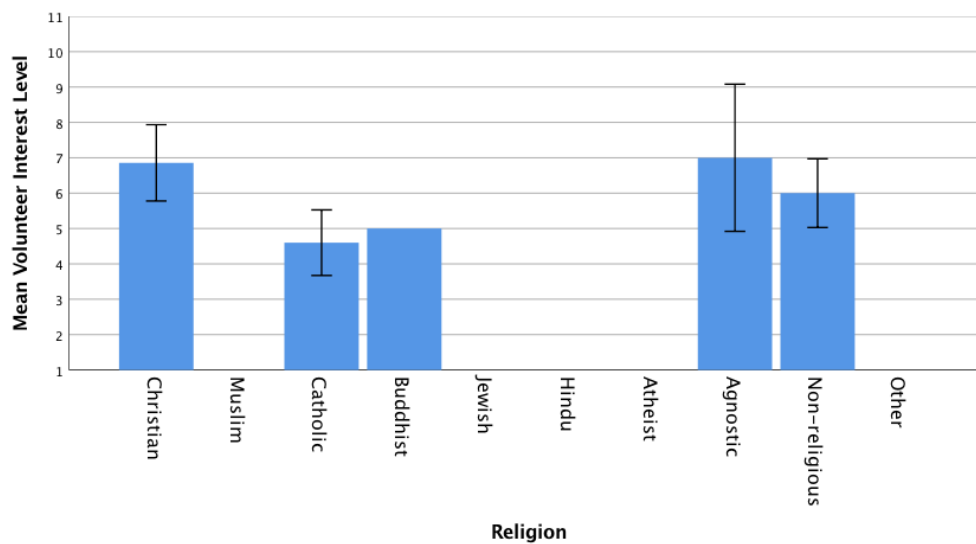


Figure 9. Mean volunteer interest level (from a scale 1 to 10) as a function of religion the participant associates with. Error Bars: +/- 1 SE.

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18. Type a paragraph about your results (in APA style) and whether your results supported your hypothesis:

A one-way analysis of variance was conducted to evaluate the relationship between the religion a student associates with and volunteer interest rating (Figure 9). I hypothesized that there is a significant difference in volunteer interest rating for HOME (on a scale from 1 to 10) for the differing religions and non-religious. My hypothesis was not supported by the data  $F(4, 20) = .591, p = .673$ . Post hoc test were not performed because no statistically significant evidence and for the variable *Volunteer*, multiple groups had fewer than two cases. 5 out of the 10 religions/ non-religions were selected as responses to the question: "Which Religion do you associate yourself with?" The highest average volunteer interest level was from the Agnostic group ( $M = 7, SD = 3.606$ ). The lowest average volunteer interest level was from the Catholic group ( $M = 4.6, SD = 2.074$ ).

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## Discussion:

I found no statistically significant findings for all three of my hypotheses. The survey data and calculations produced a large p-value ( $>0.05$ ), which indicates weak evidence against the null hypothesis, and so I fail to reject the null hypothesis for each analysis. The lack of findings can be due to the small sample size and the order in which my survey was taken. The sample was limited to twenty-five PSY 333 students, and so the results are limited to the diversity of the psychology class. Also, my survey was towards the end of the twenty-five surveys we had to take in the morning, and so that may have affected interest levels in volunteering.

Although the results were not statistically significant, there's still some good data that will influence setting up my hypothetical NPO. 96% of the sample reported that homelessness in SLO is a moderate to serious problem, and within that group, there was still 37.5% of individuals who had no experience working with homeless people. So, although individuals think homelessness in SLO is a moderate to serious problem, they haven't taken any action to work with them. HOME is needed to provide opportunities to serve the homeless and empower those individuals who believe it is a problem to take action. The interest level in volunteering for HOME is slightly above average ( $M = 6.04$ ,  $SD = 2.71$ ), and so we will be able to garner some help. There also should be more education on the causes of homelessness because the mean of how much mental illness contributes to homelessness was moderately high ( $M = 7.16$ ,  $SD = 2.014$ ), even though mental illness is actually not a top cause to homelessness among families based on a 2015 annual survey by the U.S. Conference of Mayors on major cities across America. Also, since my one-way ANOVA on the variables *Religion* and *Volunteer* did not produced significant findings, I wouldn't have to target any specific religious/ non-religious groups to get the most volunteers.

One possible change I would make to the survey would be the mental illness question. I used this question to gauge how much an individual knew the causes for homelessness. A more effective question may be to ask the participant to rank a list of possible causes of homelessness, to have items for an individual to compare to. Overall, this research project allowed me to use my SPSS and data analyzing skills, and apply it to a realistic hypothetical situation of starting a non-profit organization. Creating a survey using *SurveyMonkey* and collecting data was straightforward. Planning out which variables to compare and which inferential statistical analyses to use beforehand made analyzing and graphing stages go smoothly. Although the sample size was small and had a limited demographic, the project still requires practical knowledge of SPSS to start an NPO. The ability to collect data, perform descriptive statistics and statistical analyses, graph data, and report results are all useful skills in starting a non-profit organization or future research assignments.



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### Reference

National Law Center On Homelessness & Poverty. (2015). *Homelessness in America: Overview of Data and Causes* [Fact Sheet]. Retrieved from [https://www.nlchp.org/documents/Homeless\\_Stats\\_Fact\\_Sheet](https://www.nlchp.org/documents/Homeless_Stats_Fact_Sheet)