Effects of Distance on College Retention and Attrition

Daniel I. Song

High Tech High Chula Vista

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# Introduction

Are you the type of person who gets homesick easily, or are you the type who would leave your family and home when the opportunity came? Maybe this new found freedom allowed you to be more responsible with your life, or maybe it went straight to your head and made you reckless with your decisions. On the other hand, still being able to be with your family for the next four years may give you a peace of mind, sense of security, and save you money. The down side to that could possibly be an increase to your stress through dealing with situations at home. The commute to school might also pile up on top of the stress from college life. In this paper, we will be looking at data on previous HTHCV alumni's as of how far they have to commute to school, or how far they live away from home. We will use this collective data to see how the distance between home and school affects college retention.

# Literature review

In the era we live in today, college education plays an important role in the lives of young adults transitioning into the workforce or pursuing their dreams. However, students continue to drop out of school each year. A statistical study, done on a few 4-year New York public college's, shows that 37.8% of all 34,274 students graduate in four years (Selingo, 2010). This is compared to 31.3% of the U.S. average graduation rate. The U.S's average rate of completion of undergraduate level is 20.5%. Although college education is important for ones future, we will see low graduation rates. There are a multitude of variables that affect graduation rate and this paper will review how a student's distance from home correlates with their retention at school.

William F. White and David Mosley conducted a study at Lamar University in Beaumont, Texas. White's and Mosley's (1983) study on the twelve year pattern of retention and attrition in a commuter type university shows retention rates spanning from 51.26% to 65.9% between 1982-1994. In addition to the statistical data of retention and attrition rates, they also looked into SAT scoring and students admission according to the SAT scores as well. They have also mentioned the unique, social, geographic, and cultural variables in the school. Looking at this research, I understand the baseline rate of retention of commuting students in a commuter type college. However, due to the variable in the study, I can't fully rely on this research alone to conduct my research. Both my research and this research will look into retention rate of commuting students, but there is a major difference in that I will be collection data from students attending different types of colleges, not a specific commuter type college. Nonetheless, I will use this research and the data within the research to determine other variables and outliers within my own research.

There is also another possible interpretation of "Distance from Home" that can take form as "homesickness" or the distance the student lives away from home. Christopher A. Thurber and Edward A. Walton (2012) conducted a research on homesickness among university students. In their research, Walton and Thurber were merely looking into homesickness among students: symptoms, factors, preventions, and treatments. They did not look into the correlation between retention and homesickness, but this research alone proves that homesickness is an issue that should be treated with caution among students. Therefore, our study will also include the homesickness factor and we will research to see if there is a correlation between homesickness and retention.

Although both studies seem irrelevant to each other, both hold valuable information for our research. Form these texts, I understand that homesickness holds importance and should be

looked into in more depth so that we may find out if there is a relationship between homesickness and distance from home. We have also defined a baseline for retention amongst commuting students, but we cannot completely adhere to those standards due to a variety of variables.

#### Findings

The main purpose of our statistical research is to see what affects college retention and success. Before we were able to conduct our study, we first had to collect data through the use of a compiled survey of questions each group tailored to their specific topic area. After receiving the responses, we organized the data and marked off the specific questions that were of significance to individual groups. The next step (and the first step to data analysis) was to analyze the data through comparison between two questions to test for independence or dependence between success and the specific areas the groups were involved in. After testing for dependency or independency, we determine whether each correlation is significant or insignificant to our area of study. Using the significant correlations of data, we discussed and made a baseline description of how the correlation affects each other as well as college retention.

My group was responsible for the area of "Distance from Home". We interpreted this into two possible sub categories/areas. One possible interpretation of "Distance from Home" was the distance the student lives away from home which can also tie in with homesickness. The other interpretation was the length of the students commute to school. We were curious to see whether both interpretations had a sort of correlation towards college retention and therefore, crafted survey questions about the student's colleges' physical distance from home, commute time, as well as how strongly they feel homesick while away at college. The data that we have received from these questions have provided interesting results.

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Our first finding compared commute time to confidence in success and graduation, motivation to go to class, and GPA and failed classes. My claim was that the longer one's commute to school is will have a negative effect in one's motivation to go to class and graduate, and success ( GPA and failed classes. The survey questions that we have compared for this claim were questions 51 (How long is your commute to school?), 43 (How many classes have you failed?), 3 (GPA), 64 (How much do you either agree or disagree with this statement [I am motivated to go to class]), and 65(How much do you either agree or disagree with this statement [I am motivated to graduate college]). Question 51 was the main question used in each of the comparisons.

		GPA				
		Higher than 3.5	2.5-3.5	Less than 2.5	Totals	
Commute Time	Less than 10 min.	0.11	0.01	0.04	0.15	
	10-30 min.	0.69	0.1	0.06	0.85	
	30-60 min.	0.73	0.83	0.73	2.29	
	More than an hour	0.18	0.64	3.68	4.5	
	Totals	1.71	1.57	4.51	7.79	

**Figure 1** Chi-Squared value chart between Current GPA and Commute Time. Degrees of Freedom = 6 Cut-off value = 12.592

Within all of these comparisons, the degrees of freedom alternated between 6 and 9. The chi squared values also alternated along with the degrees of freedom, alternating between 12.592 and 16.919 respectively. However, in all of comparisons, none of the chi-squared grand total values were greater than the cut-off value (as seen in figure 1). Through this finding, we have found that commute time has no correlation between failed classes, GPA, motivation to go to class, and motivation to graduate.

In another one of our findings, we've compared the student's homesickness to their confidence in graduation/succeeding in college. The questions in the survey we've compared were questions 65 (How much do you either agree or disagree with this statement [I am motivated to graduate college]), 32 (How much do you either agree or disagree with this statement [I have confidence in myself and my abilities to succeed]), 36 (How much do you either agree or disagree with this statement [I am confident I can graduate college]), and 62 (How much do you either agree or disagree with the following statements? [I feel homesick while away at college?]).

		Confident to graduate college				
		Strongly Agree	Agree	Somewhat Disagree	Disagree	Totals
Homesickness	Strongly Agree	0.02	0.02	0.21	0.08	0.33
	Agree	1.98	0.11	0.58	0.00	2.67
	Somewhat Disagree	13.43	0.19	0.42	1.16	15.20
	Disagree	0	0	0	0	0.00
	Totals	15.43	0.32	1.21	1.24	18.20

Figure 2 Chi-Squared value chart between quality of homesickness (Questions 62) and

confidence in graduation (Question 36). Degrees of Freedom = 6 Cut-off value = 12.592

For the specific comparison above between questions, 62 and 36 ("I feel homesick away at college" and "I am confident I can graduate college"), the degrees of freedom is 6 and the cut-off value is 12.592. Seeing that the Chi-squared grand total is larger than the cut-off value, we know that there is a significant correlation between how homesick a student feels and their confidence in graduating or succeeding.

On the contrary, in another one of our findings, we have compared how far a student lives away from home to their GPA and amount of failed classes, resulting in interesting outcomes.

		Current GPA				
		Higher than 3.5	2.5-3.5	Less than 2.5	Totals	
Distance from home	Within 50 miles	0.00	0.00	0.00	0.01	
	50-100 miles	0.38	0.43	0.38	1.19	
	100-500 miles	1.27	0.07	0.42	1.76	
	500-1,000 miles	0.36	0.42	0.36	1.14	
	1,000 miles or more	1.31	0.01	0.91	2.23	
	Totals	3.33	0.93	2.07	6.32	

Figure 3 Chi-Squared value chart between distance from home and current GPA.

Degrees of Freedom = 8 Cut-off value = 15.507

We saw that the Chi-squared value was smaller than the cut-off value, proving that there is no significant relationship between distance from home and GPA.

# Conclusion

With all the data we have accumulated through this research, we can conclude that distance from home and commute time have no direct significant relationship with college retention and success. The third finding evoked a couple questions within my group. Finding 2 stated that there was a correlation between homesickness and confidence in graduation, whereas finding 3 shows that there is no relationship between distance from home and GPA. We found this significant because of our immediate assumption that there was a relationship between distance from home and homesickness, or confidence in graduating and GPA. Quite possibly, there could be a unforeseen correlation between this two areas that should be considered for further research. The

finding's in our research should be open to the High Tech High system as easily accessible information, integrated into the orientation process, and a part of the college process at High Tech High Chula Vista. Through doing so, both the students and parents will be able to make smart choices during the college process and ultimately increase their chances of success in college. This entire research should not be taken word for word, but for thoughts and to keep in mind, due to certain limitations. Our survey was conducted specifically towards HTHCV alumni's which might put some bias in the data. A more in-depth and accurate research can be done by sending this survey out to more high school graduates rather than a specific group. This study is by no means a way of saying that college is the only way to succeed in the future. College and Universities do increase your chances of a successful future, but there are always alternative paths to reach your goal.

# Works Cited

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