Quality of Life Survey: Career Preparation 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. 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 seeing the survey through from its initial conception in 2012 to the completion of its first iteration, 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.

Satisfaction and Importance by School (Exhibit 1)

This scatterplot depicts career preparation satisfaction of students from different schools, as well as how important they deem career preparation 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 career preparation satisfaction, and each school’s career preparation satisfaction and importance is plotted relative to that point. In the lower right quadrant, we see schools whose students feel that career preparations is more important, but who are nevertheless less satisfied. Conceptually, schools in the lower right quadrant of the scatterplot should receive more support.
Career Preparation Satisfaction by Degree Status (Exhibit 2)

Satisfaction is on a scale of -3 to 3, with -3 being “very dissatisfied,” 0 being “neutral,” and 3 being “very satisfied.”

Career Satisfaction by Socioeconomic Status (Exhibit 3)

The socioeconomic statuses (SES) represent estimated annual household income.
SES1: <$15,000; SES2: $15,001-25,000; SES3: $25,001-35,000; SES4: $35,001-50,000; SES5: $50,001-75,000; SES6: $75,001-100,000; SES7: $100,001-$150,000; SES8: $150,001-$250,000; SES9: $250,001-$300,000; SES10: >$300,001.

Career Satisfaction by Ethnicity (Exhibit 4)

Satisfaction is on a scale of 1 to 3, with 1 being “very dissatisfied,” 0 being “neutral,” and 3 being “very satisfied.”

Statistical Analysis
To determine what is driving differences in satisfaction with regards to Career Preparation, 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 impact of the sub-questions of career preparation satisfaction on overall career preparation satisfaction. The analysis isolates the effect of individual variables, revealing statistically significant correlations, stated in descending order of magnitude:

Career Preparation Subquestions (controlled for confidence about job prospects)
• The strongest factor of influence within Career Preparation is satisfaction with counseling and advising services.
• Satisfaction with relevance of career services programming comes in second.
• Another strong factor is satisfaction with on-campus interviews and recruiting.

The following analysis observes the correlation between other dimensions and career preparation satisfaction. “Other Dimensions” includes other satisfaction dimensions and demographic variables:

Other Dimensions
• The strongest positive correlation is with academic satisfaction.
• Administration satisfaction comes in second.
• Another strong positive factor is social life satisfaction.
• Identifying as LGBT shows a negative correlation with career preparation satisfaction.
• Identifying as Other (Ethnicity) shows a negative correlation with career preparation satisfaction.
• Identifying as South Asian shows a positive correlation with career preparation satisfaction.

The following analysis observes the correlation between career preparation satisfaction and administration/academic satisfaction while controlling for demographic factors. The analysis isolates the effect of individual variables, revealing statistically significant correlations between the two dimensions, stated in descending order of magnitude:

Academic Satisfaction’s Effect on Career Preparation Satisfaction
• Satisfaction with the relevance of academics to professional/academic goals is the strongest factor that influences career preparation satisfaction.
• Satisfaction with academic advising is the second strongest factor.

Administration Satisfaction’s Effect on Career Preparation Satisfaction
• Satisfaction with the administration’s vision, strategy, and goals is the strongest factor that influences career preparation satisfaction.
• Satisfaction with the administration’s accessibility is the second strongest factor.

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1 Variables not listed are statistically insignificant at the p-value = 0.05 cutoff. In simple terms, this means that the effects of these unlisted variables have a greater than 5% chance of being random statistical noise.
Discussion
Two of the strongest drivers of career preparation satisfaction that seem most immediately in our control are the (i) career counseling and advising services and (ii) the relevance of academics to professional goals. Thus, two possible action items include:

• Conduct student and inter-school focus groups to determine best practices for career advising services. P&S, Journalism, and the Business appear to be three outstanding Columbia models to learn from.
• Particularly for schools in the “less satisfied but more important” quadrant of the satisfaction-importance scatterplot, explore curricula or career option tweaks to better align academic requirements with post-graduation needs.

Any questions or feedback 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).