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## Student and Faculty Perceptions of Attendance Policies at a Polytechnic University

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## **Student and Faculty Perceptions of Attendance Policies at a Polytechnic University**

### **Dr. Loraine Lowder, Southern Polytechnic State University**

M. Loraine Lowder is an Assistant Professor in the Systems and Mechanical Engineering Department at Southern Polytechnic State University. She received her B.S. in Mechanical Engineering, M.S. in Mechanical Engineering, and Ph.D. in Bioengineering from the Georgia Institute of Technology.

Dr. Lowder's research interests include image processing, computer-aided engineering, and cardiovascular biomechanics. She is also interested in performing research in the area of the scholarship of teaching and learning.

### **Dr. Adeel Khalid, Southern Polytechnic College of Engineering & Engineering Technology**

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Dr. Dan Ferreira is an assistant professor of environmental science at Southern Polytechnic State University in Marietta, GA. He is a passionate science educator who believes in giving his students a practical, real-world oriented learning experience. Dr. Ferreira's research focuses on adsorption and ion-exchange reactions of cations at the soil mineral/water interface.

### **Dr. Jeanne Law Bohannon, Southern Polytechnic State University**

### **Dr. Beth Stutzmann, Southern Polytechnic State University & Fulton County Schools**

Dr. Beth Stutzmann, is currently Program Specialist Fine Arts for Fulton County Schools. She was the Director of Bands for ten years at Southern Polytechnic State University (SPSU) in Marietta, Georgia. At SPSU, in 2011, she earned the Outstanding Faculty Award. She is a graduate of The Boston Conservatory of Music (BMEd); earned a master's degree from Oklahoma City University in Horn performance and in 2010 was awarded her Doctor of Musical Arts in Music Education degree from Shenandoah Conservatory, Winchester, VA.

In 2012, Dr. Stutzmann received the Governor's Teaching Fellowship Award and she also received a grant from the Adult Learning Consortium, University System of Georgia. In 2013, she received a mini-grant from SPSU's Center of Teaching Excellence for Flipped Classroom Pedagogy Research & Retention. She has many published works and presents at local and national conferences.

### **Dr. Mir M. Atiqullah, Kennesaw State University**

Dr. Mir Atiqullah is a professor of Mechanical Engineering in Southern Polytechnic College of Engineering and Engineering Technology at Kennesaw State University, GA. He graduated from Purdue University and has over 20 years of teaching experience. His areas of teaching and research include materials, mechanics, machine design, capstone design, optimization, and engineering education.

### **Dr. Rajnish Singh, Southern Polytechnic State University**

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Dr. Yee is an Assistant Professor in Southern Polytechnic State University

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Craig A. Chin received his Ph.D. in electrical engineering from Florida International University in 2006. He is currently an Assistant Professor in the electrical and computer engineering technology at Southern Polytechnic State University. His research interests include biomedical signal processing, pattern recognition, and active learning techniques applied to engineering education.



**Dr. M A Karim P.E., Southern Polytechnic College of Engr and Engr Tech**

M. A. Karim had his B.Sc. and M.Sc. in Civil Engineering from Bangladesh University of Engineering and Technology (BUET) in 1989 and 1992, respectively. He spent about six years as a full-time faculty at BUET. He came to USA in 1995 and finished his Ph.D. in Civil/Environmental Engineering from Cleveland State University, Ohio in 2000. He worked about three years for ALLTEL Information Services in Twinsburg, Ohio as an Applications Programmer. Then he worked about eight years (in two different times) for the Virginia Department of Environmental Quality (VDEQ) as a Senior Environmental Engineer (Solid Waste Permit Writer) and taught at Virginia Commonwealth University (VCU) as an Affiliate Professor before he went to Trine University in January 2008, as a full-time Assistant Professor of Civil & Environmental Engineering. He taught part-time at Indiana University-Purdue University Fort Wayne (IPFW) while employed at Trine University. During his time at Trine University, he taught a course for VCU on-line using Wimba class room. He also taught at Stratford University, Richmond, Virginia campus as an adjunct faculty while working for VDEQ. Since Fall of 2011, he has been working for Southern Polytechnic State University (SPSU), Marietta, Georgia as a full-time faculty in Civil and Construction Engineering (Since January 2015, it is Kennesaw State University). He is a registered professional engineer for the State of the Commonwealth of Virginia. He has more than twelve journal and proceeding publications and three professional reports in the area of soil and sediment remediation, environmental management, and statistical hydrology. He is a member of ASCE and ASEE.

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**Prof. Donna Colebeck**

# Student and Faculty Perceptions of Attendance Policies at a Polytechnic University

## **Abstract:**

The goal of an attendance policy is to improve the academic success of students. However, current literature does not provide clear conclusions regarding whether enforcing an attendance policy actually improves student performance. This study examined student and faculty perceptions regarding the utility of attendance policies in undergraduate courses at a polytechnic university. Anonymous surveys were completed by 89 faculty members and 455 students from five schools (Engineering, Engineering Technology and Management, Computer and Software Engineering, Architecture, and Arts and Sciences) on a single campus. Comparisons between the perceptions of students and faculty members are presented, as are comparisons between the perceptions of lower-level and upper-level students. Variations in perceptions based on major are also highlighted. Finally, trends in perceptions regarding attendance policies in lower-level versus upper-level undergraduate courses are revealed.

Students, regardless of major, class standing, or course level, reported attending more classes in courses that had attendance policies. The most significant impact of an attendance policy on class attendance was observed at the freshman level. While 84% of freshmen reported attending at least 90% of the classes in a course with an attendance policy, only 67% reported attending at that rate in a course without one. Qualitative data containing students' attitudes towards attendance policies are also analyzed and discussed.

Even though class attendance appeared to have improved as a result of attendance policies, students' perceptions about these policies varied significantly. Overall, the majority of students (51%) believed that, for a course with an attendance policy, the policy positively affected final grades. For a course without an attendance policy, the majority (57%) felt that the lack of a policy had no impact on final grades. Faculty members' perceptions about attendance policies likewise varied. Overall, 61% of the faculty members surveyed reported having an attendance policy in one or more of their courses. The majority of faculty members believed that an attendance policy led to improvements in students' grades in lower-level courses, but not necessarily in upper-level courses. Further data regarding these perceptions is also discussed in this paper. Collectively, this study will help instructors make better-informed decisions about the use of attendance policies in their courses and give them insight into students' attitudes towards attendance policies.

## Introduction and Literature Review

Student absences may be attributed to illness, family emergencies, transportation problems, boredom, social life, other course work, or general lack of interest in either the subject matter or the professor.<sup>1</sup> Lack of class attendance can have a number of consequences for both faculty members and students. Faculty members may need to repeat information or explanations numerous times and in a variety of delivery formats.<sup>2</sup> Sleigh, Park and Clump, among several other researchers, provide evidence that supports the positive correlation between class attendance and academic performance within college classes across disciplines and on national licensure examinations.<sup>2-5</sup> Blerkom et al. reviewed attendance policy in a multi-section, undergraduate accounting class. When attendance was compulsory, they found average daily attendance was 82%; when attendance was not compulsory, average daily attendance was reduced to 76%.<sup>6</sup> Crede, Roch and Kieszczyńska present various views of the importance of class attendance, but also argue against the importance of attendance in general and mandatory attendance policies in particular.<sup>7</sup> Through quantitative analysis, they demonstrate that class attendance explains large amounts of unique variance in college grades, because of its relative independence from standardized tests and weak relationship with student characteristics such as conscientiousness and motivation. They show that mandatory attendance policies have a small, positive impact on average grades.

In a similar study, Gump shows a strong negative correlation between absences and final grades in a review of three hundred undergraduates enrolled in a general education course at a large Midwestern state university.<sup>8,9</sup> Gump claims that, although the complex equation of academic success involves many more variables than attendance alone, attendance should be one of the easiest variables for the students to control. Gump argues that students who wish to succeed academically should attend class, and instructors should likewise encourage class attendance. Joe further shows similar strength of the association between class attendance and grade performance.<sup>10,11</sup> Clair presents a case against compulsory class attendance in higher education and points out that a student's motivational beliefs, classroom context, and behavior are important variables in academic achievement.<sup>12</sup> Randy explores the correlation between class attendance and performance in a biology course and shows that class attendance by most students in non-major science classes is influenced by whether they receive points for attending class and indicates the value of stressing to introductory science students the importance of class attendance to their academic success.<sup>13</sup>

Gunn found a positive correlation between attendance and final grades in an undergraduate psychology course where students were informed that the attendance records would not affect their grades in the course.<sup>14</sup> Similar results are shown through a randomized experiment by Chena and Lin.<sup>15</sup> Grabe and Johnson, in their independent experiments, show that some students use lecture notes as an alternative to class attendance and noticed that the examination scores of

those who admitted to this practice and those who claimed never to use notes for this purpose showed no significant difference in performance.<sup>16, 17</sup> Moore et al. argue for the importance of students to come to class. They describe numerous pedagogical techniques and strategies to improve performance in class by motivating them. They argue that the simplest expression of students' motivation is class attendance.<sup>18</sup> Although class attendance is not the only ingredient for academic success, class attendance is important for the success of most students. Golding writes that some professors are worried about including a class attendance policy, because it may affect a professor's course evaluation.<sup>19</sup> Macfarlane states that an attendance policy affects students' academic freedom and choices; however, an attendance policy may aide with preparing students for professional employment.<sup>20</sup> A professor must also decide what constitutes an excused absence with regard to university policy. With consideration for virtual schools, the impact of online mandatory attendance still needs to be researched.

In this paper, the authors capture and present the perceptions of students and faculty from various disciplines regarding attendance policies. Both positive and negative perspectives of attendance policies are presented in this paper, as are qualitative extrapolations of students' attitudes towards attendance policies.

## **Research Design and Methods**

Having contributing authors from various disciplines naturally provided a broad based opportunity to collect and analyze various attendance policies from instructors across the university. To engender accurate, authentic data, the researchers decided to develop an anonymous survey instrument that was used to collect relevant data and feedback from both faculty and students across the campus.

Most instructors are concerned about student learning and participation in their courses. The purpose of a scheduled class is to facilitate face-to-face meetings and interactive, live exchange between instructors and students. With the advent of online facilities, the dependency on face-to-face meeting for delivery, but not necessarily bilateral interaction, is diminished. In online courses the need for such meetings is virtually eliminated. However, a great majority of the courses on the campus chosen for this study are offered in classrooms, and as such, attendance is a necessary element in class management. Regular 'engagement' in class, including attendance, is a prerequisite to financial aid. Thus, attendance and its implementation policies has been a discussion topic among the study's authors, who are also members of a campus study group, the Research Learning Community (RLC). The members come from a variety of academic schools and departments/programs. They teach widely varying courses at all academic credit levels, from freshman to senior. Moreover, this campus enrolls a significant percentage of nontraditional students. Given the exigency for examining the viability of attendance policies, RLC members became curious about what the faculty at large and the students perceived of the

various attendance policies across the campus. Having contributing authors from various disciplines naturally provided a broad-based opportunity to inquire about various attendance policies and the use of these policies by faculty members. However, to provide quantifiable results, two survey instruments were developed to collect relevant data and feedback from faculty and students across the campus. RLC members volunteered to promote the survey among their faculty, and registration staff helped broadcast the survey among the students. The survey questions used are listed below in Tables 1 and 2.

**Table 1: Faculty survey questionnaire (89 responses)**

1	Which school are you in?
2	For a 1000 level lecture course, do you enforce attendance policy in your class? (excluding laboratory/studio courses)
3	For the above 1000 level course, do you have an attendance policy written in your syllabus?
4	For the above 1000 level course, do you believe students earn better grades because of the explicit attendance policy?
5	For a 2000 level lecture course, do you enforce attendance policy in your class? (excluding laboratory/studio courses)
6	For the above 2000 level course, do you have an attendance policy written in your syllabus?
7	For the above 2000 level course, do you believe students earn better grades because of the explicit attendance policy?
8	For a 3000 level lecture course, do you enforce attendance policy in your class? (excluding laboratory/studio courses)
9	For the above 3000 level course, do you have an attendance policy written in your syllabus?
10	For the above 3000 level course, do you believe students earn better grades because of the explicit attendance policy?
11	For a 4000 level lecture course, do you enforce attendance policy in your class? (excluding laboratory/studio courses)
12	For the above 4000 level course, do you have an attendance policy written in your syllabus?
13	For the above 4000 level course, do you believe students earn better grades because of the explicit attendance policy?
14	Please provide additional comments and post or link to your attendance policy in this space.



**Table 2: Student survey questionnaire (456 responses)**

1	What is your school?
2	What is your year in college?
3	Pick a course you have taken that had an attendance policy - Select the course level
4	For the above course, what percentage of classes did you attend?
5	For the above course, how do you think the attendance policy affected your final grade?
6	Pick a course you have taken that did not have an attendance policy - Select the course level
7	For the above course, what percentage of classes did you attend?
8	For the above course, how do you think the lack of an attendance policy affected your final grade?
9	In general, what is your attitude towards attendance policies?

The faculty survey ran for 45 days and produced 89 responses, which saw a slow rate of response as compared to student responses. The student survey ran for 35 days, with 456 responses. Table 4 provides demographic data for the faculty and student respondents, respectively. The data collected were systematically sorted and analyzed for trends to indicate the perceptions of both instructors and students. The results and discussions follow in the next section. Some of the responses to questions, as seen in figures throughout the next section, may not sum up to 100% as a few students/faculty did not respond to all questions. Additionally, students were directed to select one of three responses, when asked questions with the phrase, “what percentage of classes did you attend?” The options were >90 %, 70 – 89%, and <70%. These are simply convenient cutoffs chosen to separate and parse the data.

**Table 3: Demographic characteristics of faculty respondents**

<b>School</b>	<b>No. of Respondents</b>
School of Engineering	11
School of Engineering Technology and Management	13
School of Computing and Software Engineering	16
School of Architecture and Construction Management	6
School of Arts and Sciences	43

**Table 4: Demographic characteristics of student respondents**

<b>School</b>	<b>No. of Respondents</b>	<b>Class Rank</b>	<b>No. of Respondents</b>
School of Engineering	252	Freshman	74
School of Engineering Technology and Management	83	Sophomore	104
School of Computing and Software Engineering	44	Junior	157
School of Architecture	10	Senior	120
School of Arts and Sciences	65	--	--

Discussing qualitative inquiry requires researchers to re/construct language as provided by respondents to the survey. Analysis of this type of subjective data, as a measure of attitudinal affect, is a process of deductive reasoning based on inferences made from textual data. Lincoln and Guba provide context for this type of content analysis when they write in *Naturalistic Inquiry*, “text analytic methods assist the researcher in the examination of the underlying structures of the language corpus for the purpose of making inferences about it” (p. 352).<sup>21</sup> This type of analysis begins with the data itself, not a reduction of said data. Researchers are required to look for embedded language codes and linguistic commonalities that point to a cogency in a respondent’s answer, without electronic or face-to-face verbal interactions or non-verbal cues for assistance.

This type of analysis is also a subjective process, because it relies on human linguistic exchange, beginning with the writers of the question and ending with the participants’ responses to the question. Because the survey in this case is an anonymous, linear instrument, no dialogic communication occurred between writers and participants. Although it does not reflect on the validity of the survey or the research outcomes, it warrants a note because of the subjectivity inherent in such a mono-logic transfer of information. Therefore, any responses that were incoherent or missing were coded as not readable (NR) because no effort could be made to contact participants for linguistic clarity.

Researchers administered the survey as primarily a quantitative instrument, with one open-ended question in hopes that its answers might reveal deeper understandings of how students perceive attendance policies. The question asked: “in general, what is your attitude towards attendance policies?”

To analyze the data collected through this question, researchers conducted a three-step process that began with looking for linguistic markers and exemplars of frequency in words and phrases that would indicate a participant’s attitude towards attendance policies. Words with negative

prefixes, such as “unnecessary and “disdain,” indicated a negative response as did words and phrases that were obviously negative, such as “useless” and “stupid.” Positive linguistic markers were coded primarily based on semantics in words like “helpful” (and its many synonyms), as well as phrases like “should be” that indicated that policies should be in place. In determining neutral language, researchers marked responses that included both negative and positive words and phrases that indicated a respondent’s attitudes towards attendance policies.

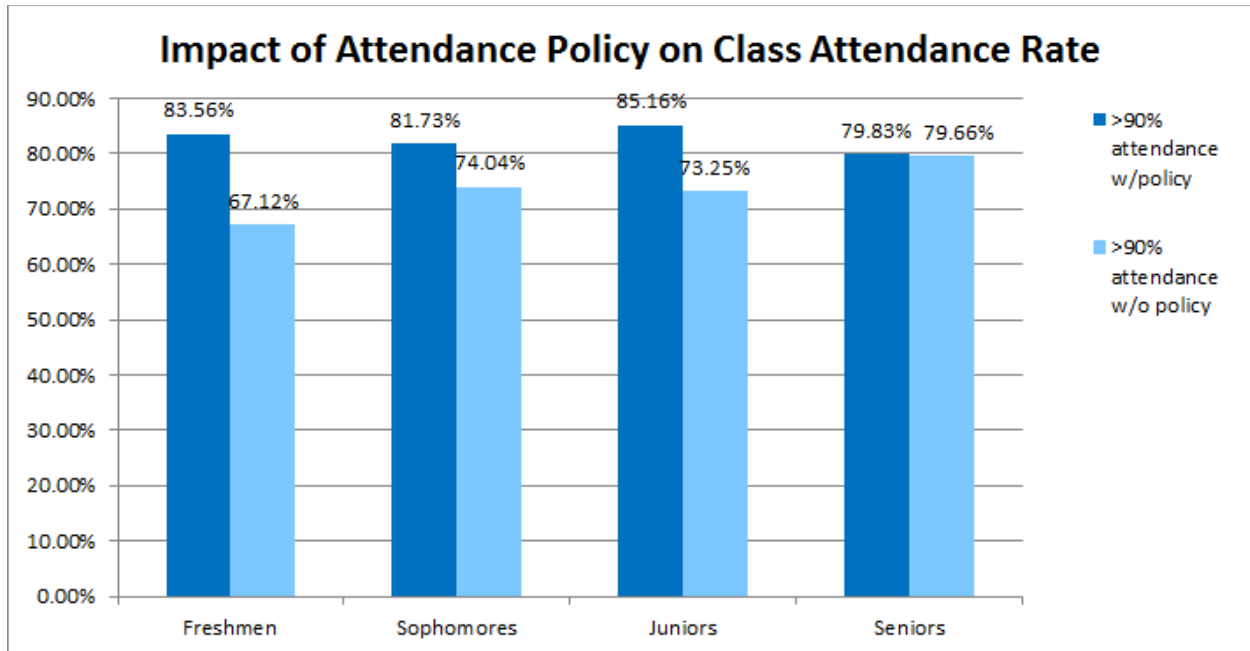
In the second step of this content analysis researchers used a qualitative research technique known as bridging, in which responses are examined for commonalities and trends that link them together for sorting as negative, positive, or neutral. For example, many respondents replied negatively because they viewed classes as a “service” for which they paid, viewed themselves as independent learners, and viewed professors as providers of a deliverable. Accordingly, participants who answered positively viewed regular class attendees as “good students” and viewed attendance as necessary to learn material. By noting these commonalities in rhetoric, researchers were able to sort and code these responses effectively and correctly to reflect validity of the survey instrument and the results gathered from it.

The third step in this content analysis required researchers to code each answer to the question as negative language (response against attendance policies, NL); positive language (response in support of attendance policies, PL); impartial language (response that contains both negative and positive language, IL); or not readable (response cannot be coded due to readability or unanswered questions, NR). The researchers sorted 456 responses and found that of that number, 34% of respondents perceived attendance policies in negative terms; 31% of respondents perceived attendance policies in positive terms; and 18% perceived attendance policies as neither negative nor positive. Accordingly, 16% of respondents’ answers were unreadable or blank. The high percentage of non-readable responses in these initial coded answers was unexpected and indicated both an unwillingness to respond as well as misunderstandings of the question itself. It could also indicate problems with the length of the survey. All of these conclusions are possible, but without dialogic interaction with participants, researchers were unable to conclusively determine reasons for such a high percentage.

## **Results and Discussion**

### **Section 1: Student Perceptions By Class Rank (Freshman, Sophomore, Junior, Senior)**

Figure 1.1 shows that the impact of compulsory attendance policies is strongly dependent on the academic level of students in a course. Freshmen have the largest difference in their attendance behavior as a function of whether or not a course has an attendance policy.



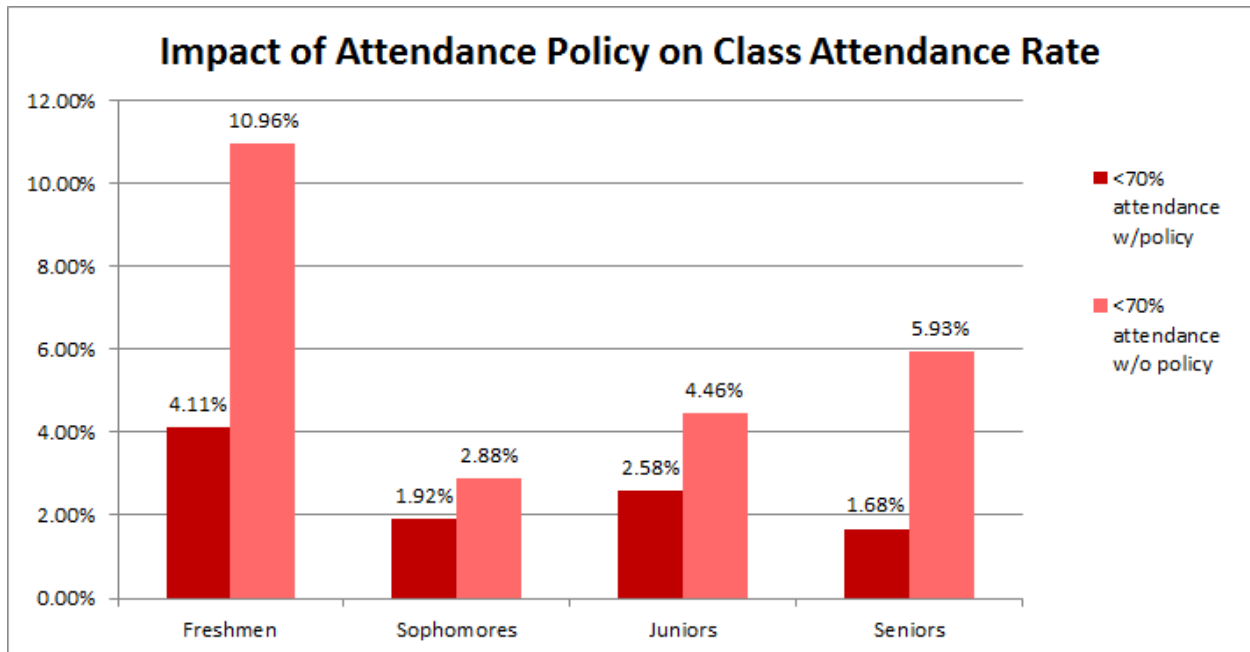
**Figure 1.1: Impact of attendance policy on class attendance rate for students who attend 90 percent or more, based on class rank**

In courses with compulsory attendance policies, 83.56% of freshman responded that they attended 90% or more of lectures. In courses without compulsory attendance policies, only 67.12% of freshmen report attending 90% or more of lectures, yielding a difference of more than 15%. This shows that instituting a compulsory attendance policy has a significant impact on the behavior of freshman students. By senior year, however, the effect of compulsory attendance policies is largely negligible: 79.83% of seniors reported attending 90% or more of lectures in courses with compulsory attendance policies while 79.66% of seniors reported attending 90% or more of lectures in courses without an attendance policy. For courses populated largely by seniors, it does not appear that instituting an attendance policy has any worthwhile effect. For courses populated largely by freshmen, sophomores, and juniors, however, there is a noticeable increase in the number of students who report attending 90% or more of lectures.

Figure 1.2 shows, unsurprisingly, that students of all academic credit levels are much more likely to attend less than 70% of lectures in courses without compulsory attendance policies than in courses that have them. This general trend seems to persist among all years of students from freshmen to seniors. It is much more pronounced with freshmen, however, than any other responding students. Further, 10.96% of freshmen reported attending 70% or less of lectures in courses without an attendance policy while only 4.11% of freshmen reported attending 70% or fewer of lectures in courses with compulsory attendance policies. This agrees with the trend shown in Figure 1.1, which indicated freshmen respond more strongly to the implementation of an attendance policy than any other year of student. Just as they are the most likely to increase their attendance in response to the presence of a compulsory attendance policy, it appears that

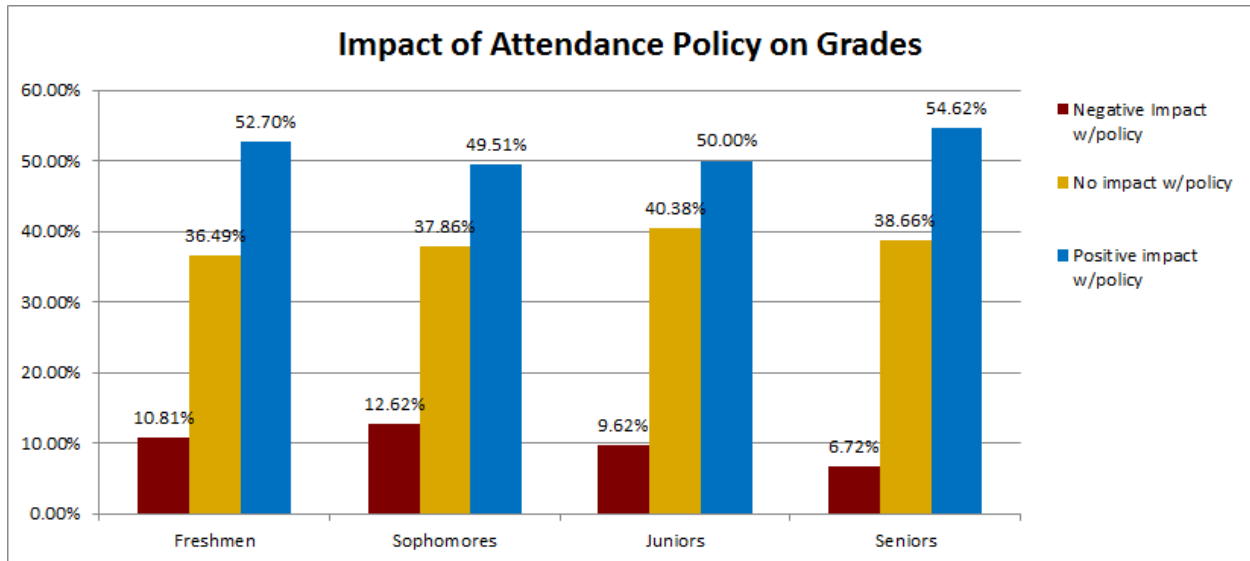
freshmen are also the most likely to have poor attendance in courses that do not have an attendance policy. Again, it would appear that attendance policies have the greatest impact on preventing poor lecture attendance in courses mostly populated by freshmen. Unlike the previous figure (Figure 1.1), the impact of compulsory attendance policies does not appear to decrease as the students' academic credits increases. Seniors are much more likely to have poor attendance in courses without an attendance policy (5.93%) than they are in courses with an attendance policy (1.68%).

As shown in Figure 1.3, the perception of students on how compulsory attendance policies affect their grades does not appear to change significantly from freshmen to seniors. The general trend for all responding students appears to be that the vast majority of them believe that compulsory attendance policies have either a positive impact on their grades or no impact at all. Only a small minority of students feel that having a compulsory attendance policy negatively impacts their grades.

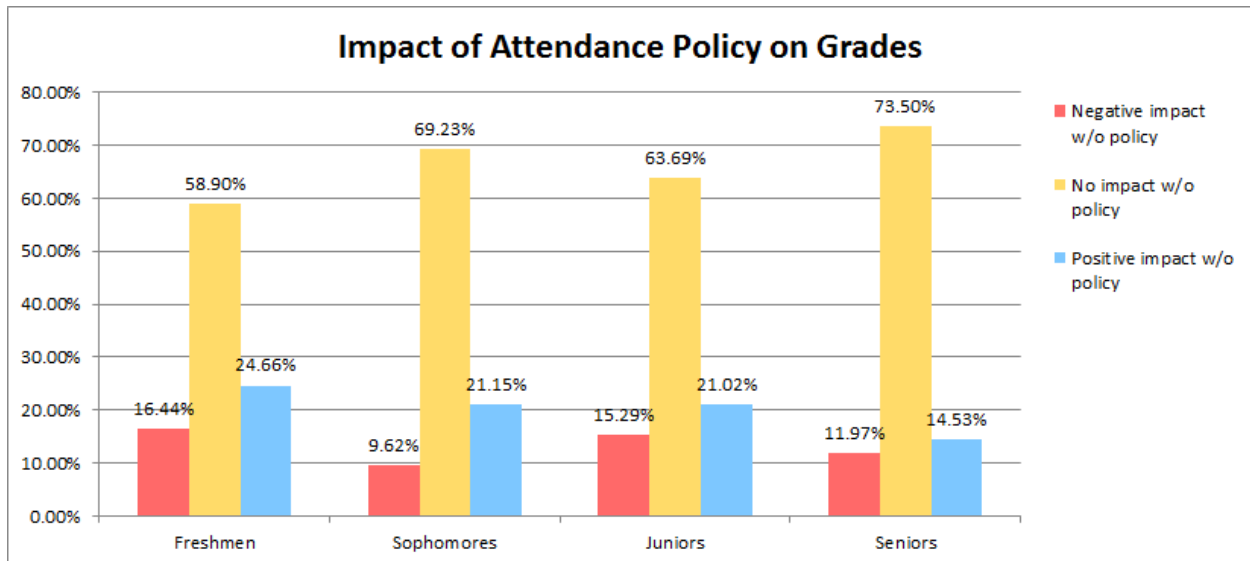


**Figure 1.2: Impact of attendance policy on class attendance rate for students who attend 70 percent or less, based on class rank**

This trend is not reflected, however, in the feelings of students taking courses without compulsory attendance policies. Figure 1.4 shows that in courses without such policies, the vast majority of students feel that the lack of an attendance policy has no impact on their grades. This is true across groups, from freshmen to seniors. However, the trend could have been different if content areas such as science, engineering, mathematics, social science, literature and language had been considered. The study was not intended to include content into the consideration; therefore no data in this area were collected.



**Figure 1.3: Impact of attendance policy on grades, based on class rank**



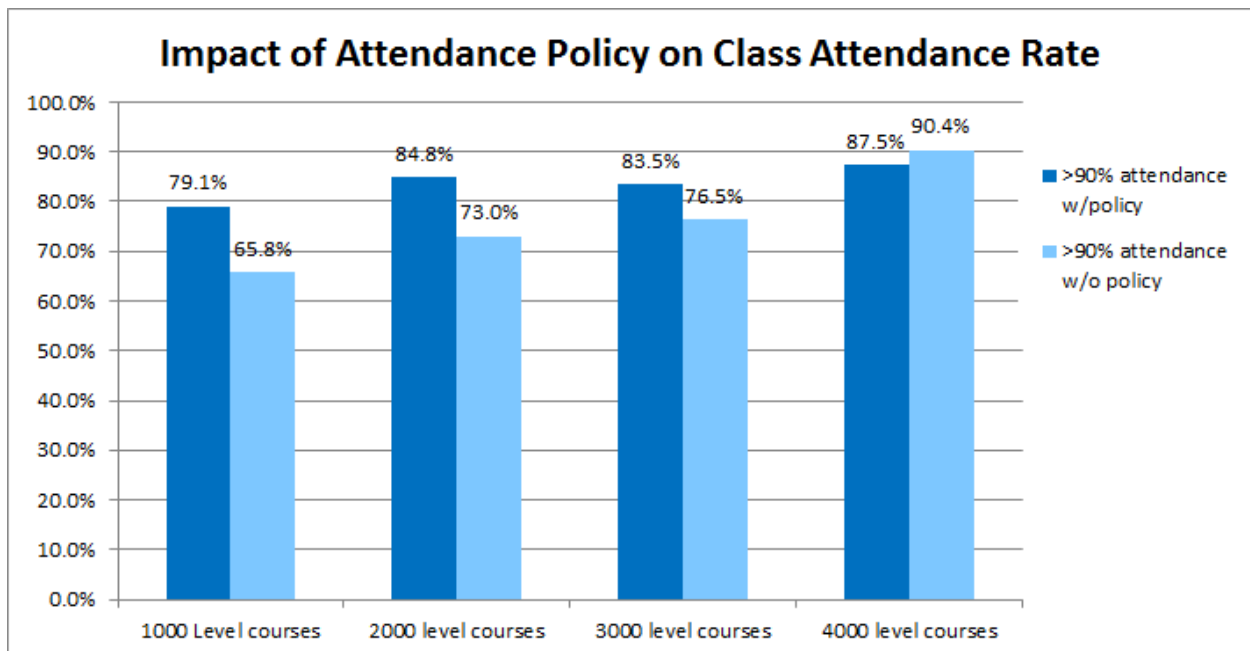
**Figure 1.4: Impact of lack of attendance policy on grades, based on class rank**

## Section 2: Student Perceptions By Course Level (1000, 2000, 3000, 4000)

In order to observe changes in attendance rate between course levels, the same set of data set was parsed by the course level, namely 1000, 2000, 3000 and 4000 level courses. Figure 2.1 shows the data of students who attended more than 90% of lectures with and without attendance policies. The percentages on the first bar of each course level represent the percentage of students who attended 90% or more of the lectures with attendance policies. Similarly, the

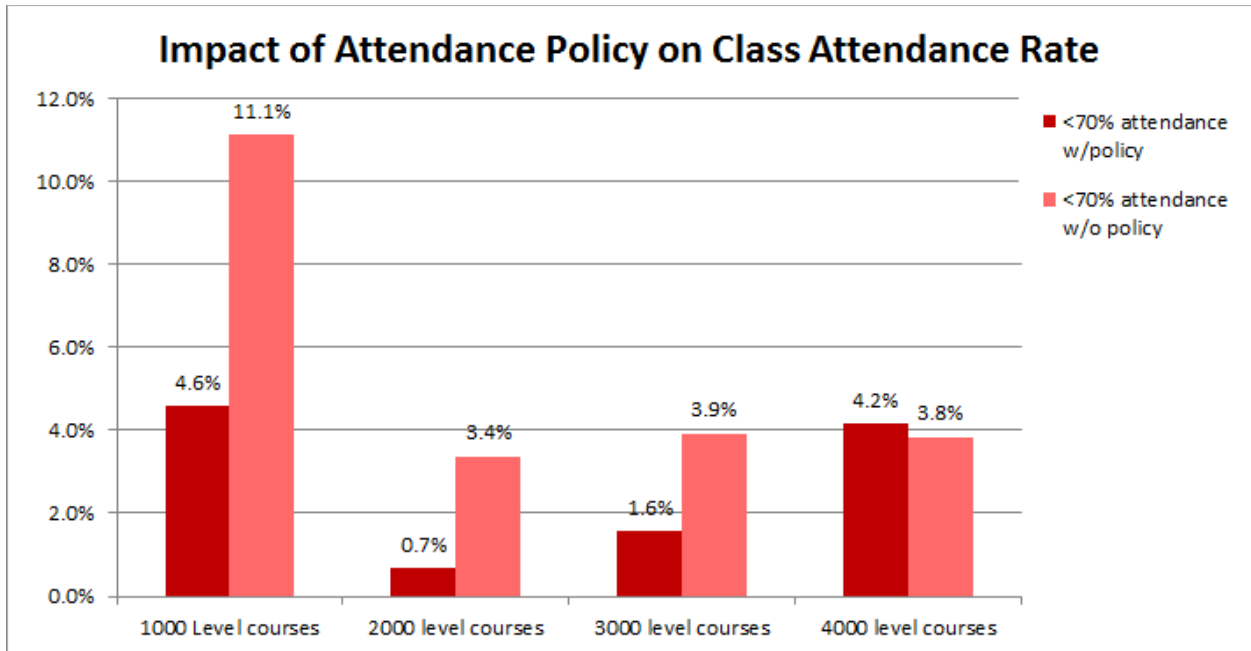
second bar represents the percentage of students who attended 90% or more of lectures in courses without attendance policies.

Comparable to the data parsed by students' academic credit levels, the difference between the percentage of students who attended 90% or more of the lectures in a course with an attendance policy compared to one without at the same level steadily decreased as the course levels increased. It is also interesting to note that more students (in terms of percentage and count) at the 4000 level courses attended 90% or more of the lectures for courses that had no compulsory attendance policy. The data show that the attendance policy may have an impact on attendance rate of students attending 90% or more lectures at the 1000 to 3000 level, but makes little difference in 4000 level courses.



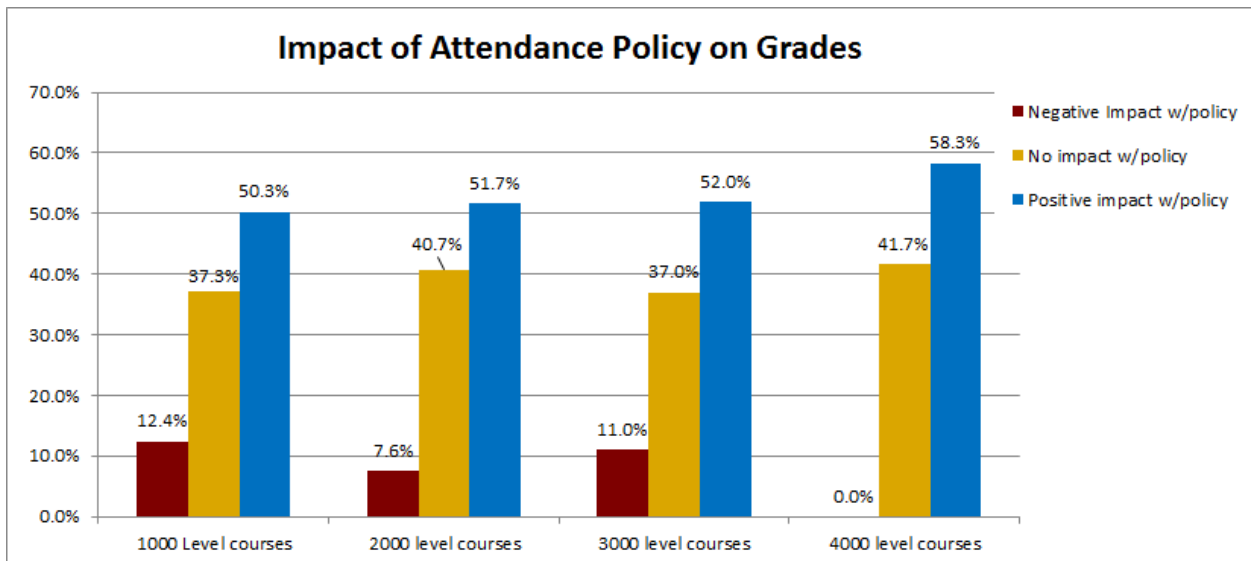
**Figure 2.1: Impact of attendance policy on class attendance rate for students who attend 90 percent or more, based on course level**

Figure 2.2 shows that students are much more likely to attend less than 70% of lectures in courses at the 1000, 2000, and 3000 levels without compulsory attendance policies than in courses at the same levels that have them. This trend agrees with the notion that attendance policy has an impact on class attendance rate at the 1000 to 3000 level. The difference between the percentages for each course level decreases as the course level increases from 1000 to 3000. In 4000 level courses, a small difference was observed. Figures 2.1 and 2.2 both show consistent information with each other, which indicates the impact of attendance policy being more significant at the 1000 level and progressively smaller as the course level increases.



**Figure 2.2: Impact of attendance policy on class attendance rate for students who attend 70 percent or less, based on course level**

As shown in Figure 2.3, trends on students' perceptions about attendance policies are consistent across all course levels for courses with mandatory attendance policies. In courses that have mandatory attendance policies, a majority of students seem to think that the attendance policies have a positive impact on their grades. A significant portion of students believe that attendance policies have no impact on their grades, while a minority of students believe that an attendance policy negatively affect their grade in a class.

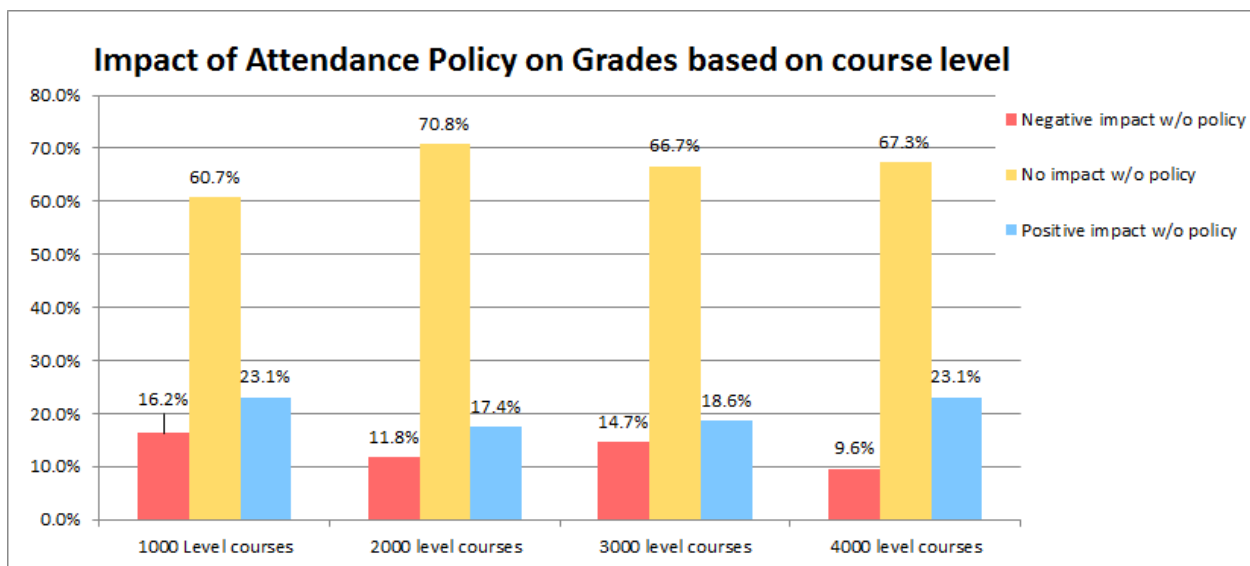


**Figure 2.3: Impact of attendance policy on grades, based on course level**



This trend is not reflected, however, in the feelings of students taking courses without compulsory attendance policies. Figure 2.4 shows that in courses, at any level, without such policies, the vast majority of students feel that the lack of an attendance policy has no impact on their grades. This is true across groups, from 1000-level to 4000-level courses.

The information that can be derived from Figure 2.3 is that the majority of students believe that having mandatory attendance policies will not negatively impact their grades, and better yet, a majority of the students perceive that having mandatory attendance policies positively impacts their grades. While Figure 2.4 does not show clear agreement with the aforementioned trend, however, it does show that students' perceptions are that the lack of an attendance policy in a particular course does not negatively impact grades.



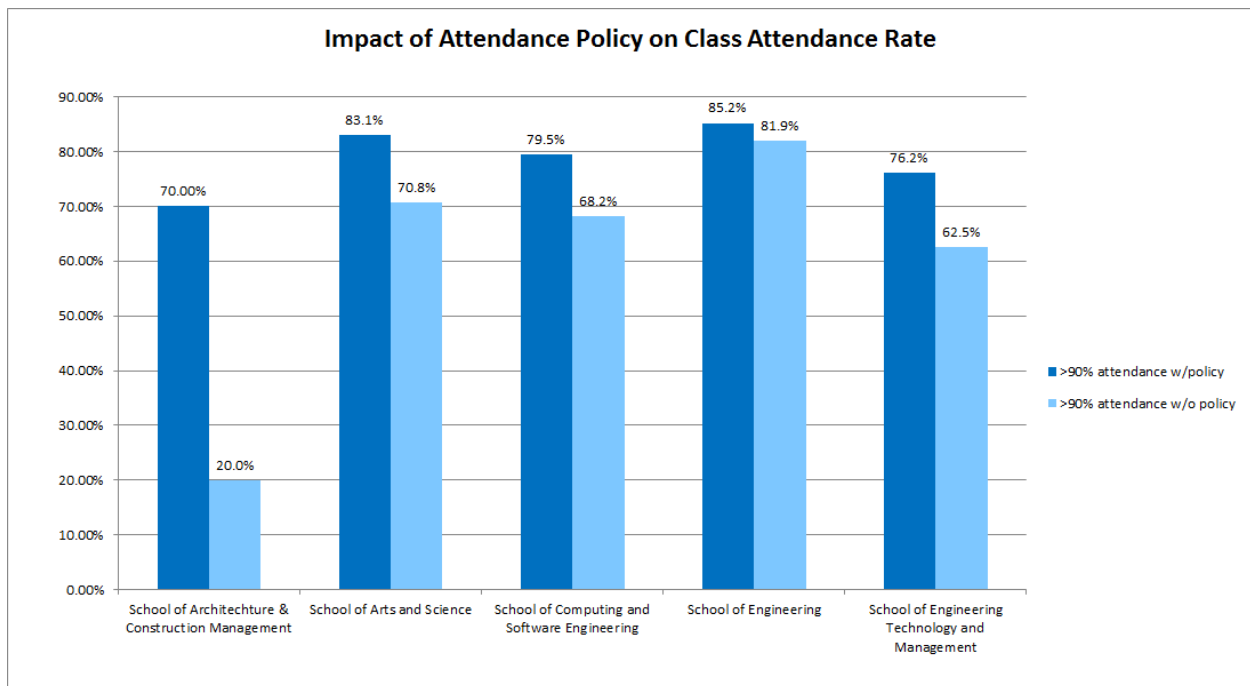
**Figure 2.4: Impact of lack of attendance policy on grades, based on course level**

### **Section 3: Student Perceptions By School (Engineering, Engineering Technology and Management, Computer and Software Engineering, Architecture, and Arts and Sciences)**

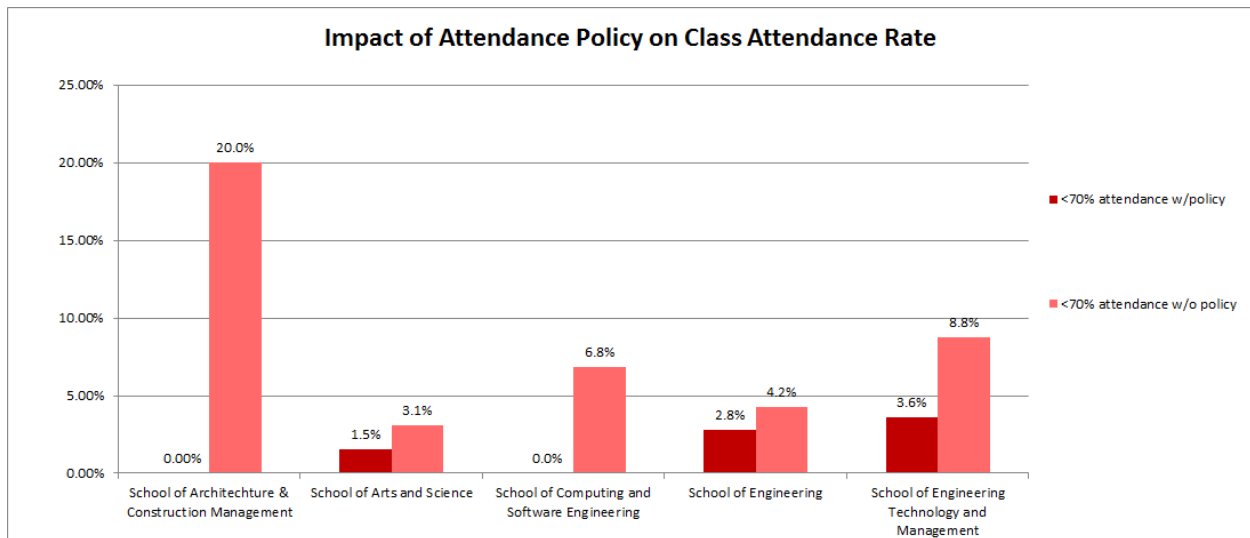
In this section researchers analyzed the data according to schools: Engineering, Engineering Technology and Management, Computing and Software Engineering, Architecture, and Arts and Sciences. The bar diagram in Figure 3.1 shows the percentage of students who attended more than 90% of a class with and without attendance policies. The first bar for each school represents the percentage of students who attended more than 90% of a class with an attendance policy, while the second bar represents the percentage of students who attended more than 90% of a class without an attendance policy.

The survey data clearly indicate that classes with an attendance policy have a higher percentage of students who attended more than 90% of the class. However, it does not reveal the dependence of the attendance based on the School. The attendance of architecture students appears to be most dramatically impacted by the presence of an attendance policy.

Figure 3.2 represents the percentage of students who attended less than 70% of a class arranged by five different schools across the University. The bar diagram in Figure 3.2 shows that the percentage of students who attended less than 70% of lectures is higher in the School of Architecture than other schools when there was not an attendance policy. This number indicates that Architecture students may have a tendency to attend less classes than students from other schools in the University if there is no course attendance policy. The results further indicate that the percentage of students from the School of Computing and Software Engineering who attend 70% or less is 0%, if there is an attendance policy.



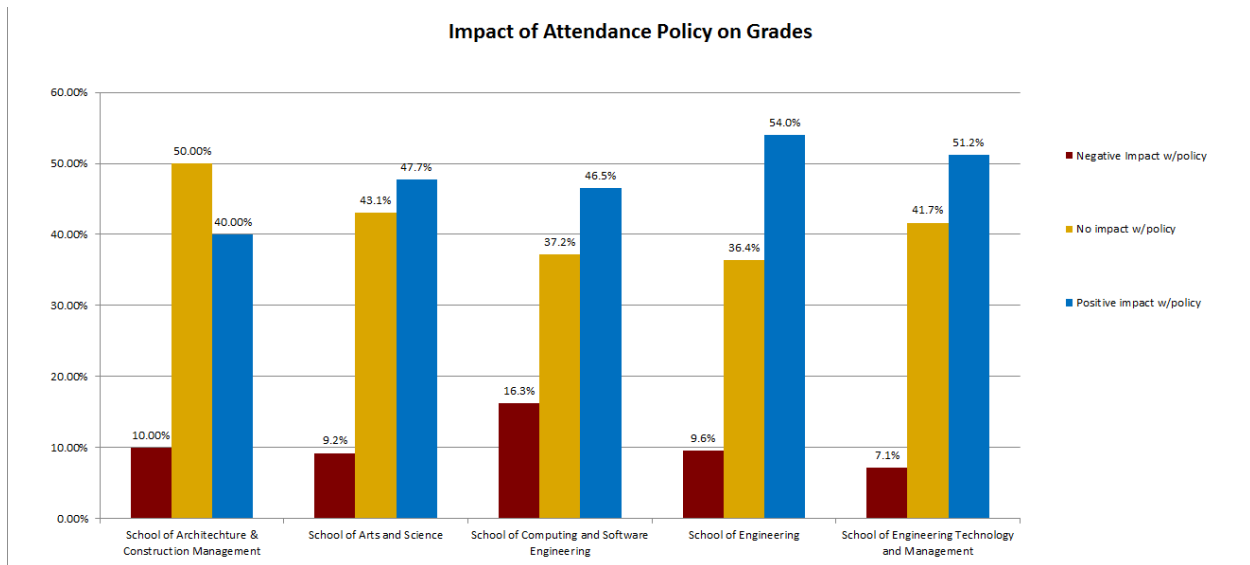
**Figure 3.1: Impact of attendance policy on class attendance rate for students who attend 90 percent or more, based on school**



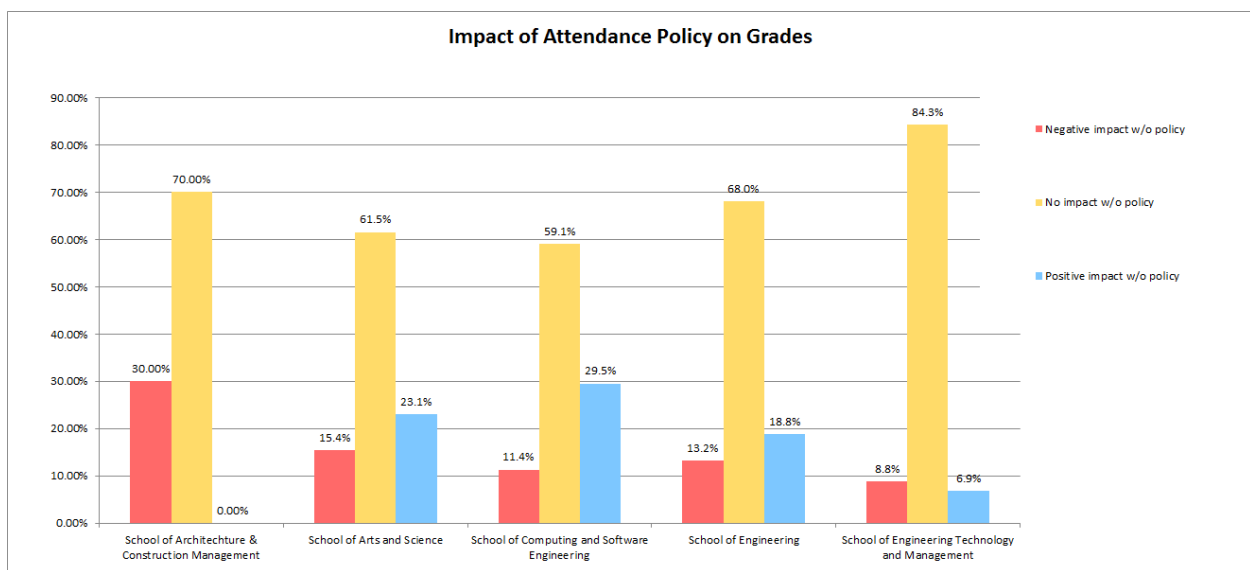
**Figure 3.2: Impact of attendance policy on class attendance rate for students who attend 70 percent or less, based on school**

The bar diagram in Figure 3.3 shows that students’ perceptions regarding attendance policies in four schools -- Arts and Science, Computing Software Engineering, Engineering, Engineering and Technology -- are similar. The average percentage of the students who believe that having an attendance policy in a class makes a positive impact on their grade is close to 50% for all four of the above-mentioned schools. This percentage is higher than the percentage, which is close to 40% on average, of students who believe that having an attendance policy has no impact. The percentage of students who believe that having an attendance policy makes a negative impact on their grades is close to 10% on average. There is no significant difference regarding this perception across the schools. However, the graph also indicates that 50% of students in the School of Architecture believe that it makes no difference in their grade in a course with an attendance policy. It should be taken into consideration that the total percentage of students who believe that the impact of attendance policies is negative or no difference is approximately the same as the percentage of the students who believe attendance policies have a positive impact.

The bar diagram in Figure 3.4 shows that the majority of students believe that if a class does not have an attendance policy, there is no impact of attendance policy on students’ grades??. This perception is similar in all schools with some variations. For example, Architecture students seem to believe that there is no positive impact on grades if a class has no attendance policy. It interesting to note that in other schools, some students believe that it may make a positive impact on their grade if there is no attendance policy. The total percentage of students who believe that if a class does not have an attendance policy, there is no difference or positive impact is much higher than the percentage of students who report negative impacts.



**Figure 3.3: Impact of attendance policy on grades, based on school**



**Figure 3.4: Impact of lack of attendance policy on grades, based on school**

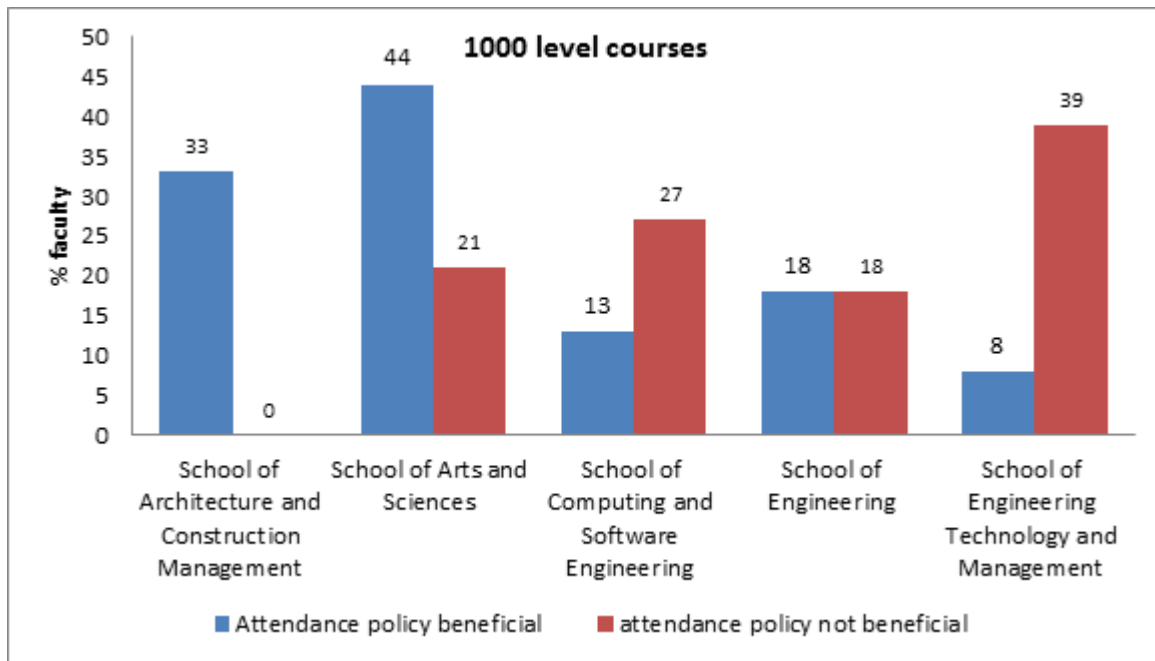
#### Section 4: Faculty Perceptions

Faculty survey responses on attendance policies were analyzed such that all faculty having an attendance policy, explicit and implicit in their syllabi, were counted together. In the corresponding student survey on attendance policies, no distinction is made between an explicit and an implicit attendance policy. Therefore, it was decided, in the faculty survey, to categorize all attendance policies together and only segregate them based on faculty perception of whether attendance policies were beneficial to students. Whether the faculty member used grades to

gauge student benefit or class engagement (or both) is not included in the survey. The survey only addresses faculty perceptions of having an attendance policy on simply gauging whether it is beneficial or not to student learning. Faculty responses that were N/A in all categories indicated that they did not enforce an attendance policy in their classes. However, there were some responses that were unclear and were also placed in this category. These responses are outliers and are excluded from the graphs.

Data gathered were analyzed and sorted based on course level and faculty perceptions on attendance policies in the different University schools. Faculty perceptions on attendance policies in the five schools for 1000-4000 level courses are shown in Figure 4.1.

The School of Architecture had the lowest number of responses. All responses for 1000 level courses indicated that having an attendance policy (explicit or implicit) does benefit students. The largest set of responses came from the School of Arts and Sciences, and it is clear from the graph that faculty members in this school also feel that students enrolled in lower level 1000 courses do benefit from an attendance policy. However, in the schools of engineering the data indicate that faculty members who enforce an attendance policy do not believe that it has a positive impact on student learning.

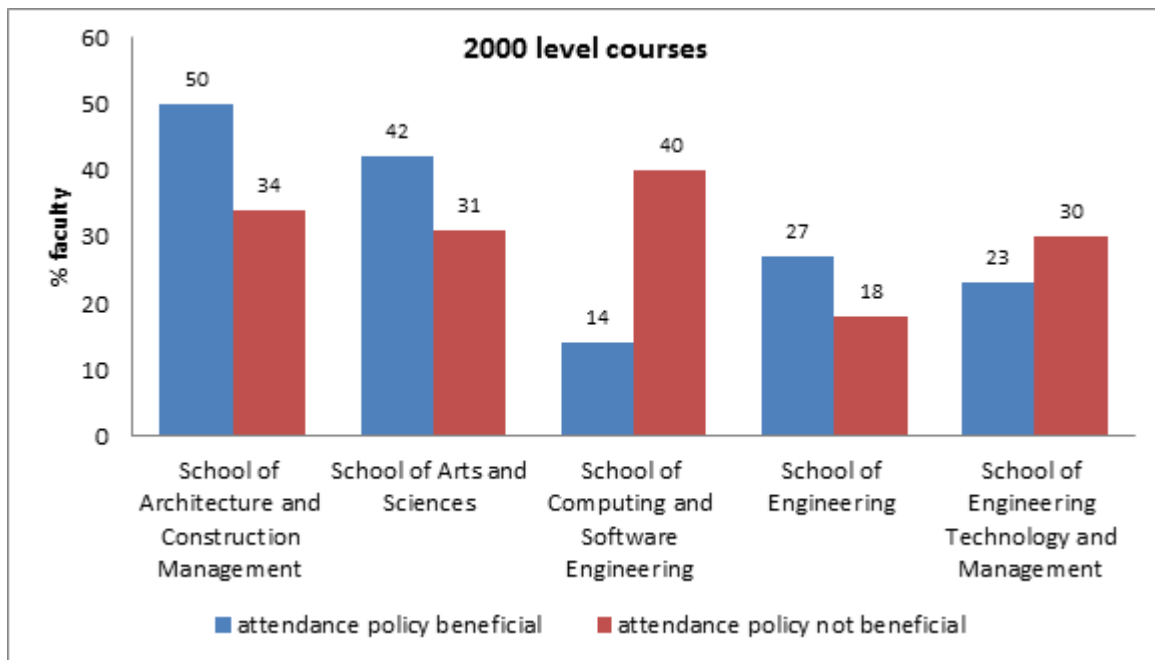


**Figure 4.1: Faculty perceptions on attendance policies in the five schools for 1000 level courses**

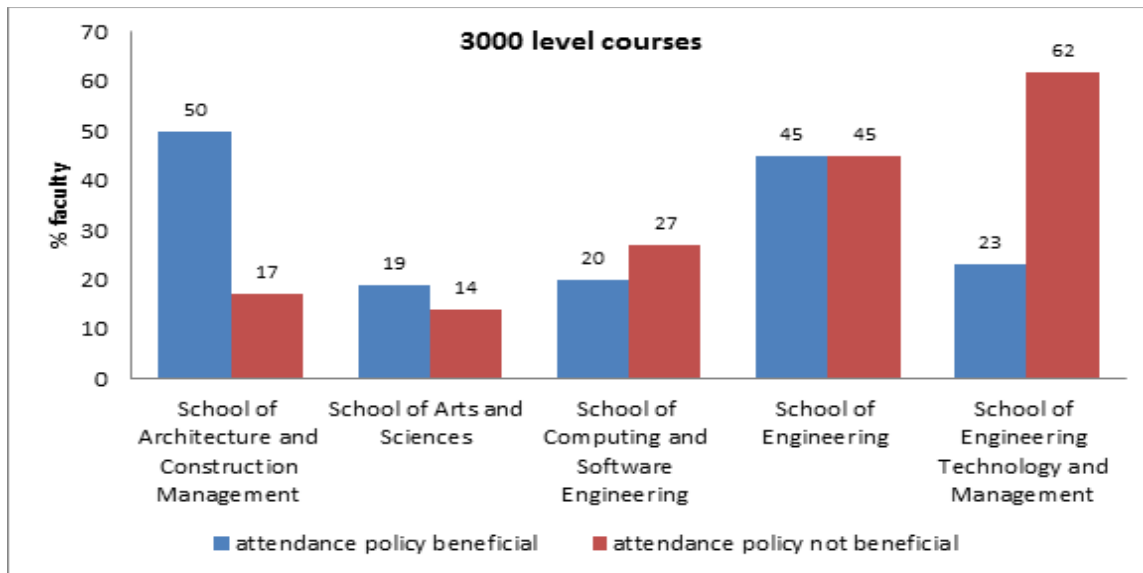
Figure 4.2 shows that in courses at the 2000 level, compared to 1000 level courses, the gap between whether a faculty member thinks an attendance policy is beneficial or non-beneficial decreases; more faculty members with an attendance policy feel that having an attendance policy

has no effect on student learning or engagement in a class. This percentage is more dramatic with faculty members in Architecture and Arts and Sciences, when comparing faculty perceptions of courses at the 1000 level and 2000 level. Faculty from Architecture and the School of Arts & Sciences, 33% and 44%, respectively, feel that attendance policies benefit students in 1000 level courses while 0% and 21% of faculty from these two schools respectively, feel that attendance policies are not beneficial. However, in the 2000 levels courses, the number of architecture faculty that feel that attendance policies have no benefit increases from 0 to 34% and in the Arts and Sciences from 21 to 31% as indicated in Figures 4.1 and 4.2.

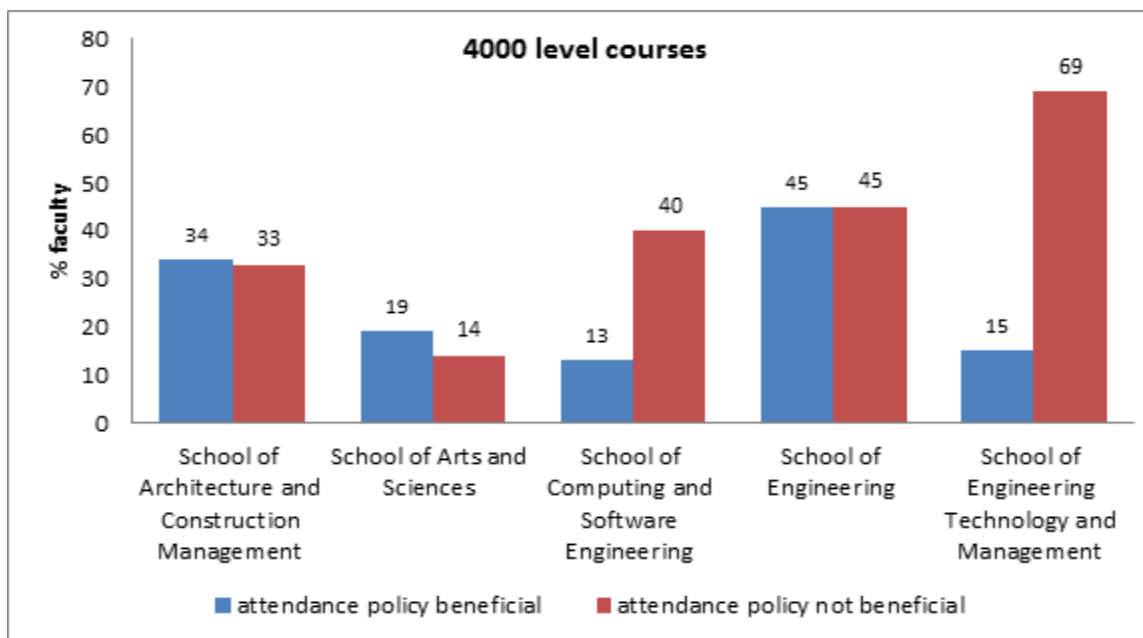
Figure 4.3 shows that, at the 3000 level courses, in the School of Architecture the perception still seems to be that having an implicit or explicit attendance policy helps students., However in the School of Arts and Sciences ,the number of faculty members without an attendance policy increases (N/A responses), and the gap between benefit and no benefit decreases. In the engineering schools the perception is more or less the same as in other classes, such that attendance policies do not seem to improve student learning. A similar trend is seen in the 4000 level courses (Figure 4.4).



**Figure 4.2: Faculty perceptions on attendance policies in the 5 schools for 2000 level courses**



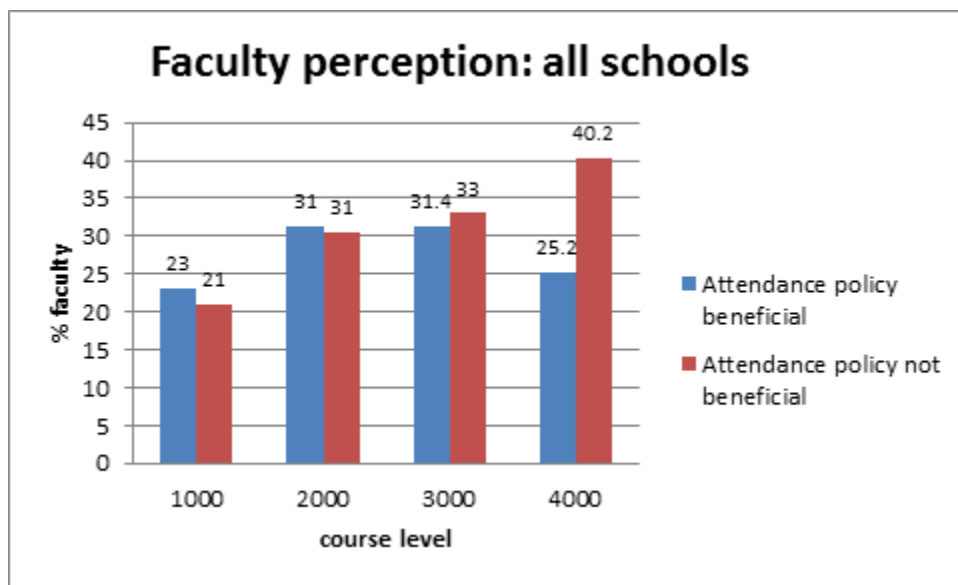
**Figure 4.3: Faculty perception on attendance policies in the 5 schools for 3000 level courses**



**Figure 4.4: Faculty perception on attendance policies in the 5 schools for 4000 level courses**

From the data it is clear that in Architecture and Arts & Sciences, the perception among faculty members is that students need more structure, and that an attendance policy that either explicitly or implicitly states class expectations and ensures that students attend regularly is regarded as an important tool that benefits students' progress and learning in a course. The faculty in these two schools also believe that as the student progresses, the need for an attendance policy to ensure

student success diminishes. Once the student makes it through the freshman classes, she or he does not need an attendance policy to stay on track or that the presence of an attendance policy benefits only some students in these courses but not the majority. The School of engineering faculty do not believe that an attendance policy is beneficial, even in lower level courses. As shown in Figure 4.5, an overall assessment of all schools and the perception of attendance policies on student learning indicates that, in lower level courses, faculty members report insignificant difference in whether an attendance policy has a benefit or not. The percentage of faculty who feel that the attendance policy is beneficial is almost equal to the number of faculty members who believe an attendance policy is not beneficial. However, in 4000 level courses, it is very clear, across disciplines, that the presence of an attendance policy has no effect on student success.



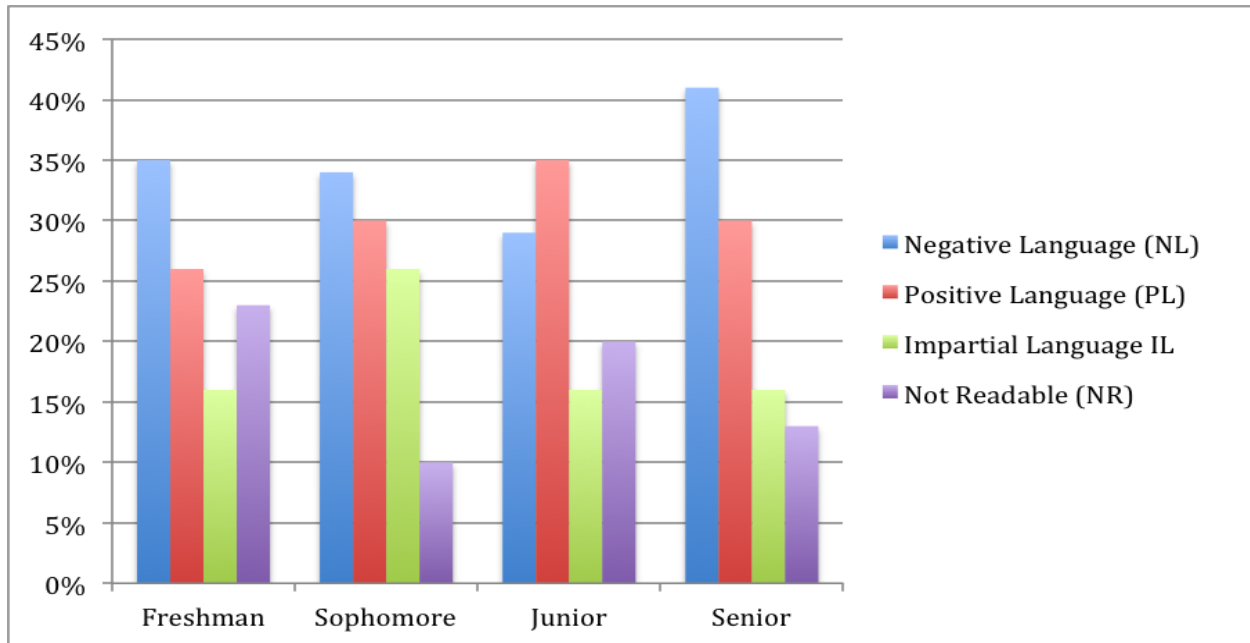
**Figure 4.5: Overall Faculty perception on attendance policies**

In lower level classes, an attendance policy may positively impact student learning. The presence of the student in class may ensure that the student is engaged, is also submitting material in a timely fashion, and is also able to keep track of test dates and homework due dates more successfully. However, as the student progresses to upper level classes, the effect of an attendance policy on student learning and or engagement likely diminishes. This finding does not mean that a student starts to perform poorly in class. However, it does indicate that a student now does not need an attendance policy to keep up with the course curriculum and expectations, and regardless of whether the student attends class or not, an attendance policy has little or no impact on the student's progress in a course.



## Section 5: Qualitative Analysis of Open Question Student Responses

As discussed in previous sections of this paper, student responses to attendance policies could be influenced by age and/or academic credit hours designation (Freshman, Sophomore, Junior, Senior). Because students were asked to provide this information in their responses, researchers were able to extrapolate and correlate data that yielded results from a combination of these designations and attitudes towards attendance policies. Figure 5.1 shows the classification of responses to the open-ended question based on these criteria.



**Figure 5.1: Language Marker Data Chart**

Figure 5.1 shows that seniors responded negatively to attendance policies at 41%, which was as much as 12% more than other groups, with juniors reporting the lowest in the category at 29%. Freshman reported NL at 35% and sophomores reported 30%. Positive language responses were relatively consistent among sophomores, juniors, but freshman reported fewer positive attitudes than the group by as much as 9%. Freshmen and juniors reported greater numbers of unanswered or unreadable responses, at 23% and 20% respectively. Conversely, seniors only reported 13% NR, and sophomores reported a low 10%. Sophomores used more impartial language (IL) at 26%, with all three other groups reporting at 16% in this category. As researchers looked for further differences in the four academic groups, it was found that upperclassmen reported positive attendance policy attitudes for lower level or required core courses but not for courses in their majors. Respondents in all four academic groups noted that they preferred incentive attendance policies that can increase students' grades as opposed to punitive policies. A few respondents across all groups noted their responses in generational dialect, such as "those policies suck" and other expletives. Researchers coded all expletives as

NL. Several respondents generally reported on personal issues with specific courses and professors, while a few named courses and professors. These reports were all coded as NL based on their content.

Overall, respondents provided researchers with relevant, anecdotal information that was interpreted and coded to reflect students' attitudes towards attendance policies. Combined with the quantitative data, the linguistic data provides researchers with a clear picture of how students view attendance policies at the polytechnic university.

## **Conclusions**

The examination of the impact of attendance policies on class attendance indicates that attendance policies have a dual benefit. Firstly, they encourage more students to maintain a high level of attendance (> 90%) throughout the semester. Secondly, they encourage students, who would otherwise attend class infrequently (<70%) to attend more often. The motivational nature of attendance policies that encourages students to maintain high levels of attendance seems to decrease with increasing student academic credit hours, while the deterrent nature of attendance policies that discourage student from maintaining low levels of attendance still has a solid impact across all student credit years.

This, however, does not mean students find attendance policies beneficial with respect to their grades. This can be inferred from a review of student responses on the impact of attendance policies. There was a significant percentage of students who thought that attendance policies had no impact on their grades, whether the class had an attendance policy or not. This may speak to the fact that instructors are doing little to engage the student population through active learning strategies, and so there is a significant number of students who do not perceive the benefit of being in class, whether they are forced to or not.

Likewise, there was no clear consensus amongst faculty as to whether or not students earn better grades because of an explicitly stated attendance policy. In fact, 39% of the faculty members surveyed reported not having such a policy. In certain disciplines, faculty members believed that an attendance policy led to improvements in students' grades in lower-level courses, but not necessarily in upper-level courses. For those courses in which both faculty and students agree that an attendance policy is beneficial, additional research is needed to determine if the policy can be attributed to actual improvements in student grades.

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