

## **La pertinencia de la Licenciatura en Sociología de los Medios Digitales y Educativos: un análisis cuantitativo y cualitativo**

*The pertinence of the bachelor's degree in Sociology of Digital and Educational Media: a quantitative and qualitative analysis*

*A relevância da licenciatura em Sociologia dos Meios Digitais e Educacionais: uma análise quantitativa e qualitativa*

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### **Resumen**

Este documento analiza la relevancia académica de la Licenciatura en Sociología de los Medios Digitales y Educativos en el contexto de la educación superior en México. Mediante un estudio de pertinencia, se examinan la oferta y la demanda del nivel medio superior, la oferta educativa actual, las tendencias en la formación de sociólogos, las condiciones socioeconómicas del entorno, las trayectorias de los egresados y las demandas del mercado laboral. A través de entrevistas con actores clave y un análisis comparativo con programas similares, se identifican las competencias requeridas en el campo profesional y las diferencias en la formación actual. Los hallazgos indican que la integración de la sociología en la

Licenciatura en Sociología de los Medios Digitales y Educativos responde a una demanda creciente de profesionales con habilidades en análisis social, tecnología y comunicación. Se concluye que la nueva licenciatura no solo es pertinente, sino que también representa una innovación académica con impacto en la formación de competencias digitales y en el desarrollo de estrategias educativas contextualizadas.

**Palabras clave:** educación superior, mercado laboral, oferta y demanda educativa, pertinencia educativa, sociología digital.

### **Abstract**

This document analyzes the pertinence of the bachelor's degree in Sociology of Digital and Educational Media in the context of higher education in Mexico. Through a pertinence study, the study examines the supply and demand of upper secondary education level, the current educational offerings and trends in the study of sociology, the socioeconomic conditions of the environment, graduate performance, and labor demand. Through interviews with key stakeholders and a comparative analysis with similar programs, the competencies required in the professional field and the differences in current training are identified. The findings indicate that the integration of sociology with the study of digital and educational media responds to a growing demand for professionals with skills in social analysis, technology, and communication. It is concluded that the new bachelor's degree is not only pertinent but also represents an academic innovation with an impact on the development of digital citizens and the design of educational strategies necessary for the environment where it is implemented.

**Keywords:** higher education, labor market, educational supply and demand, educational pertinence, digital sociology.

### **Resumo**

Este documento analisa a relevância acadêmica da Licenciatura em Sociologia da Mídia Digital e Educacional no contexto do ensino superior no México. Por meio de um estudo de relevância, examinam-se a oferta e a demanda no ensino médio, a oferta educacional atual, as tendências na formação de sociólogos, as condições socioeconômicas do ambiente, as trajetórias dos graduados e as demandas do mercado de trabalho. Através de entrevistas com atores-chave e de uma análise comparativa com programas similares, identificam-se as



competências exigidas na área profissional e as diferenças na formação atual. Os resultados indicam que a integração da sociologia na Licenciatura em Sociologia da Mídia Digital e Educacional responde a uma crescente demanda por profissionais com habilidades em análise social, tecnologia e comunicação. Conclui-se que o novo programa de graduação não só é relevante, como também representa uma inovação acadêmica com impacto no desenvolvimento de competências digitais e em estratégias educacionais contextualizadas.

**Palavras-chave:** ensino superior, mercado de trabalho, oferta e demanda educacional, relevância educacional, sociologia digital.

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## Introduction

In an increasingly digital world, social interaction and educational processes are evolving significantly. As a result of this process, the emergence of new technologies (such as artificial intelligence, digital platforms, and educational data analytics) has generated new challenges in education and the study of sociology, giving rise to a field of research and academic training that is not yet fully integrated into traditional curricula.

Higher education in Mexico faces the challenge of adapting to an interconnected society where technology is changing how people access knowledge and communicate. The lack of academic programs that integrate sociology with digital media and educational processes reveals a curricular deficit in professional training. This relevance study seeks to demonstrate the need for a bachelor's degree that prepares students to face these challenges from a critical perspective grounded in sociology and media studies, with a multidisciplinary approach that integrates digital pedagogy and media analysis.

A new higher education offering must respond to the trends and needs of the regional context. Therefore, universities and other higher education institutions must participate in creating a new social contract for education by updating their existing programs and designing new proposals committed to social demands (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2021). The creation of an educational program must be based on research that guides decision-making regarding the curriculum. These studies, known as relevance studies, consider the program's relationship to the labor market, social needs, existing academic offerings, and the characteristics of the student population (Díaz-Barriga et al., 2015; Pérez-López, 2023).

Relevance is understood as the correspondence between a new educational offering and the socioeconomic needs of the context in which it will be implemented, with the purpose of defining the role that higher education should play (Brito-Laredo et al., 2017). It is expected that, through these studies, graduates will contribute to the development of their national, state, or regional environments, preventing university education from limiting their social impact (Ángeles et al., 2017; Herrera et al., 2020).

Several studies on the relevance of higher education in Mexico have developed two main methodological approaches: one of a comprehensive nature, which considers in an integrated way the labor market, social needs, educational offerings, and the characteristics of the population. Examples of this are Ortiz et al. (2011) and the Autonomous University of the State of Hidalgo (2022), who emphasize the importance of linking curricula with regional demands and with social and community development projects. On the other hand, the second approach focuses primarily on the analysis of the labor market. In this group, García-Ávila and Ochoa-Camacho (2022) demonstrate the mismatches between professional training and labor market demands; Brito-Laredo et al. (2017) emphasize the job insecurity of graduates and consider that relevance depends on the level of satisfaction of graduates and employers, while Guzmán and Hernández (2025) recognize that education has its own formative purposes, but that it should not ignore labor needs.

The United Nations Educational, Scientific and Cultural Organization – International Institute for Higher Education in Latin America and the Caribbean ( UNESCO-IESALC , 2022) indicates that the relevance of higher education should be evaluated based on the congruence between what society expects from educational institutions and what these institutions actually offer. This requires an ethical and political framework linked to the social and labor context, collective needs, cultural values, and sustainability.

In the case of the state of Guerrero, the relevance of this program is based on the state's social conditions, characterized by educational backwardness and a digital divide, factors that limit access to development opportunities (Olguín, 2024). Globally, trends show that employment in digital environments is a growing field, generating new job opportunities for graduates (World Economic Forum, 2024).

In this context, the relevance study of the Bachelor's Degree in Sociology of Digital and Educational Media is presented, an innovative proposal from the Autonomous University of Guerrero (UAGro), initiated in the 2025 school year. This program is oriented towards the training of professionals capable of analyzing the impacts of digitization on society and

educational processes, whose graduate profile integrates the management of emerging technologies with a critical sociological perspective.

This work aims to analyze the relevance of the new Bachelor's Degree in Sociology of Digital and Educational Media (SMDyE) by evaluating the supply and demand at the upper secondary level, the current educational offer in sociological training, the socioeconomic conditions of the environment, the graduation trajectories and the labor demand.

## **Materials and methods**

This relevance study was developed using a mixed approach, with both quantitative and qualitative techniques and procedures, following the guidelines established in the UAGro Methodological Guide for the Development of Relevance and Feasibility Studies 2023-2027. The objective was to generate a comprehensive diagnosis of the viability and academic, social, and economic relevance of the new Educational Program in Sociology of Digital and Educational Media.

Within the quantitative approach, the educational supply and demand, the supply of educational programs related to Sociology, the trends of educational programs in the regional context, and the follow-up of graduates were characterized.

From a qualitative perspective, the study began with the review and analysis of institutional documents, statistical data, and interviews with ten employers from the public and private sectors, in the areas of research, communication, education, and politics. The analyzed information allowed for the drafting of sections 2 and 5. The analyzed information from the interviews was presented in the formats provided by the General Directorate of Higher Education of the UAGro.

## **Methodological design**

The study considered the six essential components established in the Methodological Guide for the preparation of relevance and feasibility studies of the Autonomous University of Guerrero (2023), addressed as sequential and complementary stages of the evaluative process.

### **1. Academic Rationale**

The purpose of this first component was to evaluate the current educational program (Bachelor's Degree in Sociology of Communication and Education) in terms of its disciplinary, social, and professional relevance. Its educational capacity, its relevance to contemporary social problems, and its potential to offer solutions based on sociological practice were analyzed.

The academic framework involved a critical review of the role of sociology in relation to emerging phenomena such as digitalization, educational transformation, structural inequality, disinformation, and new labor market scenarios. It also considered the degree to which the curriculum aligns with current professional competencies, particularly those related to the critical use of digital media, media literacy, and information analysis, both in academic and social and technological contexts.

Complementary to this qualitative analysis, quantitative elements from statistical studies related to the following were integrated:

- Educational supply and demand at the local and regional level,
- The job placement of graduates,
- The identification of new skills with an emphasis on digital media, media literacy, critical analysis of information, and education oriented towards social transformation.

The academic rationale integrates the arguments that justify the need to update the current program and design a new curriculum focused on the Bachelor's Degree in Sociology of Digital and Educational Media.

## 2. Educational Context and Trends

The second component focused on analyzing the international, national, and state context in which higher education is situated, with the purpose of identifying trends that influence the professional training of contemporary sociologists. This analysis began with the recognition of multiple global challenges and the consultation of institutional sources, such as:

- The climate crisis and ecological disasters; for this topic, reports were consulted from the Food and Agriculture Organization of the United Nations and Statista .
- For the analysis of persistent economic inequalities, information was consulted from World Bank.
- Job insecurity and the growth of informal employment were analyzed based on the information provided by the International Labour Organization.
- Forced migrations and humanitarian crises were reviewed using sources such as the Agency

UN refugee agency.

- The digital revolution and technological divides were addressed with documents from the International Telecommunication Union.
- Institutional fragility in the face of global pandemics was analyzed using information from the World Health Organization.

The proposals from international organizations such as the following were reviewed:

- UNESCO regarding the transformative role of higher education.
- The Organisation for Economic Co-operation and Development (OECD) regarding the skills for the 21st century.
- The World Bank and ILO on economic inequality and global labor challenges.

At the national level, data from institutions such as the National Council for the Evaluation of Social Development Policy, the National Institute of Statistics and Geography (INEGI), and key documents such as the National Development Plan, the General Law on Higher Education, the National Program for Higher Education, and the National Strategic Programs of the then National Council for Humanities, Sciences, and Technologies of Mexico were analyzed. These documents provided guidelines on educational policies, social inclusion, sustainable development, and community engagement.

At the state level, the analysis included:

- The Guerrero State Education Law 2021.
- The UAGro Educational Model 2013.
- The UAGro Institutional Development Program 2023-2027.

These legal and institutional frameworks allowed for the identification of the strategic role of the Autonomous University of Guerrero in training professionals committed to regional development, social justice, sustainability, and the transformation of vulnerable communities. They also highlighted the importance of sociology as a key discipline for critically analyzing social structures, understanding the dynamics of power, inequality, and exclusion, and contributing to the development of proposals aimed at collective well-being, particularly in local contexts marked by profound social and economic disparities.

### 3. Study of educational supply and demand

When evaluating the relevance of a new Study Program (SP), it is necessary to consider two important aspects. The first is to identify programs similar to the proposed new program, and the second is to assess whether there is demand for the previous educational level (Upper Secondary Education).

The importance of identifying and analyzing educational programs aligned with the new proposal lay in examining the trends in Sociology degrees and their enrollment characteristics at leading universities in the field. Additionally, the target population was used to determine the program's relevance.

This supply and demand study included actions such as: defining the size of the target population where the new program will be implemented; describing information on upper secondary school enrollment at the national, state, and regional levels; administering an opinion survey to upper secondary school students; and comparing and analyzing other sociology-related educational programs in terms of their individual and university enrollment.

#### 4. Socioeconomic study

Similarly, the socioeconomic study focused on examining the main demographic, educational, economic, and sociocultural characteristics of Acapulco and the state of Guerrero. The information gathered provided a detailed perspective on living conditions in the region and their influence on education. Demographic characteristics included population totals for the state of Guerrero and the municipality of Acapulco, as well as internet access. Educational characteristics were also analyzed in Acapulco, Guerrero, and at the national level. This comparison was extended to economic characteristics such as the degree of accessibility to paved roads, the degree of marginalization, the population living in poverty and extreme poverty, the Human Development Index (HDI), and the Gini coefficient, among others.

#### 5. Labor market study

This component aimed to identify employment opportunities, salary levels, the most in-demand job profiles, and the professional skills and competencies required by employers in the regional context. To achieve this, two main strategies were implemented:

I. Graduate follow-up. Information was collected on the career path of Graduates of the Bachelor's Degree in Sociology of Communication and Education, in order to know their level of insertion in the labor market, the type of occupation performed, the degree of linkage with their professional training, the average time of placement, as well as their perception of the quality and usefulness of the educational program.

Two main sources were consulted for this analysis:

- The institutional report Graduate Follow-up and Employer Opinion (UAGro, 2024) and
- The results of the Survey of Graduates of the Faculty of Sociology.

II. Study with employers. With the purpose of understanding the size of the job market.

To determine the available job market, the areas with the highest demand for sociology professionals, as well as the skills, abilities, and attitudes most valued in the hiring process, semi-structured interviews were conducted with 10 employers (five from the public sector and five from the private sector) located in Acapulco.

6. Contribution of the PE to the solution of the problems of the socio-economic environment.

Finally, a discussion was held analyzing how the new proposed Educational Project (EP) helps reduce or mitigate the socioeconomic and contextual problems specific to the location where it will be implemented. It is important to note that this will be achieved through the new knowledge and skills developed by graduates of the Bachelor's Degree in Sociology of Digital and Educational Media.

Study elements

Various elements characterizing educational supply and demand were considered to evaluate the relevance of the Bachelor's Degree in Sociology of Digital and Educational Media. To achieve this, information was gathered from high school students in Acapulco and from the Autonomous University of Guerrero (UAGro). Additionally, a survey was conducted among students from different high school systems in Acapulco. It is important to note that this study does not aim to make statistical inferences; rather, it seeks a descriptive analysis of educational supply and demand.

Regarding the supply and trend of Sociology programs, the enrollment of universities in the central and southeastern region (Puebla, Hidalgo, Querétaro, Tlaxcala, Chiapas, Oaxaca and Morelos) that have an educational program in Sociology or related fields was analyzed.

The characterization of socioeconomic and educational aspects included information at the national, state and regional levels, that is, Mexico, Guerrero and Acapulco.

For the labor market study, information was obtained from graduates of the previous educational program in Sociology of Communication and Education 2012, as well as key actors (university directors, teachers and experts in technology and digital education) who qualified the professional performance and academic training that the graduates have had.

## Tools

In the process of characterizing the relevance study for the Bachelor's Degree in Sociology of Digital and Educational Media, it was necessary to develop two instruments and implement them via web forms. The first instrument aimed to determine the potential demand from third-year high school students in Acapulco for the new Bachelor's Degree in Sociology of Digital and Educational Media. This instrument was divided into three sections: socioeconomic, general university interest, and interest in entering the new Sociology program.

This questionnaire was answered by 851 students from different institutions such as Preparatory schools of the UAGro, College of Baccalaureate Studies, Center for Technological Industrial and Services Studies, Center for Technological Industrial and Services Baccalaureate Studies and National College of Professional Education.

The most representative and relevant questions for the purposes of the study were: What is the name of your school?, What career would you like to study according to the following area?, Are you interested in studying at a public or private university?, Are you interested in studying at a university in Guerrero or outside of Guerrero? and Would you be interested in studying for a Bachelor's Degree in Sociology of Digital and Educational Media?

The second instrument was administered to graduates of the 2012 Sociology of Communication and Education program. Its purpose was to understand the academic and professional characteristics of the graduates. This instrument aimed to explore general questions about the 2012 program, such as: Were sociologists of communication and education adequately trained? Did graduates find employment in their field? What are the advantages and disadvantages of being a sociologist of communication and education? To answer these questions, the instrument consisted of four sections: the Socioeconomic section with 6 questions, Labor Market Integration with 12 questions, the Educational Program Evaluation section with 8 questions, and the Sociologists ' Association section with 6 questions. The non-probability sample for this instrument comprised 126 graduates.

The absence of a sampling frame prevented probabilistic sampling; due to logistical and budgetary constraints, surveys were chosen instead.

To complete the labor market study, face-to-face interviews with open-ended questions were conducted with various key stakeholders from the public and private sectors,

the education sector, the media, and non-governmental organizations. These interviews assessed the requirements, skills, and employment opportunities that a sociology graduate needs to qualify for a job.

#### Information processing

The data processing was performed using the Statistical Package for the Social Sciences (SPSS ) version 29. This statistical package yielded numerical measures that aided in characterizing the study elements. Microsoft Excel ( *Office 365*) was used for the graphs. The qualitative data was organized according to the formats specified in the Guide.

## Results

The relevance study yielded results regarding educational supply and demand, socioeconomic context, and the labor market. These results are detailed below.

### 1. Educational supply and demand

To analyze the relevance of a new undergraduate program, it is first necessary to determine the demand for the previous educational level; that is, to quantify the number of students graduating from high school in the region. Therefore, the population for this study comprises all students at the upper secondary level (also known as high school or preparatory school) in the state of Guerrero, attending both public and private schools. This population was specifically limited to all upper secondary students located in the municipality of Acapulco. This delimitation is due to the fact that prospective university students consider proximity to the campus.

To contextualize the possible educational demand, the Ministry of Public Education (2024) was consulted, which presents the total enrollment of upper secondary education in the state of Guerrero (Table 1).

**Table 1.** Total enrollment at the upper secondary level in Guerrero

School year	Total number of students	Total number of students	Total student population	Percentage increase and decrease in enrollment
2020-2021	68,948	72,921	141,869	no data
2021-2022	65 293	72 105	137,398	-3.15%
2022-2023	68 838	74 408	143 246	4.26%
2023-2024	69,360	74,963	144 323	0.75%

Source: Prepared by the author using data from SEP (2024)

The data shows that total enrollment of upper secondary school students decreased during the pandemic years, although it has had an increase of 4.26% in the 2022-2023 school year and could increase at all educational levels as before the pandemic.

The enrollment in Upper Secondary Education in Guerrero for the 2023-2024 cycle is 144,323 students, where 93.17% (134,465) belong to public schools and the remaining 6.83% (9,858) belong to private schools.

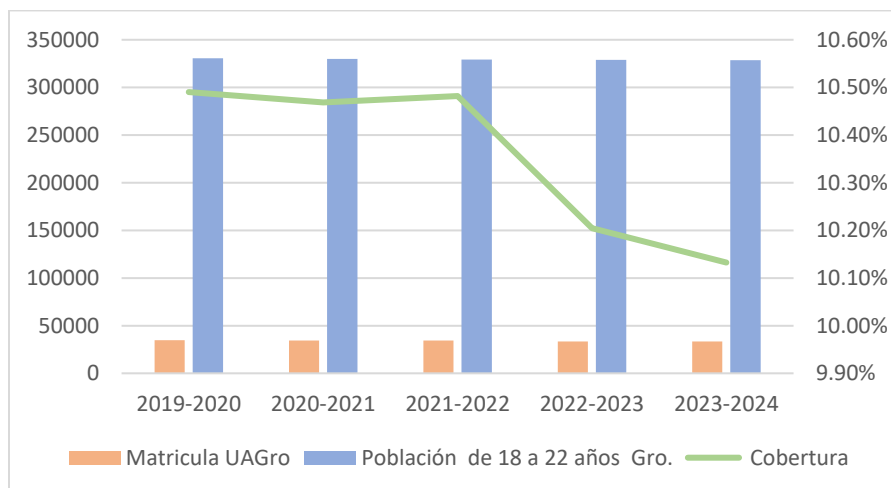
Guerrero's educational indicators, such as Absorption: 94.5%, Total Coverage: 70.1%, Graduation Rate: 71.7%, and Dropout Rate: 10.8%, are below the national average, ranking in the same order, although with very little difference in the Graduation Rate and Dropout Rate indicators. This indicates that the high schools in the state of Guerrero are not attracting (Absorption and Coverage) enough students to meet the national average (INEGI, n.d.).

To obtain an approximation that reflects the reality of the demand for upper secondary education, rather than just population totals, the net enrollment rate for upper secondary education for students aged 15 to 17 in Guerrero and the national average are compared. For the 2022-2023 and 2023-2024 school years ( INEGI, n.d.-b) , Guerrero presented an enrollment rate of 57.2% and 57.5%, respectively. These percentages are lower than the national average of 61.4% and 62.5% for the same school years.

As mentioned, the relevance of the Bachelor's Degree Program in SMDyE is deeply rooted in the Autonomous University of Guerrero, making it important to understand its characteristics. In this case, the total enrollment in Bachelor's Degrees and Associate's Degrees at UAGro for the last five cohorts is shown in Figure 1. Although the coverage percentage has been decreasing, it remains above ten percent, which is a good indicator

considering that the average population coverage for all public and private higher education institutions is around 40% (UAGro, 2024).

**Figure 1.** Total enrollment at the higher education level UAGro



Source: Prepared by the author using data from UAGro, 2024

It is clear that a higher percentage of high school graduates come from public schools, see Table 2.

**Table 2.** Enrollment of upper secondary level students in Acapulco

Public high schools	Tuition	Private upper secondary schools	Tuition
UAGro Preparatory Schools	6893	La Salle School	472
		American University of Acapulco	396
College of Baccalaureate	5094	Ibero-Mexican Lyceum	303
Center for Technological, Industrial and Service Studies (CETis)	3358	Loyola University of the Pacific	260
Center for Technological, Industrial and Service Baccalaureate Studies (CBTis)	469	Madrid School	240
National College of Professional Education (CONALEP)	1,698	Simón Bolívar School	150

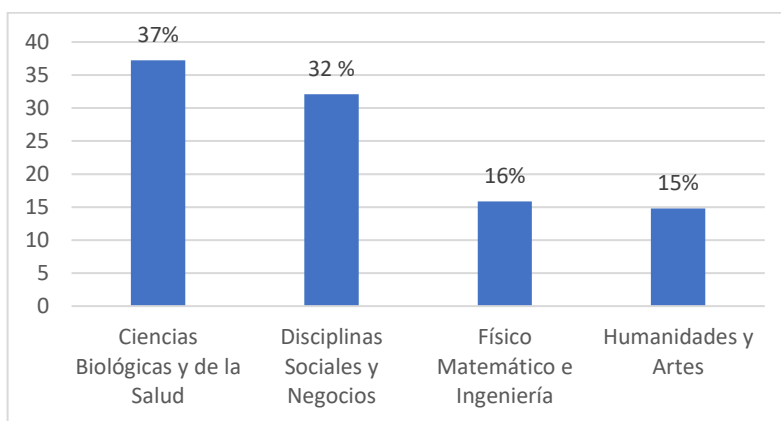
Source: Prepared by the author using information from the SEP (n.d.)

To determine the potential demand for the Bachelor's Degree in SMDyE ( Social Media and Education), a survey was conducted among third-year high school students in Acapulco, with a total of 851 students surveyed. Of these, 58% study at UAGro (Autonomous University of Guerrero) high schools, 19% at Bachilleres (a public high school), 12% at a CETis (Technical and Industrial Studies Center), 10% at CONALEP (National College of Professional Technical Education), and only 2% at CBTis (Technical and Industrial Studies Center).

To the question, "Are you interested in studying at a public or private university?" 84% (712) responded that they were interested in studying at public universities and 16% (138) at private universities. Similarly, to the question, "Are you interested in studying at a university in Guerrero or outside of Guerrero?", 63% (537) responded that they were interested in studying at universities in Guerrero and 37% (314) outside the state.

Figure 2 shows career preference by area of knowledge, highlighting that 32% responded preferring the social sciences and business, where the Bachelor's Degree in Sociology of Digital and Educational Media is located.

**Figure 2.** What career would you like to study according to the following area?



Source: Prepared by the author using information from the survey

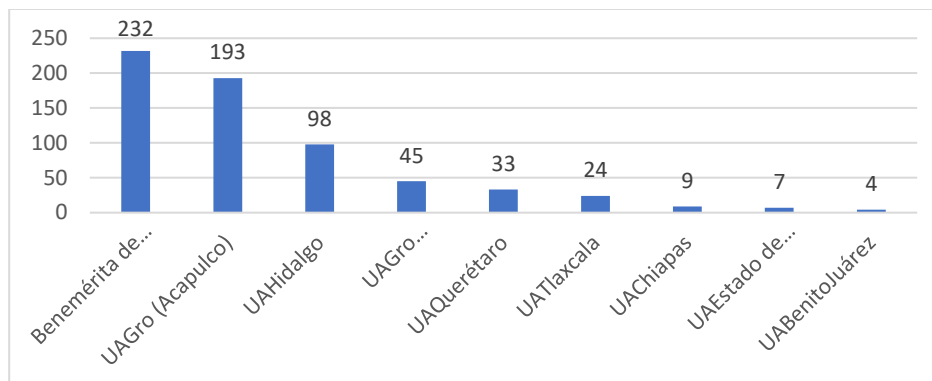
Finally, when asked, "Would you be interested in studying for a Bachelor's Degree in Sociology of Digital and Educational Media ?" , 60% answered YES, they would be willing to enroll in the Bachelor's Degree in Sociology of Digital and Educational Media .

#### Offer of educational programs in Sociology

An important aspect in determining whether a new Study Program (SP) is relevant is to know the offerings of similar educational programs in the region where it will be

implemented. Figure 3 shows student enrollment at universities that offer a Bachelor's degree in Sociology; in the case of UAGro, it is offered at two schools.

**Figure 3.** Enrollment in Sociology Bachelor's Degrees



Source: Data obtained from the official websites of public universities

Most of the universities analyzed offer a bachelor's degree in Sociology. However, the Autonomous University "Benito Juárez " of Oaxaca offers more specialized programs, such as Social Sciences and Rural Sociology, as does the Sociology of Communication and Education program at the Autonomous University of Guerrero.

Regarding enrollment, the Benemérita Universidad Autónoma de Puebla has the highest number of students in Sociology, followed by the Bachelor's Degree in Sociology of Communication and Education at UAGro.

There is significant variation in the number of students enrolled among universities, with an average of approximately 71 students in Sociology during the 2023-2024 academic year. Only three universities exceed this range (Guerrero, Hidalgo, and Puebla). Low enrollment in Sociology programs is a recurring phenomenon.

#### Trends in the most in-demand careers

Of the 18 undergraduate programs offered by UAGro located in Acapulco, the Faculty of Sociology ranks 16th in terms of student enrollment from upper secondary level.

In summary, enrollment in public high schools is high; among universities offering Sociology, the Bachelor's Degree in Sociology and Economics has the highest proportion of students, there is a good percentage of high school graduates applying to enter the program, and it has been identified as a relatively uncommon offering in the region. Therefore, there is demand for enrollment in the Sociology program from high school students, who also find this educational opportunity attractive and novel.

#### 2. Analysis of the socio-economic context

This subsection describes the main demographic, educational, economic and sociocultural characteristics of Acapulco and the state of Guerrero, in order to present a perspective of the living conditions in Acapulco and their educational implications.

#### Demographic and social characteristics

According to the Population and Housing Census (National Institute of Statistics and Geography [INEGI], 2022), Guerrero had 3,540,685 inhabitants, with an average annual growth rate of 0.5% compared to the 2010 census. Of the total population, 52% are women and 48% are men. The most frequent age groups are those between 5 and 9 years old (351,010 people), followed by those between 10 and 14 years old (348,493 inhabitants) and those between 0 and 4 years old (335,458).

In Acapulco, the population totaled 779,566, representing 22.02% of the state's total population. Of this figure, 52% were women and 48% were men, with a ratio of 91 men for every 100 women. The median age of Acapulco's inhabitants is 31 years, reflecting a predominantly adult population.

Table 3 describes the type of area where the population aged 15 and over lives in Guerrero and Acapulco.

**Table 3.** Rural and urban areas

	Total	Rural	Relatively Rural	Urban	Urban relative
Warrior	2,491,307	954 983	38.33%	1,536,324	61.67%
Acapulco de Juárez	583 294	59,485	10.20%	523 809	89.80%

Source: INEGI (2022)

Unlike the state of Guerrero, which has 61.67% of its population living in urban areas, in Acapulco approximately 90% of the population lives in urban areas. This reflects better infrastructure and access to services in Acapulco than in Guerrero.

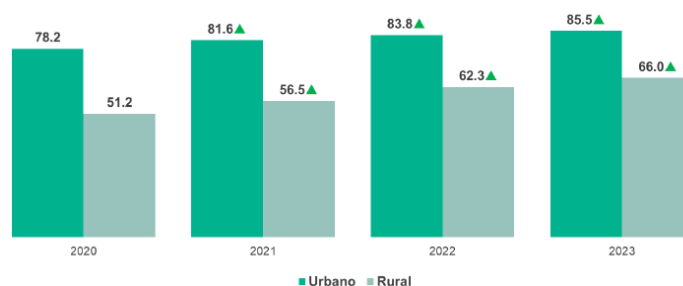
According to INEGI (2020), in Acapulco, 95% of the population has access to sanitation services, 98.4% to electricity, and 66.7% to piped water. However, this last service is scarce and irregular for most of the year, which means wasted time searching for alternative sources or incurring additional costs for purchasing drinking water.

Guerrero is one of the most diverse states in the country, with significant percentages of Indigenous and Afro-descendant populations, and notable internal and external migration. Regarding the Indigenous population, 515,687 people aged three and older spoke an

Indigenous language. The most widely spoken languages are Nahuatl (35.04%), Mixtec (29.02%), Tlapanec (25.89%), and Amuzgo (9.58%). Guerrero also has the largest Afro-descendant population in the country, with 303,923 people (8.6% of the state's population), who self-identify as such based on their traditions and culture.

According to the National Survey on Availability and Use of Technologies of the According to information from households (ENDUTIH; National Institute of Statistics and Geography and Federal Institute of Telecommunications (INEGI and IFT, 2024)), 81.2% of the population aged 6 and over uses the internet, 81.4% uses a cell phone, and 43.8% of households have a computer (laptop, tablet, or desktop). The 18-24 age group has the highest proportion of internet users (96.7%), with an average daily usage time of 5.9 hours, followed by the 12-17 age group with 5.6 hours per day. Finally, Figure 4 shows the difference in internet use between rural and urban areas.

**Figure 4.** Internet users from 2020 to 2023



Source: INEGI and IFT (2024)

Cell phones are among the most widely used technologies. The ENDUTIH survey estimated that, in 2023, 97.2 million people over the age of six owned a cell phone, enabling them to access online classes. In Guerrero, only 72.7% of the population uses the internet, making it the fourth state with the lowest access. Furthermore, only 53.9% of households have internet access, placing it third lowest in connectivity after Oaxaca (53%) and Chiapas (44.3%).

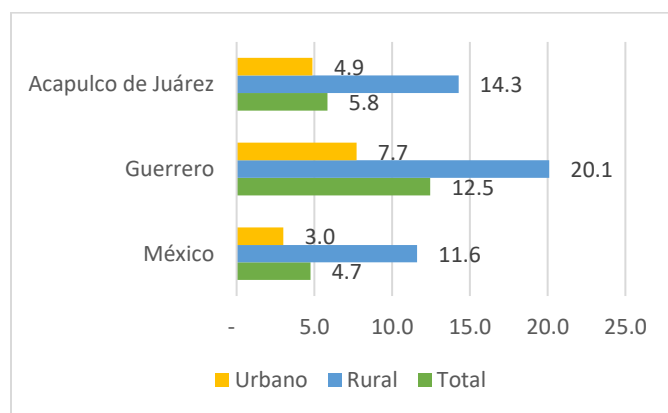
An important characteristic to describe and contextualize, due to its relevance not only in Guerrero but throughout Mexico, is violence. According to INEGI (2024), the gross homicide rate for 2023 in Mexico was 24.6 homicides per 100,000 inhabitants. However, in Guerrero, and especially in Acapulco, this rate more than doubles and triples, reaching 47.9 and 68.49 homicides, respectively. In 2024, Acapulco ranked as the third most violent city in the world (Galarse, 2025), and its inhabitants suffer various consequences, including

forced displacement, psychological and social impact, poverty and social exclusion, lack of justice, and impunity.

#### Educational characteristics

One indicator used to measure personal and social development is the number of illiterate people in a given population. Among the limitations faced by illiterate individuals are their limited personal development, the negative impact on their family and social environment, and the lack of equal opportunities to access social services or benefits, among others. Figure 5 shows the proportion of illiterate people over 15 years of age in Mexico, Guerrero, and Acapulco, considering both urban and rural areas.

**Figure 5.** Proportion of the illiterate population aged 15 and over



Source: INEGI (2024)

Guerrero has more than double the number of illiterate people, equivalent to 12.5% (310,327 people). In Acapulco, the proportion is one percentage point higher than the national average (5.8% or 34,065 people). It is observed that both Guerrero and Acapulco consistently exceed the national average, in both urban and rural areas.

The Ministry of Public Education (SEP) considers as educationally disadvantaged the population aged 15 or older that does not have basic education and is not served by the education system.

**Table 4.** Educational Lag in the population aged 15 and over, according to territorial area

Entity/municipality	Total Backlog					
	Frequency (people) Total	Rural	Urban	Proportion (%) Total	Rural	Urban
	Mexico	28 120 654	9 423 920	18,696,734	29.92%	49.76%
Warrior	1 061 005	564 573	496 432	42.59%	59.12%	32.31%
Acapulco de Juárez	174,748	29,480	145 268	29.96%	49.56%	27.73%

Source: Prepared by the author using data from the Ministry of Public Education (2024)

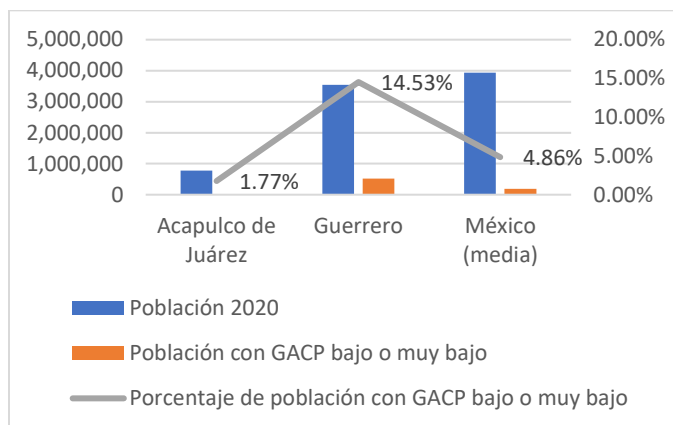
The proportion of educational disadvantage in Guerrero is considerably higher than the national average, reaching almost 60% in rural areas. In the case of Acapulco, this proportion is similar to the national average (Table 4).

#### Economic features

In Guerrero, the tertiary sector predominates, contributing 72.2% of the state's Gross Domestic Product (INEGI, 2024). According to the 2020 Census, in Guerrero, 61 out of every 100 people over the age of 12 were economically active. Of this population, 5.6% worked in the primary sector, 18.72% in the secondary sector, and 72.92% in the tertiary sector. This reflects that tourism and commerce are the main sources of employment for the people of Guerrero. In the same year, the unemployment rate in Guerrero was 0.95%, but the rate of informal employment reached 78.1%.

The Paved Road Accessibility Index (GACP) is an indicator developed by the National Council for Social Development Evaluation for the analysis of poverty at the municipal and state levels. This indicator combines geographic dimensions (proximity between points) and social dimensions (characteristics of people or accessible services), as shown in Figure 6. The cartographic and statistical information used for its estimation comes from official sources of INEGI (2024).

**Figure 6. GACP Percentages**



Source: Prepared by the author using data from INEGI (2024)

Marginalization is a structural problem that reflects a lack of opportunities and development capabilities within a population. According to the National Population Council (CONAPO, 2021), the marginalization index is measured using indicators related to education, housing, population distribution, and monetary income.

Guerrero is one of the states with the highest levels of poverty, informal employment, migration, marginalization of minorities, and violence. Acapulco's marginalization index is 56.4, placing it third among Guerrero's municipalities (surpassed only by Zihuatanejo and Chilpancingo), and its level of marginalization is considered "Low" (CONAPO, 2021).

Table 5 specifies the situation of the population in poverty and extreme poverty at the national, state, and municipal levels.

**Table 5. Population in poverty and extreme poverty**

	Total number of people in poverty	Moderate poverty	%	Extreme poverty	%
Mexico	46 804 500	37 701 000	80.55%	9 103 500	19.45%
Warrior	2,173,300	1,372,800	63.17%	800 500	36.83%
Acapulco de Juárez	521 533	394 861	75.71%	126,672	24.29%

Source: Prepared by the author using data from CONAPO, 2021

According to CONEVAL (2023), both Guerrero and the municipality of Acapulco have a lower proportion of the population in moderate poverty compared to the national average; however, they register a higher proportion of the population in extreme poverty, which shows a more intense concentration of social deprivations in these territories.

In this socio-economic context, it is important to highlight the Human Development Index (HDI), an indicator that measures life expectancy, education and per capita income, and the Gini coefficient <sup>1</sup>that measures the economic inequality of a society, by exploring the level of concentration that exists in the distribution of income among the population (Table 6).

**Table 6.** Human Development Index and Gini Index

Entity/Municipality	IDH (2020)	Gini coefficient (2020)
Mexico	0.756	0.469
Warrior	0.694	0.482
Acapulco de Juárez	0.754	0.383

Source: Prepared by the author using data from the United Nations Programme for Development (2022) and from CONEVAL, 2023

Acapulco has a Human Development Index (HDI) equal to the national average, while Guerrero is below the average. Regarding the Gini coefficient, Acapulco is below the national average, and Guerrero is above the national average. This indicates that Acapulco has greater income equality, unlike Guerrero and Mexico as a whole.

According to the indicators presented in this subsection, it is clear that there is little socioeconomic development in Acapulco, and this situation is exacerbated at the state level. To reduce this, a comprehensive approach is needed that addresses multiple dimensions and includes the participation of all stakeholders, including higher education, which contributes to human capital development, research, and sociocultural and economic development, among other things.

### 3. Labor market study

#### Follow-up of graduates from the PE program in 2012

It is important to know the professional performance and academic training of the graduates of the previous Sociology of Communication and Education program in 2012, in order to know if it met the expectations set in its creation and, based on its results, to optimize the design of the new Bachelor's Degree program in Sociology of Digital and Educational Media.

<sup>1</sup>The Gini coefficient measures inequality in income distribution and should not be interpreted directly as an indicator of well-being.

Through the Alumni and Employer Tracking Department of the Faculty of Sociology, a survey of graduates was conducted to gather information on various academic and professional characteristics. A total of 126 graduates responded. To the question, "Are you currently employed?", 84 % answered that they were, and 16% (21) answered that they were not. Of those who answered that they were employed, 51% (54) were not working in a field related to their studies, and 49% (51) were working in a field related to their studies.

The main reasons why Sociology graduates did not find employment quickly are: 31% mention lack of work experience; 27% because the Sociology of Communication and Education degree is little known; 20% due to lack of degree and/or professional license; 2% for being a graduate of UAGro and 20% other aspects.

The main employment sectors for graduates are presented in Table 7.

**Table 7.** Employment sector of graduates

Employment sector	Percentage
Trade	5%
Communication	5%
Education	36%
Government	5%
Own business	12%
Others	24%
Health	2%
Services to individuals or companies	12%

Source: Prepared by the author using data from UAGro (2022)

To the question, "What is your monthly salary in your current job or when you were previously employed?" 64% of graduates reported incomes of \$10,000.00 or less per month. Considering that not all graduates earn between \$9,000.00 and \$10,000.00 per month, a significant proportion earn less than the equivalent of the current minimum wage in the state of Guerrero (National Minimum Wage Commission, 2024). Specifically, based on the survey results, at least 24% of graduates earn no more than \$5,000.00 per month.

Regarding the perception of approval of Sociology graduates with their academic training (Table 8), the 4 questions and their degree of perception are presented.

**Table 8.** Perception of academic training of graduates

Question / Level of perception	totally agree	OK	indifferent	disagree	I completely disagree
The Sociology of Communication and Education degree met your academic expectations	29%	45%	14%	7%	5%
You find it easy to prepare technical documents related to your work	48%	38%	10%	2%	2%
With what you've learned in Sociology, it's easy for you to handle computer technologies or editing programs	31%	55%	7%	5%	2%
In Sociology, they received the appropriate techniques, methods, and knowledge to demonstrate acceptable professional performance.	38%	45%	10%	7%	0%

Source: Prepared by the author using data from UAGro, 2022

82% of graduates who answered “strongly agree” and “agree” believe that the Sociology PE met their academic expectations, have the skills to prepare technical documents in their work, handle computer technology or editing software, and received the techniques, methods, and knowledge for good professional performance.

#### Employer study

This section presents an analysis of the labor market for graduates of the Bachelor's Degree in Sociology of Communication and Education, considering employment opportunities, salary levels, required skills, and attitudes valued by employers in Guerrero. Table 9 shows the public and private sectors and non-governmental organizations (NGOs) that can offer job opportunities to graduates, specifying the number of vacancies, the type of position, and the estimated salary.

**Table 9.** Opportunities offered to Sociology graduates

N o.	Employers	Job opportunities	Monthly salary levels	Scholarship	Job openings	Sector type
1	Acapulco Municipal Council	2 spaces in the corresponding areas	\$10,000.00		Assistant	Public
2	Master's degrees offered by UAGro	Meet the requirements		\$14,000.00	Student	Public
3	Origin Foundation (NGO)	2 sociologists	\$12,000.00		Facilitator	Private
4	Collective Transformation with Equity (NGO)	2 sociologists	\$10,000.00		Pollster Facilitator	Private
5	Radio and television of Guerrero	4	\$10,000.00		Reporter News Editor Pollster	Public
6	The Sun of Acapulco (media outlet)	2	\$18,000.00		Reporter News Editor	Private
7	High Schools of the UAGro	There is no precision	\$200.00 per hour		Teaching	Public
8	Loyola University of the Pacific	2	\$120.00 per hour		Teaching	Private

Source: Own elaboration

The employers interviewed mentioned that Sociology graduates should have the skills to conduct socioeconomic studies in communities, strong oral and written communication skills, critical thinking abilities, and fieldwork experience. Furthermore, they should demonstrate commitment, responsibility, a proactive attitude, and a sense of solidarity. In this regard, these demands are addressed in the curriculum design through competencies such as the ability to engage with digital and community environments, writing for digital media, a proactive attitude, and social responsibility.

## Discussion

The results obtained allow for a broader discussion regarding the relevance of the Bachelor's Degree in Sociology of Digital and Educational Media. The findings presented reveal both the limitations of the 2012 curriculum and the opportunities that underpin the academic, social, and professional relevance of the new program.

First, the graduate study is one of the most relevant elements of the analysis. More than half of those who completed the Bachelor's Degree in Sociology of Communication and Education were unable to find jobs related to their training, and most earn less than \$10,000.00 per month. The study conducted by Brito-Laredo et al. (2017) indicates that 42% of respondents are in this precarious employment situation.

The study with employers helps to understand the root of these integration difficulties. Employers clearly identified the skills they consider necessary in professionals in the field: digital technology proficiency, media literacy, professional writing, information analysis, the ability to produce content in digital environments, institutional outreach, and experience in community work. These competencies were not sufficiently incorporated into the 2012 curriculum, which partly explains the disconnect between the training received and employers' expectations. This pattern has been discussed by authors such as Guzmán and Hernández (2025), who argue that although higher education has its own objectives, it should not neglect to address labor market needs.

Herein lies one of the central pillars of the new program's relevance: the Bachelor's Degree in Social Media and Education explicitly incorporates these competencies as part of its graduate profile, integrating sociological skills with digital literacy, critical analysis of social networks, communication in digital media, and the design of technology-mediated educational strategies, as detailed in the program's curriculum. In this way, the new curriculum not only updates disciplinary training but also directly addresses the gaps identified in graduate and employer studies.

The socioeconomic context of Guerrero offers another important key to understanding why this program is relevant. The state maintains high levels of poverty, marginalization, and educational backwardness, in addition to a significant digital divide, as shown in the results. These conditions not only reflect social vulnerability but also delineate fertile ground for sociological research, as they allow for the study of how a lack of resources influences access to technologies, how digital exclusion occurs, and what types of

educational or communication strategies could contribute to reducing it. International literature has emphasized that, in scenarios of profound inequality, it is essential to train specialists capable of analyzing socio-digital processes from critical and situated perspectives (UNESCO-IESALC, 2022).

From this perspective, the program's relevance is not solely explained by emerging labor demands, but also relates to the need to understand how digitalization can reproduce, accentuate, or, in some cases, reduce social inequalities. For example, unequal access to connectivity and devices can limit educational opportunities and social participation, while the strategic use of digital platforms in educational contexts can contribute to inclusion. In Guerrero, issues such as lack of connectivity, unequal distribution of devices, exposure to unreliable information, and limitations in digital skills pose challenges that require study by professionals with sociological and educational training.

An additional element is that this is a novel program within the state and national educational offerings, which may attract students interested in interdisciplinary training that combines the use of digital technologies with social analysis. International reports indicate a growing trend among young people toward this type of program, particularly those that integrate digital, communicative, and social skills (UNESCO, 2021).

In the study conducted, this inclination was reflected in the fact that 60% of middle school students ( $n = 851$ ) considered the Bachelor's Degree in SMDyE as a viable option for their professional training.

As the overall results show, the relevance of this program is based on factors that extend beyond global trends. In the local context, a labor market demanding new skills, graduates lacking these skills, an environment marked by social and technological inequalities, and a student population interested in interdisciplinary approaches all converge. These elements help explain why the Bachelor's Degree in SMDyE (Digital, Social, and Educational Management) emerges as an alternative that addresses the current conditions in the state and confirms its academic, social, and professional relevance, in line with the central objective of this study.

## Conclusions

Based on the findings of the relevance study, it is concluded that the creation of the Bachelor's Degree in SMDyE responds to an identified need in academic and professional settings. Its innovative approach positions it as a viable option for training professionals with skills in sociological analysis, digital communication, and technology-mediated learning.

Poverty, socioeconomic inequalities, the environmental crisis, and contemporary geopolitical processes, along with the growing influence of technology in an interconnected world, pose significant challenges for science, politics, and education. The complexity of these phenomena, permeated by power dynamics that affect access to information, social participation, and decision-making, hinders the development of solutions aimed at peace, democracy, and social inclusion.

In regional contexts such as Guerrero, where these problems are particularly acute in the educational and digital sphere, the training of sociologists specializing in digital and educational media is key to understanding, analyzing and critically impacting the contemporary global digital ecosystem, both at the local level and in its articulation with broader processes.

Higher education in Guerrero is a key factor in social development and addressing local problems related to educational backwardness and social inequality. In this sense, its contribution lies in the generation and application of knowledge aimed at understanding social processes and making informed decisions in contexts characterized by educational and digital divides.

In this context, the Bachelor's Degree in SMDyE aligns with these needs by proposing itself as a training option that seeks to strengthen educational innovation and social equity in the region, based on the training of professionals with analytical skills and relevant digital competencies.

Based on the analysis of the educational landscape of the upper secondary level, the trends in the field of sociology, the socioeconomic conditions of the environment, the performance of graduates and the labor demand, the main axes of the relevance study are integrated.

Based on these findings, it is concluded that the Bachelor's Degree in SMDyE is relevant and constitutes a well-founded strategic decision for the formation of educational

strategies aimed at addressing problems associated with inequality and the digital divide in the contemporary context.

### Future lines of research

This study opens the possibility of developing new lines of research aimed at evaluating the impact and conducting longitudinal monitoring of the Bachelor's Degree in Sociology of Digital and Educational Media. Such research could be supported by specific indicators, such as the employment rate and the alignment between training and job placement, graduates' participation in academic, educational, or community projects, and their connections with employers in the public and private sectors within the region. It is also relevant to analyze the incorporation and critical use of emerging technologies, such as artificial intelligence, augmented reality, and big data analytics, in sociological training and intervention processes.

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