Article **Journal University Management**
December 2022, Vol.6 No.16 5-19

Comparative analysis dimensioned by sex on socioeconomic attributes, vocational orientation and gender perspective in career selection, Fresnillo, Zacatecas, Mexico, 2021

Análisis comparativo dimensionado por sexos sobre atributos socioeconómicos, de orientación vocacional y perspectiva de género en la selección de carrera, Fresnillo, Zacatecas, México, 2021

BARRÓN-PALOS, Eduardo Javier*†, SALINAS-AGUIRRE, María del Consuelo, URIBE-SIERRA, Sergio Elías and SIERRA-CASTRO, Fátima Stephania

Universidad Autónoma de Zacatecas, Unidad Académica Preparatoria Plantel III, Calle niño Artillero sin número, Fresnillo, Zacatecas, México.

ID 1st Author: *Eduardo Javier, Barrón-Palos* / **ORC ID:** 0000-0002-6381-4664, **Researcher ID Thomson:** E-6185-2019, **CVU CONACYT ID:** 940129

ID 1st Co-author: *María del Consuelo, Salinas-Aguirre* / **ORC ID:** 0000-0002-6542-1813, **Researcher ID Thomson:** S-9244-2018, **CVU CONACYT ID:** 615635

ID 2nd Co-author: *Sergio Elías, Uribe-Sierra* / **ORC ID** 0000-0002-8869-9690, **CVU CONACYT ID:** 561127

ID 3rd Co-author: *Fatima Stephania, Sierra-Castro* / **ORC ID:** 0000-0001-8416-822X, **CVU CONACYT ID:** 1124663

DOI: 10.35429/JUM.2022.16.6.5.19 Received July 15, 2022; Accepted December 30, 2022

Abstract

With the objective of comparing the main attributes in the choice of career for the municipality of Fresnillo, Zacatecas, Mexico, 2021. A study with a cross-sectional quantitative approach was carried out. Using a comparative analysis and taking into account gender as a grouping variable, using the T-Student parametric hypothesis test for independent samples, 159 attributes were compared on a 0-10 ratio scale in 445 subjects. As a preview of the results, it is noteworthy that the theoretical dimension with the most surprises is not the gender expectation in the choice of career, an understandable assumption if the grouping variable is gender. The hypothesis tests showed greater asymmetries during the verification on the student socioeconomic status between women and men, since, in 16 of 19 attributes measured, equivalent to 68.42% of the items, the marks of significance and low female averages required rejecting the hypothesis. of nullity With the above, it can be inferred that women are today the majority in the universities of Fresnillo, because an important segment of them is circumscribed to a socioeconomic level below the average, meanwhile, the men who access higher education, belong mostly at medium and high socioeconomic levels.

Socioeconomic attributes in career choice, Vocational guidance and career options, Gender perspective in career selection

Resumen

Con el objetivo de comparar los atributos principales en la elección de carrera para el municipio de Fresnillo, Zacatecas, México, 2021. Se elaboró un estudio con enfoque cuantitativo de corte transversal. Utilizando un análisis comparativo y teniendo en cuenta al sexo como variable de agrupación, empleando prueba de hipótesis paramétrica T –Student para muestras independientes, se cotejaron 159 atributos en escala de razón 0-10 a 445 sujetos. Como adelanto a los resultados, llama la atención, que la dimensión teórica con más sobresaltos no es la expectativa de género en la elección de carrera, suposición entendible si es sexo la variable de agrupación. Las pruebas de hipótesis arrojaron mayores asimetrías durante la compulsa sobre el estatus socioeconómico estudiantil entre mujeres y hombres, ya que, en 16 de 19 atributos medidos, equivalente al 68.42% de los ítems, las marcas de significancia y bajos promedios femeninos exigían rechazar la hipótesis de nulidad. Con lo anterior, se puede inferir, que las mujeres son hoy mayoría en las universidades de Fresnillo, porque un segmento importante de ellas se circunscribe a un nivel socioeconómico por debajo de la media, entretanto, los varones que acceden a la educación superior pertenecen mayoritariamente a niveles socioeconómicos medios y altos.

Atributos socioeconómicos en la elección de carrera, Orientación vocacional y opciones de carrera, Perspectiva de género en la selección de carrera

Citation: BARRÓN-PALOS, Eduardo Javier, SALINAS-AGUIRRE, María del Consuelo, URIBE-SIERRA, Sergio Elías and SIERRA-CASTRO, Fátima Stephania. Comparative analysis dimensioned by sex on socioeconomic attributes, vocational orientation and gender perspective in career selection, Fresnillo, Zacatecas, Mexico, 2021. Journal University Management. 2022. 6-16:5-19.

† Researcher contributing as first author.

Introduction

At the national level, studies on the percentage of women enrolled in higher education have been decreasing in recent years, since, with the exception of a few engineering courses, the female gender prevails. In the municipality of Fresnillo, Zacatecas, Mexico, 80.7% of those surveyed said that women are in the majority in their classrooms. This new configuration is replicated with some fluctuations across the country, leading some to throw caution to the wind, suggesting that the problem of women's access to higher education has been solved. However, in detail, women in higher education report very different indicators and problems than men in terms of entry and retention. In order to locate significant differences between the responses of the gender groupings to the perceptions of the most important attributes in their career choice, the following comparative analysis is presented, which uses the parametric Student's t-test for independent samples as a segregation tool to accept or reject the researcher's hypothesis between the attributes. The instrument on the university dilemma examined consists of 159 items on a scale of zero to ten, broken down into six theoretical dimensions: 1) Socio-economic status of the student and career choice; 2) Job market for professionals in career choice; 3) Attitudes, aptitudes and academic security in career selection; 4) The role of guidance and the guidance counsellor in career choice; 5) Gender perspective in career choice; 6) Cultural elements in career choice, in addition, to an academic panel on relevant data that may well serve future aggregations. For each dimension or theoretical axis, we present tables of our own elaboration in the SPSS statistical package, preceded by the relevant readings on the elements of homogeneity and asymmetry between the sexes. All respondents, regardless of sex, place their social stratum above 8 units, but this perception is in stark contrast to the monthly family income, which amounts to 6.95 for women and 7. 46 in male in our scale, detailing, both groups present a median of 7 with iconic platicurtic form and 4 groups of opinion, one of these corros in women qualifies very low the item, placing the average below the median, by the previous thing, it is possible to affirm that the table in is not low socioeconomic matter, and in spite of it, the women are majority in the universities of Fresnillo, some of them, trying at every step to overcome an adverse economic condition of beginning.

Student socio-economic status and the labour market for professionals in career choice

Research linking economics and career choice mostly presents two classical foundations on opposing conceptual viewpoints. In the first place, considering longevity as a taxonomic basis, and almost always covered by the Marxist paradigm, there are works that hold in high esteem the socio-economic level of the student as an attribute in the choice of career, permanence in the degree and/or academic performance, which conclude by pointing out the urgency to widen the offer of public education as a lever of development and policy in favour of equality (Klubitschko, D., D., Klubitschko, D. and D.): (Klubitschko, D 1980), (Donoso S, 2007), (Garbanzo,G 2007) and (Armenta, 2007), (Di gresia L, 2009), (Chiroleu, A, 2009), (Carrasco, E 2014), Maldonado, M. P. (2006). This orientation dominated the production of this category of studies until the 1990s, after which its production became marginalised in opposition to the neoclassical view recently imposed on the continent. Although they are still being engineered today, socio-economic characterisations of students have been stripped of ideologies of greater political action, and are now approached as an integral part of multidisciplinary studies on multifaceted problems with holistic theoretical dimensions that transcend the young people's stay in the classroom, and even the formal knowledge learnt during the degree, also addressing, so to speak, labour resilience, as can be seen in: Vercellino, S., Gibelli, T. I. & Chironi, J. M. (2022), García Hernández, F. R., & Quevedo-Aguado, M. P. (2022). Debeljuh, P., Foutel, M., & Torres Carbonell, S. (2022), Santos Miranda Pinto, M., Francisca Monteiro, A., & Meneses Osório, A. J. (2022), Casimiro (2021), Chavez, Y. L., Zumaeta, G. M. P., Tarrillo, J. J. C., & Zea, K. L. H. (2022), Delgado, G. (2006).

ISSN 2523-2495

At the beginning of the tumultuous nineties, neoliberalism was recently adopted in Latin America as in much of the world. Pragmatic studies of the new paradigm radiated from the new paradigm, with no qualms about social demands of any kind. Gary Becker's theory of human capital suggests a new factor of production, "human capital", as an essential element to increase productivity and competitiveness at various levels, thanks to the proactive participation of individuals prone to changes, not only formal but also attitudinal. Under this mantra, a person or entity acts rationally to the extent that their decisions lead to the maximum benefit in terms of cost, thus, the university career decision is reduced to a merely quantitative matter of economic order, in which elements such as: duration of the degree, cost of the degree, expected future income, labour market in the area, etc., stand out. In this order of ideas we find: (Latiesa, 1987), (Cabrera G., 1987), (Bolaños, 2001), (Cavazos,2003.), (Salas Velasco & Martín-Cobos, 2004), (Vries, 2008), (Jiménez, J., & Salas, M. 1999), (Barrón et al 2021).

Attitudes, aptitudes and academic security of the student and the role of guidance and counselling in career choice

The most prolific area of academic production on this issue is psychology through the branch of vocational guidance. Consequently, it is understandable that the results of articles on guidance are vast and varied. Authors such as (Covarruvias,M L, 2003), find that the family is the main influence on the career decision in the young person, while (González Maura, 2001) affirms that the student's self-determination is imposed on the choice. On the other hand, the writings of (De león & Briones, 2012) place the correlation between interest and aptitudes as an explanatory factor. It should be noted, however, that most of the works tend to focus on the role of adequate guidance as a determinant of a good decision (Camarena, 2009), (Jara, 2010).

"Vocational guidance is a process that aims at awakening vocational interests, adjusting these interests to the work competence of the subject and to the needs of the labour market. The first step of vocational rehabilitation is the choice of a realistic interest that will enable the subject to reach his/her occupational goal (Anthony et al., 1984)". Seen in: Virginia Galilea (ND, p.1).

Bisquerra, (1990, p.1): "guidance is not a one-off process, but a continuous process over time; it is not only addressed to people with special needs, but to everyone. Its objectives are: the development of the person, and the prevention of problems of all kinds; it intervenes through programmes" as seen in: Virginia Galilea (ND, p.1).

This work abstracts This work abstracts two important elements for career and campus selection used in vocational guidance, one for each complex variable of the attributes that we consider more adapted to the factor analysis that will be presented later.

(Allport, 2018) Defines "attitude as a state of mental disposition, organised in such a way as to exert a direct influence on a person's day-to-day behaviour". Whenever we talk about attitude, we need an object either material, an idea, collective or social, towards which to direct our attitude, which can be called attitudinal objective. (Castillero, 2018) Argues that "It receives the name of attitude to the effect of the set of beliefs and values relatively stable over time in the willingness or tendency to act in a certain way or undertake some kind of action." (Correa et al. 2019, P. ND).

Safety should be interpreted as a personal state that allows us to perceive that we move in a space free of real or potential risks, the absence or lack of which can cause various problems and damage. Therefore, we must consider that "safety" is associated with certainty, lack of risk or contingency, since absolute certainty is not possible, the element of risk is always present, regardless of the measures we take, so we must talk about the fact that there will never be a total level of safety. (Montero, 2013, P.205).

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The gender perspective in career choice and other cultural elements

On the gender perspective side, the influence of discrimination to enter traditionally male careers, sexism and neo-sexism, the wage differential between genders at the professional level, the asymmetrical progress in the labour and academic field, are assumed by the branch of feminism that studies the so-called glass ceilings, as an invisible but real barrier to the academic development of young female students and graduates. Within this branch, they are located in the publications concerning cultural components, where gender issues dominate the bibliography. (Torres & Pau, 2011) and their comparison between Spain and Germany on the scientific inclusion of women and their recognition in the workplace, or (Garcia, GP 2002) the exponential growth of women in "masculine" careers after globalisation. Gender Stereotypes in the Faculty of Public Accounting at the Universidad Santo Tomás de Villavicencio. Castro Villalobos, L. & nciso Cedeño, Y. (2022), are some examples of the state of the art in this niche of study.

The concepts used in the third section of the instrument to dimension the influence of discrimination, sexisms and neo-sexisms present in career choice, are circumscribed to the theoretical viewpoint on gender analysis, being more specific in the studies on "Glass Ceilings": "Gender analysis is the synthesis between gender theory and the so-called gender perspective derived from the feminist conception of the world and life. This perspective is structured on the basis of ethics and leads to a post-humanist philosophy, because of its critique of the androcentric conception of humanity that left out half of the human race: women. And, despite existing in the patriarchal world, women have actually existed. It is remarkable that humanism has not noticed them. The gender perspective has as one of its aims to contribute to the subjective and social construction of a new configuration based on the re-signification of history, society, culture and politics from women and with women". Lagarde, M (2018, p. ND)

"Two concepts allude to the segmentation and differentiation between women and men. The first is the glass ceiling, which refers to the set of limitations (tacit or veiled) that prevent women from rising to the highest positions of power in organisations (Burin, 1996). The other is the sticky floor, which alludes to the labours that keep women glued to the floor, i.e. everything that prevents them from moving from places traditionally linked to subalternity and care for others." Ranero (2018, p. 85)

In the same order of ideas about situations outside the subject, but which represent obstacles or concrete referents in the university decision, sociology and anthropology, present essays related to the social prestige and cultural relevance of careers in specific regions, (a young man from the desert of Zacatecas who wishes to study marine biology), proximity to the career or area that parents, friends or relatives studied or wish for the high school graduate, and even religiosity as external elements that influence the guidelines that the young person then assumes as his or her own and correct at the time of the decision, although it is worth mentioning that this is a marginal collection in terms of production.

This last complex variable of the study is the narrowest in terms of number of publications, however, within the anthropological and sociological catalogue, the most relevant categories and theoretical currents are evident, which served as a reference in the classification and operational definition of our instrument, and its consequent assignment of measurement scales.

"According to Figueroa de Amorós, (1993) the main factors that intervene are the following (Peñafiel *et al*., 2019, p.129):

- The social prestige of the career.
- The zeitgeist.
- The coefficient of family traditionality.
- Vital needs.

ISSN 2523-2495

Methodological design

With the aim of answering the general question "What are the main gender differences between the attributes for career choice in university students in Fresnillo, Zacatecas, in the year 2021?", and to corroborate the original hypothesis that the greatest asymmetries for career choice lie in the gender perspective. The present research was developed with a quantitative approach and cross-sectional operational orientation. Since most of the items present a 0-10 ratio scale, where no independent variables were manipulated or pilot, operative, control or control groups were established, this is not an experimental research. With a peri-mental approach, as the entire population or nature is observed and measured indirectly, through a representative sample with which inferences are subsequently drawn. It falls within the second level of statistical methodology, comparative.

After a judicious theoretical review on the subject of career choice, the six dimensions mentioned above were defined and the research background was shaped, enunciating new elements, rescuing or adapting the existing ones from the qualitative to the quantitative, highlighting some socio-economic, gender (sexism and neo-sexism), cultural and labour market (labour information media) attributes, to later measure and compare. The resulting hybrid was an original instrument of 159 attributes on a 0-10 ratio scale, aggregated as follows: 1) socio-economic status 19 items; 2) labour market 31 items; attitudes, skills and academic security 26 items; importance of vocational orientation 25 items; gender perspective 34 items; cultural elements 24 items.

At the end of 2020, the results of a pilot survey applied to 30 subjects from the Instituto Tecnológico Superior de Fresnillo (ITSF), were tested to verify the internal consistency and universality of the instrument, obtaining .935 Crombach's Alpha, and with the final application to 445 respondents, the same indicator increased to .968 and standardised to .967, with similar metrics for the partitions by gender and theoretical dimension. Based on an estimate of 4,234 high school students in all public universities in Fresnillo at the time of the survey, and according to the formula of Isaac, Stephen and William B. (1996), seen in (Gonzalez,. 2014) it was concluded to conduct 352 surveys, fortunately, 445 subjects were sampled, just over 10% of the population for a 95% confidence level.

However, the online work format prevailing at the time, and the reluctance of most of the authorities of the different academic units and universities, derived from the question on satisfaction with the current career, forced the survey to be extended until May 2021, with the internet being the only medium with the intermediation of social networks.

Academic panel

As mentioned above, this panel of general data is independent of the theoretical constructs or axes mentioned above, however, in this particular case, it was subjected to the same tests in order to establish differences between the groups. The average current age of female respondents is higher than that of male respondents by .77 units, which is explained by two reasons: the survey was carried out among university students of all grades, and women, even though they are the majority in almost all degree programmes, are more likely to drop out of school for economic reasons and lack of family support. No significant differences are observed in the age of career choice, so that the null hypothesis (H0) is retained, although the average age of choice is high, 16.57 for women and 16.24 for men, which indicates the importance of teaching the subject of vocational guidance in the second year of baccalaureate. There are also no notable disparities in terms of average university and satisfaction with current career, although the latter indicates a low average in either case, just above 5 for males and slightly lower for females.

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		S	N	M	SD	t	gl	Sig.	H(t)
A	Age_current_age	F	313	21.38	3.03	2.74	443.00	0.006	H1
		M	132	20.61	1.77	3.36	399.25	0.001	H1
B	Age_of_career_choice	F	313	16.57	4.11	0.85	443.00	0.395	HO
		M	132	16.24	2.61	1.01	375.65	0.311	HO
C	Average_high_school_average	F	313	8.11	1.25	-3.15	443.00	0.002	H1
		M	132	8.52	1.22	-3.19	252.13	0.002	H1
D	College_average	F	313	8.14	0.93	-0.44	443.00	0.663	HO
		M	132	8.18	1.10	-0.41	213.96	0.684	HO
E	Career_Satisfaction	F	313	4.98	3.63	-0.48	443.00	0.634	HO
		M	132	5.16	3.76	-0.47	239.03	0.639	HO

Where: F= Female; M= Male; N= Sample size; M= Mean; SD= Standard deviation; t= Student's t-test; gl= degrees of freedom; sig= Significance; H
1.2 Student socio-economic status and career choice

Table 1 Comparative analysis of gender grouping: academic panel
Source: Own elaboration

Of this first theoretical dimension under examination, the socio-economic status of the student, only in 6 out of 19 variables the null hypothesis is accepted, which obviously reflects significant differences between the sexes in 68.42% of the cases. Among the thirteen discordant variables by economy and sex we observe: 3) Career similar to the mother 8.19 and 8.40 , higher in men; 5) Social stratum of the student, higher by .5 for men; 8) Father's schooling higher in women; 9) Distance from home to the university; 1.53 higher in men; 10) Mother's monthly income, .6 higher in men; 11) Father's monthly income in MXN higher by 1 for men; 12) Total monthly family income in MXN higher in men; 13) Father's monthly income in . 5 higher for men; 13) Student food expenses 1.2 higher for men; 15) Fixed cost per semester for men 4.45, is 2.16 higher than for women; 16) Weekly transport costs 1.39 higher for men; 17) Importance of remittances 1.56 higher for women; 18) Importance of remittances for their permanence in the university .86 higher for women; 19) Importance of the economic possibilities of their family in their choice of career, .17 higher for men. As it can be seen, men spend much more on tuition and transportation than women, and considering such differences, it is very likely that some of them arrive at university by car. On the other hand, women exhibit higher averages on indicators classically associated with poverty studies, such as the importance of remittances in the family economy and for staying in university. Male university students enjoy a better socio-economic position than females, as reflected in their income and expenditure.

From these metrics, it can be inferred that female university students overcome economic difficulties in greater proportion than males, to the point of becoming the majority in 80.7% of the classrooms in Fresnillo, Zacatecas. Another relevant point is that the education of the fathers of the female university students' fathers is higher than that of their male counterparts, which supports the assertion that the fathers' education is a positive factor for their daughters to reach higher education.

The variables where women and men show economic homogeneity are: 1) Father in a union in the area where the young person studies; 2) Economic independence; 4) Career similar to the father's, although slightly higher in men; 6) Area of the home; 7) Mother's schooling; 14) Spending on school supplies per period, higher in women by .33%; 15) Spending on school supplies per period, higher in women by .33%; 16) Spending on school supplies per period, higher in men by .33%; 17) Spending on school supplies per period, higher in women by .33%.

Attribute	S	N	M	SD	T	gl	Sig.	H(t)
Unionised_parents_youth_student_area	F	313	3.86	3.90	-0.63	443.00	0.531	HO
Economic_independence	M	132	4.11	3.93	-0.62	244.43	0.533	HO
Mother_similar_career	F	313	2.65	1.33	1.22	443.00	0.224	HO
Father_similar_career	M	132	2.49	1.18	1.28	276.49	0.201	HO
Current_age	F	313	8.19	1.06	-2.12	443.00	0.035	H1
Living_area	M	132	8.40	0.70	-2.50	365.65	0.013	H1
Mother_schooling	F	313	8.21	1.14	-1.32	443.00	0.188	HO
Father_schooling	M	132	8.36	0.75	-1.55	362.85	0.123	HO
Distance_from_home_university	F	313	8.15	1.87	-2.59	443.00	0.010	H1
Attribute	M	132	8.66	1.97	-2.54	235.17	0.012	H1
Mother_monthly_income_pesosmexicanosMX N	F	313	5.61	3.05	-1.26	443.00	0.208	HO
Monthly_parental_income_pesosmexicanosMX N	M	132	6.02	3.38	-1.21	225.37	0.227	HO
Total_monthly_household_income_totalMXN	F	313	5.78	3.27	-0.32	443.00	0.752	HO
Student_expenditure_on_foods	M	132	5.89	3.23	-0.32	249.45	0.751	HO
Utility_expense_per_period	F	313	5.25	3.61	3.68	443.00	0.000	H1
Four-monthly_fixed_fixed_cost_per_term	M	132	3.87	3.59	3.68	247.33	0.000	H1
Transport_costs_weekly	F	313	2.36	2.84	-4.69	443.00	0.000	H1
Home_economy_monthly_importance								
Importance_remittances_permanence_universit y	S	N	M	DE	T	gl	Sig.	H(t)
Importance_possibilities economic_family	M	132	3.89	3.77	-4.19	196.54	0.000	H1
Attribute	F	313	5.47	1.80	-3.93	443.00	0.000	H1
Unionised_parents_youth_student_area	M	132	6.30	2.48	-3.46	192.18	0.001	H1
Economic_independence	F	313	5.53	1.91	-4.36	443.00	0.000	H1
Mother_similar_career	M	132	6.51	2.65	-3.83	191.13	0.000	H1
Father_similar_career	F	313	6.95	2.21	-2.44	443.00	0.015	H1
Current_age	M	132	7.46	1.44	-2.88	368.02	0.004	H1
Living_area	F	313	6.28	2.74	-4.73	443.00	0.000	H1
Mother_schooling	M	132	7.48	1.46	-5.97	420.45	0.000	H1
Father_schooling	F	313	6.70	3.48	0.93	443.00	0.352	HO
Distance_from_home_university	M	132	6.37	3.18	0.97	267.95	0.335	HO
Attribute	F	313	2.29	2.59	-7.68	443.00	0.000	H1
Mother_monthly_income_pesosmexicanosMX N	M	132	4.45	2.95	-7.29	220.77	0.000	H1
Monthly_parental_income_pesosmexicanosMX N	F	313	3.77	2.78	-4.65	443.00	0.000	H1
Total_monthly_household_income_totalMXN	M	132	5.16	3.06	-4.48	226.53	0.000	H1
Student_expenditure_on_foods	F	313	5.24	2.70	-5.43	443.00	0.000	H1
Utility_expense_per_period	M	132	6.80	2.88	-5.29	232.83	0.000	H1
Four-monthly_fixed_fixed_cost_per_term	F	313	5.84	3.54	-2.40	443.00	0.017	H1
Transport_costs_weekly	M	132	6.70	3.12	-2.53	277.70	0.012	H1
Home_economy_monthly_importance	F	313	9.33	1.59	-1.11	443.00	0.268	HO
	M	132	9.50	1.07	-1.29	357.65	0.197	HO

Where: F= Female; M= Male; N= Sample size; M= Mean; SD= Standard deviation; t= Student's t-test; gl= Degrees of freedom; sig= Significance; H (t)= Statistical decision

Table 2 Comparative analysis of gender grouping: Socio-economic status of students
Source: Own elaboration

ISSN 2523-2495

Job market for professionals in career choice

For this opportunity, in 10 of the 31 attributes faced, equivalent to 32.25% of the items, significant differences were found between the sexes, in almost all of the mismatches, the perception of the male sex was higher in relation to the mean of the female sex responses. Males show optimistic expectations about the income expected from the degree, and they also appreciate more than females unofficial means such as family, friends and partners to obtain valid information about the labour market of the different careers, or about examples of professional success in the area in which the young person intends to develop. Women, on the other hand, are less likely to rely on unofficial means as a source of reliable information about the labour market or models of professional glory; they rely more than men on their own research from official sources such as the National Occupation and Employment Survey (ENOE), nor do they attach as much importance to the time of graduation as a factor in career selection.

Women and men show similar averages in terms of the importance given to curricula according to the needs of employers, internships, the importance of the labour market in career choice, expected future income and labour saturation in the desired area. The differences, as mentioned above, with the exception of the time of graduation, lie in the weighting that each group gives to external actors as a means of information, work examples and moderate expectations of future income, but as regards the direct link between the opportunities of a degree to successfully enter the labour market, they react in a similar way, whatever their channel of enquiry.

Attribute	S	N	M	SD	t	gl	Sig.	H(T)
Importance_ plans and programmes	F	313	9.57	1.34	-0.87	443.00	0.386	HO
	M	132	9.68	0.89	-1.01	359.94	0.311	HO
employer_agreements	F	313	3.31	3.41	0.40	443.00	0.693	HO
	M	132	3.16	4.01	0.37	214.67	0.712	HO
Importance	S	N	M	DE	t	gl	Sig.	H(T)
internships professional_selection	F	313	4.46	3.77	1.17	443.00	0.241	HO
	M	132	4.01	3.67	1.19	252.33	0.237	HO
	F	313	3.03	3.31	-2.68	443.00	0.008	H1
Attribute	M	132	3.95	3.40	-2.65	240.21	0.009	H1
Importance job_market	F	313	9.08	1.75	-0.82	443.00	0.415	HO
	M	132	9.23	1.83	-0.80	237.14	0.423	HO
career_choice	F	313	5.65	3.34	0.12	443.00	0.901	HO
	M	132	5.61	3.97	0.12	212.80	0.908	HO
Importance qualification_time	F	313	4.96	3.37	-1.18	443.00	0.239	HO
	M	132	5.38	3.58	-1.15	234.01	0.251	HO
mportance_of	F	313	5.28	2.92	-2.66	443.00	0.008	H1
	M	132	6.12	3.34	-2.52	219.66	0.013	H1
recruitment entry	F	313	3.14	3.55	-1.23	443.00	0.218	HO
	M	132	3.61	4.10	-1.16	217.93	0.246	HO
expected career_choice	F	313	3.68	4.11	0.59	443.00	0.554	HO
	M	132	3.43	3.92	0.60	257.15	0.547	HO
Market_influence	F	313	4.16	3.17	1.56	443.00	0.119	HO
	M	132	3.62	3.74	1.46	213.89	0.146	HO
_job within_academic_area	F	313	4.43	2.98	-0.79	443.00	0.431	HO
	M	132	4.69	3.66	-0.73	207.47	0.469	HO
Market_influence	F	313	5.20	3.16	-2.14	443.00	0.033	H1
	M	132	5.92	3.44	-2.07	228.83	0.040	H1
work outside_academic_area	F	313	3.46	3.20	1.91	443.00	0.057	HO
	M	132	2.78	3.88	1.77	209.51	0.079	HO
Labour_market_in_orientation	F	313	5.89	2.83	0.69	443.00	0.490	HO
	M	132	5.67	3.58	0.63	203.47	0.530	HO
in_vocational_orientation vocational	F	313	5.91	2.66	-4.11	443.00	0.000	H1
	M	132	7.05	2.71	-4.08	242.19	0.000	H1
Job_market	F	313	4.54	3.18	-1.35	443.00	0.177	HO
	M	132	5.01	3.59	-1.29	221.77	0.199	HO
different_subject _orientation	F	313	5.95	2.64	-3.93	443.00	0.000	H1
	M	132	6.98	2.31	-4.15	279.63	0.000	H1
	S	N	M	DE	t	gl	sig.	H(t)
Research_in_their_own_output own_output	F	313	5.65	2.44	-0.86	443.00	0.393	HO
	M	132	5.85	1.86	-0.95	320.07	0.341	H
labour_market_Mexico	F	313	6.42	2.27	-2.22	443.00	0.027	H1
	M	132	6.94	2.27	-2.22	246.75	0.027	H1
Direct_reception _propaganda	F	313	4.24	3.06	-2.96	443.00	0.003	H1
	M	132	5.23	3.55	-2.79	217.43	0.006	H1
EENOE	F	313	3.80	2.93	-2.08	443.00	0.039	H1
	M	132	4.45	3.14	-2.02	232.02	0.045	H1
Saturation_of_your_area your_area	F	313	3.20	2.99	-0.67	443.00	0.501	HO
	M	132	3.41	2.78	-0.69	262.84	0.489	HO
Perception_of_your_professional_wage	F	313	2.88	3.38	0.81	443.00	0.421	HO
	M	132	2.59	3.57	0.79	234.92	0.431	HO
professional_wage	F	313	3.44	3.18	0.76	443.00	0.445	HO
	M	132	3.18	3.46	0.74	228.87	0.461	HO
Perception_of job_failure	F	313	1.79	2.77	-0.40	443.00	0.692	HO
	M	132	1.90	2.91	-0.39	236.16	0.698	HO
	F	313	5.75	2.81	-2.14	443.00	0.033	H1
Perception_of_good	M	132	6.38	2.91	-2.11	238.58	0.036	H1
Remuneration career_own_career	F	313	2.82	3.13	-0.88	443.00	0.381	HO
	M	132	3.11	3.50	-0.84	223.57	0.403	HO
	F	313	5.62	3.35	-3.57	443.00	0.000	H1
Salary_perception	M	132	6.83	3.07	-3.70	267.47	0.000	H1
Professional_Zacatecas	F	313	3.45	2.99	-1.96	443.00	0.050	IND
	M	132	4.08	3.42	-1.86	219.14	0.065	HO
Perception_of_good_output	F	313	3.67	3.32	0.81	443.00	0.420	HO
	M	132	3.39	3.14	0.83	259.74	0.410	HO
Where: F= Female; M= Male; N= Sample size; M= Mean; SD= Standard deviation; t= Student's t-test; gl= Degrees of freedom; sig= Significance; H (t)= Statistical Decision								

Table 3 Comparative gender clustering analysis: Importance of the professional labour market in career choice
Source: Own elaboration

Attitudes, aptitudes and academic security in career selection

There are 26 attributes measured in terms of the aptitudes, attitudes and academic security of the university students, hypothetically situated in the context of their last year of baccalaureate, only in seven of the variables weighed, equivalent to 26.92% of the questions, show confrontation of the groups. Both sexes, during the last year of the baccalaureate, perceived similar deficiencies in their attitudes in mathematics, computer science, English, accounting, social studies and humanities. Without rejecting the null hypothesis, women were more confident about their career choice at the end of the bachelor's degree, but their confidence in getting into their career option one was somewhat lower, and women were more suspicious about whether their bachelor's degree had prepared them for their desired degree.

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Gender attitudes in biology, chemistry and ecology, health sciences and arts were unequal in favour of males. Differences in terms of skills, favouring females in mathematics and the arts.

Attribute	S	N	M	SD	T	gl	sig	H(t)
Perception Sufficiency skills attitudes _career	F	313	2.19	3.18	-0.86	443.00	0.391	HO
	M	132	2.48	3.58	-0.82	222.50	0.416	HO
Attitude mathematics _physics	F	313	2.67	2.98	0.47	443.00	0.637	HO
	M	132	2.52	2.91	0.48	252.43	0.634	HO
Attitude _computing _other _technologies	F	313	1.59	2.47	-0.79	443.00	0.433	HO
	M	132	1.81	3.06	-0.72	206.25	0.472	HO
Attitude chemistry _ecology	F	313	4.35	3.49	-2.23	443.00	0.026	H1
	M	132	5.15	3.48	-2.23	247.16	0.027	H1
Attitude_sciences health _anatomy _physiology	F	313	6.61	3.02	-3.49	443.00	0.001	H1
	M	132	7.64	2.30	-3.89	319.92	0.000	H1
Attribute	S	N	M	DE	T	gl	sig	H(t)
Attitude_attitude culture art music	F	313	6.18	2.91	-4.29	443.00	0.000	H1
	M	132	7.41	2.36	-4.66	300.04	0.000	H1
Attitude _languages foreign	F	313	7.36	2.50	0.10	443.00	0.923	HO
	M	132	7.33	2.29	0.10	267.37	0.920	HO
Attitude _attitude_ accounting _economics politics _administration	F	313	6.23	3.22	-1.71	443.00	0.088	HO
	M	132	6.79	2.96	-1.77	266.49	0.078	HO
Attitude social law _psychology	F	313	6.58	2.76	1.54	443.00	0.123	HO
	M	132	6.11	3.15	1.46	219.76	0.145	HO
Attitude _attitude_ humanities education philosophy _modernity	F	313	6.76	2.80	-0.14	443.00	0.885	HO
	M	132	6.80	2.96	-0.14	234.97	0.888	HO
Attitude _subjects _important in_my_current _career	F	313	6.10	2.75	1.21	443.00	0.226	HO
	M	132	5.73	3.39	1.12	207.42	0.266	HO
Aptitude __mathematics s_physics	F	313	7.01	2.98	2.23	443.00	0.026	H1
	M	132	6.30	3.31	2.14	224.63	0.034	H1
Aptitude_in_my _current_career computing other _technologies	F	313	6.99	2.82	1.09	443.00	0.277	HO
	M	132	6.67	2.97	1.07	235.38	0.287	HO
Aptitude _biology chemistry _ecology	F	313	8.15	2.59	-3.49	443.00	0.001	H1
	M	132	8.97	1.13	-4.63	442.41	0.000	H1
Aptitude _sciences _health _anatomy _physiology	F	313	5.99	3.27	-2.87	443.00	0.004	H1
	M	132	6.95	3.15	-2.91	254.73	0.004	H1
Aptitude _culture art _music	F	313	5.70	3.24	-3.08	443.00	0.002	H1
	M	132	6.70	2.79	-3.27	284.17	0.001	H1
Aptitude _languages foreign _languages	F	313	6.48	2.96	-0.94	443.00	0.349	HO
	M	132	6.76	2.60	-0.99	279.25	0.323	HO
Proficiency_ accounting _economics _sciences politics _administration	F	313	5.92	3.28	-1.63	443.00	0.104	HO
	M	132	6.45	2.91	-1.71	276.34	0.088	HO
Aptitude Sciences social sciences law _psychology	F	313	6.10	2.95	-0.75	443.00	0.453	HO
	M	132	6.33	2.95	-0.75	246.82	0.453	HO
Aptitude_ humanities humanities education _philosophy _modernity	F	313	6.54	2.76	0.07	443.00	0.944	HO
	M	132	6.52	2.95	0.07	232.51	0.946	HO
Aptitude _subjects _important my _current_career	F	313	5.89	2.84	-1.09	443.00	0.277	HO
	M	132	6.22	2.97	-1.07	236.94	0.286	HO
Security selection before_higher_leaving high school	F	313	6.85	3.10	1.46	443.00	0.146	HO
	M	132	6.38	3.09	1.46	247.06	0.146	HO
Insecurity election_ before_leaving high_school_choice	F	313	6.68	3.12	1.17	443.00	0.244	HO
	M	132	6.31	2.80	1.22	272.86	0.223	HO
Security _entry_ option1 _career	F	313	8.11	2.23	-0.83	443.00	0.406	HO
	M	132	8.30	2.18	-0.84	252.33	0.402	HO
Attribute	S	N	M	DE	T	gl	sig	H(t)
Attribute Confidence learned baccalaureate achievement r_option1	F	313	6.89	3.61	-1.72	443.00	0.086	HO
	M	132	7.52	3.27	-1.79	270.43	0.075	HO
Confidence Baccalaureate _preparatory university	F	313	5.11	3.87	1.35	443.00	0.178	HO
	M	132	4.55	4.30	1.29	224.88	0.198	HO

Where: F= Female; M= Male; N= Sample size; M= Mean; SD= Standard deviation; t= Student's t-test; gl= Degrees of freedom; sig= Significance; H (t)= Statistical decision.

Table 4 Comparative gender cluster analysis: attitudes, skills and academic confidence in career choice

The role of guidance and counselling in career choice

Out of 25 variables, there are significant differences in only 3 attributes. Only 3% of the items agree on the usefulness of career guidance in defining attitudes, interests and academic, personal, social and family goals, the importance of guidance in choosing their current career, understanding more about their own self-esteem, values, the performance of the guidance counsellor, knowledge about career entry and exit profiles, validity of guidance plans, and the low rating they both give to guidance tests as a means of clarifying career choice.

The groups differ in the usefulness of guidance in defining academic aptitudes, more appreciated by men at .65 usefulness. For orientation as a subject, .96 higher in women, although their average barely reaches 5.19, confusion generated by the orientation tests, 1.32 units more for women, with an average of 6.48 on a scale of 0-10.

Attribute	S	N	M	SD	t	gl	sig	H(t)
Utility_orientation vocational defining_attitudes academic	F	313	7.65	2.99	-0.89	443.00	0.371	HO
	M	132	7.92	2.64	-0.94	277.08	0.347	HO
Usefulness_orientation vocational defining_aptitudes academic	F	313	7.19	2.69	-2.34	443.00	0.020	H1
	M	132	7.84	2.68	-2.34	247.19	0.020	H1
Utility_orientation vocational define_interests _academic_interests	F	313	7.08	2.58	-1.80	443.00	0.072	HO
	M	132	7.58	2.93	-1.71	221.08	0.088	HO
Utility_orientation vocational define_academic_goals academic	F	313	4.81	3.11	-1.25	443.00	0.211	HO
	M	132	5.22	3.37	-1.21	229.56	0.226	HO
Utility_orientation vocational defining_personal_goals personal	F	313	4.94	3.22	-1.40	443.00	0.163	HO
	M	132	5.42	3.62	-1.33	222.48	0.184	HO
Vocational_orientation _utility vocational defining_goals family	F	313	5.07	3.25	-0.35	443.00	0.727	HO
	M	132	5.19	3.34	-0.35	240.49	0.730	HO
Vocational_orientation_utility vocational defining_goals family	F	313	5.51	3.35	0.41	443.00	0.680	HO
	M	132	5.36	3.65	0.40	228.39	0.690	HO
Utility_orientation vocational self-knowledge self-esteem	F	313	5.46	3.39	0.87	443.00	0.386	HO
	M	132	5.14	3.66	0.84	230.65	0.401	HO
Utility _orientation _knowledge_values own _own_values	F	313	4.67	3.61	0.09	443.00	0.928	HO
	M	132	4.64	3.78	0.09	236.03	0.929	HO
Importance _orientation selection_of_current_career current_career	F	313	5.19	3.40	1.07	443.00	0.286	HO
	M	132	4.81	3.32	1.08	252.46	0.281	HO
Usefulness_material vocational vocational	F	313	5.19	3.72	2.55	443.00	0.011	H1
	M	132	4.23	3.46	2.63	264.06	0.009	H1
Utility orientation understanding own _personality	F	313	5.33	3.42	-0.03	443.00	0.973	HO
	M	132	5.34	3.33	-0.03	252.05	0.973	HO
Importance_test orientation _clarify_ career_choice	F	313	4.44	3.53	0.61	443.00	0.544	HO
	M	132	4.21	3.87	0.58	227.24	0.560	HO
Orientation_usefulness know_profiles _entry_back _careers	F	313	6.48	3.27	3.79	443.00	0.000	H1
	M	132	5.16	3.59	3.65	227.30	0.000	H1
Usefulness_orientation know_profiles _entry_back _careers	F	313	4.62	3.52	1.14	443.00	0.256	HO
	M	132	4.20	3.51	1.14	247.63	0.256	HO
Own_research _careers own_interest	F	313	4.64	3.52	1.14	443.00	0.256	HO
	M	132	4.23	3.50	1.14	247.62	0.256	HO
Confusion_multiple _options _university_choices	F	313	4.12	3.41	-0.91	443.00	0.361	HO
	M	132	4.46	3.90	-0.87	219.44	0.388	HO
Security_choice _career Prior_orientation vocational	F	313	4.84	3.37	0.90	443.00	0.366	HO
	M	132	4.52	3.67	0.87	228.53	0.383	HO
Importance_of_ orientation vocational career_choice	F	313	5.89	3.42	0.59	443.00	0.557	HO
	M	132	5.67	3.88	0.56	221.12	0.577	HO
validity_programme vocational _orientation vocational your_baccalaureate	F	313	4.24	3.68	-0.89	443.00	0.376	HO
	M	132	4.58	3.97	-0.86	230.59	0.391	HO
Performance orienteer	F	313	5.58	3.86	0.16	443.00	0.876	HO
	M	132	5.52	3.97	0.15	240.46	0.877	HO
Attribute	S	N	M	DE	t	gl	sig	H(t)
Fairness oriented	F	313	3.30	3.50	-0.22	443.00	0.824	HO
	M	132	3.38	3.65	-0.22	237.01	0.828	HO
Importance oriented best_choice _career	F	313	4.24	3.27	-1.22	443.00	0.224	HO
	M	132	4.65	3.24	-1.22	248.09	0.223	HO
Importance_ orienteer self-knowledge own	F	313	5.10	3.26	0.12	443.00	0.908	HO
	M	132	5.06	3.88	0.11	212.94	0.914	HO
Importance _orienting career_choice	F	313	5.19	3.37	0.62	443.00	0.539	HO
	M	132	4.97	3.86	0.58	219.26	0.561	HO

Where: F= Female; M= Male; N= Sample size; M= Mean; SD= Standard deviation; t= Student's t-test; gl= Degrees of freedom; sig= Significance; H (t)= Statistical decision.

Table 5 Comparative gender clustering analysis: Importance of vocational orientation in career choice

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The gender perspective in career choice

34 attributes are part of the combo gender expectation in career choice, in 14 of them significant differences were found, representing 41.17% of the questioned items. The sets tend to consider that their gender is relevant to the career they are studying and in the perception that society shows towards their career, considering it as masculine in general, this metric is obviously a little higher in women, although without opting for the researcher's hypothesis. Practically, equal appreciation on the social opinion of femininity of their degree, with significance within the parameters of null, which reveals that in social terms, the stigma of feminine and masculine careers persists. Both experienced almost equal, though slightly higher in males, opposition from their parents to their career choice on gender grounds, this metric is enhanced in males by the high averages obtained in nursing and management careers, apparently socially considered as suitable for women, with an average intensity of 2.44 in males, while opposition from friends was higher in females. A similar degree of family agreement with the chosen career, support with their academic responsibilities. Considerations above an average of six on seeing one's own sex as an academic constraint, which is somewhat ironic, the low score given to neutrality of scholastic abilities in both sexes, just 1.53 on average in the best of cases, together with the high averages for considering one's own sex as an academic constraint, point to the presence of academic discrimination by sex, committed by women and men to the detriment of the same guild, since both seem to see their neighbour's garden as a little greener.

The perspective does not vary much either in the appreciation of ambition for good grades in men, female scholastic initiative, the ease of the careers chosen by them, contrary to what was expected, school bullying attributable to gender and career stigma in school, family or neighbourhood, is slightly higher among men, although, without reaching with such figures to opt for the alternative hypothesis, and with averages below 2. 5 for all cases, that is to say, however, although not with such serious intensity, bullying by the stigma of careers suitable for each gender remains a stale custom.

Among the attributes where, due to the differences in significance and means, the researcher's hypothesis (H1) was accepted, we find: self-image of career neutrality, higher in men by 1.44, although with a male average of 3.06, neither women nor men consider their careers as neutral. Greater opposition on the part of relatives to the choice of career for gender reasons, much higher in women by 1.59 units, in fact, this is the second item with the greatest differences among the weighted attributes of the section. Opposition of partners to career choice for gender reasons, higher in women by .7, opposition of acquaintances, .73, also higher in women, opposition of teachers to career choice for gender reasons, higher in women by .51, and opposition of managers to career choice for the same reasons, with a higher average in women by .74 units. .55 units higher among women that their gender is a constraint to their learning, although fortunately with a low average of 1.53. According to women, they worry about their professional future with an average of 8.97, while men's average for the same question was only .82, a difference of 8.15 units, the largest margin among the 159 items in the questionnaire.

According to men, women's chances of pursuing the studies they want is less than 1.58, but this difference is reduced to 1.18 when men and women are asked about men's chances of pursuing the studies they want, given that 58.65% of the respondents of both sexes were in favour of the studies they want. 65% of respondents of both sexes stated that they do not study their first career option, averages of 3.73 and 3.57 for each case are not surprising, a gap which, although it is significant in the T Student test, what should be most urgent and worrying is to widen the possibilities for everyone to enter their desired degree. We also see differences in the perception of ambition for good academic grades by women, 1.19 on average lower for men, as well as a worrying 3.57 on average in the best case. Finally, when asked in a direct, frank and straightforward manner, to what degree there is a feeling of obligation to choose between gender-appropriate careers, the difference between the sexes was .8, in favour of men, i.e. they were more concerned about this social, academic and sexual convention than women, although fortunately, the average for men was only 1.83 out of a maximum of 10 units.

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Attributes	S	N	M	DE	t	gl	sig.	H(t)
Gender_relevance	F	313	4.32	3.36	0.94	443.00	0.346	HO
Career	M	132	3.98	3.89	0.89	217.49	0.375	HO
Masculinity	F	313	4.62	3.69	0.80	443.00	0.426	HO
Career according to _society	M	132	4.30	4.01	0.77	228.89	0.442	HO
Femininity	F	313	4.01	3.50	-0.13	443.00	0.897	HO
_career according to _society	M	132	4.06	3.74	-0.13	232.22	0.900	HO
Neutrality	F	313	3.88	3.64	-4.54	443.00	0.000	H1
Career according to _society	M	132	5.54	3.18	-4.80	279.69	0.000	H1
Self_image	F	313	4.53	3.21	-0.39	443.00	0.696	HO
masculinity _career	M	132	4.67	3.44	-0.38	231.40	0.704	HO
Own_image	F	313	5.65	3.31	0.92	443.00	0.360	HO
_femininity _career	M	132	5.33	3.53	0.89	232.67	0.373	HO
Own_image	F	313	1.62	3.05	-4.30	443.00	0.000	H1
_neutrality _career	M	132	3.06	3.59	-4.03	214.42	0.000	H1
Opposition	F	313	2.16	3.27	-0.82	443.00	0.414	HO
_parents choice career_by gender_motives	M	132	2.44	3.48	-0.80	233.43	0.426	HO
Opposition	F	313	7.43	3.55	3.95	443.00	0.000	H1
_relatives _election_choice race_for gender_motives	M	132	5.84	4.54	3.58	201.72	0.000	H1
Opposition	F	313	1.50	2.77	1.25	443.00	0.212	HO
_friends _election_choice race_for gender_motives	M	132	1.14	2.55	1.29	265.91	0.198	HO
Opposition	F	313	1.81	3.05	2.35	443.00	0.019	H1
_partner election career_for gender_motives	M	132	1.11	2.35	2.61	316.55	0.009	H1
Attributes	**S**	**N**	**M**	**SD**	**t**	**gl**	**sig.**	**H(t)**
Opposition	F	313	1.45	2.81	1.93	443.00	0.055	IND
known choice career_career_for gender_motives	M	132	0.92	2.16	2.14	317.30	0.033	H1
Opposition	F	313	1.43	2.80	2.73	443.00	0.007	H1
_teachers selection career_career_by gender_motives	M	132	0.70	1.88	3.19	359.42	0.002	H1
Opposition	F	313	1.61	2.79	2.68	443.00	0.008	H1
_management _election career _career_by gender_motives	M	132	0.87	2.25	2.93	303.13	0.004	H1
Degree_of_agreement	F	313	1.26	2.58	-0.16	443.00	0.871	HO
family_with race_by gender	M	132	1.30	2.72	-0.16	235.38	0.874	HO
Family_support with	F	313	1.00	2.36	-1.72	443.00	0.086	HO
academic_responsibilities	M	132	1.46	3.01	-1.56	201.92	0.121	HO
Gender_as	F	313	6.19	3.62	-0.05	443.00	0.957	HO
as_limiting _development school	M	132	6.21	3.64	-0.05	244.90	0.957	HO
Capabilities	F	313	7.08	3.21	0.45	443.00	0.653	HO
gender position within my branch_of_study	M	132	6.92	3.91	0.41	208.67	0.679	HO
Neutrality	F	313	1.57	2.65	0.22	443.00	0.823	HO
capabilities in_both_sexes both_sexes	M	132	1.51	3.06	0.21	217.76	0.833	HO
Restrictions	F	313	1.53	2.75	2.03	443.00	0.043	H1
_learning Attributable gender	M	132	0.98	2.38	2.15	281.96	0.033	H1
Concern	F	313	8.97	2.23	5.46	443.00	0.000	H1
future professional women	M	132	7.38	3.83	4.46	169.71	0.000	H1
Concern	F	313	1.51	2.60	2.72	443.00	0.007	H1
future professional men	M	132	0.82	2.11	2.96	300.91	0.003	H1
Possibilities	F	313	3.73	3.68	4.31	443.00	0.000	H1
women _study studies they_want	M	132	2.15	3.15	4.59	285.25	0.000	H1
Possibilities	F	313	3.11	3.01	3.85	443.00	0.000	H1
men to _study studies they_want	M	132	1.93	2.75	3.99	268.26	0.000	H1
Ambition	F	313	3.57	3.58	3.26	443.00	0.001	H1
good_notes academic _women	M	132	2.39	3.18	3.42	275.35	0.001	H1
Ambition	F	313	2.10	2.70	0.85	443.00	0.396	HO
good _academic _notes academic men	M	132	1.86	2.71	0.85	245.28	0.397	HO
Initiative _school _women	F	313	2.40	3.16	-0.09	443.00	0.925	HO
	M	132	2.43	3.62	-0.09	218.95	0.929	HO
Initiative school men	F	313	3.74	3.41	-0.81	443.00	0.420	HO
	M	132	4.04	3.95	-0.76	217.53	0.448	HO
Facility	F	313	2.05	2.92	0.40	443.00	0.693	HO
_careers who_choose_women choose_women	M	132	1.93	2.89	0.40	249.15	0.692	HO
Facility	F	313	2.66	3.15	-1.92	443.00	0.055	HO
careers who_choose_men choose_men	M	132	3.33	3.72	-1.80	213.90	0.074	HO
Bullyng	F	313	1.77	2.76	-1.20	443.00	0.231	HO
school Attribute:est:gen_career	M	132	2.14	3.44	-1.10	205.68	0.274	HO
Attributes	**S**	**N**	**M**	**DE**	**t**	**gl**	**sig.**	**H(t)**
Bullyng_family_bullying_	F	313	1.79	2.93	-1.80	443.00	0.072	HO
attributable stigma gender_and_career	M	132	2.36	3.32	-1.71	221.28	0.088	HO
Bullyng_neighbourhood_	F	313	1.26	2.52	-1.31	443.00	0.190	HO
attributable stigma gender_and_race	M	132	1.63	3.21	-1.19	202.16	0.235	HO
Feeling_of	F	313	1.12	2.39	-2.56	443.00	0.011	H1
obligation choice_between _careers gender_fit_careers	M	132	1.83	3.19	-2.28	195.78	0.023	H1
Where: F= Female; M= Male; N= Sample size; M= Mean; SD= Standard deviation; t= Student's t-test; gl= Degrees of freedom; sig= Significance; H (t)= Statistical decision.								

Table 6 Comparative gender cluster analysis: Gender perspective in career choice

Cultural elements in career choice

24 are the attributes subjected to T Student test in the dimension of the role of cultural elements in career choice, in 9 of them, equivalent to 37.5% of the attributes, the null hypothesis was rejected due to differences between the groups. The influence exerted by the first-order family on career choice is similar in both sexes, very small in terms of the average, 1.5 in the case of men, nor do they differ too much on the influence of close friends, again with low averages, very close to the weight of parents in the decision. The influence of local culture on career choice shows low averages for both sexes, although higher for males. There is no great discordance in the choice of career for cultural reasons between the groups. Partner's antagonism to culturally motivated career choice is also moderate, 1.37 in males, and similar is the case with resistance to culturally motivated career choice from teachers, school management and acquaintances, in all 3 cases, males show a slightly higher incidence. The female sexes consider themselves to be slightly more religious than the male sex, maximum 4.12. And both sexes consider almost equally that their career is morally accepted by society. No significant differences were found regarding the difficulty of the current career, with an average of 7.60, and whether such difficulty influenced the career decision, 2.54, maximum averages, both corresponding to the male sex. Both women and men rate the social prestige of their careers highly, with averages of 7.81 and 7.82 respectively.

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Women rate the usefulness of their career for the development of their community .6 higher than men. Females suffer .35 more family pressure to choose their current career than males, with a mean of 1.37. Females also have a higher mean in terms of the perceived usefulness of their career for the development of their community. Although with brief asymmetries, in this block of attributes, the above singularities still reside within the limits of acceptance of H0.

Of the attributes where the Student's t-hypothesis test indicated to opt for H1 we find, that the greatest opposition to career choice for cultural reasons is exercised by close relatives, with its maximum in females 1.5 out of 10 possible in quotient. On the influence of their religion on their choice of career, there are differences between the sections, such influence is .55 higher in men, with 1.73 on average. The consideration that their career is accepted or well regarded by their religion is .93 higher for males with 7.58 on average, similarly, males consider at 2.01 units higher the metric on social respect for professionals, but, at the same time, the same males place at 5.14 on average the social respect for a non-professional, 2.19 units higher than the female average on the same issue. The male sex, on average, considers that being a professional is important for social success, 4.85 units higher than the female average. Men rate .62 higher than women the perception of social respect for their careers. While men rate .61 higher with a mean of 8.86, the usefulness of their career for personal progress, women report a considerably higher family opposition to going abroad to study, with a maximum average for women of 3.35, 1.06 units higher than the opposition in men.

Attribute	S	N	M	SD	t	gl	sig.	H(t)
Family_influence of_first career_choice_order	F	313	1.02	2.26	-2.00	443.00	0.047	IND
	M	132	1.53	2.96	-1.79	198.18	0.075	HO
Friends_influence from_first career_choice_order	F	313	1.33	2.52	1.05	443.00	0.293	HO
	M	132	1.05	2.66	1.03	234.88	0.304	HO
Influencia_cultura _local_de _primer_orden _elección_carrera	F	313	1.01	2.31	-1.86	443.00	0.064	HO
	M	132	1.51	3.20	-1.63	190.71	0.105	HO
Culture_influence local_from first_order career_choice	F	313	1.55	2.83	0.65	443.00	0.516	HO
	M	132	1.36	2.81	0.65	248.17	0.515	HO
Parent_opposition selection career_motives _cultural_motives	F	313	1.56	2.63	2.06	443.00	0.040	H1
	M	132	1.01	2.44	2.13	263.85	0.034	H1
Opposition_relatives _choice career_career_cultural_motives	F	313	1.16	2.46	-0.79	443.00	0.430	HO
	M	132	1.37	2.86	-0.74	216.68	0.459	HO
Opposition_teachers career_choice _motive s_cultural	F	313	1.14	2.36	-1.42	443.00	0.157	HO
	M	132	1.52	2.93	-1.30	206.04	0.195	HO
Opposition_management _career_election career_choice _cultural_motives	F	313	1.06	2.27	-1.89	443.00	0.059	HO
	M	132	1.55	3.00	-1.69	196.79	0.093	HO
Opposition_neighbours_ career_election cultural_motives	F	313	1.01	2.22	-1.37	443.00	0.172	HO
	M	132	1.36	2.84	-1.24	201.44	0.217	HO
Degree_of_religiosity	F	313	4.12	3.06	0.14	443.00	0.890	HO
	M	132	4.08	3.47	0.13	220.80	0.896	HO
Attribute	**S**	**N**	**M**	**SD**	**t**	**gl**	**sig.**	**H(t)**
Influence_religion career_choice	F	313	1.18	2.18	-2.12	443.00	0.034	H1
	M	132	1.73	3.15	-1.84	186.02	0.068	HO
Moral_career_acceptance	F	313	6.85	3.12	-0.56	443.00	0.576	HO
	M	132	7.03	3.07	-0.56	250.05	0.574	HO
Acceptance_of_your career_religion	F	313	6.65	3.32	-2.80	443.00	0.005	H1
	M	132	7.58	2.87	-2.97	282.80	0.003	H1
Social_respect_for _professionals	F	313	5.33	3.54	-5.50	443.00	0.000	H1
	M	132	7.34	3.48	-5.53	250.11	0.000	H1
Social_respect_for non-_professionals	F	313	2.95	3.08	-6.28	443.00	0.000	H1
	M	132	5.14	3.96	-5.68	201.03	0.000	H1
Importance_of_being professional social_success	F	313	3.94	3.53	-2.41	443.00	0.016	H1
	M	132	4.85	3.88	-2.32	227.12	0.021	H1
Importance_of_choice _difficulty current_career	F	313	2.56	3.28	0.06	443.00	0.951	HO
	M	132	2.54	3.40	0.06	238.47	0.952	HO
Current_difficulty _career	F	313	7.31	2.41	-1.22	443.00	0.222	HO
	M	132	7.60	1.80	-1.37	326.64	0.170	HO
Social_respect_for_your Career_Zacatecas	F	313	6.49	2.33	-2.58	443.00	0.010	H1
	M	132	7.11	2.19	-2.65	261.09	0.009	H1
Attribute	**S**	**N**	**M**	**SD**	**t**	**gl**	**sig.**	**H(t)**
Prestige_of_your University	F	313	7.81	1.91	-0.05	443.00	0.961	HO
	M	132	7.82	1.99	-0.05	237.18	0.961	HO
Career_utility Development Your_community	F	313	8.26	1.97	0.27	443.00	0.784	HO
	M	132	8.20	1.74	0.29	276.11	0.773	HO
Career_utility personal_progress	F	313	8.25	2.17	-2.84	443.00	0.005	H1
	M	132	8.86	1.85	-3.03	286.75	0.003	H1
Family_pressure to_choose Current_career	F	313	1.37	2.80	1.28	443.00	0.201	HO
	M	132	1.02	2.25	1.40	303.81	0.163	HO
Family_opposition to_go_out_to_study_outside to_study_outside	F	312	3.35	3.85	2.70	442.00	0.007	H1
	M	132	2.29	3.62	2.76	261.41	0.006	H1
Where: F= Female; M= Male; N= Sample size; M= Mean; SD= Standard deviation; t= Student's t-test; gl= degrees of freedom; sig= Significance; H (t)= Statistical Decision								

Table 7 Comparative gender cluster analysis: cultural elements in career selection

Conclusions

Having analysed the differences within the 6 theoretical dimensions mentioned above, participants in the career choice according to our construct with the help of the Student's t-test for independent samples, it remains to add that. In general terms, 159 attributes were computed on a 0-10 ratio scale, locating 59 significant gender differences within the constructs, equivalent to 37.10% of the items.

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The most disparate attributes according to gender, ordered by intensity of occurrence, are: 1) The socio-economic status of the student, differences in 68.42% of the items; 2) The gender perspective in career choice, clashes in 41.17% of the variables; 3) Cultural elements in career choice, disparities in 37. 5% of the attributes; 4) Job market for professionals in career choice, oppositions in 32.25% of the questionnaires; 5) Attitudes, aptitudes and academic security in career selection, differences in 26.92% of the cases; 6) The role of guidance and counsellor in career choice, only 3% of the findings. In another reading, 44.05% of the asymmetries between genders are of an economic nature, 27.11% of them socio-economic and the rest are labour market assessments for professionals. Disparities of 38.97% in the dimensions of gender perspective in the choice of career and other cultural elements towards the same decision. Only 16.94% irregularities in academic attitudes and skills and the role of vocational guidance.

In this overall picture, it is striking that none of the 132 male respondents reported that the total monthly family income in their household was less than or equal to 3 on our scale, which covers a range from 2,000 to 7,999 MXN per month, while on the other hand, 12.1 % of the female respondents live in households with family income in the same range. The next stratum, with a maximum total household income of MXN 9,999, we have as a cumulative percentage 15.3 % of women, compared to only 2.3 % of men. The cumulative percentage of women and men corresponding to each income level is finally equalised at the 8th level of our scale, with a maximum income of MXN 17,999, with 77% of women and 74.2% of men. 72% of the male students say that their family's income is between levels 5 and 8 of our scale, with 7 being the most common and the maximum income being 13,999 MXN, while 51.8% of the female students have incomes in the same range and mode as the male students. For the final segment between 8 and 10, the highest income in our metric, from 16,000 to 20,000 thousand MXN or more, 48.2% of women are located, in men, this indicator rises to 44.7%.

At present, with the exception of a few engineering degrees, women are in the majority in almost all careers in Fresnillo, Zacatecas. An important part of the explanation is that about a quarter of them, 21.7%, belong to less favoured socio-economic statuses, with family incomes ranging between 2,000 and 11,999 Mexican pesos. This metric is further contextualised by the fact that, as a consequence, 3.5 % of women dropped out of higher education at some point for economic reasons, compared to only 1.5 % of men in the same category. Women are 2.33 times more likely to drop out of university for financial reasons than men, for whom "the course did not suit me" was the most common reason for dropping out. It is true that the majority of Fresnillo's university students today benefit from the Benito Juárez scholarship, but there is still a need for additional support for the most economically disadvantaged group. Some of the policies that could reduce the current financially disadvantaged university dropout rate and increase student achievement include: remission of internal fees, school supplies, transport assistance, student canteens, food and food parcels and linkage programmes for part-time employment.

Within the area of vocational guidance, it is necessary to put more emphasis on the verification of labour market research in the different careers, especially for men, since they tend to be influenced by unofficial means of information. Unfortunately, as could be observed, stereotypes of female and male careers are not only socially presented to students, but also reproduced by them. Opposition to gender-based career choices is far from disappearing, although the highest metric is among male nurses, it is women who suffer from this stale ideology from a greater number of actors, especially from close relatives and romantic partners. Therefore, today more than ever, workshops with a gender perspective should be continued and expanded in schools and neighbourhoods of the municipality.

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ISSN 2523-2495