

Why Honors? A Statistical Analysis of Honors Classes
with Comparison to General Classes

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ABSTRACT

The main goal of this statistical analysis was to study the underlying factors of why students choose to take Honors classes and what differentiates Honors classes from general classes. Custom surveys were sent via email to all currently enrolled Honors students as well as all Honors professors. These responses were then combined with previously-published college reports which contained demographic data on the Honors program. Upon reviewing the information, it became apparent that the majority of both students and professors agree that Honors classes are more rewarding, more challenging, and more thought provoking than regular classes. The findings of this study will surely be helpful in defining the role that the Honors College plays in the academic lives of both current and prospective Honors students.

Why Honors?

A Statistical Analysis of Honors Classes with Comparison to General Classes

INTRODUCTION

Students embark upon a journey to enhance their chances of a better future by enrolling in college classes; however, the variety of classes offered present a challenge that students are not prepared to face; what classes to enroll in. Class size, professors, course load, and student engagement play a significant roll the overall college experience. According to the Honors College mission statement:

The purpose ... is to provide a challenging and supportive academic environment in which students are encouraged to think critically, demonstrate leadership, and develop ethical standards. Honors pursues an interactive learning experience where students acquire a creative and comprehensive understanding of concepts in an interdisciplinary and global context. Honors students and faculty share a commitment and civic responsibility that extends beyond the classroom to local, national, and international communities.

Therefore, the following data will provide the reader with insight regarding the overall experience for the Honors College. A convenience sample was used due to the time constraints and the amount of students enrolled in Honors courses versus general courses. Intentions of the survey and data collection were to answer the question: Do Honors classes have a greater satisfaction rate and adhere to the values and standards set forth in the Honors College purpose statement?

PURPOSE AND HYPOTHESES

Colleges are receiving a lot of backlash regarding the poor performance and lack of social skills recent graduates have. Traditional methods of instruction are failing to develop the much-needed critical thinking and communication skills in their students. Leaving many students well trained to regurgitate the proper answers for the test, with no understanding of why the answer is correct. These failings have created many different programs to solve this problem within universities and colleges, and this is true for the studied institution.

The Honors College is an elite selection of students who have earned a minimum grade point average of 3.5 and are eligible to sign up for Honors designated classes. These classes are known for smaller class sizes, having *more* work, and the stereotypical ‘nerd’ filling the rooms. The purpose for surveying Honors students and professors was to get a perspective on why Honors classes have a negative stereotype and what is the attraction or repulsion from engaging in the Honors College.

The online surveys used a convenience sample and the hyperlink was emailed to the students and professors currently enrolled or teaching Honors classes. Further analysis of the collected data reveals that Honors students are more willing to put forth the effort to participate in their education versus joining the masses in general classes. Data collected from Honors students, professors, and enrollment reflect the experience, intimacy, and overall satisfaction or dissatisfaction one may have while involved in the Honors program.

There are two main hypotheses in the analysis: (1) Honors students are more satisfied and have more positive opinions about Honors classes than general classes. (2) Professors who teach both types of classes at the college agree with the statements above pertaining to student satisfaction, and these professors [change to “these professors”]; as is, it is potentially vague] also believe that teaching Honors classes are more rewarding and thought-provoking.

MATERIALS AND METHODS

1. Document Analysis

To gain a better understanding and to determine the current state of the Honors students and the Honors, various documents were analyzed. These documents included college website pages, minutes from the Honors Advisory Board, and reports and publications from the college Office of Institutional Research and Effectiveness.

2. Survey Design

Two distinct surveys were needed for the collection of data in this project. One survey was created for student responses, and another survey was created for professor responses. Prior to their distribution, the Honors Manager, and the Director of Research & Institutional Effectiveness reviewed both surveys several times. Refer to Appendix A and Appendix B for samples of the student and faculty surveys used in this study.

3. Data Distribution and Collection

At the start of the project, specific purposes and procedures were defined and discussed with the director of the Honors College. The participants in the study included the 817 students currently enrolled in the Honors College and 25 Honors faculty members. Hyperlinks to the web surveys were sent via email by the Honors Manager on November 24th, 2008. The data collection took place from November 24th, 2008, to December 3rd, 2008, with 120 student responses and 18 professor responses in that time frame.

4. Data Management

Care was taken in assuring that the survey questions were structured so as to be as fair and balanced as possible. Since only the most basic demographic information was collected from students, the emphasis was placed in the collective thoughts and opinions of the respondents rather than any individual responses.

5. Statistical Methods

The following software was used in the analysis of the data: Microsoft Excel, StatCrunch, and SurveyMonkey.com. A hypothesis test was used to test the claim that Honors classes are more thought-provoking [hyphenate] than general classes. Also, bar charts and pie graphs are included to visually represent the statistical data collected.

RESULTS

1. Analysis of Demographic Distribution

Of the Honors students surveyed, 66.7% were female and 33.3% were male, correlating to the population demographics provided by the Honors College, which states that 66.0% are female and 33.2% are male. The average age of a student at the studied institution in 2007-08 was 28, enrolled in all programs and campuses. As for Honors students, the majority (55.9%) is in the 17-21 age group, and this figure is in agreement with the survey response; 54.6% chose the 18-22 age group. As for the ethnic heritage and enrollment status of the Honors student respondents, the majority (53.3%) described themselves as White/Non-Hispanic, and 77.8% indicated they were full-time students who take 12 or more credits per semester. Refer to Table 1 for a breakdown of the demographic characteristics of the sample taken along with a breakdown of the population as provided by college reports.

Table 1. Demographic breakdown of student survey responses.

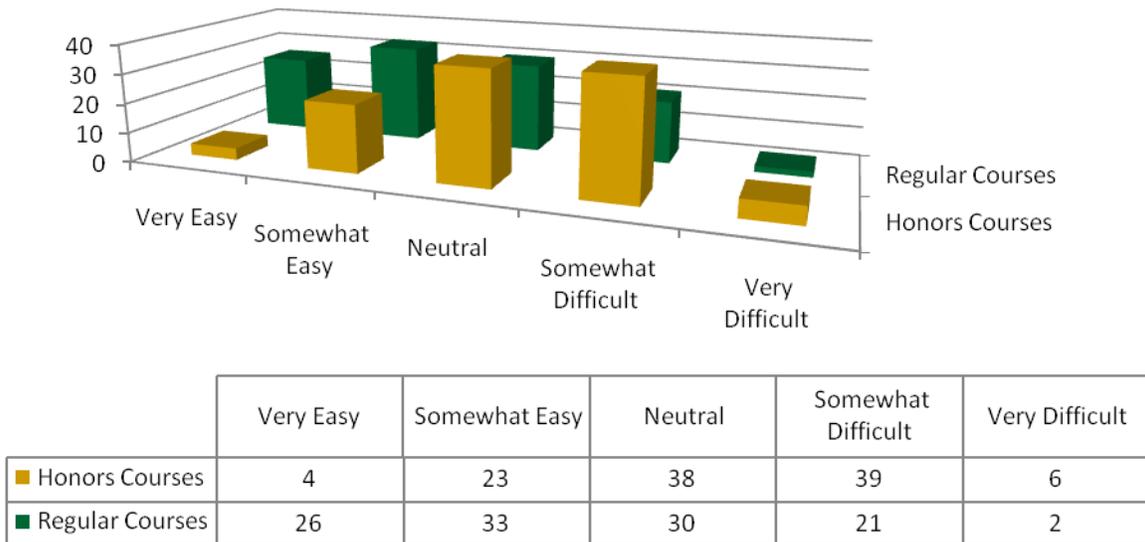
Characteristic Variables	Sample n=120	Sample %	Population % N=817
Gender			
Male	40	33.3%	33.2%
Female	80	66.7%	66.0%
Not Reported	0	0.0%	0.9%
Race			
African American	5	4.2%	14.2%
White/Non-Hispanic	64	53.3%	52.8%
Hispanic	30	25.0%	22.5%
Asian	5	4.2%	5.3%
Native American	1	0.8%	0.9%
Other	15	12.5%	4.4%
Age Groups			
18-22	65	54.6%	56.8%
23-27	17	14.3%	23.4%
28-32	14	11.8%	5.6%
33-37	5	4.2%	5.0%
38-45	11	9.2%	6.7%
46 & Older	7	5.9%	2.4%
Not Reported	1	0.8%	
Status			

Full Time	91	77.8%	52.1%
Part Time	26	22.2%	30.2%
Non-Credit	0	0.0%	17.6%

2. Analysis of Honors Student Responses

Students surveyed were asked to rate the overall difficulty level of Honors versus general classes. Both were rated from Very Easy, Somewhat Easy, Neutral, Somewhat Difficult, and Very Difficult. Of the 120 responses the Honors classes were rated as somewhat difficult (39/110) while regular classes were listed as somewhat easy (33/112). Thus, the rating average was 3.18 for Honors classes and 2.46 for general classes.

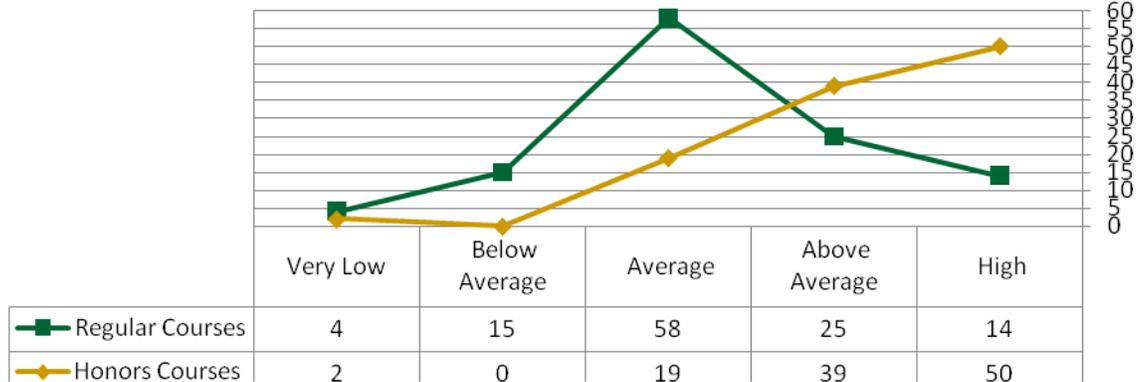
Figure 1. Rating of Overall Course Difficulty



Next, the overall quality of the professors was rated, and students responded that Honors professors had an above average (47/110) to a very high quality levels (47/110), whereas general class professors received an average rating (51/113). Thus, the rating average was 4.28 for Honors classes and 3.57 for general classes.

As the following chart points out, interaction level between student and Honors professors was rated as very high (50/110), and general class professor interaction was rated as average (58/116). Thus, the rating average was 4.23 for Honors classes and 3.26 for general classes.

Figure 2. Overall Interaction with Professors.



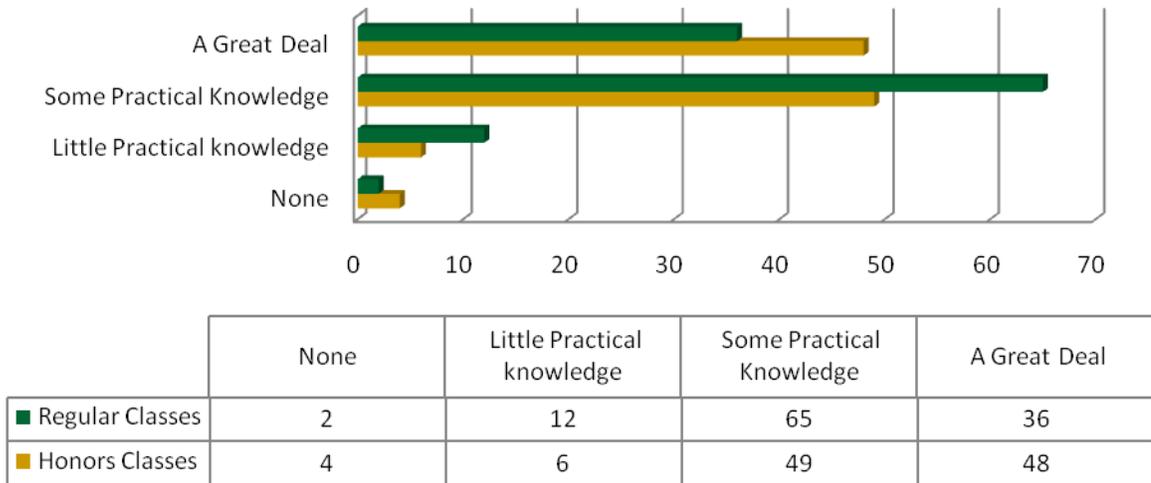
Students were asked to rate their level of interaction with Honors students, and the response was above average (38/110), and in general classes the response was average (52/116). Thus, the rating average was 3.8 Honors for classes and 3.89 for general classes.

Workload was then explored, and Honors classes ranked as just right (51/105) and, general classes had a just right response as well (48/112). Thus, the rating average was 3.53 for Honors classes and 3.10 for general classes.

Comfort level was ranked in as comfortable (47/108) in Honors and comfortable in general as well (48/115). Therefore, the rating average is 4.14 for Honors classes and 3.88 for general classes.

Students ranked the average amount of practical knowledge gained from an honors course as “some practical knowledge gained” (49/107); however, the response of a “great deal of knowledge gained” response was 48/107 in the Honors program. General classes were ranked at 65/115 for “some practical knowledge gained”. Thus, the rating average was 3.32 for Honors classes and 3.18 for general classes. This is exemplified in the following chart.

Figure 3. Practical Knowledge Gained from Courses.



The average class size seemed to be just right in Honors classes (89/108), and general classes had somewhat too many (57/116). The rating average is 2.91 for Honors classes and 3.77 for general classes. As for satisfaction levels, students were very satisfied with Honors classes (61/108) and somewhat satisfied in general classes (46/118). The rating average is 4.34 for Honors classes and 3.77 for general classes.

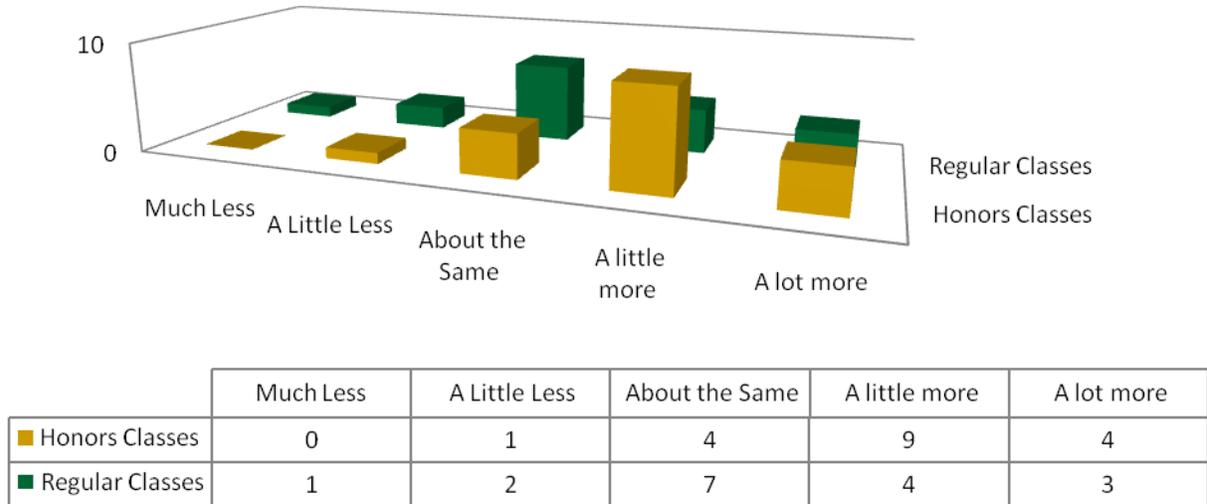
3. Analysis of Professor Responses

Professors were asked to rate the quality of students in Honors classes, and they ranked the students as above average (10/18), and in general classes professors ranked students as average (13/18). The average rating is 4.17 for Honors classes and 2.89 for general classes.

The overall interaction with Honors students was ranked very high (9/18), and general students were ranked as above average (10/18). The average rating is 4.28 for Honors classes and 3.83 for general classes.

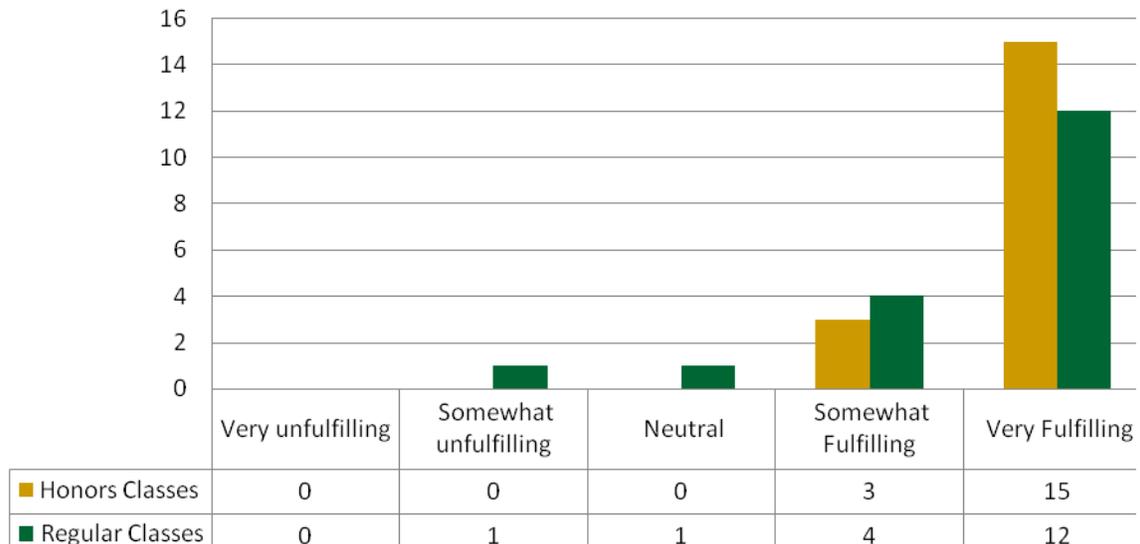
The professors were then asked to rate the interaction witnessed between both groups of students. Honors students received a very high average (8/18), and students in general classes received an average rating (10/18). The average rating is 4.28 Honors and 3.11 for general classes. Professors then ranked the amount of work given to Honors students as a little more than average (9/18), as seen below.

Figure 4. Overall Assigned Workload.



Honors classes left professors feeling very fulfilled (15/18) with general classes as very fulfilling as well (12/18). The rating average is 4.83 for Honors classes and 4.5 for general classes.

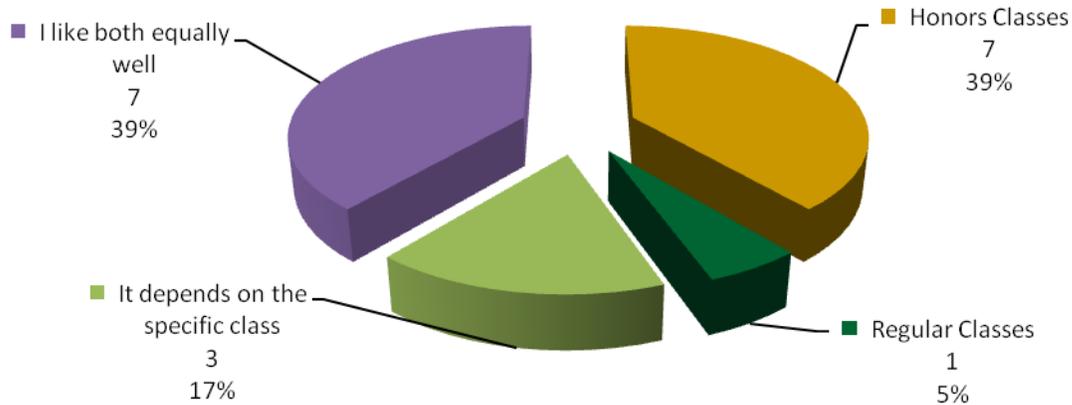
Figure 5. Fulfillment Level in Teaching.



Average class size for Honors was just right (12/18) and somewhat too many students (10/18) in general classes. The rating average is 3.00 for Honors classes and 4.33 for general classes.

The graph below shows the response when professors were asked to choose the class they prefer to teach. Due to the scattered responses, no specific preference can be seen as a trend among professors.

Figure 6. Which Do You Prefer to Teach?



4. Hypothesis Test on the Thought-Provoking Nature of Honors Classes

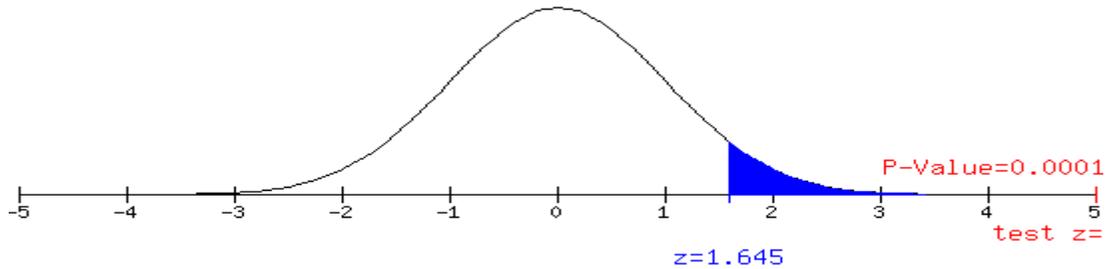
Hypothesis testing methods and a 0.05 significance level were used to test the claim that Honors classes are more thought-provoking than general classes, according to the responses of Honors students who were surveyed. The results are as follows:

$$H_0 \quad p_1 = p_2$$

$$H_1 \quad p_1 > p_2$$

p_1	p_2
Honors Classes	General Classes
$x_1 = 94$	$x_2 = 9$
$n_1 = 103$	$n_2 = 103$

Test Statistic: $z = 11.844$
 Critical Value: $z = 1.645$
 P-Value = 0.0001

Figure 7. Hypothesis Test Distribution.

The findings lead to the rejection of H_0 . In conclusion, there is sufficient evidence to support the claim that Honors classes are more thought-provoking than general classes, according to the responses of Honors students who were surveyed.

DISCUSSION

After collecting and analyzing the data, it is clear that the first hypothesis can be supported. Honors students at the studied institution are more satisfied and have more positive opinions about Honors classes than general classes. The majority of survey responses also indicated that Honors classes are more thought-provoking than general classes. This shows that at least some of the objectives of the Honors program are being fulfilled in a positive way that is beneficial to students.

As for the second hypothesis, that too can be supported by the data analysis. Professors responded that Honors classes are more fulfilling than general classes. The majority of professors also acknowledged that the interaction level with students in Honors classes is either above average or very high.

CONCLUSION

The findings of this study should reinforce the necessity and effectiveness of the Honors program. Emphasis should be placed on the very positive overall responses from both students and professors. The data from this survey may also be helpful in determining future changes in the structure of both Honors and general classes in terms of workload, interaction level or other areas.

APPENDIX A (Student Survey)

1. Honors Project - Student Survey

This survey takes less than 5 minutes to complete.

The data from this survey will be used in the completion of a statistics project in [] Honors Statistics class, STA2023.

All of your responses are completely anonymous. See the disclaimer at the bottom of the page for full details.

Please generalize about all of the honors or regular classes that you've taken in the past, instead of focusing on just one.

*"Regular classes" are any credit classes you've taken at this college that are not considered honors.

1. Gender:

Male

Female

2. Age group:

18-22 23-27 28-32 33-37 38-45 46 & over

3. Ethnic heritage:

African American

White/Non-Hispanic

Hispanic

Asian

Native American

Other

4. Current enrollment status:

Part-time student (11 or less credit hours)

Full-time student (12 or more credit hours)

5. Rate the overall difficulty level of:

	Very easy	Somewhat easy	Neutral	Somewhat difficult	Very difficult
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

6. Rate the overall quality level of professors who teach:

	Very low	Below average	Average	Above average	Very high
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

7. Rate your overall interaction level with professors in:

	Very low	Below average	Average	Above average	Very high
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

8. Rate your overall interaction level with other students in:

	Very low	Below average	Average	Above average	Very high
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

9. Rate your overall workload (homework, projects, exams) in:

	Extremely light	Light	Just right	Heavy	Extremely heavy
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

10. Rate your overall comfort level in:

	Very uncomfortable	Uncomfortable	Neutral	Comfortable	Very comfortable
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

11. How much practical knowledge have you gained from:

	None	Little practical knowledge	Some practical knowledge	A great deal
Honors classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regular classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Rate the average class size for:

	Far too few students	Somewhat too few students	Just right	Somewhat too many students	Too many students
Honors classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regular classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Rate your overall satisfaction level with:

	Very dissatisfied	Somewhat dissatisfied	Neutral	Somewhat satisfied	Very satisfied
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

14. In general, which classes are more thought provoking?

Honors classes

Regular classes

Neither

APPENDIX B (Professor Survey)

1. Honors Project - Professor Survey

This survey takes less than 5 minutes to complete.

The data from this survey will be used in the completion of a statistics project in [] Honors Statistics class, STA2023.

All of your responses are completely anonymous. See the disclaimer at the bottom of the page for full details.

Please generalize about all of the honors or regular classes that you've taught in the past, instead of focusing on just one.

*"Regular classes" are any credit classes you've taught at this college that are not considered honors.

1. Rate the overall quality level of students in:

	Very low	Below average	Average	Above average	Very high
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

2. Rate your overall interaction level with students in:

	Very low	Below average	Average	Above average	Very high
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

3. Rate the overall interaction level that you have witnessed between students in:

	Very low	Below average	Average	Above average	Very high
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

4. Compared to your colleagues, rate the overall workload (homework, projects, exams) that you assign to students in:

	Much less	A little less	About the same	A little more	A lot more
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

5. Rate your overall fulfillment level in teaching:

	Very unfulfilling	Somewhat unfulfilling	Neutral	Somewhat fulfilling	Very fulfilling
Honors classes	<input type="radio"/>				
Regular classes	<input type="radio"/>				

6. Rate the average class size for:

	Far too few students	Somewhat too few students	Just right	Somewhat too many students	Far too many students
Honors classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regular classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. In general, which do you prefer to teach?

Honors classes

Regular classes

It depends on the specific class

I like both equally well

