

Postgraduate programs registered in the SNP of CONAHCYT in Chiapas. Exploratory study

Programas de posgrado inscritos en el SNP del CONAHCYT en Chiapas. Estudio exploratorio

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Abstract

The National Council of Humanities, Science and Technology (CONAHCYT) is the most important body in Mexico to dictate public policies, coordinate, indicate standards, rules and strategies related to science, humanities, technology and innovation; within this council is the newly created National Graduate System (SNP) that replaced in 2022 the National Quality Graduate Program (PNPC), which was responsible for evaluating graduate programs nationwide, with this change a structural reform was proposed in which it is intended that the instance is no longer punitive. Given these changes of national relevance, it is pertinent to analyze what has happened with the CONAHCYT postgraduate programs in a decade in the state of Chiapas, since being one of the states with the greatest educational backwardness, it is essential to know the situation of education through postgraduate programs as an instrument of measurement, since doing so will allow us to analyze

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the progress, setbacks and possible challenges that these educational programs may have.

Keywords: Chiapas, postgraduate studies, public universities.

Resumen

El Consejo Nacional de Humanidades, Ciencia y Tecnología (CONAHCYT) es en México el órgano más importante para dictar las políticas públicas, coordinar, indicar las normas, reglas y estrategias relacionadas con las ciencias, humanidades, tecnología e innovación; dentro de este consejo se encuentra el recién creado Sistema Nacional de Posgrados (SNP) que sustituyó en 2022 al Programa Nacional de Posgrados de Calidad (PNPC), que se encargaba de evaluar los posgrados a nivel nacional, con este cambio se planteó una reforma estructural en la que se pretende que la instancia ya no sea punitiva. Ante estos cambios de relevancia nacional se plantea pertinente analizar qué ha sucedido con los posgrados CONAHCYT en una década en el estado de Chiapas, pues al ser de los estados con mayor rezago educativo resulta primordial conocer la situación de la educación a través de los posgrados como un instrumento de medición, pues hacerlo nos permitirá analizar el avance, retroceso y posibles retos que tengan estos programas educativos.

Palabras clave: Chiapas, posgrados, universidades públicas.

Introduction

In Chiapas we find several indicators that show the educational backwardness that has historically prevailed, for example, according to the National Institute of Statistics and Geography (INEGI) in its report of 2022, the level of schooling of the population aged 15 years and older is 7. For example, according to the National Institute of Statistics and Geography (INEGI) in its 2022 report, the level of schooling of the population 15 years of age and older is 7.8 grades (second year of high school) compared to the national average of 9.7 (higher education) and the backwardness is accentuated when we refer to indigenous populations that represent 40 percent of the population in our entity, where the average level of schooling is 6.2 (elementary school).

For the case of higher education in Mexico, according to the OECD (2019), of the population of young adults aged 25 to 34 years 23

percent completed higher education, but that percentage is still below the average of OECD countries where it reaches 44 percent, it is important to mention this because "higher education is the most important level of any education system worldwide, since in this rest three relevant actions for any nation-state that seeks its economic, cultural and social development: teaching, research and social responsibility" (Acuña, Mérida and Gutiérrez, 2023, p. 206).

Due to the above, the outlook is not encouraging when it comes to entering a postgraduate program, and it becomes even more complex depending on the areas of knowledge.

Doctoral education in Mexico is limited in scale and focused on a few areas of study. Only 0.1% of the population aged 25-64 in Mexico has a PhD, the lowest proportion among OECD countries.(OECD, 2019, p.2).

Therefore, the importance of postgraduate programs, since there are very significant deficiencies, as shown in the above data, therefore, we will analyze whether there has been an increase in postgraduate programs in HEIs in a decade, it should be noted that this is the advance of a broader research project that is currently underway, But we can already present the preliminary progress of the research in an exploratory way, since in the second part of this research we will conduct interviews with key people in the postgraduate programs to see the challenges they have faced with the change of each public policy and what is the outlook that arises from the changes that are taking place.

CONAHCYT was created in 1970 and over time it has been modified and updated according to the needs at certain times. With respect to the evaluation of postgraduate programs, it began in 1991 with the National Postgraduate Program of Excellence, which was in force from 1991 to 2000; later was the Program for the Strengthening of National Postgraduate Programs, which lasted from 2001 to 2006; and later was the National Program for Quality Postgraduate Programs (PNPC) from 2007 to 2022 and currently the National Postgraduate System (SNP). The above raises several reforms.

Conacyt granted accreditations and seals of distinction derived from something they misnamed "quality measurement", constructed from indicators based on productivity approximations and inferences, which fostered an "academic artifice" (CONAHCYT, 2021, p.23).

Currently, the SNP is proposed as an inclusive and flexible space in which students have the opportunity to apply directly for the scholarships granted by CONAHCYT, in addition to eliminating the rigid evaluation criteria among which, for example, the terminal efficiency of 50 percent of students six months after graduation, which left both students and staff of the respective postgraduate program under a stressful dynamic, not prioritizing the academic field.

The SNP is a space for inclusion, in which priority is given to individuals, eliminating biases and obstacles to ensure that all students admitted to Specialties, Master's and Doctoral programs in priority areas have the same opportunities to access scholarships from the National Council for Science and Technology (Conacyt), who do not have support from their institutions have the same opportunities to access scholarship support from the National Council of Science and Technology (Conacyt), through direct application and simplification of administrative processes in the SNP and Scholarship platforms, under the principle of "leave no one behind, leave no one out".(CONAHCYT, 2022)

Now, in the case of Chiapas, the Higher Education Institutions (HEI) with postgraduate programs in CONAHCYT in 2023 are the following:

- Autonomous University of Chiapas (UNACH)
- University of Sciences and Arts of Chiapas (UNICACH)
- Center for Research and Higher Studies in Social Anthropology (CIESAS)
- El Colegio de la Frontera Sur (ECOSUR)
- Tecnológico Nacional de México, Campus Tuxtla Gutiérrez (ITTG)
- Intercultural University of Chiapas (UNICH)
- Polytechnic University of Chiapas (UPCHIAPAS)

Materials and methods

Among these HEIs we find a total of 43 postgraduate programs ascribed to the SNP-CONAHCYT, in the following table we observe the total number of postgraduate programs per decade. 15 postgraduate programs in 2013, 30 in 2016 and 43 in 2023 (see Table 1).

Table 1. *Postgraduate programs decade 2013- 2023*

	Postgraduates incorporated into the CONAHCYT	2013	2016	2023
1	Intercultural University of Chiapas (UNICH)	0	0	2
2	Center for Research and Higher Studies in Social Anthropology (CIESAS)	0	2	2
3	Polytechnic University of Chiapas (UPChiapas)	1	1	1
4	El Colegio de la Frontera Sur (ECOSUR)	3	3	3
5	Tecnológico Nacional de México (Instituto Tecnológico de Tuxtla Gutiérrez) (ITTG)	1	2	4
6	Autonomous University of Chiapas (UNACH)	6	13	13
7	University of Sciences and Arts of Chiapas (UNICACH)	4	9	18
	TOTAL	15	30	43

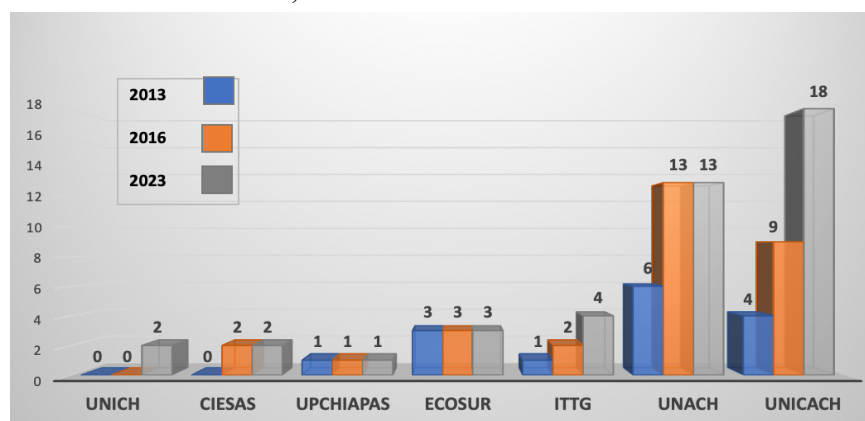
Source: Own elaboration with SNP-CONAHCYT data.

Below, we can see graphically how many programs each HEI has had in the decade presented, and in this way we can analyze the growth of some universities such as UNICACH, which went from 4 to 18 postgraduate programs, which is an integral work of this institution.

Results

It is observed that five HEIs have maintained accredited programs (permanence), these instances are: UPCHIAPAS, ECOSUR, ITTG, UNACH and UNICACH; in 2016 we find the entry of CIESAS with two programs and for the year 2023 two more programs, giving a total of four; and for 2023 the entry of UNICH with two accredited programs.

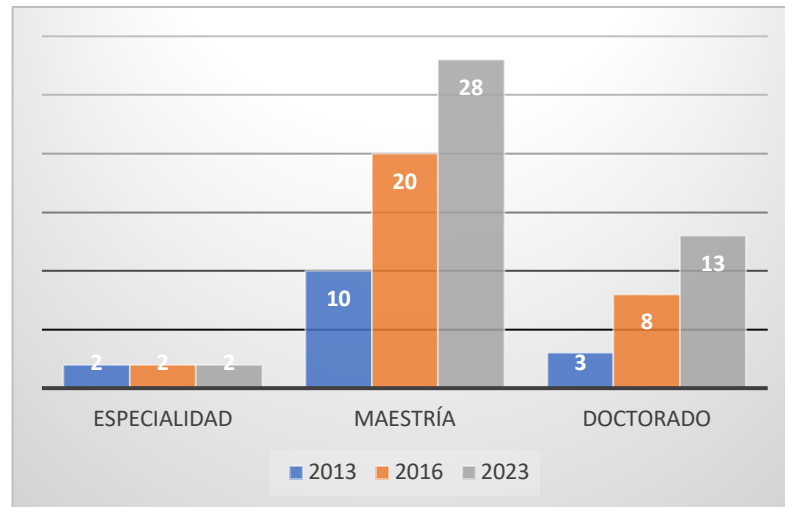
Image 1. Postgraduate programs of Chiapas HEIs incorporated to CONAHCYT in 2013, 2016 and 2023.



Source: own elaboration

It is possible to speak of a growth (income) on the part of UNICH with two programs, CIESAS with four programs, ITTG that went from one to four, UNACH from six to 13 and UNICACH which is the most notable case of growth that went from four to 18 postgraduate programs. According to the analysis, there has been no growth in the decade for UPCHIAPAS and ECOSUR, which have maintained the same number of accredited programs throughout the decade. The following data (see Graph 2) shows the growth by type of program, by specialty, master's or doctorate.

Image 2. Growth of postgraduate programs incorporated to CONAHCYT in the decade 2013-2023 in Chiapas.



Source: own elaboration

As for the specialties have remained two in the decade, we can observe the increase of master's degrees that went from 10 in 2013, doubled to 20 in 2016 and by 2023 rose to 28; for the doctorate from three postgraduates increased to 13 in 2023.

As indicated in the above information, the growth of postgraduate programs has been observed over the decade, although it has not been an exponential growth. This can be argued by comparing the programs accredited by CONAHCYT in states with similar population indexes, as shown in Table 2.

Table 2. Number of postgraduate programs in the SNP-CONAHCYT in three states with similar population indices

State	Approximate number of inhabitants	Number of accredited programs SNP-CONAHCYT
Nuevo León	5 784 442	164
Chiapas	5 543 828	43
Michoacán	4 748 846	75

Oaxaca 4 132 148 59

Source: own elaboration with data from INEGI 2020.

We can analyze the similarity in the number of inhabitants between Nuevo León and Chiapas, and we can see that access to knowledge through postgraduate programs is very differentiated, while the inhabitants of Nuevo León have the opportunity to select from 164 postgraduate programs, in Chiapas there are only 43; However, if we compare with the other two states in the previous table, in the case of Michoacán and Oaxaca, although they have fewer inhabitants, almost 100,000 less than Chiapas, they still have more postgraduate programs in SNP-CONAHCYT (see Table 2).

The Intercultural University of Chiapas (UNICH) and its postgraduate programs

This university is located in San Cristobal de Las Casas and began academic activities in 2005 with the purpose of providing quality public education and as promoters to preserve native languages and cultures. The academic offerings at the higher level are: Bachelor's Degree in Agroecology, Bachelor's Degree in Intercultural Communication, Bachelor's Degree in Intercultural Law, Bachelor's Degree in Sustainable Development, Bachelor's Degree in Language and Culture, Bachelor's Degree in Medical Surgeon and Bachelor's Degree in Alternative Tourism.

This University also has four Multidisciplinary Academic Units in the municipalities of Salto de Agua, Yajalón, Oxchuc and Las Margaritas. In terms of postgraduate programs, it has only two master's degrees (see Table 3) that are accredited in the SNP-CONAHCYT, one with a research orientation and the other with a professional orientation.

Table 3. UNICH Postgraduate programs SNP-CONAHCYT in 2023

Institution	Total	Program	Orientation	Area
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1	Intercultural University of Chiapas (UNICH)	2	Programs	Master's Degree in Intercultural Studies	Research	Area V: Social Sciences
				Master's Degree in Social and Solidarity Economy	Professional	Area V: Social Sciences

Source: prepared with data from SNP-CONAHCYT, 2023.

CIESAS and its graduate programs

CIESAS was founded in 1973 and was restructured in 1980, which gave way to what it is today and to the guidelines that govern it and its main objective is to train specialized human resources. It has seven sites, including Mexico City and five Regional Units: Southeast, West Gulf, and Peninsular and Isthmus, in addition to a regional program (Northeast).

In the case of Chiapas, the Southeast Regional Unit is located in San Cristóbal de Las Casas. Its educational offerings are postgraduate programs, with two programs that have prevailed over those of the middle of the decade and both master's and doctoral programs have a research orientation (see Table 4).

Table 4. CIESAS SNP-CONAHCYT postgraduate programs in 2023

Institution	Total	Program	Orientation	Area	
2	2	Programs	Master's Degree in Social Anthropology	Research	Area IV: Humanities and Behavioral Sciences
			D. in Social Anthropology	Research	Area IV: Humanities and Behavioral Sciences

Source: prepared with data from SNP-CONAHCYT, 2023.

The Polytechnic University of Chiapas (UPCHIAPAS) and its postgraduate programs

UPCHIAPAS is one of the most recent universities, since it was created in 2004, it began operations in Tuxtla Gutiérrez and later moved to the municipality of Suchiapa where its facilities were built. This university offers engineering courses. With respect to postgraduate studies, it only has one accredited graduate degree and this is the one it has had throughout the decade (see Table 5), we can also note that the permanence has been important, mainly with the previous criteria of the extinct PNP, it can be considered as a merit, however, it is still a contribution to education and to its very small disciplinary field.

Table 5. *UPCHIAPAS Postgraduate Programs SNP-CONAHCYT in 2023*

Institution	Total	Program	Orientation	Area
3 Polytechnic University of Chiapas (UPCHIAPAS)	1 Program	Master's Degree in Renewable Energy	Research	Area VII: Engineering

Source: prepared with data from SNP-CONAHCYT, 2023.

El Colegio de la Frontera Sur (ECOSUR) and its postgraduate programs

ECOSUR was founded in 1975, as a result of the interest in studying and doing research on tropical biology and Chiapas turned out to be the ideal place to do it, located in San Cristobal de Las Casas, today there are schools in Campeche, Chetumal, Tapachula and Villahermosa. There are three postgraduate programs, two of which are master's degrees and one doctorate, while one master's degree is professionally oriented (see Table 6).

Table 6. *ECOSUR Postgraduate Programs SNP-CONAHCYT in 2023*

Institution	Total	Program	Orientation	Area
4 El Colegio de la Frontera Sur (ECOSUR)	3 Programs	Master of Science in Natural Resources and Rural Development	Research	Area V: Social Sciences
		Master in Agroecology	Professional	Area VI: Biotechnology and Agricultural Sciences
		Doctor of Science in Ecology and Sustainable Development	Research	Area II: Biology and Chemistry

Source: prepared with data from SNP-CONAHCYT, 2023.

ITTG and its graduate programs

The Instituto Tecnológico de Tuxtla Gutiérrez was created in the 1970s, its educational offerings are focused on engineering and its four graduate programs increased from one in 2013 to four by 2023. All its programs are research oriented (see Table 7).

Table 7. *ITTG Postgraduate programs SNP-CONAHCYT in 2023*

Institution	Total	Program	Orientation	Area
5 Tecnológico Nacional de México (Instituto Tecnológico de Tuxtla Gutiérrez) (ITTG)	4 Programs	Master of Science in Biochemical Engineering	Research	Area VI: Biotechnology and Agricultural Sciences
		Master of Science in Mechatronics Engineering	Research	Area VII: Engineering
		Ph.D. in Food Science and Biotechnology	Research	Area Vi: Biotechnology and Agricultural Sciences
		D. in Engineering Sciences	Research	Area VII: Engineering

Source: prepared with data from SNP-CONAHCYT, 2023.

The Autonomous University of Chiapas (UNACH) and its postgraduate programs

The Autonomous University of Chiapas (UNACH) is one of the oldest institutions of higher education, founded in 1975 in the city of Tuxtla Gutierrez and currently has Faculties, Schools, Centers and Institutes, it is also one of the largest universities in the state. It has 13 postgraduate programs; it is the only university that has three levels of postgraduate studies, specialty, master's and doctorate. There are four postgraduate programs with a professional orientation and nine with a research orientation (see Table 8).

It is worth noting that, although the analysis of the decade indicates that there was growth from 2013 to 2023, it can also be argued that from 2016 to date there was no increase in postgraduate programs, if we put it in comparison with UNICACH (see Table 9) which doubled its postgraduate programs, we could say that this institution should analyze the projection of these and possible programs.

Table 8. UNACH Postgraduate Programs SNP-CONAHCYT in 2023

Institution	Total	Program	Orientation	Area
6 Autonomous University of Chiapas (UNACH)	13 programs	Specialty in Mathematics Didactics	Professional	Area IV: Humanities and Behavioral Sciences
		Specialty in Cultural Processes Reading and Writing	Professional	Area IV: Humanities and Behavioral Sciences
		Master of Science in Tropical Agricultural Production	Research	Area VI: Biotechnology and Agricultural Sciences

Master's Degree in Local Development	Research	Area V: Social Sciences
Master's Degree in Cultural Studies	Research	Area IV: Humanities and Behavioral Sciences
Master of Science in Mathematics	Research	Area I: Physics-Mathematics and Earth Sciences
Master's Degree in Physical Sciences	Research	Area I: Physics-Mathematics and Earth Science
Master's Degree in Didactics of Languages	Professional	Area IV: Humanities and Behavioral Sciences
Master's Degree in Human Rights Defense	Professional	Area V: Social Sciences
Master's Degree in Studies on Cultural Diversity and Social Spaces	Research	Area IV: Humanities and Behavioral Sciences
PhD in Regional Studies	Research	Area V: Social Sciences
Doctorate in Law	Research	Area V: Social Sciences
PhD in Agricultural Sciences and Sustainability	Research	Area VI: Biotechnology and Agricultural Sciences

Source: prepared with data from SNP-CONAHCYT, 2023.

The University of Sciences and Arts of Chiapas (UNICACH) and its postgraduate programs

UNICACH, in accordance with its educational model, has bachelor's degrees based on professional and personal competencies, where it also encourages research, mobility, and has bachelor's degrees focused on Fine Arts, Health Sciences, Natural Sciences, Engineering, Business, Social and Humanities, and Tourism and Gastronomy. The postgraduate educational offer consists of 18 postgraduate programs, including 12 master's degrees and six doctorates. There are four professionally oriented postgraduate programs and eight research-oriented postgraduate programs (see Table 9).

Table 9. UNICACH Postgraduate Programs SNP-CONAHCYT in 2023

Institution	Total	Program	Orientation	Area
7 University of Sciences and Arts of Chiapas (UNICACH)	18 programs	Master's Degree in Social Sciences and Humanities	Research	Area V: Social Sciences
		Master's Degree in History	Research	Area IV: Humanities and Behavioral Sciences
		Master's Degree in Renewable Energy Materials and Systems	Research	Area VII: Engineering
		Master of Science in Biodiversity and Conservation of Tropical Ecosystems	Research	Area II: Biology and Chemistry
		Master of Science in Sustainable Development and Risk Management	Research	Area VII: Engineering
		Master's Degree in Feminist Studies and Intervention	Research	Area V: Social Sciences

Master of Music	Professional	Area IV: Humanities and Behavioral Sciences
Master in Public Health and Sustainability	Professional	Area III: Medicine and Health Sciences
Master's Degree in Nutrition and Sustainable Food	Professional	Area VI: Biotechnology and Agricultural Sciences
Master's Degree in Risk and Climate Change Management	Professional	Area II: Biology and Chemistry
Master's Degree in Agroforestry Sciences	Research	Area VI: Biotechnology and Agricultural Sciences
Master's Degree in Psychosocial Studies	Research	Area IV: Humanities and Behavioral Sciences
D. in Social Sciences and Humanities	Research	Area V: Social Sciences
Doctorate in Feminist Studies and Intervention	Research	Area V: Social Sciences
PhD in Renewable Energy Materials and Systems	Research	Area VII: Engineering
Doctor of Science in Biodiversity and Conservation of Tropical Ecosystems	Research	Area II: Biology and Chemistry
D. in Historical Sciences	Research	Area IV: Humanities and Behavioral Sciences
Doctorate in Psychology	Research	Area IV: Humanities and Behavioral Sciences

Source: prepared with data from SNP-CONAHCYT, 2023.

SNP-CONAHCYT postgraduate programs in Chiapas by areas of knowledge

Also considered in this exploratory study is the analysis by areas of knowledge in which the postgraduate programs offered in Chiapas are registered, in which Area IV: Humanities and Behavioral Sciences stands out, with 12 postgraduate programs (27.9%), followed by Area V: Social Sciences with 11 programs (25.8%), and Area III: Medicine and Health Sciences with one postgraduate program (2.3%). This is followed by Area V: Social Sciences with 11 programs (25.8%), and Area III: Medicine and Health Sciences with one graduate program (2.3%) and Area I: Physics-Mathematics and Earth Sciences with two graduate programs (4.6%) (see Table 10).

Table 10. *SNP-CONAHCYT postgraduate programs in 2023 by areas of knowledge*

Knowledge area CONAHCYT	Programs	
	Abs.	%
I: Physics-Mathematics and Earth Sciences	2	4.6 %
II: Biology and Chemistry	4	9.3 %
III: Medicine and Health Sciences	1	2.3 %
IV: Humanities and Behavioral Sciences	12	27.9 %
V: Social Sciences	11	25.8 %
VI: Biotechnology and Agricultural Sciences	7	16.2 %
VII: Engineering	6	13.9 %
Total	43	100 %

Source: Prepared by the authors with data from SNP-CONAHCYT, 2023.

As mentioned above, there are 43 graduate programs offered by the HEIs of Chiapas and they are offered at the following seven HEIs: The Intercultural University of Chiapas (UNICH), Autonomous University of Chiapas (UNACH), the University of Sciences and Arts of Chiapas (UNICACH), The College of the Southern Border (ECOSUR), The Technological Institute of Tuxtla Gutierrez (ITTG), the Center for Research and Higher Studies in Social Anthropology (CIESAS) and the Polytechnic University of Chiapas (UPCHIAPAS). Of these, 28 (65.11%) are master's degree programs; 13 (30.23%) are doctoral programs and two (4.65%) are specialties (see Table 11). The HEI that offers the most programs (18 in total) and covers two postgraduate levels (master's and doctorate) is UNICACH (see Table 9).

Table 11. *Number of SNP-CONAHCYT postgraduate programs in 2023 by areas of knowledge*

Institution	Specialties		Masters		Doctorates		Total	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
UNACH	2	15.5	8	61.5	3	23.0	13	100.0
UNICACH	0	0	12	66.66	6	33.33	18	100.0
CIESAS	0	0	1	50	1	50	2	100.0
ECOSUR	0	0	2	66.66	1	33.33	3	100.0
ITTG	0	0	2	50	2	50	4	100.0
UNICH	0	0	2	100	0	0	2	100.0
UPCHIAPAS	0	0	1	100	0	0	1	100.0
Total	2	4.65	28	65.11	13	30.23	43	100.0

Source: Prepared by the authors with data from SNP-CONAHCYT, 2023.

Discussion

Some final ideas that we can outline revolve around the growth of postgraduate programs, the permanence and entry of postgraduate programs is recognized, in some HEIs more than in others, but which of course have a positive impact on the population that wants to enter a program to strengthen their research or professional capacity and of course to obtain an economic benefit through a scholarship to carry out these studies.

The national panorama regarding the change and application of federal public policies is also a fundamental axis, we can indicate that there will be a challenge for the universities, for the basic and extended academic nuclei of the postgraduate programs and for the student community, since the adjustments, although they are already being made since last year (2022) are still not entirely clear, which should lead to the analysis and to make the corresponding adjustments.

Finally, something that is no longer recorded in the HNS databases is the status of the programs that used to transit through four levels, newly created, developing, consolidated or international competition, which implies flexibility in future evaluations.

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