

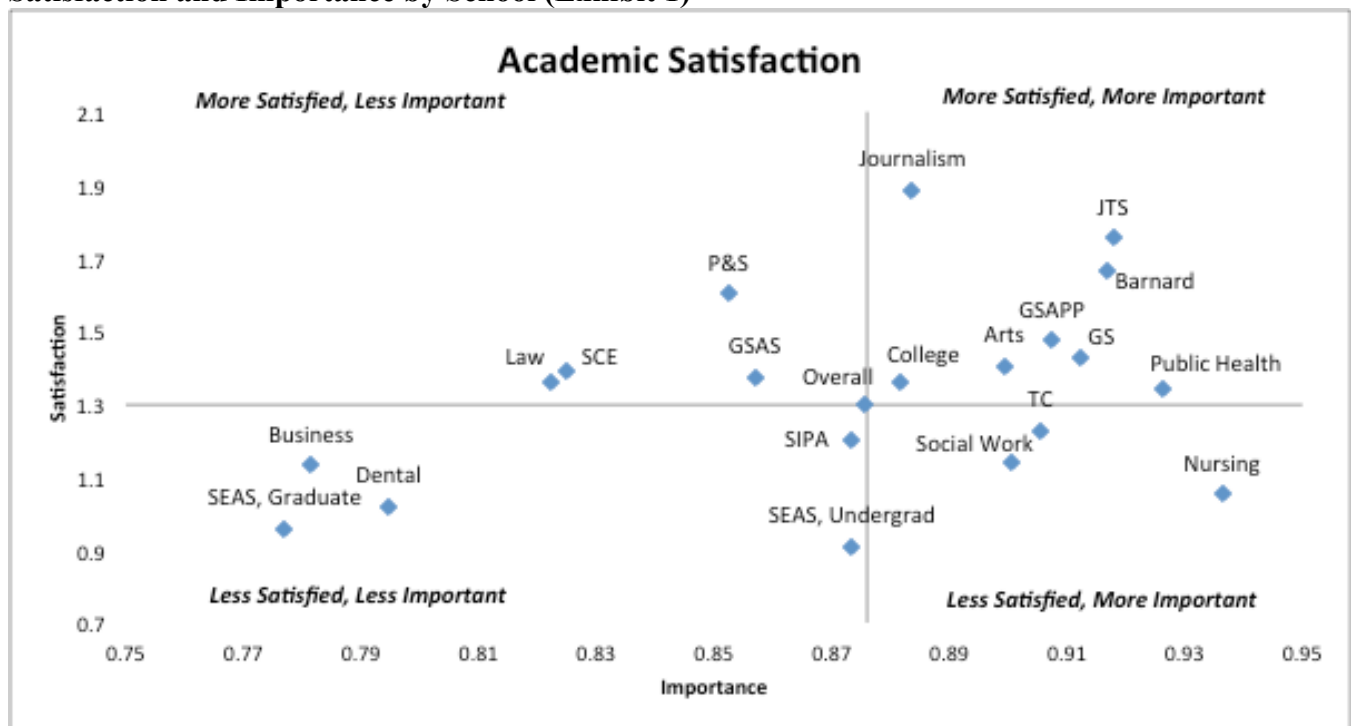
Quality of Life Survey: Academics Satisfaction Analysis

Introduction

In April 2013, the Student Affairs Committee (SAC) of the University Senate completed Columbia’s first-ever University-wide student quality of life survey (QoL). Over 6,250 students from across Columbia’s 20 schools and affiliated institutions took the survey, which addresses a broad spectrum of wellness considerations including financial aid, housing, social life, academics, and administration. In designing the survey over the course of a year, SAC partnered with the Business School’s Behavioral Research Lab and consulted with the Office of the President, the Office of the Provost, the Board of Trustees, and the Department of Statistics. The survey aims to empower key University policymakers with the tools and knowledge to make effective evidence-based strategic decisions.

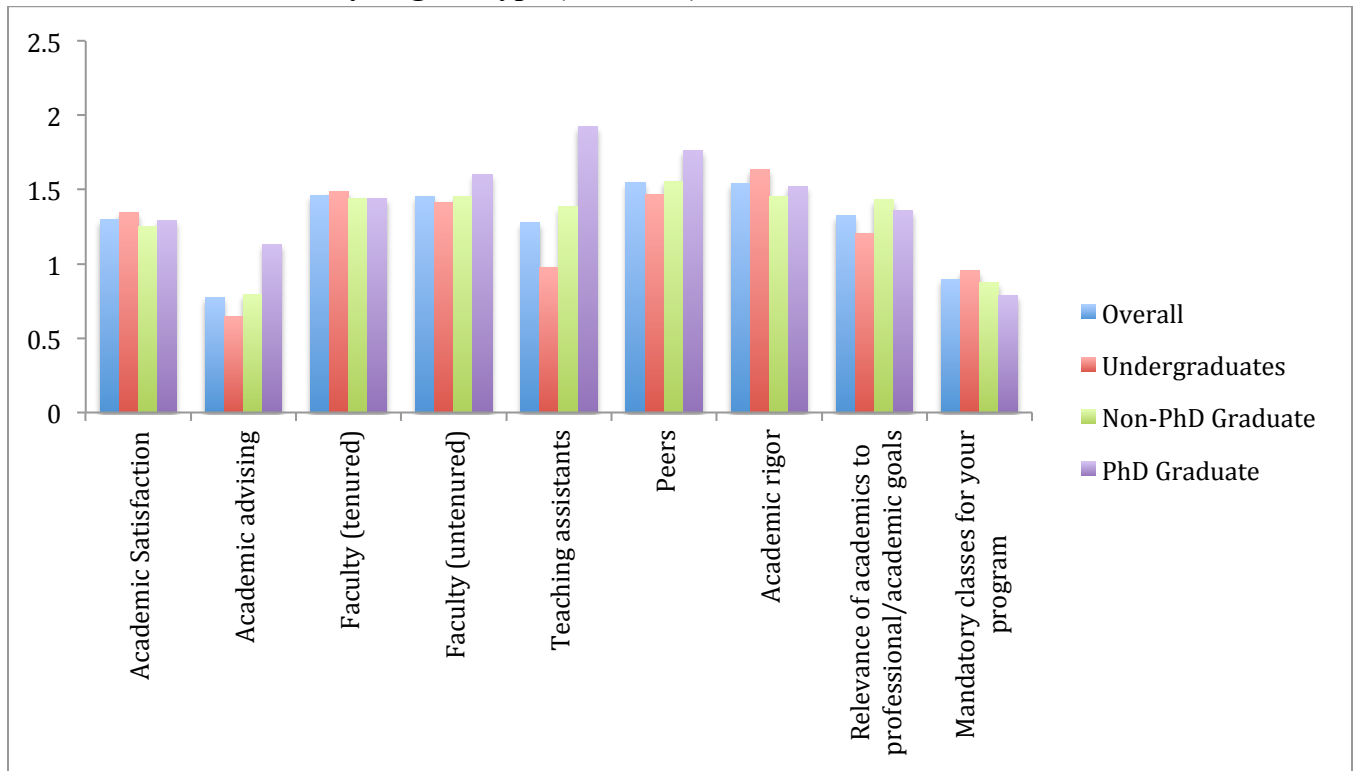
With Academics consistently being one of Columbia University’s greatest strengths, it is not surprising that this category was one of the highest-ranking components of the survey, second only to Safety. However, there are revealing differences in the degree of satisfaction across different variables, upon which we expand below.

Satisfaction and Importance by School (Exhibit 1)



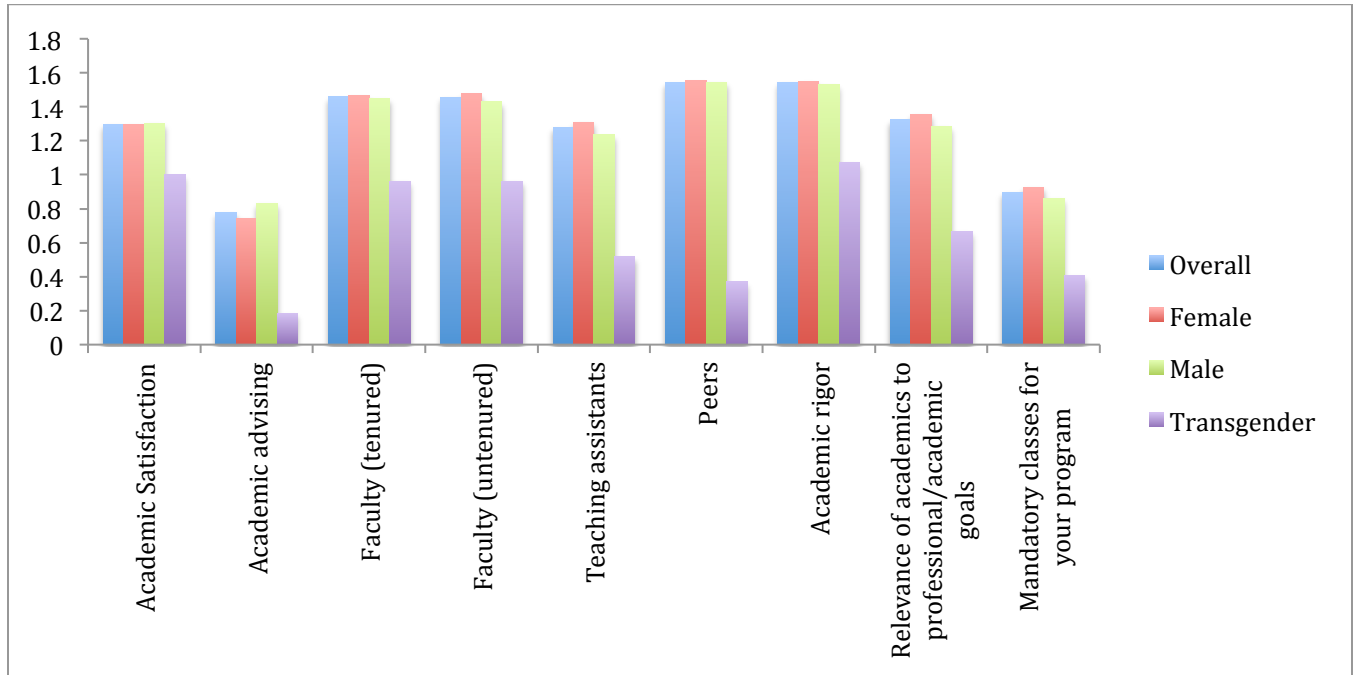
This scatterplot depicts academic satisfaction of students from different schools, as well as how important they deem academics to their quality of life. Importance is on a scale of 0 to 2 (for “not important,” “somewhat important,” and “very important”), and satisfaction is on a scale of -3 to 3 (with -3 being “very dissatisfied,” 0 being “neutral,” and 3 being “very satisfied.”). The center point of the graph is average importance by overall academic satisfaction, and each school’s academic satisfaction and importance is plotted relative to that point. In the lower right quadrant, we see schools whose students feel that academics are more important, but who are nevertheless less satisfied. Conceptually, resources should be distributed such that schools that deem academics more important but have less satisfaction receive more support.

Academics Satisfaction by Degree Type (Exhibit 2)



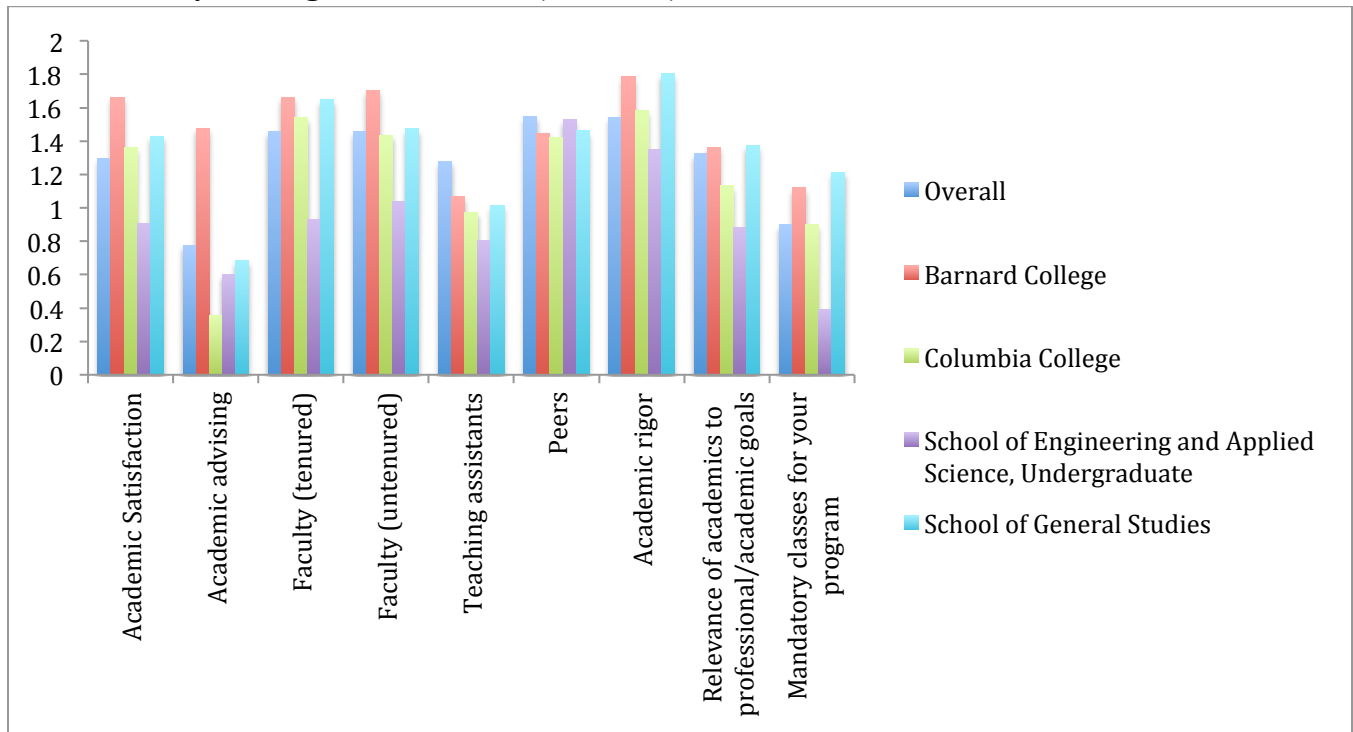
Satisfaction is on a scale of -3 to 3, with -3 being “very dissatisfied,” 0 being “neutral,” and 3 being “very satisfied.” Note that the entire student population is in some degree satisfied with all aspects of academics. However, the area in which satisfaction is generally lowest (particularly in the non-doctoral levels) is “Academic advising”. This trend is present throughout most of the analysis and is an area that the University may endeavor to increase student satisfaction. Another interesting aspect of this graph is the disparity in satisfaction of teaching assistants between doctoral students and undergraduates.

Satisfaction by Gender (Exhibit 3)



Satisfaction is on a scale of -3 to 3, with -3 being “very dissatisfied,” 0 being “neutral,” and 3 being “very satisfied.” As in Exhibit 2, in all aspects of academics, students are generally satisfied, however students are least satisfied with academic advising. Academic satisfaction seems to be the same for both male and females and there are no signs of systematic dissatisfaction by a particular gender. Transgender students, however, score lower on all aspects of academics, but it is unclear whether this is due to the small number of students who identified as transgender, generating a “small sample bias,” or whether there is some sort of deeper, structural dissatisfaction among members of Columbia’s transgender community. This is yet another area that may warrant further examination.

Satisfaction by Undergraduate School (Exhibit 3)



Satisfaction is on a scale of -3 to 3, with -3 being “very dissatisfied,” 0 being “neutral,” and 3 being “very satisfied.” The most notable features of Exhibit 3 are that the aspects of Academics for which undergraduates are most satisfied are Faculty, Peers, and Academic Rigor. All three of these components have historically been great strengths for Columbia University, and the University should continue to maintain its high standards and policies in all of these areas.

Statistical Analysis

To determine what is driving differences in satisfaction with regards to Academics, we employed regression analysis, a statistical process for estimating the relationships among variables. Regression analysis helps one understand how the change in one variable can affect a key variable of interest when all other variables are held fixed.

This regression analysis should be viewed as a complement to the trends observed in the above Exhibits. Moreover, while the diagrams are informative and can illustrate overarching patterns, the use of the data collected in the QoL survey in a rigorous statistical framework can allow us to make more nuanced policy recommendations.

First, we controlled for demographic factors, which include:

- Socioeconomic status (10 brackets spanning less than \$15,000/year household income in high school, to more than \$300,001/year household income in high school)
- Whether the respondent is lesbian, gay, bisexual, or transsexual
- Whether the respondent is a parent
- Race/ethnicity
- Whether the respondent attends one of the medical campus schools

- Whether the respondent's native language is English
- Whether the respondent is an international student
- Degree type (undergraduate, non-PhD graduate student, and PhD student)
- Gender (male, female, or transgender/genderqueer)
- Marital status (single, married, divorced, and widowed)

The following analysis observes the correlation between academic satisfaction and administration satisfaction. The analysis isolates the effect of individual variables, revealing statistically significant correlations between the two dimensions, stated in descending order of magnitude:

Administration Satisfaction's Effect on Academic Satisfaction

- Satisfaction with the administration's Vision, Strategy, and Goals is the strongest factor that influences academic satisfaction.
- Satisfaction with the administration's Accessibility is the second strongest factor.
- Satisfaction with the administration's ability to follow through on requests and recommendations is negatively correlated with academic satisfaction. However, when controlling for schools, this factor becomes statistically insignificant.

The following analysis observes the impact of the subquestions of academic satisfaction on overall academic satisfaction. The analysis isolates the effect of individual variables, revealing statistically significant correlations, stated in descending order of magnitude:

Academic Subquestions

- After controlling for schools, the strongest factor of influence within academics is satisfaction with faculty.
- Satisfaction with academic rigor comes in a close second.
- Another strong factor is satisfaction with relevance of academics to professional/academic goals.

The following analysis observes the correlation between other dimensions and academic satisfaction. "Other Dimensions" includes other satisfaction dimensions and demographic variables:

Other Dimensions

- The dimension that most strongly influences academic satisfaction is satisfaction with career preparation.
- The second strongest dimension that influences academic satisfaction is satisfaction with libraries.
- Satisfaction with administration comes in a close third.
- Selecting White as one's ethnicity is correlated with higher academic satisfaction.

Other variables are statistically insignificant at the p -value = 0.05 cutoff.¹ In simple terms, this means that the isolated effects of other variables have a greater than 5% chance of being random statistical noise.

¹ We used Stata's robust standard errors option to obtain conservative estimates of significance.

Discussion

Though students were satisfied with the overall state of academics at the university, it is important to maintain focus on this issue to maintain and improve this degree of satisfaction. Through the results of the QoL survey we can identify the strong components of academics and use them as models to improve the weaker areas.

Thus, possible action items include:

- Conducting intra school surveys to determine the reasons for lower academic satisfaction in the following schools: SEAS undergraduate, Nursing, Social Work and Teachers College (Exhibit 1).
- Exhibit 2 displayed disparity in the satisfaction between graduate and undergraduate students regarding the quality of TAs. Part of this disparity may be due to the different nature of the TA role that graduate and undergraduate students face; however, further study into the TA relationship and policies across the University may be prudent and beneficial for both graduate and undergraduate student bodies.
- When information was stratified by gender, transgender students had lower scores on all aspects of academics (Exhibit 2). A discussion with this student population is necessary to determine if there are reasons beyond small sample size, which lead to the reason for these results.
- Since the administration's vision, strategy and goals is the strongest factor influencing academic satisfaction, it may be useful to administration, faculty and students for the administration to focus on projecting and advertising their visions and goals to the student body.
- The relevance of academics to professional goals also strongly influenced satisfaction, stressing the importance of resources such as the Center for Career Education.

Any questions, comments, or concerns related to this analysis can be directed to the co-chairs of the University Senate's Student Affairs Committee, Matthew Chou (mc3429@columbia.edu) and Akshay Shah (ars2212@columbia.edu).