

From Career Choice to Degree Completion: Experiences of Engineering Colombian Women

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Abstract — Governments and global organizations have long called for action to address gender disparities in engineering. Despite these efforts, women's representation in engineering colleges and the workforce remains consistently low worldwide, with only about 20% of engineering degrees earned by women, and a mere 11% of engineers in the labor market being women. There is a need to delve deeper into women's experiences in the engineering field to understand where we fall short in attracting and retaining them. The primary goal of the work described in this paper is to contribute to the existing literature on women's experiences in engineering in Latin America by examining the experiences of female alumni and senior students at the College of Engineering at Javeriana University in Colombia. Our study involved a cross-sectional survey of 292 women, encompassing both close-ended and open-ended questions about their motivations, sources of support, challenges, and discouragements they encountered while pursuing their engineering studies at a large private university in Colombia. Through this research, we found the general situations these women encountered in choosing their careers and subsequently navigating an academic environment where they were a distinct minority.

Keywords: Women in engineering, career choice, academic settings, barriers, motivations.

JEET Category: Research

I. INTRODUCTION

THE pursuit of gender parity in Engineering stands as a critical objective advocated by global initiatives, including those supported by the World Economic Forum (World Economic Forum, 2022). Women's involvement in engineering, besides being a matter of equity, is essential for ensuring that products and technologies meet the diverse needs of all users (Hill et al., 2010). Historical oversights, such as designing voice-recognition systems primarily attuned to male voices or

vehicle safety features tailored to adult male bodies, underscore the necessity for integrating female perspectives in engineering endeavors (Fisher & Margolis, 2003). Furthermore, gender disparities in engineering contribute to the perpetuation of economic gender gaps by limiting women's access to high-paying occupations. Nevertheless, despite ongoing efforts, women remain significantly underrepresented in engineering, particularly within disciplines heavily reliant on physics and mathematics (Bossart & Bharti, 2017; Guzmán-Pardo & Herrera-Quintero, 2023; Cano Morales et al., 2021). Statistics reveal a persistent gap, with women receiving only 20% of engineering degrees (Bossart & Bharti, 2017), and holding a mere 16% of engineering positions in the US (Women's Bureau, 2024). These figures underscore the pressing need to engage and empower women in engineering fields, not only for the sake of gender equality but also for fostering scientific and technological innovation on a global scale (García-Holgado et al., 2019).

The challenges for women in engineering begin early and persist throughout their careers. From the initial stages of career selection to entry into the job market, women navigate a predominantly male field often characterized by gender role stereotypes that influence their attitudes toward learning and self-confidence (OECD, 2015; Osorio et al., 2020). Societal expectations and stereotypes can dissuade many girls from pursuing science-related careers, even when they demonstrate proficiency in science and mathematics (OECD, 2015). Studies highlight the influence of parental expectations, with many parents favoring engineering as a career path for their sons over their daughters, irrespective of their career performance (OECD, 2015; Vieira do Nascimento et al., 2021)

Moreover, the dearth of female role models in science and engineering further perpetuates the notion that engineering is an

unconventional choice for women (Osorio et al., 2020; Moloney et al., 2022). Within academic settings, female students may encounter hostile environments characterized by biased treatment from professors, exacerbating feelings of inadequacy and alienation (García et al., 2014; Moloney et al., 2022). Such experiences can prompt women to reconsider their academic and professional trajectories (Cech et al., 2011), particularly in the absence of a supportive network (Moloney et al., 2022; Verdugo et al., 2021). Consequently, some women may opt to switch majors or abandon their engineering aspirations altogether (Verdin et al., 2018).

In response, various initiatives aimed at attracting women to engineering have been launched, such as the "University of Granada Technological Campus for Girls" and the "Tech & Ladies" project in Spain (Tech&Ladies, 2024; Paderewski-Rodríguez et al., 2017). While these initiatives have succeeded in increasing enrollment, they also highlight a parallel need: to concurrently address the stereotypes and gender discriminations that women face once they enter engineering programs.

While the challenges women face when choosing and pursuing engineering are well-documented, most of this research has been conducted in the United States and Western Europe. In Latin America, this subject has received comparatively less attention. The scarce literature that does exist reveals findings that both echo and diverge from the global narrative. Studies have identified the strong masculine culture prevalent in engineering programs across the region (Vázquez-Miraz et al., 2022; Arango Gaviria, 2006), the lack of feminine role models, and the significant impact of those models on encouraging women to pursue engineering degrees (Palacio Martínez, 2021; Herrera et al., 2021). Research has also documented gender role stereotypes among students that affect women's attitudes toward learning and self-confidence (Arango Gaviria, 2006). Additionally, studies have revealed women's underrepresentation in engineering careers across Latin America, prompting institutional efforts to promote and give visibility to women in the field ((Vázquez-Miraz et al., 2022; Palacio Martínez, 2021; Herrera et al., 2021; Bautista Díaz et al., 2020). However, these studies remain scarce and are often limited in scope (Zepeda et al., 2021; Rojas. S., 2021) leaving a significant gap in our understanding of how the intersecting influences of institutional culture, societal expectations, and regional context shape women's experiences in specific Latin American countries.

Although global literature has extensively documented the barriers, motivations, and gendered experiences of women in engineering, most empirical studies come from the United States, Europe, or Asia. In Latin America, and particularly in Colombia, research remains limited and fragmented, often focused on small samples, isolated case studies, or descriptive qualitative accounts. Consequently, there is insufficient quantitative evidence exploring women's experiences across multiple stages of their academic trajectory—from career choice to persistence—within engineering programs in the region. This study addresses this gap by providing one of the largest datasets of female engineering alumni and senior

students in Colombia, a national context that remains significantly underrepresented in the global STEM gender literature, offering empirical insights that can inform institutional policies in similar Latin-American contexts.

While the broad themes of barriers and supports for women in engineering are well established, the specific ways these dynamics manifest within Colombian higher education institutions have not been systematically examined. The novelty of this work lies in its large-scale empirical dataset from the College of Engineering at Pontificia Universidad Javeriana (PUJ) in Bogota, Colombia. This context is particularly valuable because it allows for an examination of whether findings from the U.S.A. and Europe are transferable to a Latin American setting with its own unique cultural, social, and educational dynamics (Bermello et al. 2024). Furthermore, with 292 survey respondents, a substantial sample size for this type of research in the region, this study offers robust, generalizable insights that smaller, qualitative studies cannot provide.

Therefore, this paper presents the results of a cross-sectional study seeking to understand the experiences of women in the School of Engineering at PUJ.

The primary research question guiding this study is: What are the prevailing motivations, supports, challenges, and discouragements encountered by women pursuing engineering majors at PUJ in Colombia. Our survey, comprising a mix of open-ended and closed-ended questions, probed into women's experiences across various stages of their careers, from career choice to experiences in academic and workplace settings. In this paper, we present the results pertaining to the initial two stages: career choice and academic settings. Understanding women's experiences in PUJ's College of Engineering is crucial for developing targeted, evidence-based initiatives that foster an environment where women not only survive but thrive in the field of engineering—both in Colombia and beyond.

This research lies in its examination of women's engineering experiences within a large, prestigious Colombian university, a context underrepresented in the global STEM-gender literature. With 292 participants—one of the largest samples reported in the region—this study provides quantitative evidence rarely available in Latin America and offers an institutional perspective that complements global findings.

II. METHODS

A. Sampling

Initially, our aim was to reach approximately 40 female alumni and senior students majoring in electronic engineering at PUJ. We employed convenience sampling by reaching out to alumni through LinkedIn and utilized a chain-referral method for senior students. However, alumni and senior students from other engineering majors also expressed interest in participating in the study, prompting us to open the study to all engineering majors within PUJ. The response rate exceeded expectations, and ultimately, we gathered a sample of 292 respondents from various majors.

B. Research Site

The Private University, located in Bogotá, Colombia, stands out as one of the most prestigious in the country. With more than 3,800 students, it offers 8 undergraduate programs, 13 master's degrees, 7 specializations, and 2 doctorates. It ranks in the top 5 of the best engineering schools in Colombia, being recognized for its focus on the integral training of professionals with technical skills, innovation capacity, leadership, and social commitment.

C. Participants

A total of 292 women, either holding engineering degrees or in their senior year at PUJ, participated in the survey. Among them, 257 (88%) were professionals, while 35 (12%) were senior students. Within the professional group, 45 (17.5%) had graduated in the past 5 years, 68 (26.5%) between 5 and 10 years ago, 118 (45.9%) between 10 and 20 years ago, and 22 (8.6%) between 21 and 26 years ago. In terms of majors, 238 (81.5%) respondents were from electronic engineering, 27 (9.2%) from industrial engineering, 12 (4.2%) from civil engineering, 7 (2.4%) from systems engineering, 5 (1.7%) from chemical engineering, 1 from electrical engineering, 1 from the Master of electronic engineering, and 1 from the Master of Business and engineering. Most of the participants were from electronic engineering, because the study initially targeted electronic engineering students, 81.5% of responses originate from this major, as explained in the sampling section.

This over-representation limits generalizability across other engineering disciplines within the institution. Findings should therefore be interpreted with caution and primarily as reflections of women's experiences in programs with similar demographic and cultural characteristics.

D. Survey design

The survey comprised 30 items, categorized into four sections: demographics, career choice, academic settings, and professional settings. Out of these, 10 were open-ended questions, allowing participants to provide detailed explanations, while 20 were closed-ended. The results presented in this study primarily focus on the closed-ended questions related to career choice and academic settings.

All the questions were created by the research team, informed by previous findings of the general themes and experiences that impact women's career motivations in Latin America or Spanish speaking contexts (Zepeda et al., 2021; Rojas, S., 2021). Items were designed to work as single independent items and were tested in a pilot stage with five students from electronic engineering.

Demographic questions included 5 items: engineering major, career stage (senior or alumna), year of graduation or expected graduation, type of high school attended (girls-only or mixed), and email addresses.

For career choice, participants responded to 3 multiple-choice questions, one yes/no question, and one open-ended question, aiming to understand the influences, reasons, and sources of motivation that led them to choose engineering as a career.

The section on academic settings consisted of 14 items, including 8 multiple-choice questions and 6 open-ended ones. These questions sought to uncover any barriers, discriminations, gender stereotypes, sources of support, and motivations experienced by women during their engineering studies. We collected participants' emails in order to share the investigation results with them and to contact them for future research purposes.

E. Data Collection

The survey was distributed via email, where participants were directed to an online survey hosted on Outlook forms through an institutional account. Data collection took place between May and July 2021. Of the 292 responses, 288 were complete and 4 had an invalid year of graduation. No responses were excluded from the data analysis.

F. Data Analysis

All analyses were conducted with de-identified data, by removing email addresses.

The study adopted a descriptive analytical design consistent with its exploratory purpose. The purpose was to document broad trends and characterize women's experiences across career stages, thus descriptive statistics and deductive coding were selected as analytical methods for this initial assessment. Although inferential techniques could be incorporated in future work, the present study prioritizes mapping patterns across a large sample to inform deeper follow-up analyses.

Descriptive statistics were applied to the closed-ended questions in the sections pertaining to career choice and academic settings.

Deductive coding was conducted for open-ended questions, using as codes the reported factors that influence women's decision-making process (Castaño et al. 2024; Gómez et al., 2021; Guevara, M., 2021 & Rojas, S. 2021). First, all answers were reviewed to identify recurring themes. Second, responses were grouped into preliminary categories (e.g., discrimination, stereotypes, academic limitations, support networks). Third, representative excerpts were selected to illustrate each category. Given the exploratory nature and breadth of the dataset, the qualitative analysis was descriptive rather than based on full coding saturation. Future work will incorporate more systematic coding techniques.

III. RESULTS AND DISCUSSION

A. Career choice

When making career decisions, an individual's environment plays a crucial role in shaping their choices. To understand which groups influenced or discouraged participants in pursuing engineering, we asked them the sources of motivation or discouragement in their career choice. In this question, we included intrinsic motivation (Own-self) as potential sources of motivation or discouragement.

Table I displays the response counts for each surrounding group and the type of influence they exerted. From Table I we see that women's motivation for choosing engineering was predominantly intrinsic (own-self), followed by family and

professors' motivation. These findings underscore the importance of involving both professors and family members in efforts to attract women to engineering.

Additionally, Table I shows Society as the major source of discouragement. In future investigations, it would be worth delving into which aspects of society discouraged some of the respondents when they were choosing their careers.

The "Others" category allowed participants to share additional sources of motivation or discouragement. Participants mentioned various sources of motivation, including female engineering role models, financial support from family, literature, robotic groups, university open houses, the university's webpage, scientific outreach, and the sense of purpose in engineering to address societal challenges. On the other hand, sources of discouragement included social media and stereotypes.

Another noteworthy factor influencing career choice is the presence of an engineer in the family. Of the respondents, 216 (73.9%) reported having an engineer or future engineer in their families, suggesting a potential correlation between having a family member in engineering and choosing it as a major.

Additionally, an exploration of the point in time at which women decided to pursue an engineering degree was performed, depicted in Figure 1.

The majority made this decision during high school or after completing high school. Specifically, a significant portion of participants (n=122) made their choice during high school, likely influenced by exposure to science and technology-related classes. However, a larger majority (n=138) made their decision after finishing high school. This unexpected finding needs further investigation to understand the factors that influenced women to choose engineering after high school.

Participants' perceptions of attitudes towards women in engineering were also examined. As depicted in Figure 2, 218 (74.6%) respondents reported that society believes engineering is not a suitable career for women. However, it's important to acknowledge that the results of this question may have been affected by the absence of a "other" or "none of the above" options, which could have led some respondents to select society as the default option.

When considering these results in conjunction with those from Table I, it becomes evident that while women recognize societal skepticism towards women in engineering, they perceive it as having minimal impact on their own career choices.

This lack of acknowledgment may be attributed to the coping mechanisms women employ in the face of discriminatory circumstances.

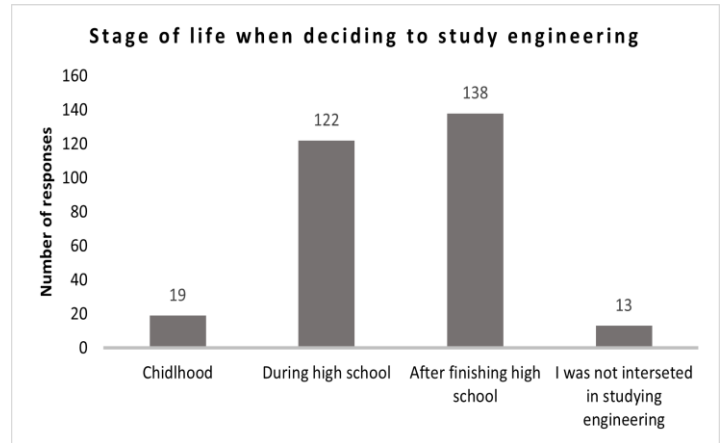


Fig. 1. Stage of life when deciding to be an engineer

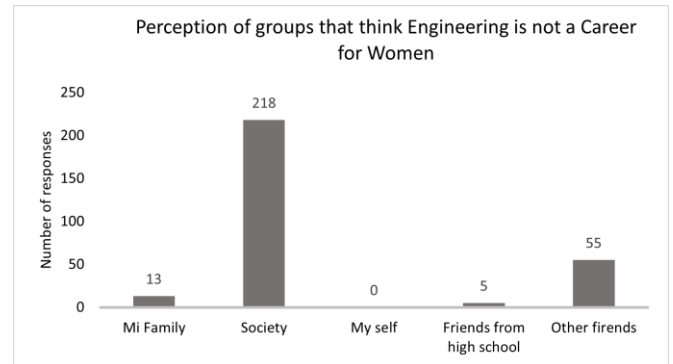


Fig. 2. Perceptions of attitudes toward women in engineering

Existing literature suggests that under gender discrimination, women tend to rationalize and normalize the situation, thereby downplaying its impact on their lives (García Villa & and González y González, 2014; Arthur B et al., 2020; Brittany & Batsheva. G., 2020; Tonso, 1996).

The findings in Figure 2, also prompt us to contemplate how societal stereotypes about engineering's unsuitability for women might influence those who opt out of pursuing engineering as a major due to these perceptions.

Figure 2 illustrates a paradox: although most respondents perceive society as holding negative views about women in engineering, they do not attribute these views as discouraging their own decisions. This may reflect a distancing mechanism in which women acknowledge societal stereotypes yet interpret themselves as exceptions, a phenomenon widely documented in gender-studies literature.

B. Academic settings

We sought to understand how participants' gender affected various aspects of their academic journey (Table II).

Notably in Table II, the majority reported that their gender did not have an impact, followed by positive effects on motivation and efforts in academic performance. While in the

TABLE I
SOURCES OF MOTIVATION OR DISCOURAGEMENT FOR CAREER CHOICE

Counts	Own-self	Family	Couple	Peers	Friends	Professors	Directives	Society	Others
It motivated me	277	260	61	97	132	171	94	82	22
It discouraged me	2	15	5	12	7	25	10	46	4
Neutral	13	17	226	183	153	96	188	164	266

TABLE II
GENDER IMPACT IN SPECIFIC AREAS DURING COLLEGE

Counts	Motivation for academic performance	Effort in academic performance	Discrimination in the treatment received (from professors, peers, staff)	Insecurity of being in a male-dominated environment
Positive impact	106	109	20	28
Negative impact	14	15	46	61
Positive and negative impact	52	49	99	66
No impact	120	119	127	137

“negative impact” category, respondents indicated the highest negative influence stemmed from feelings of insecurity in male-dominated environments and experiencing discrimination in their interactions.

The high number of responses in positive impact in motivation and academic effort, aligns with previous research highlighting how women with intrinsic motivation and self-efficacy tend to persist in engineering. Nevertheless, these results also prompt reflection on the experiences of women who experienced a decline in motivation and self-efficacy. This paper explores the average tendency, but future work will focus on the experiences of the 14 and 15 women who had a negative impact in their motivation and academic effort, respectively.

The predominance of responses indicating "No Impact" in Table II is consistent with the tendency of women to rationalize and normalize discriminatory experiences, thereby mitigating their perceived impact. However, when asked to elaborate on the barriers they faced during college in an open-ended question, 128 respondents (43.8%) cited gendered experiences with negative impacts. Table III presents excerpts illustrating the different themes found in this open-ended question. Themes highlight specific barriers within the participants' narratives.

The discrepancy between the 15.7% of participants who reported discrimination in the closed-ended question and the 43.8% who described gender-based barriers in their open responses suggests that negative experiences may be underreported when response options are constrained. This aligns with prior research indicating that women tend to normalize or downplay discriminatory events, particularly in male-dominated environments. Open-ended questions likely provided a safer space for participants to articulate nuances and specific incidents that may not have been captured through structured items.

Figure 3 presents the perceived sources of discrimination (*Male peers, Female peers, Men professors, Female professors, Male staff, Female staff, Others*) among participants. Notably, male students and male professors emerged as the primary sources of negative discrimination, signaling a need for increasing awareness and interventions addressing gender discrimination among these groups.

It is worth noting, however, that the overall number of reports regarding negative discrimination remained relatively low (14.3% and 12.6% for male peers and professors, respectively). This contrast opens the door for future research to explore what are the conceptualizations of what is considered negative discrimination, as in Colombia and Latin America, many behaviors that are associated with common cultural practices might go unnoticed and unreported.

The "Others" category in Figure 3, allowed participants to

share additional sources of discrimination. One participant's response stood out, highlighting discrimination based on pregnancy during college:

“Yo estuve embarazada en la universidad y recuerdo unas personas en la facultad, decirme que no debería estar en la universidad por estar embarazada. “

[I was pregnant during college, and I remember some people at the school telling me that I shouldn't be at the university because I was pregnant]

This response initiates an important discussion regarding the experiences of women who navigate pregnancy or motherhood while pursuing higher education.

We also sought to understand which groups in the participants' social circles encouraged or discouraged them in their pursuit of an engineering major, including the participants' selves. Table IV provides the response counts for each surrounding group and the type of influence they exerted.

Notably in Table IV, women reported deriving motivation primarily from themselves, their families, and their friends. Similar to the career choice findings (Table I), all groups were more frequently cited as a source of motivation than of discouragement. But Society retained its position as the primary source of discouragement.

Results from Table IV can be compared to those in Table I to observe how sources of motivation evolved from career choice to career persistence. Figure 4 offers a visual comparison of women's sources of motivation for initial career selection and their sources of motivation for persisting in their careers (*Own-self, Family, Partner, Peers, Friends, Professors, Directives, Society, Others*).

Figure 4 highlights a meaningful shift: as women advance in their studies, the influence of partners, peers, and friends becomes significantly stronger. This indicates that long-term persistence depends increasingly on horizontal social networks rather than parental or initial motivators.

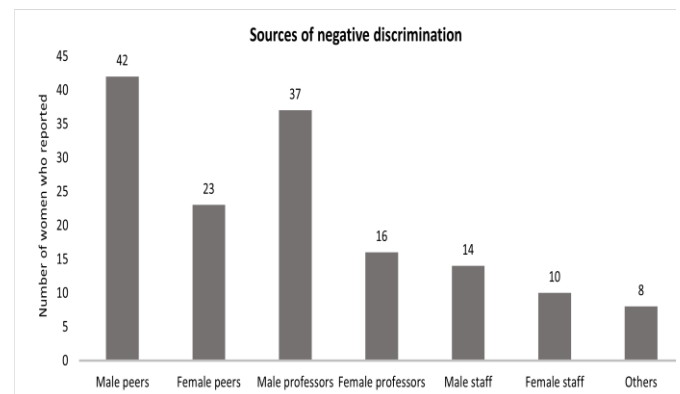


Fig. 3. Sources of negative discrimination

TABLE III
PARTICIPANT’S QUOTATIONS ABOUT THE BARRIERS FACED DURING COLLEGE

Answer (Translations were made by the authors)	Theme
“En ocasiones algunas tareas administrativas adicionales se esperan de las mujeres ingenieras comparado con los hombres.” [On occasions, some additional administrative tasks are expected from women engineers compared to men]	Women are expected to do additional administrative tasks.
“(…) durante la clase de introducción a la ingeniería nombre de la clase] nos tocaba trabajar programando un robot y a las mujeres de cada grupo no nos dejaban meternos con el código del robot (…)” [In the course of Introduction to Engineering we had to program a robot, and women of each group were not allowed to be involved with the code for the robot]	Women have fewer opportunities to be involved in the technical work in labs and course assignments.
“(…) nos enfrentamos a comentarios en los que se afirma que porque somos mujeres conseguimos las cosas con mayor facilidad y no necesariamente por mérito propio” [We face comments stating that because we are women, we get things easier and not for our own merit]	Minimize women’s skills and efforts by highlighting their gender.
“El prejuicio de poca habilidad cognitiva hacia la mujer por parte de algunos profesores y/o compañeros, debilita la confianza en sí misma (…)” [The stereotype about women’s low cognitive skills coming from professors and peers, undermines self-confidence]	Stereotypes about women having lower intellectual capabilities than men
“(…)Yo digo algo y tiene que reforzar mi opinión un hombre para que sea válida” [I say something and my opinión has to be endorsed by a man to be considered valid]	Overlooking women’s opinions and ideas unless a man validates them
“Mis ideas no eran escuchadas y tenían que ser validadas por hombres (…)” [My ideas were not listen and had to be validated by men]	
“Como mujer ingeniera existe la percepción de que debe ser muy inteligente, y eso pone una presión de ser mejor que todos los compañeros hombres.” [As a female engineer it exists the perception that it must be very smart, and that puts pressure to be better than male students]	Additional burden in performance expectations
“Algunos profesores realizan comentarios sexistas o incómodos frente a las mujeres, o algunos exigían que al exponer las mujeres debían llevar vestido” [Some professors make sexist or uncomfortable comments in front of women, or ask that women should wear a dress when doing presentations]	Sexual harassment
“Fui aceptada para hacer la práctica profesional con BP en Cusiana y Cupiagua. Sin embargo, la facultad considero que era riesgoso enviarme a un ambiente masculino y no me aprobaron la práctica.” [I was accepted to do an internship with BP in Cusiana and Cupiagua. However, the college [representatives] considered that it was risky to send me to a male-dominated environment and did not approve the internship]	Gender discrimination. Limitation to opportunities access.

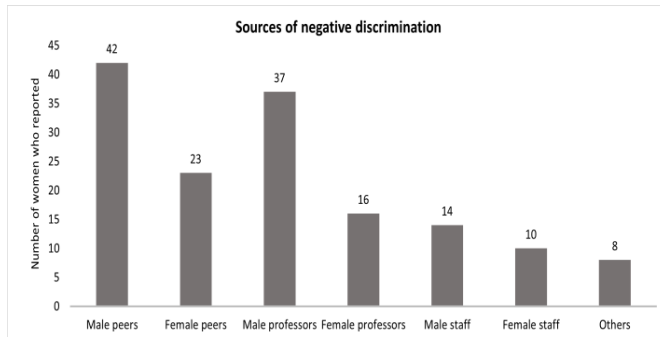


Fig. 4. Comparison between sources of motivation for career choice and persistence.

CONCLUSIONS

This study examined the motivations, supports, challenges, and discouragements experienced by female engineering students and alumni from a major Colombian university, providing one of the most extensive datasets reported in Latin America. Results show that women are strongly driven by intrinsic motivation and family support when choosing engineering, and that peers, friends, and partners become increasingly influential in sustaining persistence.

Our findings underscore that women are primarily motivated

to pursue engineering careers by their own aspirations, familial encouragement, and the guidance of professors. This suggests the importance of involving families and high school educators in initiatives aimed at attracting more women to engineering.

Suggestions to include workshops or interventions within high schools are proposed to allow women to experience engineering related activities in environments free of gender stereotyped comments and pressure (e.g., extra-curricular activities, professional talks). Additional suggestions include workshops and sensibilization talks with professors to bring attention to normalized gender stereotypes and strategies to foster and promote women’s participation and interest in engineering careers.

Notably, as women progress in their careers, the influence of peer students, friends, and partners becomes increasingly significant in sustaining their motivation, calling for interventions to bring students attention of the importance of having a support network, as well as sensibilization on gender discrimination and stereotypes within the engineering profession.

Our data corroborates previous research highlighting how women tend to employ coping mechanisms, such as rationalization and normalization, when faced with discrimination (García Villa & and González y González, 2014)

TABLE IV
SOURCES OF MOTIVATION OR DISCOURAGEMENT FOR CAREER PERSISTENCE

	Own-self	Family	Partner	Peers	Friends	Professors	Directives	Society	Others
It motivated me	271	269	151	194	219	178	100	76	19
It discouraged me	6	10	14	19	3	15	9	34	2
Neutral	15	13	127	79	70	99	183	182	271

(Brittany & Batsheva. G., 2020; Tonso, 1996). Sensibilization talks aimed at women can also be served to help them better identify these behaviors, along with institutional mechanisms to report and follow up discrimination reports.

This phenomenon is reflected in our results, where a relatively low percentage of women (15.7%) reported experiencing discrimination during college through a multiple-choice question. However, when asked to elaborate on challenges faced during their careers, 43.8% detailed encounters with gender-based discrimination.

Although closed-ended responses suggest low rates of discrimination, open-ended comments reveal a much broader range of gender-based barriers—including limited access to technical tasks, biased expectations, and diminished credibility—which indicates that these experiences may be underreported in structured formats. Male peers and professors emerged as both key sources of motivation and key sources of discrimination, underscoring the need for targeted awareness and intervention programs.

These experiences ranged from limitations in technical opportunities and job prospects due to gender, to the minimization of their achievements based on gender stereotypes. Creating safer spaces for women to reflect on their experiences and recognize gender discrimination is imperative. By refraining from rationalizing and normalizing such experiences, women can advocate for themselves and others when facing challenging situations.

When queried about the sources of negative discrimination, male peers emerged as the most frequently cited, followed by male professors. The dual roles of peers and professors as both primary sources of discrimination and significant motivators for persistence underscore the urgency of awareness campaigns and interventions within these populations.

It is important to acknowledge that the results presented in this study may not be generalized to all engineering majors within the faculty, given that the sample was predominantly comprised of alumni and senior students in electronic engineering (81.5%). This limitation is due to the decision to open the survey right after data collection started, hence future studies could focus on other majors to compare their findings or include equal share of majors for their analysis.

The work presented in this paper primarily focuses on presenting descriptive statistics from the research study, with an emphasis on overarching trends. Future endeavors will involve a comprehensive analysis of the complete dataset, particularly the open-ended questions pertaining to women's experiences during college. This person-centered approach will allow for a deeper understanding of each participant's unique journey and perspectives. Additionally, the study encompassed inquiries about women's experiences in the workplace, which were not examined in this paper. Future work will pursue the analysis of these work-related experiences.

Lastly, a participant's report of discrimination due to pregnancy highlights the need for further exploration into the specific challenges faced by pregnant women, as well as those with family or caregiving responsibilities. These avenues of research promise valuable insights into fostering a more

inclusive and supportive environment for women pursuing careers in engineering.

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