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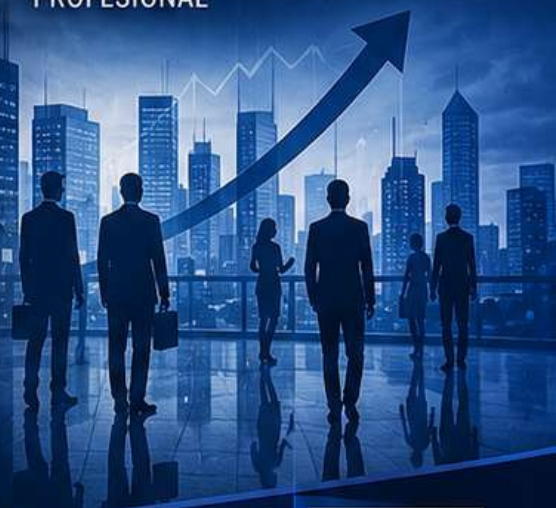


Vol. 5 No. 4

julio - diciembre 2026

AMBIENTE EDUCACIONAL Y OPORTUNIDADES DE EMPLEO

DE ESTUDIANTES DE NIVEL SUPERIOR DE LAS ÁREAS DE INGENIERÍA Y CIENCIAS ECONÓMICO- ADMINISTRATIVAS



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ISSN: 2992-7161

EDUCATIONAL ENVIRONMENT AND EMPLOYMENT OPPORTUNITIES FOR HIGHER EDUCATION STUDENTS IN THE FIELDS OF ENGINEERING AND ECONOMIC AND ADMINISTRATIVE SCIENCES

EDUCATIONAL ENVIRONMENT AND EMPLOYMENT OPPORTUNITIES FOR HIGHER EDUCATION STUDENTS IN THE FIELDS OF ENGINEERING AND ECONOMIC-ADMINISTRATIVE SCIENCES

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DOI: <https://doi.org/10.61273/neyart.v4i4.217>
2026

| Received: May 4, 2026 | Accepted: July 6, 2026 | Published: August 14,

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Page 55

Abstract— The educational environment and employment opportunities available to a student at a technical institute upon graduation are of great importance for that person’s professional future. This research, titled “Educational Environment and Employment Opportunities for Higher Education Students in the Fields of Engineering and Economics and Business Administration” in the Municipality of Ahome, Sinaloa.” It presents quantitative and qualitative results based on data collected through a survey of 163 students majoring in Electronic Engineering, Electromechanical Engineering, Electronic Engineering, and Public Accounting at the same public higher-level technical institution in the municipality of Ahome, in the state of Sinaloa. The same survey indicates that in the engineering field, more than 90% of students perceive a good academic environment that tends toward excellence, and in the accounting program, more than 64% of the students surveyed feel the same way; more than 70% of engineering students feel motivated by their professors, and 62% of public accounting students feel motivated by their professors, but what is most interesting is that more than 72% of engineering students and more than 60% of accounting students believe that good job opportunities will be available upon graduation. Future work for this research involves tracking students who graduate from these programs to determine the extent to which their expectations are met, based on the hypothesis of this study and the existing literature. **Keywords**—Educational environment, economic and administrative sciences, engineering, technological institute, employment opportunities.

Abstract—The educational environment and the employment opportunities of students at a technological institute upon graduation are of great importance to a person’s professional future. This research, titled “Educational Environment and Employment Opportunities of Students in the Engineering and Economic-Administrative Sciences Fields at a Higher Education Institution in the Municipality of Ahome, Sinaloa,” presents quantitative and qualitative results. Data were collected through a survey of 163 students from the Electronic Engineering, Electromechanical Engineering, and Public Accounting programs at a single public technological higher education institution in the municipality of Ahome, in the state of Sinaloa. The survey shows that in the engineering field, more than 90% of students perceive a good educational environment that tends toward excellence, while in the accounting program, more than 64% of surveyed students share this view. More than 70% of engineering students feel motivated by their professors, as do 62% of public accounting students. Most notably, more than 72% of engineering students and more than 60% of accounting students believe that good employment opportunities will arise upon graduation.

Future work for this research involves following up with graduates of these programs to determine the extent to which their expectations are met, based on this study's hypothesis and the existing literature.

Keywords—Educational environment, employment opportunities, students of economic and administrative sciences, engineering, technological institute.

INTRODUCTION

In northern Sinaloa, there is a wide range of higher education options; in Los Mochis alone, there are 14 public and private universities offering programs in engineering and economic and administrative sciences. This study was conducted with 163 students enrolled in the Electronic Engineering (5), Electromechanical Engineering (50), Mechatronics Engineering (63), and Public Accounting (45) programs at a technological institute. In 2022, 72 students graduated from the Electromechanical Engineering program, 59 from Mechatronics Engineering, 25 from Electronic Engineering, and 110 from the Public Accounting program at this same institution; these figures represent 31.7% of the school's total graduates (Data México, 2022). Given these figures, the four degree programs examined in this study rank among the programs with the highest number of graduates in the region, justifying the academic interest in understanding the conditions under which their education takes place and the expectations students have regarding their entry into the labor market. In the municipalities of northern Sinaloa, prominent employment opportunities exist in the agro-industrial sector, manufacturing, financial services and commerce, the construction sector, and electrical and hydraulic maintenance, among others—areas where there is a need for graduates from the four degree programs covered by this study. Studies indicate that in Mexico, a college degree does not guarantee rapid employment upon graduation; factors such as prior practical experience, the quality of the education received, and professional training aligned with the needs of the local productive sector have a decisive impact on employment trajectories (González-Lorente and Martínez-Clares; OECD, 2019). Furthermore, it is also important to examine the academic environment that students experience at their institutions. The school climate—understood as students' perceptions of their peers and the infrastructure—is considered a factor that can predict academic achievement,

student retention, and satisfaction with the education received (Moos and Trickett, 1974; López et al., 2014). This research is of utmost importance since the four degree programs under study are offered by the same institution, and given that the three engineering programs in question are in high demand by the region's industrial and manufacturing sectors, while the accounting field faces relative saturation in the national job market (IMCO, 2023).

This study presents the results of a quantitative investigation based on a survey regarding the student environment and career expectations administered to students in the four degree programs mentioned above at a public technological higher education institution in northern Sinaloa. The specific objectives are:

1. To describe students' perceptions of the student environment according to their major.
2. To assess students' career expectations.
3. To establish a relationship between the student environment and career expectations among the surveyed students.

The study is organized into the following sections: Introduction, which is divided into campus environment and climate in higher education; empirical evidence in technical higher education; career expectations and employability in higher education; gaps between expectations and the reality of the job market in Mexico; the role of industry-academia partnerships; results; discussion; and conclusions. Its findings contribute to the understanding of the link between educational quality and career prospects in a regional context that is underrepresented in the literature on technical higher education in Mexico.

DEVELOPMENT

This research was based on three interrelated conceptual axes: the first is the school environment and climate in higher education institutions (HEIs); the second axis focuses on the career expectations and employment opportunities sought by students graduating from universities in Mexico (higher education institutions); and the third axis considers a public technological institute as the institutional reference system. The combination of these three pillars provides context for the theoretical and empirical aspects of the study of the student academic environment and the career expectations held by students at that institution.

The methodological tool used was a survey. It was designed to cover three main areas: the first was the student environment experienced by students at the technological institute, addressing questions such as camaraderie, relationships among students, and relationships between students and

faculty, as well as their interaction with the services provided by the various departments on campus; the second area covered academics and infrastructure, evaluating the relevance of the educational programs and the facilities offered by the institution for the development of knowledge; finally, the third area addressed employment opportunities, asking students about the prospects they foresee upon graduating from the institution. This study was conducted from an individual perspective, with the aim of analyzing enrollment trends at the institution over the years.

On the other hand, research has been conducted to analyze the career expectations of students graduating from technical vocational education (Tapia Bernabé, I.R., 2022), using a quantitative methodology with a structured survey that considers variables such as employment opportunities, technical skills, and the institution's reputation. Another study conducted among 364 university students in northwestern Mexico, which used Liñán and Chen's (2006) entrepreneurial intention model (López Torres et al., 2021), concluded that the instructor is not a determining factor in students' entrepreneurial intentions but that the student's profile is important. Sanjeeva, M., & Kanwar, A. S. (2022), designed a survey instrument for students at higher education institutions that covers teaching quality, infrastructure, the learning environment, student life, and institutional services.

For this study, students enrolled in the Mechatronics Engineering program (fourth- and sixth-semester students), Electromechanical Engineering (fourth-semester students), Electronic Engineering (eighth-semester students), and the Public Accounting program (eighth-semester students) were included, for a total sample of 163 students.

School Environment and Climate in Higher Education

Educational psychology and the sociology of education have extensively studied school climate in different types and levels of educational institutions. Conceptually, the school climate refers to the set of perceptions that members of an educational community have about their environment, which is shaped by structural, relational, and pedagogical aspects that influence the quality of teaching-and-learning processes (Cisneros-Cohernur and Aguilar, 2010). Along these lines, recent studies on institutions offering engineering programs in Mexico indicate that the environment perceived by students encompasses both the school's physical infrastructure and the relationships they have with their professors (Redalyc, 2022). Moos and Trickett (1974) developed a model for

measuring school climate, in which the School Social Climate Scale (CES) assesses four central dimensions: social relationships, self-actualization, stability, and environmental change. This model has been adapted and validated for use with populations in Latin America (Prado et al., 2010), where it considers school-related aspects, student affiliation, and teacher support, with a Cronbach's alpha reliability coefficient of 0.68 (García Arista et al., 2024). A study adapted for Chile reported adequate psychometric properties and validated the use of the model in a Spanish-speaking population, based on a sample of 4,762 students (López et al., 2014).

Other models were designed, such as the School Development Program School Climate Survey (Haynes, Emmons, and Ben-Avie, 1997), which expands Moos's model to eight dimensions: equity and justice, order and discipline, family involvement, resource sharing, interpersonal relationships among students, teacher-student relationships, motivation for achievement, and characteristics of the school infrastructure. This implies that school climate is not inherent to a single variable but rather requires a multifactorial approach to determine its appropriate weight within the analysis.

Empirical Evidence in Technological Higher Education

Various studies have documented the importance of school climate on the performance and retention of college students. For example, Kuperminc et al. (cited in Cisneros-Cohernur and Aguilar, 2010) demonstrated that a favorable school climate not only influences academic achievement but also contributes to a sense of trust and security in the institution, which are factors that influence student retention. Furthermore, research conducted in northwestern Mexico has used a non-experimental design to quantitatively identify, through statistical analysis, significant differences in the type of campus climate based on class schedule and the nature of the relationship with the institution's faculty and administrators (López et al., 2024).

The National Institute for the Evaluation of Education (INEE) has noted that the school climate in educational institutions is an important factor that depends on educational processes and can predict the quality of those processes. In this regard, López et al. (2014) highlight the need for validated instruments specifically designed for the Latin American population that take into account the cultural factors unique to each regional context, thereby underscoring a methodological gap identified by this study. A study conducted among 958 engineering students in Australia, Brazil, Canada, and India found that students' perceptions of the quality of their education are directly linked to their satisfaction and motivation to continue their studies. The students who participated in the study

rated, as a top priority, instructors who explain clearly, demonstrate enthusiasm, and foster a participatory environment; similarly, for 60% of respondents, securing employment was the most important purpose of higher education (Dicker et al., 2025). The findings of this research highlight and link the concepts of the quality of the school environment and the career expectations of higher education students, thereby providing a basis for the integrative approach of this study.

Recent studies of engineering students in Latin America show a lack of engagement with academic programs when teaching methods are outdated and the content does not meet students' expectations (Carneiro and Pedreira, in Epstein et al., 2023). Furthermore, the situation can be exacerbated when institutions make it difficult for students to access academic support, such as through schedules that interfere with students' ability to balance study time with regular classroom instruction, as well as students' lack of awareness of the services the institution offers them.

Career Expectations and Employability in Higher Education

From an economic perspective, college students have career expectations based on the framework of human capital theory, developed by Gary Becker (1964; 1983), which posits that education, training, and work experience increase individual productivity, and that investing in them generates economic benefits for both the individual and society as a whole (Becker, 1983). Becker argues that people invest in their education with the aim of increasing their productive efficiency and future income, which establishes a direct relationship between a person's level of education and their position in the labor market (Luque, 2016).

However, Pérez Fuentes and Castillo-Loaiza (2016) point out that human capital does not guarantee efficient productivity before entering the labor market; this is because factors such as the availability of jobs in the fields in which professionals are trained are insufficient, and salary expectations are not always met. The relationship between academic training, individual expectations, and labor market conditions is the focus of this study, which examines graduates of higher education institutions in Los Mochis.

Furthermore, market signaling theory (Spence, 1973) posits that college degrees serve as a competitive benchmark in the hiring process for employers, regardless of the content of the education that graduates of a higher education institution have received. The

concepts of human capital and market signaling help explain why engineering students and business and economics students may develop different types of employment expectations, even when they share the same local and institutional environment.

Gaps Between Expectations and Labor Market Reality in Mexico

The transition of graduates from higher education institutions in Mexico into the labor market was documented by Navarro (2023), who notes that completing a university degree in Mexico does not guarantee immediate access to formal employment; as a result, graduates face a market that demands work experience, which they were unable to acquire while pursuing their university studies. This situation represents a challenge for Mexico's higher education system.

González-Lorente and Martínez-Clares (2016) note that, for university graduates, finding formal employment has become increasingly uncertain; this is because the job market not only seeks degree-holding graduates but also requires them to have ongoing, up-to-date training and, above all, practical experience. Certain factors are extremely important for entering the labor market, such as age at the time of graduation, the type of university attended, and whether the student worked during their studies (García-Moltalvo, 2007). All of this can lead to frustration and a lack of employment opportunities when graduates' expectations do not align with the actual conditions demanded by the labor market.

A recent study analyzed university students' perceptions of their career expectations in Mexico. The study found that professional employment opportunities vary considerably depending on the field of study, with opportunities in fields such as the humanities being significantly fewer compared to those in medicine or engineering (SciELO, 2026). In the case of engineering, the National Association of Universities and Institutions of Higher Education (ANUIES, 2023) noted that nearly 90% of graduates in this field find employment within the first two years after completing their studies. However, the association also pointed out that these graduates often lack soft skills and leadership abilities in the various roles they play within companies.

On the other hand, graduates in the field of economics and business administration face a highly competitive job market, which makes it difficult for them to find employment. Degrees in Business Administration, Law, and Accounting account for 27% of all professionals in

in Mexico's labor sector; this results in job supply falling short of the demand for professionals and, consequently, precarious employment conditions (Educación Futura, 2025). Graduates of the Public Accounting program in Los Mochis are not exempt from these conditions, and their career expectations are shaped by a regional market with its own distinct characteristics, primarily linked to the agro-industrial and service sectors in northern Sinaloa.

The Role of Academic-Business Partnerships

Various studies have highlighted the need for higher education institutions to strengthen their ties with the productive sector in order to improve employment conditions for their graduates (Tomlinson and Holmes, 2017; Blázquez et al., 2024). Some programs that institutions implement to strengthen ties with the productive sector include professional internships, professional residencies, and the dual education model, which enable students to gain practical experience before graduation. In some cases, students who have completed their professional residency have been hired by the company where they carried out their project. Empirical studies have shown that for students who graduate and secure their first job, the experience they gain is the most important factor, followed by salary (Del Villar, 2019).

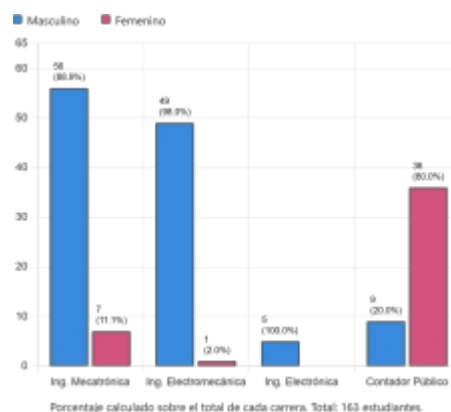
A study by the Organization for Economic Cooperation and Development (OECD, 2019) indicates that the employment rate in Mexico for college graduates aged 25 to 34 varies significantly depending on their field of study and gender. The study emphasizes the idea that educational programs must evolve as the needs of the labor market change, as well as the need to integrate the most important aspects of the workplace into institutional quality assurance mechanisms; this is understood as producing high-quality professionals to ensure optimal performance in the productive sector.

DISCUSSION AND ANALYSIS OF RESULTS

As mentioned earlier, this research focused on two key areas of higher education programs: engineering—which included students from the Electromechanical Engineering program (49 male students, 1 female student), Mechatronics Engineering (56 male students and 7 female students), Electronic Engineering (5 male students), and Public Accounting (9 male students

male students and 36 female students). In total, 119 male students and 44 female students were surveyed, for a total of 163 students surveyed.

The following graph shows the number of students surveyed:



Graph 1. *Number of study participants.*

Source: Author's own work (2026).

As shown in Graph 1, male students dominate the engineering programs (110 men and 8 women), while in Public Accounting, the majority are women (36 women and 9 men).

Graph 2 shows how students perceive the student environment in their respective fields. As can be seen, the majority of engineering students perceive the student environment as good (63.6%); 27.1% perceive it as excellent; and only 9.3% perceive it as average. It is worth noting that no engineering student perceives the student environment as poor.

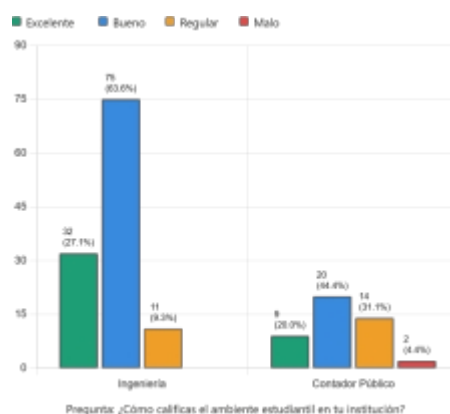


Figure 2. *Perception of the student environment.*

Source: Author's own work (2026).

On the other hand, 44.4% of public accounting students perceive the student environment as good, 20% perceive it as excellent, 31.1% perceive it as average, and only 4.4% perceive it as poor. Therefore, it can be said that, in general, students in both fields recognize a good student environment with a tendency toward excellence.

Figure 3 shows how students in both fields perceive camaraderie at their institution. As can be seen in Figure 3, in the engineering field, camaraderie is perceived as moderate by 58.5%, with a tendency toward “high” at 37.3%; the ratings for “low” (3.4%) and “none” (0.8%) are very small. In the field of economics and business administration, camaraderie tends more toward “moderate” at 40%, where the “low” rating is 28.9%—slightly higher than the “high” rating of 26.7%—while “none” is very low at 4.4%.

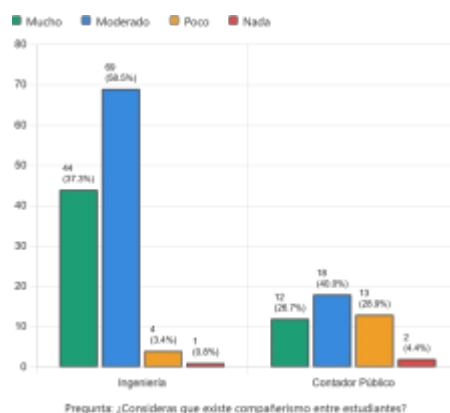


Figure 3. *Perception of camaraderie.*

Source: Author's own work (2026).

The following graph shows the motivation students feel as a result of their teachers:

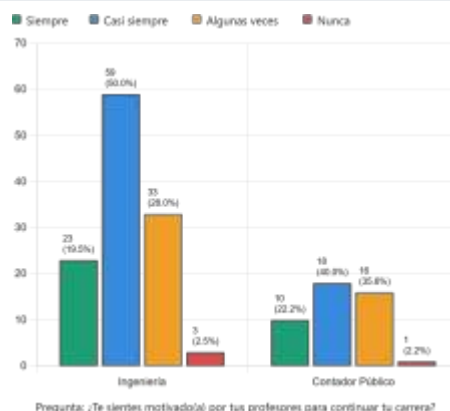


Figure 4. *Motivation generated by teachers in their students.*

Source: Author's own work (2026).

Figure 4 clearly shows that in the field of engineering, 50% of students almost always feel motivated by their professors, followed by 28% who are sometimes motivated and 19.5% who always feel motivated; thus, the trend is that engineering professors largely motivate their students, with only 2.5% feeling that they are never motivated by their professors. In the field of economics and business administration, specifically in the Public Accounting program, 40% of students feel that they are almost always motivated by their professors, followed by 35.6% who feel they are sometimes motivated and 22.2% who feel they are always motivated; only 2.2% of students feel they are never motivated by their professors.

Figure 5 shows the results of how students rate their relationship with their teachers:

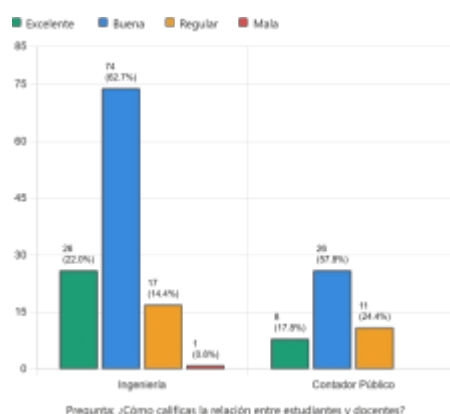


Figure 5. *Relationship between students and teachers.*

Source: Author's own work (2026).

The graph above shows engineering students' perception of their relationship with their teachers: 62.7% rate it as good, followed by 22% who rate it as excellent; 14.4% feel the relationship is fair, and only 0.8% feel that the student-teacher relationship is poor. As for public accounting students, 57.8% consider the relationship to be good, followed by 24.4% who rate it as fair; however, 17.8% of students consider the student-teacher relationship to be excellent, and it is clear that no student in this field considers the relationship to be poor.

Figure 6 shows students' level of satisfaction with extracurricular activities at their institution; these activities may include sports such as soccer, basketball, baseball, etc., track and field, reading clubs, and many others. Among students studying engineering, 44.1% believe that their institution offers extracurricular activities to some extent, suggesting that it could offer more activities or improve the range of options available; in contrast, 40.7% of students are satisfied with the number of extracurricular activities offered by the institution, while only 15.3% believe that these activities are insufficient.

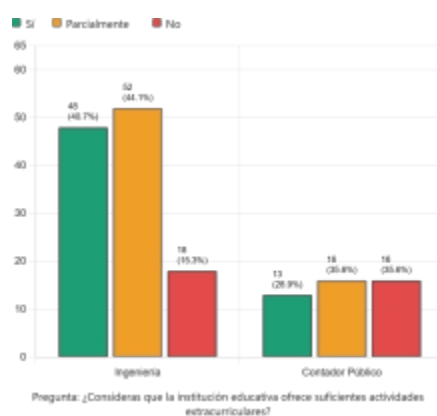


Figure 6. *Extracurricular Activities.*

Source: Author's own work (2026).

On the other hand, among students in the field of economics and business administration—specifically, those in the public accounting program—35.6% believe that the institution offers few extracurricular activities, followed by 35.6% who believe that not enough extracurricular activities are offered; only 28.9% believe that sufficient activities are offered to students.

Figure 7 shows the aspects of the student environment that students at the institution consider most positive. For both fields of study, it is clear that camaraderie is the most significant factor contributing to a positive student environment.

The chart above shows that, among engineering students, 63.6% cite camaraderie, 19.5% cite academic activities, 7.6% cite faculty, 6.8% cite events organized by the institution, academic departments, and the student council, among others, 1.7% cite facilities, and only 0.8% do not see any aspect that improves the student environment at the institution. Public accounting students mention that the aspect that improves the student environment is, for 55.6%, camaraderie; for 13.3%, academic activities; for 15.6%, faculty; institutional events account for 11.1%; and 4.4% believe that the institution has no aspect that improves the student environment.

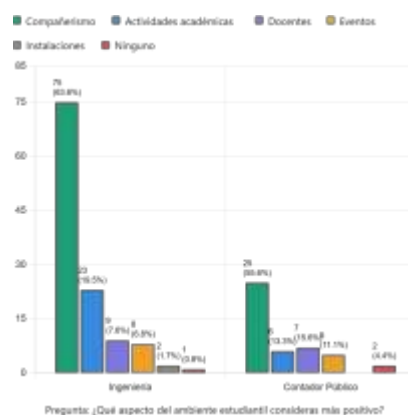


Figure 7. Aspects of the student environment that generate the most positive atmosphere.

Source: Author's own work (2026).

The following graph shows what students believe should be improved at their institution. Figure 8 indicates that 43% of all students believe campus facilities should be improved. Specifically, among engineering students, 43.2% believe the facilities should be improved, 25.4% say everything is fine, 16.1% cite activities or events, 5.9% mention faculty, 4.3% point to academic organization, 1.7% highlight camaraderie, and 3.4% cited other factors that should be addressed. Among public accounting students, 42.2% believe the facilities should be improved, 20% say nothing needs to be improved, 17.8% cite activities and events, 4.4% cite academic organization, 6.7% cite camaraderie, and 8.9% believe other aspects should be improved.

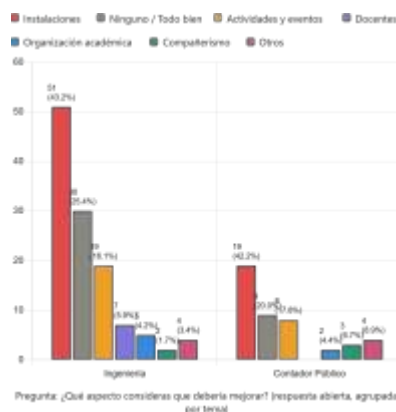


Figure 8. Areas that should be improved.

Source: Author's own work (2026).

Figure 9 shows the results regarding whether students believe their degree program is preparing them for the workforce. Among engineering students, 63.6% believe the program is partially preparing them for the workforce, 22.9% believe it is fully preparing them, 9.3% believe it is preparing them only a little, and 4.2% believe the program is not preparing them at all. From the perspective of public accounting students, 55.6% believe that the program is partially preparing them, 24.4% believe it is fully preparing them, 15.6% believe it is preparing them only a little, and 4.4% believe that the program is not preparing them for the workforce at all.

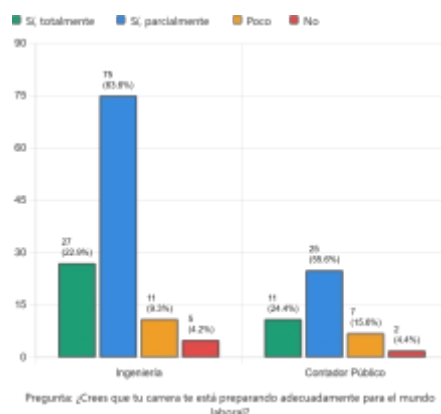
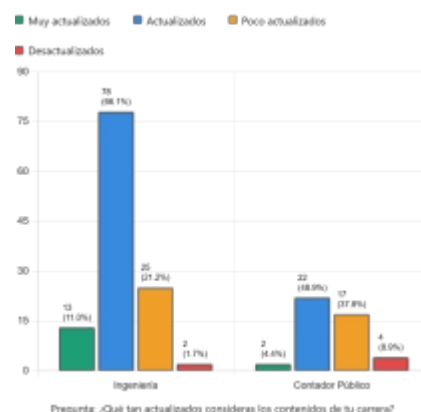


Figure 9. Is your degree program adequately preparing you for the workforce?

Source: Author's own work (2026).

Figure 10 shows the results indicating how up-to-date students consider the content of their degree program to be.



Graph 10. *How up-to-date do you consider the content of your degree program to be?*

Source: Author's own work (2026).

66.1% of engineering students believe the course content is up-to-date, 21.2% believe it is somewhat outdated, 11% believe it is very up-to-date, and 1.7% believe it is not up-to-date. As for public accounting, 48.9% believe the curriculum is up to date, 37.8% believe it is somewhat outdated, 8.9% believe it is not up to date, and only 4.4% believe the curriculum is very up to date.

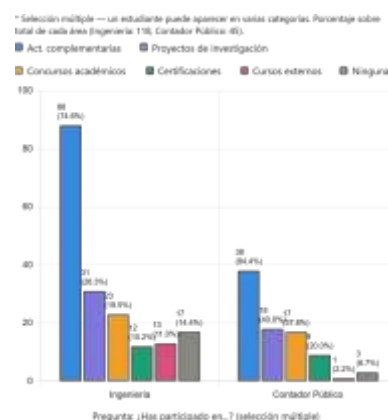


Figure 11. *Academic activities in which students have participated.*

Source: Author's own work (2026).

Higher education institutions offer various academic activities in which their students typically participate. Figure 11 shows the activities in which students have participated. Among engineering students, 74.6% have participated in complementary activities that are mandatory; 26.3% have participated in research projects; 19.5% have participated in special academic competitions; 10.2% in certification programs; 11% in external courses; and 14.4% have not participated in any activities. Among public accounting students, 84.4% have participated in complementary activities, 40% in research projects, 37.7% in academic competitions, 20% in certification programs, 2.2% in external courses, and 6.7% have not participated in any activities.

Figure 12 shows the results of how students perceive job opportunities upon graduation. 55.9% of engineering students perceive job opportunities as good; 24.6% consider them average upon graduation; 16.1% consider them very good; and only 3.4% of students believe that job opportunities will be poor upon graduation.

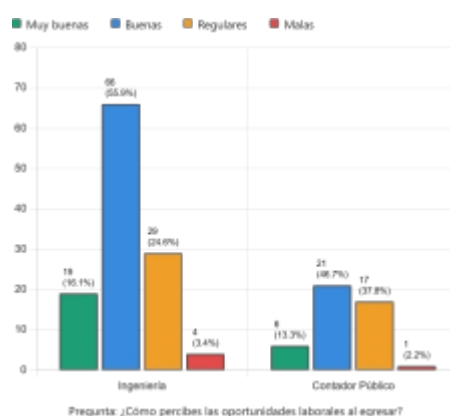


Figure 12. Students' perceptions of job opportunities upon graduation.

Source: Prepared by the author (2026).

In the case of public accounting students, 46.7% consider job opportunities upon graduation to be good, 37.8% consider them to be average, 13.3% consider job opportunities upon graduation to be very good, and only 2.2% believe the opportunities will be poor.

Figure 13 addresses the question of whether students believe it will be easy to find a job related to their major. Among engineering students, 66.1% think they might be able to find a job

related to their field of study; 27.1% of engineering students believe they will find a job related to their field of study; and only 6.8% of students think they will not find a job related to their field of study. Similarly, 55.6% of public accounting students believe they will work in their field of study; which may be due to the fact that the northern region of Sinaloa is dominated by the commerce, services, and agriculture sectors, all of which require certified public accountants; 42.2% believe they may find a job related to their profession, while 2.2% believe they will not.

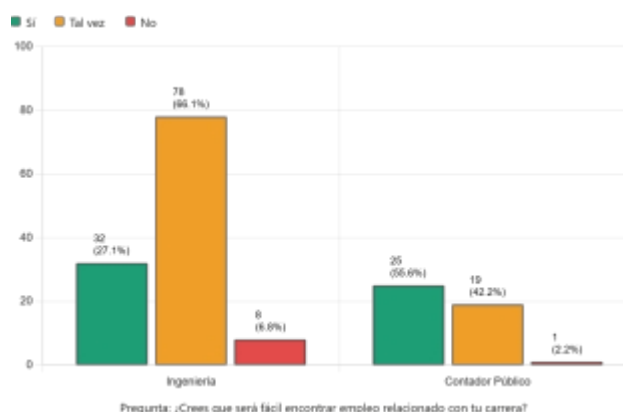


Figure 13. Finding employment related to one's degree.

Source: Author's own work (2026).

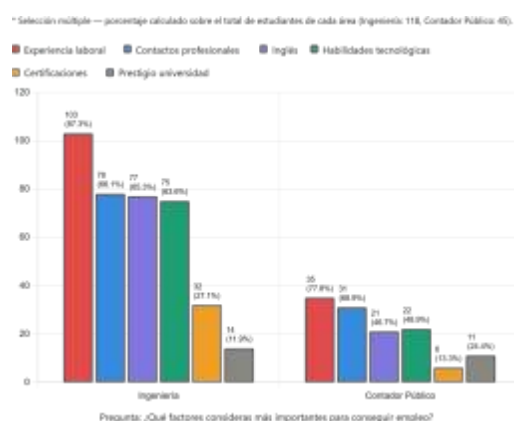


Figure 14. Important factors for finding a job.

Source: Author's own work (2026).

Figure 14 clearly shows that, among engineering students, 87.3% consider work experience to be the most important factor in securing employment, followed by 66.1% who believe professional contacts are necessary, 65.3% who consider English to be of utmost importance for employment, 63.6% who believe technological skills are important

for securing a job, 27.1% cite certifications, and finally, 11.9% consider the university's prestige to be important for entering the job market. Among public accounting students, 77.8% believe that work experience is necessary to secure a job, 68.9% cite professional contacts, 46.7% cite English proficiency, 48.9% cite technological skills, 13.3% cite certifications, and 24.4% believe that the university's prestige is a factor in securing a job.

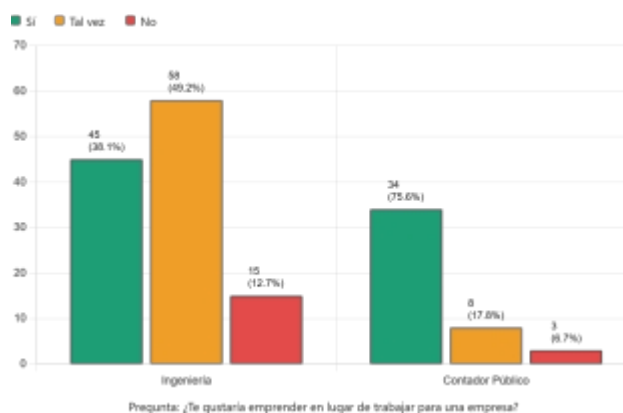


Figure 15. *Would you prefer to start your own business rather than work for a company?*

Source: Author's own analysis (2026).

Figure 15 shows that among engineering students, 49.2% are considering starting their own business, 38.1% are considering entrepreneurship, and 12.7% do not plan to start a business and prefer to look for a job. Among public accounting students, 75.6% consider starting their own business an option, 17.8% think they might do so, and only 6.7% of students would first look for a job since they do not plan to start a business.

According to the study, as shown in Figure 16, the majority of engineering students—43.2%—believe their institution has a good reputation among employers; 40.7% partially agree that the institution has a good reputation among companies; 14.4% of students are unsure; and only 1.7% believe the institution does not have a good reputation among employers. Among public accounting students, 71.1% believe their school does have a good reputation among companies; 22.2% believe that companies consider the educational institution to have a somewhat good reputation; 2.2% are unsure; and only 4.4% believe that the business sector considers the institution to lack a good reputation.

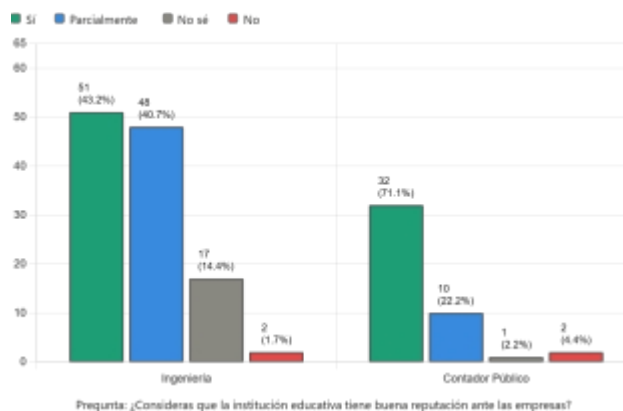


Figure 16. *The educational institution's reputation among businesses.*

Source: Author's own work (2026).

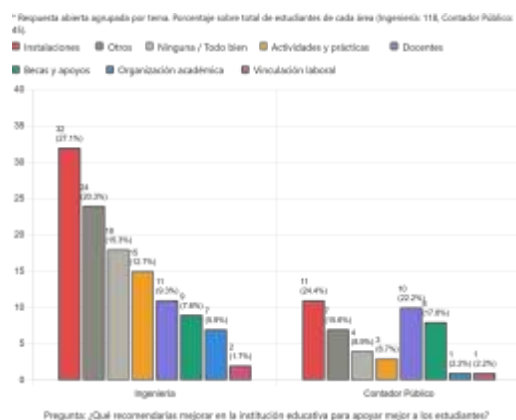


Figure 17. *Recommendations for improving the educational institution.*

Source: Author's own work (2026).

Figure 17 shows the recommendations made by students to the educational institution. In this case, the most important recommendations made by engineering students are as follows: 27.1% suggest improving the facilities; 20.3% suggest improving other aspects such as academic events, the library collection, etc.; 15.3% believe there is nothing to improve; 12.7% recommend improving practical activities; 9.3% of students believe that faculty should be improved; 7.6% of students believe scholarships and financial aid should be offered; 5.9% suggest improvements to academic organization, such as scheduling and assigning appropriate instructors to courses, etc.; and finally, 1.7% consider career placement to be an important area for improvement. On the other hand, 24.4% of public accounting students recommend improvements to the institution's facilities, followed by 22.2% who recommend improvements in teaching; 17.8% recommend that the institution offer

scholarships and financial aid to students; 15.6% of students make other recommendations; 8.9% have no recommendations; 6.7% recommend improving practical activities; and finally, 2.2% recommend improving academic organization and career placement.

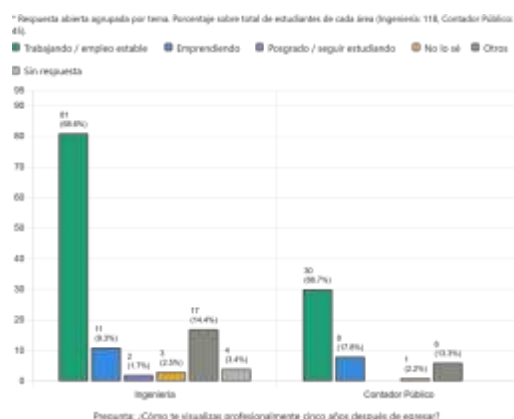


Figure 18. How students envision their future five years after graduation.

Source: Author's own work (2026).

The information provided in Figure 18 regarding how students envision themselves five years after completing their degree shows that both engineering students (68.6%) and public accounting students (66.7%) envision themselves working, in a stable job; 9.3% of engineering students and 17.8% of public accounting students envision themselves as entrepreneurs; and 2.2% of engineering students—and the same percentage of public accounting students—do not know what their situation will be in five years.

This study reveals very interesting results: engineering students perceive the student environment as good (63.6%) and leaning toward excellent (27.1%), with more than 90% considering it a very good student environment. Among public accounting students, 44.4% rate the environment as good and 20% as excellent, suggesting that more than 64% of students view the student environment as very good. This indicates that the academic environment is perceived as being of a certain quality by the majority of the student body (Cisneros-Cohernur and Aguilar, 2010). In addition, more than 95% of engineering students perceive a good sense of camaraderie, while more than 66% of public accountants also perceive a good sense of camaraderie among themselves; thus, only a small number of students feel that there is little camaraderie at the institution. These perceptions define the quality of education received by the students. About 70% of engineering students and more than 62% of public accountants feel motivated by their professors. Similarly, more than 84% of engineering students and more than 75% of public accounting students

perceive a very good relationship between faculty and students. Regarding student preparation for the workforce, more than 86% of engineering students and more than 80% of accounting students believe they are graduating well-prepared. More than 77% of engineering students and more than 53% of accounting students believe that the content of their degree programs is up to date with modern times. More than 72% of engineering students and more than 60% of accounting students believe that upon graduation they will have more than just good job opportunities. In addition, the majority of students in both fields believe there is a good chance they will find employment in their field of study, although they also believe that work experience is important before graduating. More than 88% of engineering students and more than 93% of accounting students strongly consider the possibility of starting their own business in the future. More than 80% to 90% of students feel that their institution has a good reputation in the business sector, and nearly 90% of them—across both fields of study—envision themselves having job stability in the future, whether through employment or by starting a business.

CONCLUSIONS

According to the results of the research on students in the Mechatronics Engineering, Electromechanical Engineering, Electronic Engineering, and Public Accounting programs who participated in this study, they view their education as high-quality, have a good relationship with their professors, feel that the course content is up-to-date, believe their school has a good reputation, and envision a positive and stable future. One study indicates that the school climate and student perception—specifically, whether rules are flexible and adaptable—lead to greater acceptance and contribute to socialization, self-determination, and the acquisition of skills that promote academic success (De Giraldo and Mera, 2000). Therefore, it is highly likely that most students will successfully complete their degrees and achieve stability in the workforce.

FUTURE RESEARCH

As a future research project, it would be relevant to conduct a study on graduates of the aforementioned degree programs, with the aim of assessing their ability to succeed upon leaving their institution and obtaining more precise data on the educational quality of the students.

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