

Finance and Economics Women (FEW) Network: Encouraging and Engaging Women in Undergraduate Programs

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Abstract

We report a method of increasing engagement of undergraduate female students in finance and economics programs through a national intercollegiate club network. Although female enrollment averages over 50% percent at four year university institutions, we find only about one third female representation in our economics and related classes. These estimates reflect issues also present at the graduate level and professional level of economics. The Finance and Economics Women's Network (FEW) supports currently enrolled students in finance and economics courses, as well as potential and declared majors and minors. The undergraduate clubs provide encouragement to students who typically find themselves to be a minority in their classes and professions, and students have developed leadership and organizational skills through their involvement. In addition, the club infrastructure provides alumni engagement, skill-oriented workshops, panel events, and forums for guest speakers in order to aid the transition from academia to careers and graduate coursework. The network is supported by the faculty at the university level as well as local community professionals. In order to assess the impact of the FEW clubs on female student engagement in these majors, we conducted a survey on the impact of FEW and other factors on the choice of major, and we report our results. We find significant differences by gender in the impact of influential role models, and students report positive impacts from the FEW clubs. We also provide a constitution template to facilitate the development of more clubs in the network.

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1. INTRODUCTION

Encouraging the representation of women among professional economists is a goal of the American Economic Association (AEA) and the Committee on the Status of Women in the Economics Profession (CSWEP), further facilitated by the 2019 AEA Climate Survey.⁵ However, encouraging women to become professional economists often begins at the undergraduate level. Although more than 50% of undergraduate students are female in the United States, only about 30% of bachelor degrees in economics are awarded to women. The gender gap disparity also persists as more women are enrolling in college, to the point that there is a reversal of the college gender gap overall (Goldin, Katz, and Kuziemko 2006). The gender gap in economics reflects a gender gap that is also present in some other technical fields. This gap does not primarily stem from a gap in skills but instead perhaps draws from attitudes towards women and institutional practices may contribute to the disparity (Stoet and Geary 2018; Bayer and Rouse 2016). Addressing this disparity at the undergraduate level is instrumental to developing interest in the economics profession at the graduate and doctoral levels, and thus the long-term growth of professional female economists. The Finance and Economics Women's Network, as represented through Finance and Economics Women's Clubs (FEW), aims to facilitate the development of undergraduate female economics majors and more general interest in economics and finance from undergraduate and master's-level female students.

⁵ The AEA has recently done a large survey of the climate of the profession or women and minorities to assess harassment and inclusion (American Economic Association 2019). Several changes in policy have been proposed to promote an inclusive environment. Also, since 1971, the AEA has maintained the Committee on the Status of Women in the Economics Profession to serve professional women and promote their careers.

The FEW Clubs follow the model of the Undergraduate Women in Economics program developed by Claudia Goldin at Harvard University, with the additional category of finance majors given the common interest and overlap in the students in these majors and the courses they take together (Avilova and Goldin 2018). There is also no experimental component to the FEW Network, and no random assignment of support to students. The goal is to connect as many clubs oriented towards women in economics programs as possible, in order to connect women across universities and identify alumni and potential future labor market opportunities. At some universities, finance and economics majors are housed in the same college; at others, they are not. Yet, these students still share common interests. They also face similar challenges, both academically and in the pursuit of labor market opportunities. However, seeing other women in these occupations is itself a first step towards facilitating female inclusion in these majors and occupations. Some economics departments do not have any tenure or tenure-track female economists, with only 30% of economists overall identifying as women and 66% of all economists working at a university (“AEA Professional Climate Survey: Main Findings.” 2019). The FEW Club model encourages female student participation in finance and economics majors through the network component, increasing visibility and representation of potential role models, and the development of skills which will assist them in these job markets. Although this club is mostly administered by faculty, there is no special emphasis on pursuing jobs in academia.

We have developed a model for introducing FEW Clubs at universities as a low time commitment but high value service activity. We here assess the impact of the FEW Clubs and female representation on students in our programs using a voluntary survey. We are

actively promoting FEW to all of our students, and therefore do not include a randomized control trial to measure causal effects. In this paper, we conclude with recommendations for further developing the network, including additional clubs and alumni networks across universities and states, and provide a club constitution template for general use.

2. DEVELOPING A FEW CLUB NETWORK

In this section we describe our university institutions and FEW clubs. Common features between the two current clubs are capable and motivated student leaders, and the ability of students to internally identify future club leaders. We have found that to be vastly important for reducing the potentially large amount of time that a faculty mentor might spend on this club. We delegate these duties to the students themselves. Both FEW clubs maintain a list of affiliated people and contact information, including current and former members. Membership and events are open to all students, including non-female students.

2.1. SAMFORD UNIVERSITY

Samford University is a mid-sized private university in Birmingham, Alabama. Samford has a growing undergraduate enrollment that stands at 3,591 in 2019. The Economics program is housed within the Brock School of Business, in the same department as Finance. Thus, FEW faculty leadership is contained within one department. Not all FEW student members are declared Economics or Finance Majors, and FEW events can draw a wide variety of students based on the topic. FEW events usually involve hosting a female member of the local business community. Local business leaders have been very supportive of our club. From 2017 to 2019, the Economics major grew from 31 major students to 42. During the same period, the Finance major grew from 80 to 93. Female students are in the minority in upper level course for these majors, despite the fact that,

like most universities, Samford has more female than male students. Including both B.A. and B.A.B.S degrees, there were 10 female Economics majors in 2017, 12 in 2018, and 9 in 2019.

The FEW Club started at Samford after several students and faculty advisors attended a conference hosted by the Federal Reserve that addressed the issue of female representation in economics. After the idea of FEW was raised, students worked to create an official university student organization. An example of a club constitution is in the Appendix. Since then, FEW has had 3 female faculty mentors (2 in Economics and 1 in Finance). The FEW Club consists of 3 student officers (President, Vice President, and Treasurer) and about 35 members who are current students. The FEW network also consists of alumni and members of the local business community and a loose affiliation with another local university.

The following are examples of FEW events at Samford:

1. Host local bank executives to speak and meet students
2. Panel discussion on salary negotiation
3. Panel discussion from a local organization for mentoring women in the commercial real estate industry called CREW
4. At the end of each semester, FEW hosts a networking dinner for current members and all affiliates.

2.2. SAN JOSÉ STATE UNIVERSITY (SJSU)

The FEW Club at SJSU differs from its sister club at Samford University in three main respects. First, SJSU is a public university of 28,490 full-time equivalent students and 33,282 students overall (“Student Quick Facts” 2019). In addition, the Economics

Department is housed in the College of Social Sciences and the Accounting & Finance Department is housed in the Lucas College and Graduate School of Business, leading to the FEW Club at SJSU being both interdisciplinary and intercollegiate. Finally, the FEW Club at SJSU has taken an approach of focusing on skills development for female students entering the competitive labor market of Silicon Valley. Despite these differences, the clubs have both seen a large growth in membership from Fall 2018, and both clubs remain entirely student-run. As of Fall 2019, there were 55 listed members of the SJSU FEW Club, which began organizing in Fall 2018 and was officially a recognized university club as of Spring 2019.

The SJSU FEW Club is currently housed in the Economics Department. As of Fall 2019, there were 446 undergraduate economics majors, 95 of whom identified as female (21%), up from Fall 2018 (85 female-identifying majors) and Fall 2017 (84 female-identifying majors). In addition, 56% of master's economics students in Fall 2019 identified as female, also up from Fall 2018. There was a smaller increase in the number and share of students identifying as female among undergraduate finance majors. As of Fall 2019, there were 606 undergraduate finance majors, 206 of whom identified as female (34%), up from Fall 2018 (204 female-identifying majors). These figures necessarily underreport total student enrollment in classes related to these majors, as SJSU reports data for declared majors overall, but preliminary figures indicate a slow but positive trend ("Student Interactive Enrollment Report," 2019).

Although these figures indicate a positive trend in female enrollment in economics and finance majors, there still remain very few women in individual economics classes.

Although many upper division economics classes are capped at 40 to 50 students, there

may be fewer than 5 female students in any one of these classes. The FEW Club, therefore, has helped connect women in these majors in a large university with a commuter student base, which may otherwise make it harder for them to identify and network with each other. In order to support women in these programs, in Fall 2018 the faculty advisor (Deyo) reached out to an extremely motivated and engaged student (Amber Segura) and asked if she would be interested in helping to develop a FEW Club. There was immediate and enthusiastic interest from Segura as founding president and subsequently other female students who became officers. From there, the students handled almost all of the club organization and activities independently, with the faculty advisor providing university authorization for the club and general guidance for both events and organization. The club officers include the roles of President, Vice-President, Treasurer, and Secretary (the last of whom is also responsible for the club's social media presence). The aim of the FEW Club has since expanded from connecting students to encouraging student leadership, to the point where, as faculty advisor, it is primarily a hands-off approach.

The students have also recognized that they face an extremely competitive job market in Silicon Valley and beginning in Spring 2018, with the founding president, the FEW Club began organizing training in basic coding skills (from Excel to Stata to Python), all of which are used in the California Bay Area job market. As of Spring 2020, the club has converted the coding workshops into a coordinated annual weekend event, in which the students will learn the basics and introductory skills for R, Python, and SQL. In addition to developing and organizing an annual coding workshop, the FEW Club also organized an event dedicated to learning business etiquette, including how to conduct themselves during networking events, distributing business cards, and meal-based interviews. The club is also

planning an upcoming resume workshop in preparation for spring- based graduation and job seeking. These skills facilitate the alumni network of the club from graduates in Spring 2019, some of whom are still involved in supporting the club and its new members. They have also begun planning more events, including possible speaker visits to campus, with the general Economics Club (which is seen to be exclusively made up of male students).

3. SURVEY METHODOLOGY

In order to assess the perception of a FEW club among economics students, we distributed a voluntary survey to students at our respective universities. We drew on the survey literature on gender differences in economics as well as survey literature on student surveys (Dyner and Rouse 1997; Calkins and Welki 2006; Jensen and Owen 2000, 2001; Bansak and Starr 2010). The survey was developed and distributed using Qualtrics. The survey consisted of 19 questions, including two questions specifically related to the FEW club and its impact (the full list of questions are reported in Results). We also included questions assessing students' choice of major, their course preparation before taking an economics classroom, and basic demographic factors such as gender, and class year (freshman, sophomore, junior, senior or above, and alumni). There were 114 responses in total, with 71% from Samford University and 29% from San José State University.

4. SURVEY RESULTS

4.1. Demographic and Academic Factors (Questions 1 – 11)

We first asked students some baseline demographic and academic factor questions. Summary statistics for demographic factors are presented in Table 1. We have a nearly equal number of male and female respondents, with more than half of responses coming from the Samford University business school. Overall, male and female students are

demographically similar in this sample. Most students are seniors or above, and most have not transferred in from another university. About half of students are in the economics or finance majors.

Summary statistics for academic factors are presented in Table 2. Most students report being either A or B students, and most students, despite being seniors or above, report taking no math class higher than Calculus I before taking their first economics class. About 8% of students found that the number of women in their economics classes was more than expected, and 19% reported that the number of women in their economics classes was less than they expected. About a third (33%) of students are considering graduate school in economics or finance.

Table 3 reports results specifically for female students who say they will major in Economics or Finance. The female finance and economics majors seem otherwise comparable to the rest of the respondents in Table 2, except that here, about 57% of respondents are considering graduate school in economics or finance – 22% higher than the overall sample.

4.2. Factors Positively Influencing Choice of Major (Questions 12 – 13)

We next asked students to report the factors which positively influenced their choice of major, including role models. Table 4 presents the responses to Question 12, “What factors positively influenced your choice of major? Check all that apply:”. We report both the frequency overall and the proportion of female students who selected a given influence. The highest response was for “Interest in the subject” (96 respondents), followed by “Expected job marketability after graduation” (72 respondents). Other popular answers included “Expected income after graduation”, “Interest in current events”, and “Role

models in my chosen profession”. Notably, the following answers had significant differences in proportions at the 5% level: “Interest in the subject” (92% of respondents were female), “Interest in current events” (45% of respondents were female), and “Role Models in my chosen profession” (38% of respondents were female).

We note that female students are about twice as likely to say that a role model in their chosen profession influenced their choice of major. This is a significant difference using a two-tailed difference in proportions test (p -value = 0.02). Porter and Serra (Forthcoming) demonstrated a causal effect of exposure to dynamic female role models on the decision to take additional economics classes. We do not have a similar test of the causal impact of our guest speakers or clubs. However the survey suggests that FEW may impact major choices at the margin.

Table 5 presents the responses to Question 13, “Who were the positive influences on choosing your major? Check all that apply:”. We again report both the frequency overall and the proportion of female students selected a given influence. The highest response was for “Faculty in the major” (58 respondents) followed by “Peers/friends recommendation” (57 respondents) and “Parent/guardians” (49 respondents). Once again, we found significant differences in proportions for two responses: “Parent/guardians” (61% of respondents were female) and “Role models in my chosen profession” (41% of respondents were female). Figure 1 illustrates the results for Table 5, with clear differences in factors by gender. Notably, “Guidance counselors” and “High school teachers” influenced very few female respondents. Female students report being more heavily influenced by their parents than male students. This is consistent with a Google survey which indicates that encouragement from parents was the most influential factor for women who choose to

study computer science (“Women Who Choose Computer Science— What Really Matters” 2014). High school teachers and guidance counselors from the past have less influence than parents, friends, and college faculty.

4.3. Additional Survey Questions and Open Responses (Questions 14 – 17)

We also asked students to answer questions regarding whether FEW activities impacted their choice of major, and whether they were members of the FEW Club. Table 6 reports these results. Students in the economics and finance majors who responded to the survey were majority male. FEW members also report being majority female. One student reported their gender as “Other”. Two of the FEW members reported as male. Female respondents were more likely than male respondents to say that FEW increased their interest in their major. Most male respondents said that FEW had little effect on their interest.

4.4. Responses to Survey Questions on the Impact of FEW (Questions 18 – 19)

After answering 17 multiple-choice questions, we asked only students who are FEW members to provide written accounts of how FEW affected them. We here quote responses from FEW members to the question “If you are a member of the FEW (Finance and Economics Women) club, please describe the impact that FEW has on your choice of major.”

1. It's not changed my major, but I've certainly enjoyed my involvement enabling me to have important conversations
2. Allowed me to see different career options and has empowered and inspired me to see other women succeed in the business world
3. No impact on my major just interested.

4. It's been positive
5. It further increased my interest in my major and helped me get more information/opportunities that were previously unavailable to me through the university (ex:Coding classes)
6. The women in FEW are confident and smart. They inspire me to do well in my courses and to challenge the stereotypical. This organization has helped me feel more confident in my chosen major because it has helped me make connections within and outside our university.
7. So far it has made me more interested in economics as a major or minor.

We next report a sample of responses from FEW members to the question: "If you are a member of the FEW (Finance and Economics Women) club, please describe the impact that FEW has on your perception of women in finance and economics."

1. An opportunity to network and meet people
2. None
3. It's been encouraging to see initiative promoting the increase of women pursuing business-related professions
4. Encouraged me
5. Hard workers, diligent, determined, and confident
6. Respect for the women whom are in the finance and economics department and their dedication for it.
7. It hasn't had much of an affect

8. It has encouraged me to meet more women in this field. It helps me to recognize that there are positions out there for women and if I'm interested in them, I am empowered and supported to pursue it.
9. It give me a sense of solidarity to know that there are other women in economics and finance.
10. Honestly, it was nice to see more women in my field in general. Most of my economics classes only have/had a handful of women - really, I could/can count them on one hand. FEW just made it clear that there were more of us women out there.

Some FEW members replied that they had already selected their major by the time the club formed. It is clear that some female students would have selected economics or finance majors without the FEW Club. Responses indicated that female students appreciated the club and report being influenced by the role models they found through the organization.

5. DISCUSSION AND APPLICATIONS TO OTHER UNIVERSITIES

One conclusion we can draw from our survey is that female college students today choose their majors for different reasons than their male peers. This supports the idea of providing a different kind of support for female majors in technical fields. Not surprisingly, female students were more likely than male students to report that FEW Clubs increased their interest in associated majors.

Interestingly, most students did not say that role models in their profession were influential. However, many more female students than male students selected this option. This confirms the idea that motivated the formation of the FEW Network. Female students

today may lack positive role models in male-dominated professions. Therefore we seek to expose young women to all of the options that are available to them.

We find in two separate questions that female students are more influenced by role models when they are choosing a college major (this includes responses from female students who are not economics or finance majors). It follows from this that providing positive role models who are using a skill from a certain major might help young women envision themselves in professions. An example of this from a different setting comes from Beaman et al. 2012 who found that more women in government councils in India affected young women and reduced the gender gap in educational attainment among adolescents. Previous research in economics also finds support for the effect of same-gender role models on female students in particular (Dee 2007; Bettinger and Long 2005).

Another result from the survey that we had not anticipated was that female students are more likely to report being interested in their chosen subject. Despite the fact that women are often in the minority in economics-related classes, this suggests that they might be more interested in the subject than some of the male students. Male students may have other reasons for selecting into majors that pay off financially.⁶

Our survey indicates that FEW might have a modest effect on young women's decisions. As of this survey, most respondents report that FEW had no effect on their major choice. However, previous causal research found that encouragement within classes can particularly support female students (Owen 2010). Encouraging people to switch into a major they would not have otherwise chosen is not the main goal of FEW. If it were the case that FEW has no impact on major choice, that would not diminish our mission. FEW serves to

⁶ Black, Sanders, and Taylor (2003) demonstrate that students with undergraduate degrees in economics earn more than similar individuals with other majors.

support all of our students to succeed professionally through enhancing skills and networking. Thus, we are pleased to see a few of the written responses include words such as “encouraged”.

6. CONCLUSION

We have seen benefits to our female students from engaging with the FEW network. Additionally, male students have also benefitted from attending events, such as a panel on salary negotiation at Samford, and male students from the Economics Club at SJSU have reached out to the FEW Club to coordinate more events than they had before the development of FEW. This suggests there may be positive spillover effects on student engagement and activity not directly captured by students’ choice of major. Even events that specifically discuss issues like sexual harassment in the workplace benefit our male students as well as our female students. It is crucial for male students entering the professional world to be aware of the challenges faced by their female colleagues and the policies being put in place to help. We hope that the example of the first FEW clubs will inspire students and faculty at other schools to use this organizational form to enhance professional development for students, and encourage more female students to consider professional careers in economics and finance.

REFERENCES

- "AEA Professional Climate Survey: Main Findings." 2019. American Economic Association. 2019. <https://www.aeaweb.org/resources/member-docs/climate-survey-results-mar-18-2019>.
- Avilova, Tatyana, and Claudia Goldin. 2018. "What Can UWE Do for Economics?" *AEA Papers and Proceedings* 2 108: 186–90.
- Bansak, Cynthia, and Martha Starr. 2010. "Gender Differences in Predispositions Towards Economics." *Eastern Economic Journal* 36 (1): 33–57.
- Bayer, Amanda, and Cecilia Elena Rouse. 2016. "Diversity in the Economics Profession: A New Attack on an Old Problem." *Journal of Economic Perspectives* 30 (4): 221–42.
- Beaman, Lori, Esther Duflo, Rohini Pande, and Petia Topalova. 2012. "Female Leadership Raises Aspirations and Educational Attainment for Girls: A Policy Experiment in India." *Science (New York, N.Y.)* 335 (6068): 582–86. <https://doi.org/10.1126/science.1212382>.
- Bettinger, Eric P., and Bridget Terry Long. 2005. "Do Faculty Serve as Role Models? The Impact of Instructor Gender on Female Students." *AEA Papers and Proceedings* 95 (2): 152–57.
- Black, Dan A., Seth Sanders, and Lowell Taylor. 2003. "The Economic Reward for Studying Economics." *Economic Inquiry* 41 (3): 365–77.
- Calkins, Lindsay Noble, and Andrew Welki. 2006. "Factors That Influence Choice of Major: Why Some Students Never Consider Economics." *International Journal of Social Economics* 33 (8): 547–64.
- Dee, Thomas S. 2007. "Teachers and the Gender Gaps in Student Achievement." *The Journal of Human Resources* 42 (3): 528–54.
- Dynan, Karen E., and Cecilia Elena Rouse. 1997. "The Underrepresentation of Women in Economics: A Study of Undergraduate Economics Students." *The Journal of Economic Education* 28 (4): 350–68.
- Goldin, Claudia, Lawrence F. Katz, and Ilyana Kuziemko. 2006. "The Homecoming of American College Women: The Reversal of the College Gender Gap." *Journal of Economic Perspectives* 20 (4): 133–56.
- Jensen, Elizabeth J., and Ann L. Owen. 2000. "Why Are Women Such Reluctant Economists? Evidence from Liberal Arts Colleges." *AEA Papers and Proceedings* 90 (2): 466–70.
- . 2001. "Pedagogy, Gender, and Interest in Economics." *The Journal of Economic Education* 32 (4): 323–43.
- Owen, Ann L. 2010. "Grades, Gender, and Encouragement: A Regression Discontinuity Analysis." *The Journal of Economic Education* 41 (3): 217–34.
- Porter, Catherine, and Danila Serra. n.d. "Gender Differences in the Choice of Major: The Importance of Female Role Models." *American Economic Journal: Applied Economics*. Accessed December 14, 2019. <https://doi.org/10.1257/APP.20180426>.

- Stoet, Gijsbert, and David C Geary. 2018. "The Gender-Equality Paradox in Science, Technology, Engineering, and Mathematics Education." *Psychological Science* 29 (4): 581–93. <https://doi.org/10.1177/0956797617741719>.
- "Student Interactive Enrollment Report." n.d. San Jose State University. <http://www.iea.sjsu.edu/Students/enrollment/>.
- "Student Quick Facts." 2019. San Jose State University. 2019. <http://www.iea.sjsu.edu/Students/QuickFacts/>.
- "Women Who Choose Computer Science— What Really Matters." 2014. Google. 2014. <https://static.googleusercontent.com/media/edu.google.com/en//pdfs/women-who-choose-what-really.pdf>.

TABLES AND FIGURES

Table 1. Survey Questions on Demographic Information

Question	Response Choice	Frequency	Percent
Q1: Your Gender:	Female	49	43%
	Male	64	56%
	Other	1	1%
Q2: What academic year are you in?	Freshman	5	4%
	Sophomore	3	3%
	Junior	8	7%
	Senior or above	91	78%
	Alumni	7	6%
Q3: Your transfer status:	I did not transfer in from another university	93	82%
	I transferred in from another university	21	18%
Q4: What is your major?	Economics	35	31%
	Finance	26	23%
	Accounting	10	9%
	Another major within the business school	38	33%
	Math	0	
	Computer Science	1	1%
	Another major	4	4%
	Undeclared	0	
Q5: Is your major type a:	B.A.	51	45%
	B.S. or B.S.B.A.	63	55%

Table 2. Survey Questions on Academic Factors

Question	Response Choice	Frequency	Percent
Q6: What was your grade in your first economics class?	A (A-, A, or A+)	49	43%
	B (B-, B, or B+)	49	43%
	C (C-, C, or C+)	14	12%
	D or F	2	2%
Q7: Did you expect the grade you got in your first economics class? Was that grade better or worse than your performance in other courses?	Better	20	18%
	About the same	72	63%
	Worse	20	18%
	I have not taken an economics class in college yet	2	2%
Q8: What is the highest level math class you took prior to taking your first economics class?	Pre-calculus	50	44%
	Calculus I	46	40%
	Calculus II	8	7%
	Linear algebra or higher	9	8%
	I have not taken an economics class in college yet	1	1%
Q9: Were you considering majoring in your declared major when you took your first economics class?	Yes	65	57%
	No	48	42%
	I have not taken an economics class in college yet, or I have not yet declared a major	1	1%
Q10: Was the number of women in your economics classes:	More than you expected	9	8%
	About what you expected	81	71%
	Less than you expected	22	19%
	I have not taken an economics class in college yet	2	2%
Q11: Are you considering graduate school in economics or finance?	Yes	38	33%
	No	76	67%

Table 3. Survey Questions on Academic Factors for Female Finance & Economics Majors

Question	Response Choice	Frequency	Percent Female
Q6: What was your grade in your first economics class?	A (A-, A, or A+)	11	48%
	B (B-, B, or B+)	10	43%
	C (C-, C, or C+)	2	9%
	D or F	0	
Q7: Did you expect the grade you got in your first economics class? Was that grade better or worse than your performance in other courses?	Better	5	22%
	About the same	16	70%
	Worse	1	4%
	I have not taken an economics class in college yet	1	4%
Q8: What is the highest level math class you took prior to taking your first economics class?	Pre-calculus	10	43%
	Calculus I	8	35%
	Calculus II	2	9%
	Linear algebra or higher	3	13%
	I have not taken an economics class in college yet		
Q9: Were you considering majoring in your declared major when you took your first economics class?	Yes	11	48%
	No	12	52%
	I have not taken an economics class in college yet, or I have not yet declared a major	0	
Q10: Was the number of women in your economics classes:	More than you expected	2	9%
	About what you expected	15	65%
	Less than you expected	5	22%
	I have not taken an economics class in college yet	1	4%
Q11: Are you considering graduate school in economics or finance?	Yes	13	57%
	No	10	43%

Table 4. Survey Questions on Factors That Positively Influence Choice of Major

Q12: What factors positively influenced your choice of major? Check all that apply:	Frequency	Percent Female
Interest in the subject	96	92%**
Expected job marketability after graduation	72	59%
I have always done well in my major classes	43	29%
The approachability or friendliness of the faculty	29	29%
The teaching reputation of faculty in the department	20	14%
Representation of women in the faculty	8	10%
Expected income after graduation	56	45%
Interest in current events	37	45%**
Preparation for graduate school	15	14%
The availability of internships	32	35%
Previous high school courses	17	14%
Role models in my chosen profession	49	38%**

*Note: ** indicates that females were more likely to choose this option (p -value < 0.05 in a two-tailed test of difference of proportions)*

Table 5. Survey Questions on Influential People on the Choice of Major

Q13: Who were the positive influences on choosing your major? Check all that apply:	Frequency	Percent Female
Faculty in the major	58	55%
Peers/friends recommendation	57	53%
High school teachers	20	16%
Parent/guardians	49	61%**
Guidance counselors	14	10%
Role models in my chosen profession	35	41%**

*Note: ** indicates that females were more likely to choose this option (p-value < 0.05 in a two-tailed test of difference of proportions)*

Figure 1. Influential People on the Choice of Major, Frequency by Gender

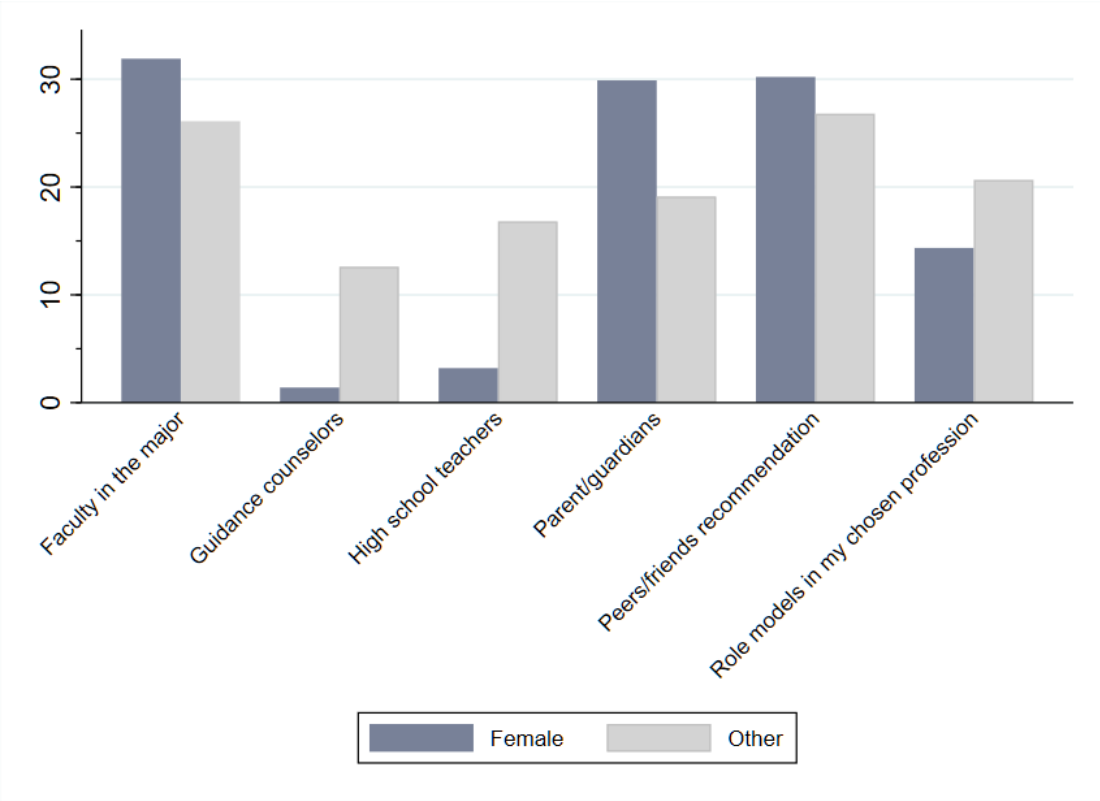


Table 6. Additional Survey Questions

Question	Response Choice	Frequency	Percent
Q14: To what degree does the availability of extracurricular activities for women in finance and economics (the FEW club) impact your interest in finance and economics majors?	It increases my interest	29	26%
	It's about the same	76	69%
	It decreases my interest	5	5%
Q18: My college is located in	Alabama	81	71%
	California	33	29%
Q19: My first economics class was	smaller than 45 students	102	89%
	larger than 45 students	12	11%
Q17: Are you a member of the FEW (Finance and Economics Women) club?	Yes	19	17%
	No	95	83%

APPENDIX – CLUB CONSTITUTION TEMPLATE

Finance and Economics Women's Club Constitution

Article I: Name

The name of this organization shall be Finance and Economics Women's Club, also known as FEW.

Article II: Purpose

The purpose of this organization shall be to expose and inform college students, especially women, about careers in Finance and Economics, as it has been shown to increase the number of women who go on to continue into higher level Finance and Economics classes. We exist to encourage diversity by showing young women that it is possible to pursue a technical field and to be bold in their choice of career path.

Article III: Membership

Section 1: Membership shall be open to all [UNIVERSITY NAME] students.

Section 2: No member may be removed from membership without having an open hearing and then by no less than a majority vote at a regular meeting.

Section 3: FEW complies with [UNIVERSITY NAME] policy prohibiting discrimination in its educational and employment policies and does not unlawfully discriminate on the basis of race, color, sex, age, disability, veteran status, genetic information, or national or ethnic origin.

Article IV: Officers

Section 1: The officers of this organization shall be President, Vice President and Treasurer.

Section 2: All officers will be elected by the third meeting in the Fall Semester and will serve an academic year long term. Officers will be elected by majority of those present at said meeting.

Section 3: No officer may be removed from office without first having an open hearing and then by no less than a majority vote at a regular meeting.

Section 4: Office vacancies will be filled by special election at the meeting after the vacancy occurs.

Article V: Officer Responsibilities

Section 1: President

- Promote FEW and engage with potential members
- Welcome the guests and speakers and serve as their student contact
- Serve as a liaison between the advisor and other members of FEW
- Establish meeting days/times, agendas and presentations
- Social media and marketing
- Event and meeting set up

Section 2: Vice President

- Assist the President in any responsibilities stated above
- Fill in for the President if needed
- Assist in organizing meetings and presentations
- Ensure meeting places are reserved
- Ensure communications are sent out after every monthly meeting
- Social media and marketing
- Events and meetings set up

Section 3: Treasurer

- Handle Finances
- Submit documentations needed for Associated Students when funding is needed
- Understanding funding limitations through school organizations
- Fill in for President and Vice President when needed
- Social media and marketing
- Events and meetings set up

Article VI: Meetings

FEW will meet each semester to prepare for upcoming events. Additional meetings will be called if necessary, and will be communicated with the members via email. These meetings will be called by the majority agreement of the members at the first meeting each month based on available times and then officially set by the President, Vice President and Treasurer.

Meetings throughout the semester will include outside speakers, workshops and team bonding events.

Article VII: Quorum

Section 1. Proposed amendments to this constitution or the by-laws of this constitution shall be presented at a regular meeting at least one meeting prior to being discussed and voted upon.

Section 2. Having been properly presented, amendments may be adopted by a majority vote of the members present at a regular meeting.

Section 3. Amendments shall go into effect immediately upon adaptation.

Article VIII: Financial Operations

Section 1. There shall be no cost for membership in this organization.

Section 2. Should FEW go dormant or inactive, any remaining funding associated with the organization should be controlled by the president, vice president and treasurer to be distribute to other sister organizations.