The Experience of Working Class Students at a Research I University

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Abstract

For today's youth, college is seen as an essential step in securing a good life and achieving upward class mobility. However, for youth coming from working class families, making the transition into a world which often assumes everyone comes from a middle class background can be especially difficult.

When students go on to pursue higher education, ideally they should be able to focus all of their attention on their studies. For many, this could never be reality. Many working class students depend on working to support their studies, themselves, and even their families. Often these students are limited in their aspirations by the price of college, the necessity to live at home while going to school, or find that the financial burden is too much to pursue higher education at all. This feeds into a self-perpetuating working class in which the children of working class families, because of their conditions, cannot make college or the prospect of upward mobility a reality.

This paper is a preliminary study of the lives of working class students and how working class dynamics affect the student population at SUNY at Stony Brook. Issues touched on include what percentage of students come from working class backgrounds, the percentage that hold jobs while attending school, and the chance of students transferring or dropping out of SUNY at Stony Brook. Moreover, in this study I look into a link between class and academic performance. This study searches for any systematic differences in academic experience when comparing a variety of factors to those found among middle class students. The purpose of the study is to shed some light on the often unrecognized problems of students making a transition from working class to middle class, and spread awareness of how class dynamics play out in an environment of higher education.

Throughout the study, it is revealed that in many ways the working class student population at SUNY at Stony Brook does not follow the trends seen in data of working class students found in previous research. The population of working and middle class students at SUNY at Stony Brook is not a reflection of the working and middle classes as a whole. Furthermore, selection bias may be present in the observed sample of students who filled out the surveys with which we conducted tests in order to study class dynamics and its affect on academic performance. Because of this factor, any findings may not be an accurate representation of the working and middle class student populations at SUNY at Stony Brook.

Contents

1 Method

For the purposes of this study, I will be looking at data from the undergraduate classes that entered the university in the Fall semesters of 2001, 2002, and 2003. I will be using information gathered by the university from CIRP (Cooperative Institutional Research Program) Freshman Surveys and student transcripts. These data have been provided by the Office of Planning and Institutional Research. Using these datasets, Dan Wolman, a graduate student in the Economics Department, has assisted me by performing quantitative analysis that has helped me to form my conclusions. The process of analyzing the entering classes has been broken into several components:

1. The students are separated into two distinct class categories: the middle class (management and professional occupations) and the working class. These classifications come from the CIRP freshman survey's approximately 50 occupational categories as reported by students about their parents. The class categories are based on theoretical categories of class as developed by Economics Professor Michael Zweig. The categories have been formed in accordance with the occupational descriptions found in the Bureau of Labor Statistic's Occupational Outlook Handbook.

2. After separating the students into two class categories, I searched for any systematic differences in how students from the two class categories responded to survey questions. My focus is on economic factors that may play a role in a student's transition to college – if they are receiving financial aid and if they work while attending school, as students from working class backgrounds may be more likely to rely on working to help out with college expenses.

3. I draw connections between class background and student performance. These data will come from student transcripts. The indicators of student performance that I will be focusing on are GPA (last term and cumulative), total number of credits passed counting toward GPA (not P/NC or credit only courses), and terms to graduation.

4. Potential findings linking class to academic performance could prove to be a useful tool to the University. These findings could guide the University in helping working class students adjust to the new middle class environment found in higher education. Finding any difficulties common among

working class students' experiences in higher education could lead to the development of policies or programs with the aim of bettering the outcomes of working class students in their academic performance, as well as better student retention for the University.

Before I begin my study on the student population at SUNY at Stony Brook, I will clarify a few concepts, including class, the revolving-door syndrome, economic indicators of inequality, as well as indicators of academic success.

2 What is class?

In Michael Zweig's book, *The Working Class Majority: America's Best Kept Secret*, he states, "When I talk about class, I am talking about power. Power at work, and power in the larger society." He goes on to say, "I define classes in large part based on the power and authority people have at work. The workplace engages people in more than their immediate work... It also engages them in relationships with each other, relationships that are controlled by power." Class is important because it affects the way we live, work, and think (Zweig 1-3).

Using this definition of class and the occupational descriptions found in the Bureau of Labor Statistics's Occupational Outlook Handbook, I have separated the student population of SUNY at Stony Brook into its two main components, middle and working class, based on the occupational categories of their parents found in the CIRP freshman surveys (See Table 1). The students were placed in the middle class if one or both of their parents had occupations found under the middle class occupations. The reason for placing a student in the middle class even if only one parent fits into the middle class category is that the student has at least one parent who carries a level of power or autonomy at the workplace, and so the middle class attitudes present in the environment of higher education are familiar to the student. The students were placed in the working class if both parents had occupations found under the working class occupations, or one parent, if only one parent's occupation was given. If no occupational information was given for either parent, we based the student's class on the annual household income given. If the annual income was $59,999 or below, the student was placed in the working class. If the annual income was $60,000 or above, the student was placed in the middle class. The $60,000 cutoff represents the median income of about 2/3 of all working class families in the Long Island and New York City areas. Income is not the best indicator of class because some working class families have an annual

Table 1: CIRP Freshman Survey Occupational Class Categories

Middle Class Jobs	Working Class Jobs
Accountant or actuary	Business - clerical
Actor	Business salesperson or buyer
Architect of urban planner	Clergy - religious, others
Artist	Foreign service worker (diplomat)
Business executive (management, administrator)	Lab technician or hygienist
Business owner or proprietor	Law enforcement officer
Clergy – minister, priest	Military service
Clinical psychologist	Nurse
College administrator/staff	Skilled trades
College teacher	Laborer (unskilled)
Computer programmer or analyst	Semi-skilled worker
Conservationist or forester	
Dentist	Other Categories
Dietician or home economist	Homemaker
Engineer	(Class depends on occupation of spouse)
Farmer or rancher	Unemployed
Interior decorator (including designer)	(Class depends on previous occupation)
Lawyer (attorney) or judge	Other
Musician	(Class depends on occupation of spouse)
Optometrist	
Pharmacist	
Physician	
Policy maker/government	
School counselor	
School principal/superintendent	
Scientific researcher	
Social, welfare, or recreation worker	
Therapist (physical, occupational, speech)	
Teacher or administrator (elementary)	
Teacher or administrator (secondary)	
Veterinarian	
Writer or journalist	

income greater than $60,000, while some middle class families may make less than $60,000.

Students were also placed in the working class category if one parent had a working class occupation and the other parent's occupation was listed as "homemaker," "unemployed," or "other," or both parents' occupations were listed as "homemaker," "unemployed," or "other," and the family's annual income was below $60,000. The occupational choices given in the survey were heavily weighted toward the middle class and working class students would be less likely to find their parent's occupation if it was a working class occupation. Also, in the majority of these cases, the annual household income listed was under $60,000, making the parent listed with an occupation listed as "other" most likely a member of the working class.

3 Is Access Enough? The Revolving-Door Syndrome

Because SUNY at Stony Brook is a part of the State University of New York, the cost of attendance is fairly accessible, with the help of federal and state aid, college loans, and individual scholarships. But is access enough? Issues of student retention point to a phenomenon called the revolving-door. The revolving-door syndrome is when students are admitted to an institution of higher education without being fully prepared for the challenges of college, and without support from the institution, give up and drop out (Bauer and Casazza 55). Students come to college and are tossed out within a year's time and this process can have serious effects on the self-esteem of the student (Bauer

and Casazza 63). The revolving-door syndrome tends to affect the bottom line

economically, and economic indicators of inequality may point to reasons why (Bauer and Casazza 56). Despite this expectation, this study shows that the population of working class students at SUNY at Stony Brook goes against the revolving-door phenomenon and does not exhibit this trend.

4 Economic Indicators of Inequality

Despite the low cost of tuition at SUNY at Stony Brook in comparison to other public and private universities, as well as the forms of federal aid and loans available, the revolving-door syndrome may still affect lower income and working class families. This is due to the shift in aid from primarily grant to loan-based

federal aid and the increasing prospect of taking on an unbearable burden of college debt (DeFreitas and Duffy 149). This being the case, since the 1970s, young adults jobs have become increasingly relied upon as part of the total family income. The combination of the decline in real wages for workers and the shift from federal grants to loans as the primary form of financial aid has left more and more college students little choice but to work while attending college (DeFreitas and Duffy 144).

Working class students often have difficulty in college because of the fact that colleges and universities fail to recognize that students must work while attending college. In addition, in order to cut costs, students often bulk up on the course load taken per semester, to graduate early or prevent the need to take extra semesters to complete their degrees, minimizing the cost of tuition. According to the National Center for Education Studies, "In 1995-96, four out of five undergraduates reported working while they were enrolled in postsecondary education (Tokarczyk 163)."

Working while attending college is another area where the population at SUNY at Stony Brook exhibits characteristics that go against research on working class students. In this study, we actually find that more middle class students than working class students work while attending college. A possible reason for this is that financial aid is more available for working class students than it is for middle class students.

5 Indicators of Academic Success

Graduation rates at the best universities approach or exceed 90%. At state universities, the graduation rate is about 50%. For any entering freshman class, about a third of the class can expect to graduate in four years. After six years, this number increases to about half the entering class (Conley 115). On average, it takes five years to complete a four-year degree (Conley xi). There are several reasons why students may take longer than four years to complete a four-year degree. Students in the US are noted for changing majors, which is a significant reason for taking more than four years. Another reason why students may take more than four years is in part due to inadequate preparation from high school. Students may have to take classes to learn or re-learn material that they should have come to college already knowing (Conley 116).

Joseph Conley states, "The single most important factor in determining college success is the academic challenge of the courses students take in high school

(38)." He makes a distinction between students who are college-eligible and college-ready. College-eligible simply means that a student is able to meet admissions requirements, while a student who is college-ready is actually able to meet the expectations encountered in entry-level college courses (Conley xi). Michelle Tokarczyk states, "College freshmen nationwide are frequently surprised at how much more challenging college courses are than high school ones. Students from mediocre high schools at which little was demanded of them are especially hit hard (163)." Conley identifies two main reasons for the lack of success when a student makes the transition from high school to college: classroom performance, including knowledge and skills, and more general behaviors, such as time management skills (113).

5.1 Classroom performance

Between 30 and 60% of students require some remedial coursework, depending on the type of academic institution they are enrolled in (Conley xi). While remedial coursework is meant to mitigate the effects of poor or inadequate academic preparation, national data suggests that extensive remedial coursework has a negative effect on academic success. Chances of attaining a college degree decrease as the amount of remedial coursework increases. For students taking 3 or more remedial subjects, nearly half dropout, and less than a fifth of the students earn any degree at all (Deil-Amen, Person, and Rosenbaum 85-7).

Often identified as a problem for students is the ability to read and write well. The amount and pace of reading may come as a shock to students transitioning from high school to college (Conley 121). Students used to reading a few books per semester come to college expected to read a book per week. The amount of papers required increases as well. Problems arise when students from diverse backgrounds are asked to communicate in what may be a foreign language, English (Morales and Trotman 27). Students are expected to conduct research, interpret information, reach conclusions, and rewrite their work. The downfall of many students is completing their work last minute, writing anything that comes to mind, and not taking time to revise their work (Conley 114).

According to Conley, the subject most predictive of college success is the level of mathematics completed in high school (38). He points out that most students enter college with a fear of math, and the result of their phobia is to block out their basic mathematical knowledge and skills. Many students never progress beyond entry-level math courses and end up closing off entire avenues of study, avoiding certain majors altogether (114). Lack of preparation and experience with mathe-

matical skills can affect not only math majors, but also any area of study requiring math or statistics, such as economics, business, the sciences, and engineering.

5.2 General behaviors

College entails a large variety of choice, from choosing your major/minor, your concentration, and coursework. Deil-Amen, Person, and Rosenbaum find that choice can be very desirable, but students may run into problems when confronted with too many choices (20). Conley identifies choice in choosing courses and scheduling options as a great pitfall to students. Many students avoid challenging courses, closing off many options regarding major and career track (40). Deil-Amen, Person, and Rosenbaum compare colleges and universities to occupational colleges. Rarely do colleges and universities offer highly structured programs with less choice, but higher promises of a timely graduation and a job after college. They pose a question regarding choice when it comes to students with time and resource limits when it comes to attending college: Should colleges offer open-ended exploration without time limits to students whose circumstances impose time limits? For students who need to take remedial courses, course exploration may offer false promises for a timely graduation. Furthermore, delays to degree completion may pose constraints on time and financial resources, leading to interruptions in their studies, or even dropping out (Deil-Amen et al. 21).

Intellectual maturity is listed as another factor critically important to student success, especially to students attending research universities. Intellectual maturity means that the student's mind is simultaneously open to new possibilities and disciplined to apply particular tools for thinking and analysis. When students enter college without a sense that intellect is a work in progress, they often become frustrated with their academic performance and the demands asked of them. Students with a better sense of their intellectual growth and development have an advantage over others (Conley 116-18).

Along with intellectual maturity, another critical factor in attaining academic success in higher education is an understanding of the particular college that a student attends and the opportunities the specific college presents. Few students understand the range of opportunities available to them and how to take advantage of these opportunities, or can identify the institutional purpose for the colleges to which they apply. A college student's freshman year is a rare opportunity for self-discovery and students should take advantage of seminars, interest groups, discussions, lectures, outings planned by the college, and volunteer/internship opportunities. Another key to academic success is to connect and establish relation-

ships with faculty members. This factor enriches a student's academic experience and enhances success. Students should take advantage of opportunities to work directly with faculty (Conley 116-19).

Time management skills are identified as one of the major general behaviors linked to academic success when making the transition from high school to college. When comparing the national average with the top five percent of students on the national level (by GPA), 43% of the top five percent treated college as a full time job, preparing for 26 or more hours, besides the time spent attending classes. When comparing this with the national average, only a third of 17-year-old high school students spent at least an hour per day on homework. It is no wonder why the transition from high school to college can be a shock to students. Time management skills can be especially important in college if students spend 12 or more hours per week on time-consuming commitments, such as sports, activities, or work (Conley 120-21). Students are discouraged from working as much as possible, but sometimes it cannot be helped (Bauer and Casazza 77).

6 Findings at SUNY at Stony Brook: Survey Results

In order to study the student population at SUNY at Stony Brook, the CIRP Freshman Surveys of the incoming freshmen classes from 2001, 2002, and 2003 were combined, giving a sample size of 1,392 students. These years were chosen to allow for time for the students to attain degree completion. Of this sample size, 878 of them were middle class students, and 514 of them were working class students, making the middle class 63% and the working class 37%. Once these classes were formed, t-tests, or confidence tests were performed for questions testing for the difference of a single factor between the two classes, or percentages were totaled for the questions for which students were given choices of different answers, to see if there were systematic differences in the way students from the two classes were answering the survey questions. All of the survey questions were given to students before their college experience at SUNY at Stony Brook, so all of the data collected from the survey questions reflect an anticipation of results based on the students' past experiences rather than the actual results.

6.1 Economic indicators of inequality

In order to see if there was a good chance many working class students needed to work while attending school, the percentages for "concern about financing college

(Chart 1)," "chance of getting a job to help pay expenses (Chart 2)," and "chance of working full-time while at college (Chart 3)" were totaled. The options for "concern about financing college" were "none," "some," and "major." The percentage of middle class students that answered "none" was 34%, 15% higher than the working class, which had 19% answer "none." There was also a significant difference in the other categories, with 81% of the working class indicating that they had "some" or "major" concerns about financing college, compared to the middle class, of which 66% had "some" or "major" concern.

For the questions calculating the "chance of getting a job to help pay expenses," and the "chance of working full-time while at college," four choices were given: "no chance," "very little chance," "some chance," and "very good chance." 57% of working class students answered that was a very good chance of getting a job to help pay expenses, compared to the middle class students, of which 47% indicated a very good chance, almost a 10% difference. However, when calculating "some chance" and "very good chance" together, the difference decreased to about a 4% difference, leaning toward the working class. When calculating the chances of middle and working class students working full-time while at college, the differences between the responses in the two classes diminished even further, with only a 2% higher that working class students responded with "some" or "very good chance" over the middle class students.

These questions show that concern for financing college is greater for those in the working class, and there is a significant percentage more of working class students with a very good chance of taking up a job to help pay expenses. However, there is negligible difference among students of both classes when calculating the percentage of students who will work full-time (with nearly half the students in both classes responding "very little chance").

Next, I wanted to examine whether working class students were more likely to be limited in their college aspirations by the price of college. I examined the answer to the question "choice of college," where SUNY at Stony Brook would be rated as "first," "second," or "less than second choice." I also examined the importance of low tuition and financial assistance in deciding to attend this university, the options being "not," "somewhat," or "very important."

For the question regarding "choice of college (Chart 4)," the answers of both classes regarding where SUNY at Stony Brook ranked among the students' choices was identical. 62% of the middle class students and working class students ranked SUNY at Stony Brook as their top choice of colleges. As the second choice of colleges, 26% of middle class students and 25% of working class students identified SUNY at Stony Brook.

For the importance of low tuition (Table 1) as a deciding factor in attending SUNY at Stony Brook, 44% of the middle class students actually indicated low tuition was "very important," compared to 39% of the working class students. However, when examining the importance of financial assistance (Table 2) as a deciding factor in attending this university, 29% of the working class compared to 21% of the middle class indicated that financial assistance was a very important factor, while almost half (49%) of the middle class, compared to 33% of the working class indicated that financial assistance was not important when deciding to attend SUNY at Stony Brook.

It is hard to tell from these results if working class students are more likely to be limited in their college aspirations by the price of college. The majority of students in both classes indicated SUNY at Stony Brook as their top choice (62% in both classes), suggesting that this is not the case. Low tuition as a factor for attendance was of more importance among the middle class students, (44% to 39% marking very important) while financial assistance was more important to working class students (29% to 21% marking very important). These mixed signals may simply be a matter of difference in perception: The tuition at SUNY at Stony Brook may be considered "low" for a middle class family, but perhaps not low enough for a working class family, making financial aid a much more important factor in attendance. These findings may also indicate that financial aid may not be as available to middle class students in comparison to working class students. However, the mixed signals may also be an indication that multivariate analysis is necessary to achieve a more complete answer to this question of economic limitation, as dictated by class.

In order to examine if living close to home (Chart 5) was more important to working class students when compared to middle class students, percentages were calculated for the importance of living near home as a factor for attending the university. The results were very similar across both classes, with a slightly higher percentage of middle class students actually responding that living near home was a "very important" factor in choosing to attend SUNY at Stony Brook (23% to 20%). The results were similar for the other choices as well, when comparing the middle class students to the working class students, respectively: 42% of both middle and working class students indicated "somewhat important," whereas 36% to 38% indicated "not important." These results show no significant difference regarding importance of living close to home among the two class categories.

When calculating the chance of transferring to another college (Chart 6) or dropping out permanently (Chart 7), the percentages for each choice were again very similar across both classes. Both categories "no chance" and "some chance"

of transferring had a significant percentage of both classes, around 23 percent. 47% of students in both classes marked "very little chance" of transferring to another college. When considering the chance of dropping out permanently, the majority of both classes (90%), indicated "no chance." Again, no significant difference is seen in the way the two classes answered these survey questions on student retention. However, these survey results do not match the actual experience of SUNY at Stony Brook. This will be discussed later in the transcript findings.

6.2 Indicators of academic success: Classroom performance

Since it takes students an average of five years to complete a four-year degree, and students in the US are noted for changing majors, I wanted to see if there was any difference in the way middle and working class students answered the question regarding the "chance of changing major field." The majority of the students in both classes chose either "very little chance" or "some chance" of changing major field. Negligible differences were found when comparing middle class with working class students. Both classes had around 40% chance in the two categories ("very little" and "some" chance). The rest of the students were split quite evenly between "no chance" and "very good chance," with close to 10% in each category for both classes. In regards to changing majors, this study is limited to the students' anticipation of their experience and no data was provided to find out the students' actual experience while attending SUNY at Stony Brook.

The amount of remedial coursework needed for a student is a very telling indicator of academic success. Reading and study skills are very important skills to have to find success in every academic class and program of study. To get an idea if there were any differences in the need for remedial coursework for students as dictated by class, I examined the importance of improving reading and study skills (Table 3), as gauged by the students. There was a noticeable difference seen in the way middle and working class students answered this survey question. Almost 8% more working class students indicated that it was very important for them to improve their reading and study skills – 54% compared to 46% among the middle class students. There were over 4% more working class students than middle class students that indicated that improving their reading and study skills was "somewhat" or "very important." The difference seen among how students from the two classes answered this question may be interpreted as a higher percentage of working class students at a disadvantage, or just more worry from the working class students, as the surveys offer subjective answers.

Reading and writing are extremely critical skills for a college student, and often pose the greatest problems for students when making the transition to higher education. Several of the survey questions give clues as to whether these skills may be lacking for middle and working class students. A t-test for the Verbal SAT scores (Table 4), shows with 95% confidence, that middle class students' Verbal SAT scores will be higher by a range of 26 to 47 points. Of the observed sample, the actual difference between middle class and working class students' mean Verbal SAT scores is 36 points.

There is also a significant difference seen in the survey questions regarding whether the student is an English speaker (Chart 8) and a citizen of the US (Table 5). A significant percentage more of the working class students, 36% to 23%, a 13% difference, are not native English speakers. A significant difference is also seen in student citizenship status, with almost 9% more working class students not being an American citizen.

Writing ability (Table 6), as gauged by the student, is another survey question which may reveal a difference in academic performance between the two classes. The two categories with the largest percentages marked by the students were "average" and "above average" writing ability, which showed noteworthy differences between the working and middle class students. A larger percentage of working class students than middle class students marked "average," 52% to 43%, a difference of 9%. A larger percentage of middle class students in comparison to working class students indicated that their writing ability was "above average," a difference of 7% higher.

These survey questions suggest that working class students think they have more of a problem with their reading and writing skills. Factors involved may include a lack of confidence, as well as a student's citizenship status and the fact that for a significant percentage of these students, English is not their native language.

Mathematics skills may be the most telling indicator of academic success for students making the transition from high school to college. A t-test for the Math SAT scores, shows with 95% confidence, that middle class students' Math SAT scores will be higher by a range of 2 to 20 points. The actual difference between middle class and working class students' mean Math SAT scores is 11 points. Mathematical ability (Table 7), as gauged by the student, shows similar percentages between middle and working class students, with the largest percentages being in the "average," "above average," and "top 10%" categories. Close to 30% of students from both classes marked their math ability level as "average," with close to 42% marking "above average," and approximately 20% of students from both classes marking their ability as being in the "top 10%."

These results show insignificant differences among working and middle class students in mathematical ability based on high school SAT scores. For most students in both classes, mathematical ability was self-assessed as being either average, above average, or in the top 10% of students. Similar percentages for the mathematical self-assessment were displayed across both middle and working class students.

These findings show the unreliability of information which uses self-reports from students. Students entering college may gauge their abilities based on their experience and rank from high school, and these experiences do not necessarily translate upon entering an environment of higher education. Moreover, this information is taken from students before they entered college, and no information was provided concerning the students' actual experience during college.

6.3 Indicators of academic success: General behaviors

In order to examine whether students had an understanding of the range of opportunities available at college, I looked at the frequency at which students study with other students and interact with faculty. These findings are based on students' experiences during high school. When answering the survey question regarding frequency with which students study with other students, both the majority of working and middle class students answered that they occasionally study with other students, 58% for the middle class and 63% for the working class. A slightly higher percentage of middle class students than working class students answered that they frequently studied with other students, 28% compared to 25%.

In regard to the amount of time per week students spend talking with their teachers outside of class (Table 8), the majority of students from both the middle and working classes marked that they spend 0-5 hours talking with their teachers outside of class, and a small percentage of each class indicating that they spend 6-10 hours talking with their teachers outside of class. The only two categories which showed slight differences between the middle and working class responses were "less than 1 hour" and "1-2 hours" spent talking with teachers outside of class. A significant percentage of students from both classes spend less than 1 hour talking with their teachers outside of class, 41% from the middle class, and 45% from the working class. A larger percentage of middle class students spend 1-2 speaking to their teachers outside of class, 33% compared to 27%.

These two questions regarding student interaction with other students and student interaction with faculty show a slightly higher understanding by the middle class, though statistically insignificant, of the opportunities for networking and

involvement available during their time in high school. Although it is shown that interaction with students and faculty enriches and enhances student performance and satisfaction (Conley 119), it may be the case that there is not that much of a difference between spending "less than 1 hour" and "1-2 hours" per week speaking with teachers outside of class. Also, students' may not carry on their behaviors from high school into a new and unfamiliar environment.

Time management was also cited as being a primary behavior that can make or break a student's academic experience. Just as with the previous general behaviors discussed, the habits of students may or may not transfer from high school to college. Students were surveyed for the amount of "hours per week spent studying or doing homework (Table 9)." The choices ranged from "none" to "over 20" hours. The percentages of students by class in each category were distributed fairly equally across the two classes. The "3 to 5" and "6 to 10" categories exhibited the only differences in how the students from the middle and working classes answered the survey question. 32% of middle class students compared to 25% of working class students marked that they spent three to five hours studying or doing homework, whereas 27% of working class students compared to 20% of middle class students spent six to ten hours studying or doing homework.

I also looked at the amount of "hours per week spent working for pay (Table 10)." Most students from both classes marked either "none" or "over 20," which were the two extremes of the choices given. In every single category besides "none," the middle class students had a slightly percentage spent working for pay than the working class students. The percentages of working and middle class students who did not work for pay were 38% to 29%, respectively. After adding all the work for pay categories for each class, 71% of middle class students and 62% of working class students worked for pay while attending school. These findings also went contrary to research, which projected more of a need from working class students than middle class students to work while attending school.

7 Class and Academic Performance: Transcript Results

The following results were taken from transcripts and therefore represent the actual experience of students during their time at SUNY at Stony Brook. A t-test for last term GPA (Table 11) shows a negligible difference between the GPAs of middle and working class students. For both classes, the average last term GPA

was approximately 2.77. A t-test for cumulative GPA (Table 12) also shows a neglible difference between the GPAs of middle and working class students. For both classes, the average cumulative GPA was close to 3.12.

When conducting a t-test for the total number of credits passed counting toward GPA (Table 13), the test shows with 95% confidence, that the working class will pass between one credit less to eight credits more than the middle class students. The actual difference between the number of credits passed toward GPA was approximately three credits, with the working class students earning the slightly higher amount. These results may not be useful because more credits earned at college could just be a result of not taking as many AP classes or college courses during high school that counted toward college.

A t-test for number of terms to graduation (Table 14) shows an insignificant difference between the number of terms to graduation for both middle and working class students. For students in both classes, the average number of terms to graduation was approximately seven terms. These results may also prove to be inaccurate, because the data includes transfer students who are now entering their first year at Stony Brook.

Table 15 shows the percentage of students in both the working and middle classes who graduated. Students included in those who did not graduate either transferred, dropped out, or did not complete their degree within six years. 63% of working class students graduated, compared to 60% of middle class students. The working class shows a slightly higher percentage of graduates than the middle class, though not a statistically significant difference.

8 Conclusion

After studying the CIRP Freshman Surveys which were linked to student transcripts, I found differences between the middle and working class students in areas including financing college, as well as other differences based on students' high school experiences, including reading and writing skills, student-faculty interaction, and time management. Negligible differences were found between the classes when comparing transcript findings such as GPA, terms to graduation, and percentage graduated, contradicting the usual findings of the revolving-door syndrome, described earlier in the study.

8.1 Financing college

The survey questions show that concern for financing college is greater for those in the working class, and there is a significantly greater percentage of working class students with a very good chance of taking up a job to help pay expenses, based on the students' experiences during high school. The actual experience while in college is unknown. While low tuition as a factor for attendance is of more importance to the middle class students, financial assistance is significantly more important to working class students. This may be attributed to less access to financial aid for middle class families.

8.2 Reading and writing skills

The survey questions show that a significantly greater percentage of the working class students are not native English speakers. This finding can be linked to citizenship status. There is a higher percentage of working class students, compared with middle class students, who are not citizens.

8.3 Student/faculty interaction

In regard to the amount of student interaction with other students and student interaction with faculty, these data show a slightly lower interaction with students and faculty by the working class students, also conveying a better understanding by the middle class of the opportunities for networking and involvement.

8.4 Time management

In the case of hours per week spent working for pay, approximately 71% of middle class students worked, compared to close to 62% of working class students. The middle class students indicated a slightly higher percentage than working class students in every hour category. A greater percentage of working class students compared to middle class students did not work at all.

The working and middle class students spent about the same amount of hours per week studying or doing homework as indicated by the hour categories. The only noteworthy differences were seen in the "3 to 5" and "6 to 10" hour categories, which were the top two choices among all students. A higher percentage of working class students spent 6 to 10 hours studying or doing homework, while more middle class students spent 3 to 5 hours studying or doing homework. These

two factors of time management could possibly go hand in hand: if middle class students are spending more time working for pay, than less time may go toward studying or doing homework. The same goes for the working class students, who spend more time on their studies, and less time working for pay.

8.5 Suggestions

After studying the population at SUNY at Stony Brook, the datasets have shown that the middle and working class students behave very similarly on many levels. Areas in which SUNY at Stony Brook could help out working class students are reading, writing, and student/faculty interaction. Reading and writing skills can be remedied if there is awareness of a problem early on in a student's academic career. Despite the lack of help for working class students, these students are performing at the same level as middle class students. Attention to working class students in these areas would make up for any disadvantages experienced by working class students, and create an even smoother transition into the middle class environment of higher education.

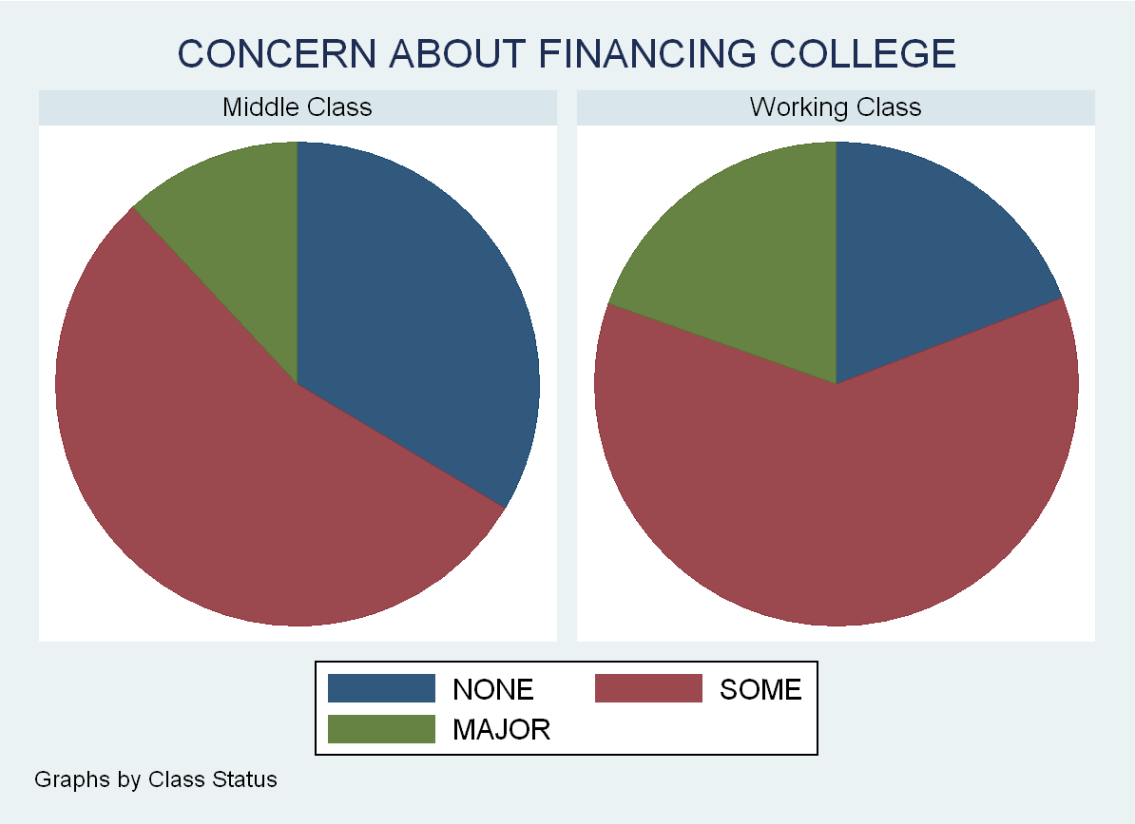
In general for both classes, there can be more a push for the use of the university's resources, such as tutoring, the writing center, the math center, academic advising, and student counseling. An introduction to these resources and where they are located on campus could become a feature of the freshman orientation. Also, there could be more than just the academic advising office to attend to the entire undergraduate class. For example, there could be an academic advisor for each major, and several advisors if a major is very large. These changes may also facilitate more student/faculty interaction.

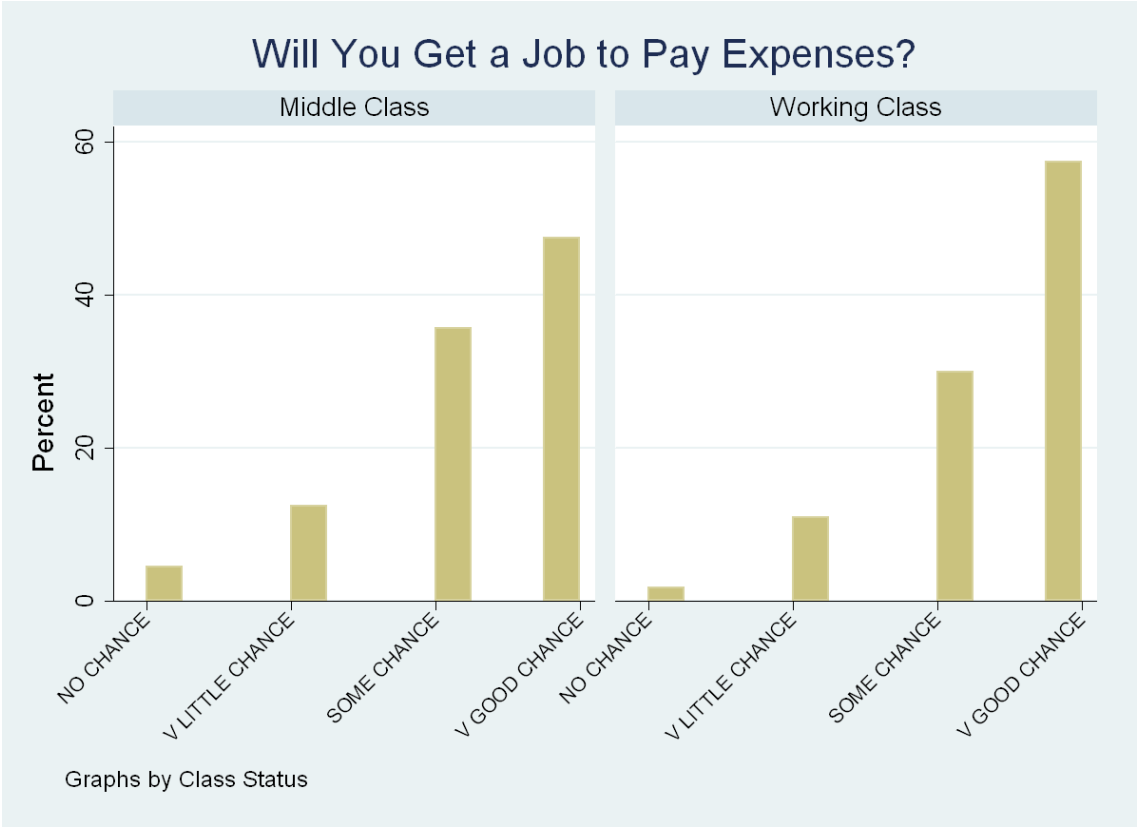
For the purposes of this study, more research with more specific data needs to be conducted. This study contains preliminary results regarding differences between middle class and working class students. However, multivariate analysis still needs to done with the data provided to find out if a combination of factors along with class will determine systematic differences between the two classes.

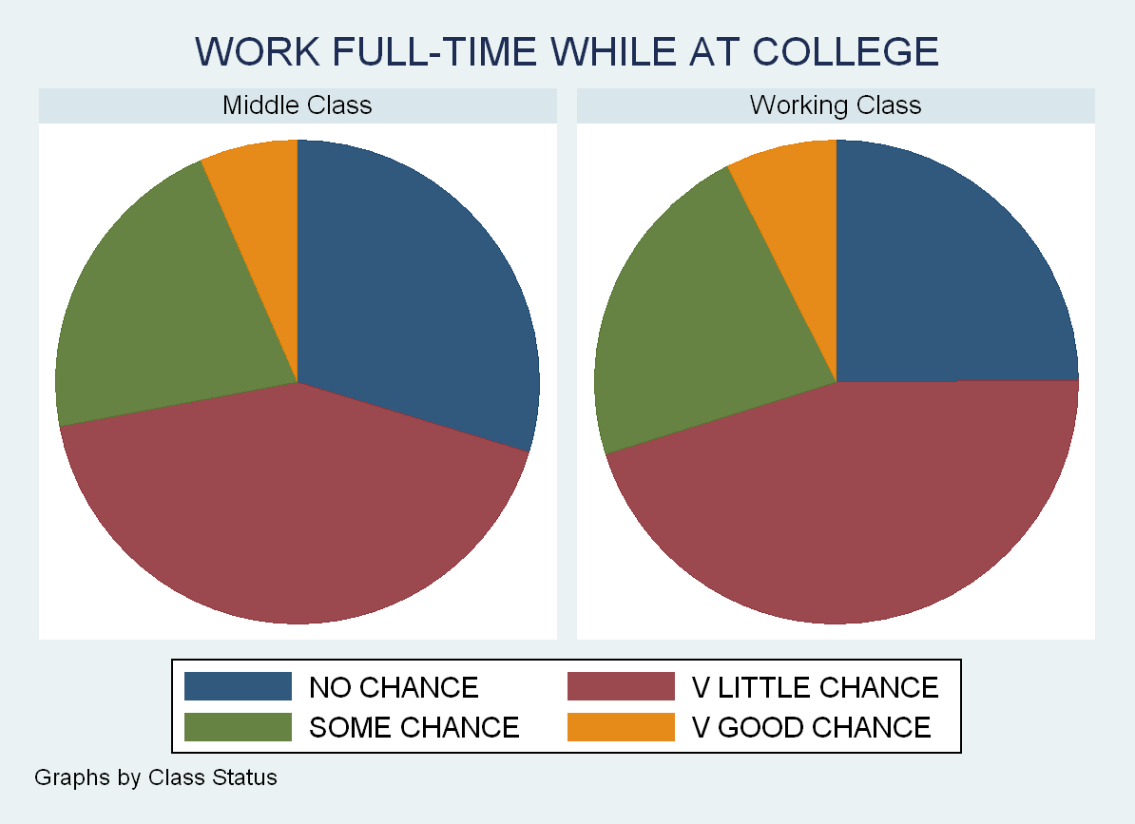
Appendices

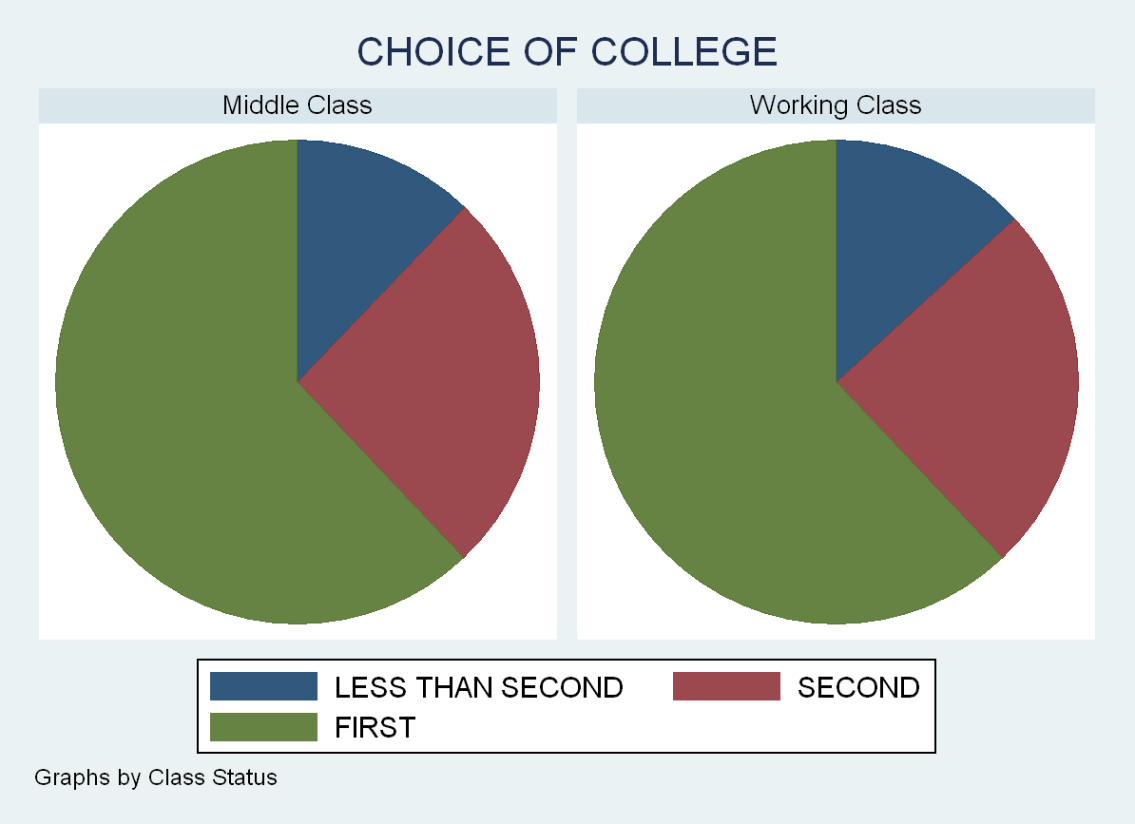
A Charts

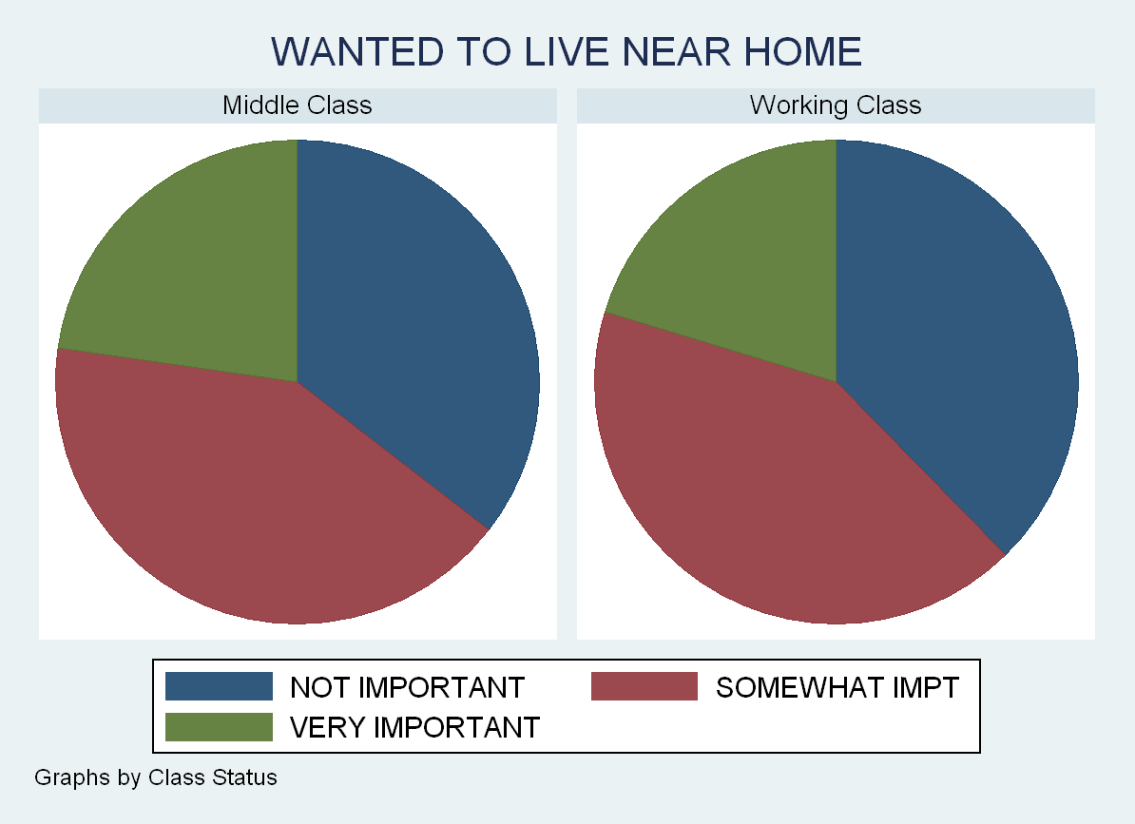
The data on which these charts are based are detailed in tables appearing in Appendix B.

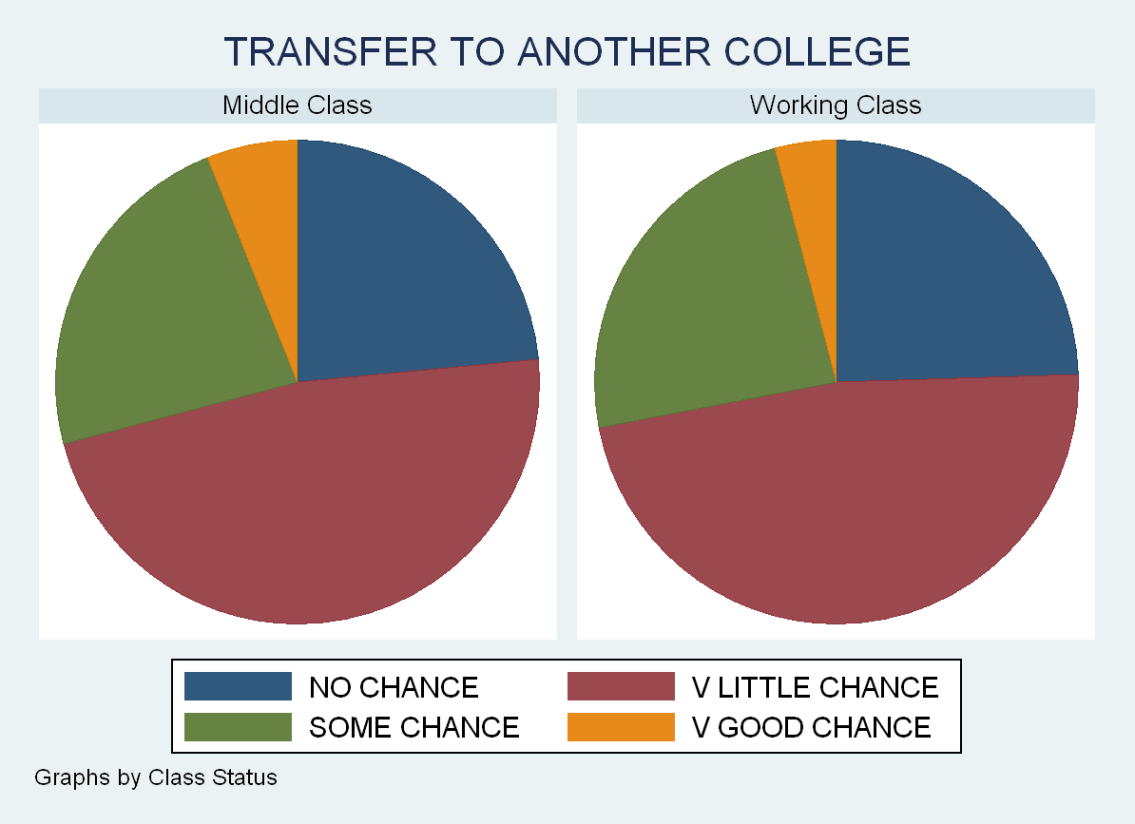


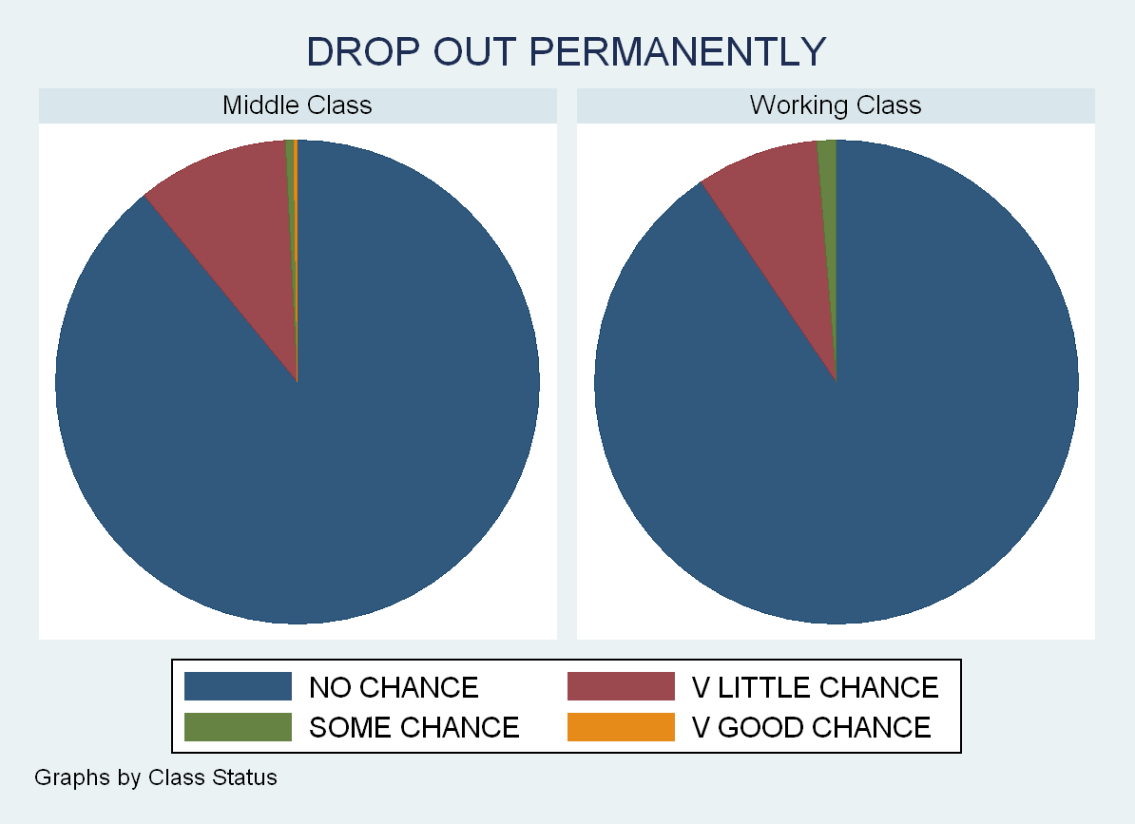

Will You Get a Job to Pay Expenses?
Middle Class
Working Class
Percent
0
20
40
60
NO CHANCE
V LITTLE CHANCE
SOME CHANCE
V GOOD CHANCE
NO CHANCE
V LITTLE CHANCE
SOME CHANCE
V GOOD CHANCE
Graphs by Class Status

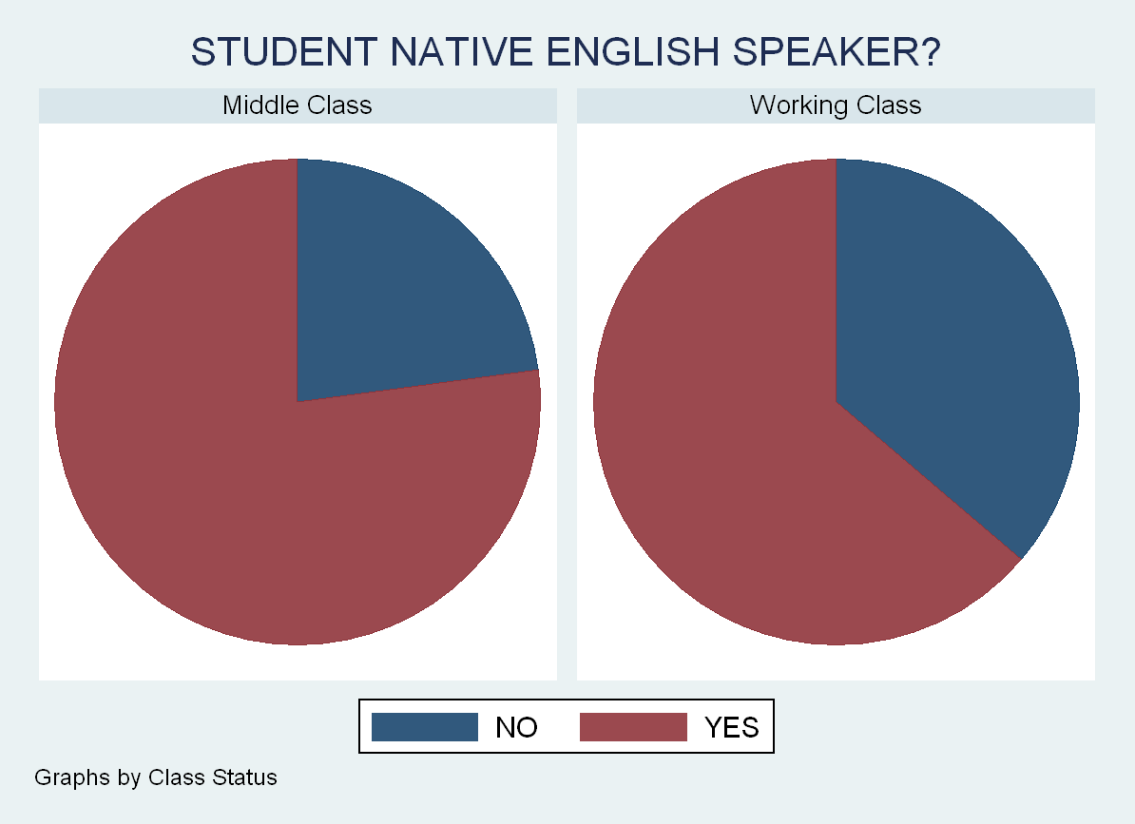

WORK FULL-TIME WHILE AT COLLEGE
Middle Class
Working Class
NO CHANCE
V LITTLE CHANCE
SOME CHANCE
V GOOD CHANCE
Graphs by Class Status


CHOICE OF COLLEGE
Middle Class
Working Class
LESS THAN SECOND
SECOND
FIRST
Graphs by Class Status


WANTED TO LIVE NEAR HOME
Middle Class
Working Class
NOT IMPORTANT
SOMEWHAT IMPT
VERY IMPORTANT
Graphs by Class Status


TRANSFER TO ANOTHER COLLEGE
Middle Class
Working Class
NO CHANCE
V LITTLE CHANCE
SOME CHANCE
V GOOD CHANCE
Graphs by Class Status


DROP OUT PERMANENTLY
Middle Class
Working Class
NO CHANCE
V LITTLE CHANCE
SOME CHANCE
V GOOD CHANCE
Graphs by Class Status


STUDENT NATIVE ENGLISH SPEAKER?
Middle Class
Working Class
NO
YES
Graphs by Class Status

B Tables

Table 1.

LOW TUITION	Class Status: Middle Cl	Working C	Total
NOT IMPORTANT	111	68	179
	12.83	13.41	13.05
SOMEWHAT IMPT	374	239	613
	43.24	47.14	44.68
VERY IMPORTANT	380	200	580
	43.93	39.45	42.27
Total	865	507	1,372
	100.00	100.00	100.00

Table 2.

OFFERED FINANCIAL ASSISTANCE	Class Status: Middle Cl	Working C	Total
NOT IMPORTANT	414	166	580
	48.82	32.87	42.87
SOMEWHAT IMPT	253	193	446
	29.83	38.22	32.96
VERY IMPORTANT	181	146	327
	21.34	28.91	24.17
Total	848	505	1,353
	100.00	100.00	100.00

Table 3.

IMPROVE READING/STUDY SKILLS	Class Status: Middle Cl	Working C	Total
NOT IMPORTANT	102	38	140
	11.75	7.42	10.14
SOMEWHAT IMPT	369	199	568
	42.51	38.87	41.16
VERY IMPORTANT	397	275	672
	45.74	53.71	48.70
Total	868	512	1,380
	100.00	100.00	100.00

Table 4.

SAT Verbal

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Middle C	713	569.0463	3.175562	84.79405	562.8117	575.2809
Working	432	532.1366	4.02486	83.65514	524.2258	540.0474
combined	1145	555.1205	2.547679	86.20798	550.1219	560.1192
diff		36.90971	5.143818		26.81732	47.00209

Table 5.

CITIZENSHIP STATUS	Class Status: Middle Cl	Working C	Total
NO	107	109	216
	12.41	21.33	15.73
YES	755	402	1,157
	87.59	78.67	84.27
Total	862	511	1,373
	100.00	100.00	100.00

Table 6.

WRITING ABILITY	Class Status: Middle Cl	Working C	Total
LOWEST 10%	10	3	13
	1.14	0.59	0.94
BELOW AVERAGE	66	45	111
	7.53	8.81	8.00
AVERAGE	379	264	643
	43.26	51.66	46.36
ABOVE AVERAGE	333	158	491
	38.01	30.92	35.40
TOP 10%	88	41	129
	10.05	8.02	9.30
Total	876	511	1,387
	100.00	100.00	100.00

Table 7.

MATHEMATICAL ABILITY	Class Status: Middle Cl	Working C	Total
LOWEST 10%	7	2	9
	0.80	0.39	0.65
BELOW AVERAGE	56	37	93
	6.39	7.21	6.70
AVERAGE	260	157	417
	29.68	30.60	30.02
ABOVE AVERAGE	380	215	595
	43.38	41.91	42.84
TOP 10%	173	102	275
	19.75	19.88	19.80
Total	876	513	1,389
	100.00	100.00	100.00

Table 8.

HOURS/WEEK: TALKING W/TEACHER OUTSIDE CLASS	Class Status: Middle Cl	Working C	Total
NONE	79	47	126
	9.09	9.36	9.19
LESS THAN 1	358	226	584
	41.20	45.02	42.60
1 TO 2	290	137	427
	33.37	27.29	31.15
3 TO 5	105	63	168
	12.08	12.55	12.25
6 TO 10	25	23	48
	2.88	4.58	3.50
11 TO 15	6	5	11
	0.69	1.00	0.80
16 TO 20	3	1	4
	0.35	0.20	0.29
OVER 20	3	0	3
	0.35	0.00	0.22
Total	869	502	1,371
	100.00	100.00	100.00

Table 9.

HOURS/WEEK: STUDYING OR DOING HOMEWORK	Class Status: Middle Cl	Working C	Total
NONE	10	7	17
	1.15	1.40	1.24
LESS THAN 1	77	35	112
	8.88	6.99	8.19
1 TO 2	171	107	278
	19.72	21.36	20.32
3 TO 5	274	127	401
	31.60	25.35	29.31
6 TO 10	177	133	310
	20.42	26.55	22.66
11 TO 15	87	48	135
	10.03	9.58	9.87
16 TO 20	47	26	73
	5.42	5.19	5.34
OVER 20	24	18	42
	2.77	3.59	3.07
Total	867	501	1,368
	100.00	100.00	100.00

Table 10.

HOURS/WEEK: WORKING (FOR PAY)	Class Status: Middle Cl	Working C	Total
NONE	251	189	440
	28.92	37.72	32.14
LESS THAN 1	13	6	19
	1.50	1.20	1.39
1 TO 2	31	11	42
	3.57	2.20	3.07
3 TO 5	64	32	96
	7.37	6.39	7.01
6 TO 10	83	41	124
	9.56	8.18	9.06
11 TO 15	115	64	179
	13.25	12.77	13.08
16 TO 20	145	72	217
	16.71	14.37	15.85
OVER 20	166	86	252
	19.12	17.17	18.41
Total	868	501	1,369
	100.00	100.00	100.00

Table 11.

Last term cumulative GPA

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Middle C	878	2.76885	.0270876	.8026353	2.715686	2.822014
Working	514	2.781342	.0340857	.7727763	2.714378	2.848307
combined	1392	2.773463	.021214	.7914848	2.731848	2.815078
diff		-.0124928	.0439721		-.0987515	.073766

Table 12.

Cumulative GPA

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Middle C	535	3.133869	.0197795	.457502	3.095014	3.172724
Working	331	3.106163	.0231334	.4208758	3.060656	3.151671
combined	866	3.123279	.0150815	.4438175	3.093679	3.15288
diff		.027706	.0310401		-.0332169	.0886289

Table 13.

Total number of credits passed toward GPA

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Middle C	878	92.99544	1.515633	44.90981	90.02075	95.97014
Working	514	96.24416	1.960764	44.45359	92.39205	100.0963
combined	1392	94.19504	1.199517	44.75338	91.84199	96.5481
diff		-3.248719	2.484883		-8.123245	1.625807

Table 14.

Terms to graduation

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Middle C	878	7.833713	.118889	3.522808	7.600373	8.067053
Working	514	7.920233	.1436047	3.255743	7.638108	8.202359
combined	1392	7.865661	.0918181	3.42569	7.685544	8.045778
diff		-.0865205	.1903105		-.4598473	.2868064

Table 15.

Graduated	Class Status: Middle Cl	Working C	Total
No	343	183	526
	39.07	35.60	37.79
Yes	535	331	866
	60.93	64.40	62.21
Total	878	514	1,392
	100.00	100.00	100.00

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