

# The importance of community action in the process of implementing an educational institution and its impact on extension activities.

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## Abstract

*The Federal Institutes of Education (IFs) are intended to collaborate with regional innovation systems, encouraging the production of knowledge and innovative technologies and activities constituting a promising strategy for Brazilian regional development. One way to measure whether the institute's purpose is being fulfilled is through outreach activities with the community concerning local and regional economic and social advancement. Therefore, the objective of this study was to analyze the process of implementing an IF, as well as its impact on the community. Methodologically, here we present documentary research carried out on the process of community participation in IF implementation, as well as interviews conducted to ascertain the perspective of this determining actor regarding the return to society and extension actions. We conclude that engaging the local population in the choice of city was fundamental, causing other cities in the region to join efforts to capture the institute, just as it generated a positive impact in the entire region by providing an opportunity for qualification, which before was carried out at a distance, causing the success of the young population or even a lack of public training for financial reasons. As for the extension actions, the institute analyzed performs these according to region, filling any existing gaps by its creation.*

**Keywords:** Federal Institutes of Education (IFs); Education Professional; Regional development; Extension actions

## 1. Introduction

Law nº 11,892 (December 29, 2008) can be considered a major instrument in the expansion process by creating the Federal Network for Professional, Scientific, and Technological Education as part of the federal education system linked to the Ministry of Education. The junction authorities of education as well as converting and Technical Schools and Centers Federals Technological Education were established by this legislation with the legal nature of authority and holding administrative, patrimonial, financial, educational, pedagogical, and disciplinary positions. At first, the conceptual perspectives of the Federal Institutes were organized on a territorial basis defined by region (FERNANDES, 2015).

The Creation Law has nine items that delimit the purposes and characteristics of these entities, from the levels and modalities of the offer of professional education to the promotion of the production and transfer of social technologies aimed at the environment, including the development of educational and investigative studies on entrepreneurship, cooperatives, and others; consolidation of local productive, social and cultural arrangements; teacher training in science education; and development of a scientific and technological extension and dissemination program and the stimulus (BRASIL, 2008).

According to MEC/SE TEC (2014), 140 units of technical schools were built in Brazil from 1990 to 2002. Subsequently, between 2003 and 2010, another 214 new units were delivered after the launch of the Network Expansion Plan Federal Professional Education. The choice of cities for new units considered three dimensions established by the federal government for the expansion of the network: social, geographic, and development. In general, the social dimension aimed at universal services to territories; the geographical dimension aimed at internalizing the public offer of professional education and serving municipalities not served by federal schools; and the development dimension aimed to serve municipalities that already had productive arrangements.

In 2017, the National Regional Development Policy completed officially 10 years of its institutionalization, held by Decree n° 6047, 22 February 2007. This emergency was a milestone in the resumption of the regional development issue and, through this plan, its actions correlated with an effort to strengthen the expansion of federal institutes of education.

In 2018, the Federal Network consists of 38 institutes of education, science, and technology, the Federal Technological University of Paraná (UTFPR), two federal technological education centers (Cefet), 23 technical schools linked to federal universities, College Pedro II, and their respective campuses.

It is a determining role of the Federal Institutes to act in line with local productive, social, and cultural arrangements (BRASIL, 2008). What is in underway affirms a one conception of Education Vocational and Technological as potentiating the individual in the development of their capacity to generate knowledge starting from a practice integrated to reality instead of another one that takes EPT only as a way of instrumentalizing the being human being.

### ***1.1 Federal Institutes of Education, Science, and Technology and local development through extension projects***

The IF's purposes related to regional development are evidenced by impact, how to train and qualify citizens aiming professional performance in the various sectors of the economy, with emphasis on local, regional and national socio-economic development, as well as developing education professional and technological. Develop professional and technological education as an educational and investigative process for generating and adapting technical and technological solutions to social demands and regional peculiarities. Guide its training offer to the benefit of the consolidation and strengthening of local productive, social and cultural arrangements, identified based on in the mapping of the potential for socio-

economic and cultural development within the scope of the Federal Institute.

Thus, according to MEC (2018), the legal advance of extension in the recent national education laws was not accompanied by practice in the education systems, especially in the sense of explicitly contemplating the subject of extension in a regimental manner. As a result, the spread of multiple extensionist concepts and practices was unleashed for different types of higher education institutions in the country, creating a regulatory gap for the extension that led, in 2012, to the Institutions Extension Pro-Rectors Forum of Higher Education Publics publishing referential text entitled National Policy for University Extension. In this document, among other subjects, the objectives of university extension were listed as a set of 15 objectives including those agreed upon in the National University Extension Plan, 1991 as well as new ones deemed necessary to overcome other challenges that have been established over time, as well as to take advantage of new opportunities (MEC, 2018).

From the section of the MEC (2018, p. 13) referencing compliance with Law n° 13,005/2014, which approved the National Education Plan - PNE 2014-2024, “the extension activities must comprise, at least, 10% of the total curricular and student workload of the undergraduate courses,” thus becoming an “action integrated to the curricular matrix and the organization of the research, so that it constitutes a single interdisciplinary, educational, cultural, scientific, technological process, the extension” (MEC, 2018, p. 14), according to guidelines that structure its conception and practice. University extension guidelines are aimed at promoting transformative interactions between higher education institutions and other sectors of society through the production and application of knowledge.

As noted in the Opinion section of the MEC (2018), extension activities are interventions that directly involve communities external to higher education institutions and that are linked to the education of the student and supported by clearly defined guidelines and principles, inserted in courses’ political pedagogical projects through programs, courses and workshops, events and service provision, which can be complemented by institutional rules specific to higher education but not exclusively. Therefore, according to the MEC (2018), it is desirable to include “programs of a governmental nature, which meet municipal, state, district, and national policies” (MEC, 2018, p. 14).

Benetti, Sousa, and Souza (2015) in a theoretical explanation of the accreditation of university extension in undergraduate courses rescue the FORPROEX approach and present a set of attributes that characterize this action - interdisciplinary educational, cultural, scientific process and political, involving students, teachers, and administrative staff, which, therefore, would enable the bilateral or collective transformation of the university and other social actors.

The extension curriculum, or extension (curriculum) accreditation, a strategy provided in [the National Education Plan \(PNE\)](#), was regulated by [Resolution n° 7 MEC/CNE/CES](#), of December 18, 2018, which establishes the Guidelines for the Extension in Brazilian Higher Education and regulates the provisions of Goal 12.7 of Law n° 13.005/2014. Just as it is present in Goal 12.7 of the National Education [Plan \(PNE\)](#) - which ensures 10% of curricular credits for extension projects - and provides definitions for the policies of

extension of Brazilian higher education. For example, evaluation parameters for extension actions are determined, in addition to principles and norms for extension in all higher education in the country.

Among other things, the Resolution: (1) establishes that “extension activities must comprise, at least, 10% of the total student curriculum load of undergraduate courses, which must be part of the matrix course curriculum”; and (2) instructs INEP to consider, for authorization and recognition of courses, (i) compliance with the 10% minimum workload dedicated to extension, (ii) the articulation between extension activities, teaching, and research, (iii) the teachers responsible for guiding extension activities in undergraduate courses.

The 10% of extension activities must be calculated based on the total workload of the course, thus, as it is not related to the workload of each discipline, as some of them have mixed workload - theoretical and extension. That is, the quantitative aspect is carried out after the sum of the curricular components, including subjects, complementary activities, internships, course completion work, etc.

The extension activities can thus, according to each strategy in the institutional educational planning, be accomplished in several ways, among them: (a) extension actions incorporated into the courses, i.e., incorporated into disciplines, which will be dedicated to part of the entire workload for such activities; (b) registered extension actions configured in projects, courses or events) that must be certified and validated; (c) composition of anterior items, that is, mixing hours to be met in such and such disciplines and the rest in shares registered in other aspects, and essential condition that these activities play a formative role for the student and involved the community outside the educational institution, involving the teacher responsible for certifying that the activities performed by the student fulfilled the proposed role. The main element that differs from the extension of complementary activities (the practice of disciplines, field classes, technical visits, scientific or cultural, scientific research, etc.). This is included in implementing the external public institution. For the latter, although they may play a formative role, the student can participate as a listener and in actions that do not involve the external community.

Higher education institutions have until December 14, 2021 to comply with the rules and reserve 10% of the workload for extension activities.

### ***1.2 The Federal Institute of Education Goiano and the Campus Iporá***

The institutions that are included in the IF Goiano were given by the implementation of Technical Courses in Agriculture, based on LDB 5692/71. With subsequent reforms in Vocational Education implemented since the LDB of 1996 (Law nº 9394/96) and its regulations, these Teaching Units were boosted, with public funding from government programs, with emphasis on the Professional Education Expansion Program (PDI 2009/2013).

Per its creation law, the institute started to design and develop curricular programs based on regional demands while adhering to local productive arrangements, regional development plans, and social

movements (PDI 2009/2013).

For this study, an analysis of the locations of the IF Goiano campuses showed the potential of the Iporá campus, because its installation was prompted by demand from local actors, in addition to being classified as a small town with a population of 31,274 people, MHDÍ of 0.743 according to the 2010 IBGE Census, and 2016 GDP of R \$18,040.93 per capita.

Determining the choice was the nature of the insertion of the Iporá Campus. Table 1 shows the process of installing the campuses that make up the IF Goiano.

Table 1. IF Goiano and the nature of the insertion of its Campi

<b>Campi IF Goiano</b>	<b>City/GO</b>	<b>Nature of insertion</b>
CAMPUS CAMPOS BELOS	Belos Campos	Government-induced
CATALAN ADVANCED CAMPUS	Catalan	Government- induced
CAMPUS CERES	Ceres	Government-induced
CRYSTALLINE CAMPUS	Crystalline	Government-induced
ADVANCED HYDROLANDIA CAMPUS	Hydroland	Government-induced
IPAMERI ADVANCED CAMPUS	Ipameri	Localized/regionalized demand
IPORÁ CAMPUS	Iporá	To send localized/regionalized
MORRINHOS CAMPUS	Morrinhos	Government-induced
CAMPUS POSSE	Possession	Government-induced
RIO VERDE CAMPUS	Green River	Government-induced
TRINITY CAMPUS	Trinity	Government-induced
CAMPUS URUTAÍ	Urutaí	Government- induced
INNOVATION POLO	Innovation	Government-induced

Source: Compiled by author.

In this sense, the municipality of Iporá is a typical case for studying a research problem outlined.

The city of Iporá is located in the interior of the State of Goiás, in the Midwest Region of the country, in the western region of the state, in the homonymous microregion and Mesoregion of the Central Goiano. The distance between Iporá and the capital and Estadual, Goiânia, is 230 kilometers by the GO-060 highway. Its population, as previously presented, is equivalent to 31,563 inhabitants (IBGE, 2019).

The city's economy was already based on agriculture, livestock and strong trade, as the concentration of

formal jobs in the Iporá Microregion, according to 2011 data, was, in decreasing order: Public Administration (36.05%), Trade (18.61%) and Services (16.18%) (OLIVEIRA JR, 2014).

On the border between the municipalities of Iporá and Arenópolis, on the Caiapó River, the first small hydroelectric plant was built under the Incentive Program for Alternative Electricity Sources of the federal government of Brazil: the Small Mosquitão Hydroelectric Power Plant.

By State Law nº 249, of November 19, 1948, it was elevated to the category of municipality, installing on January 1, 1949, separated from the Municipality of Goiás and by State Law of nº 700, of November 14, 1952, was elevated to the region.

In accordance with the Institute Mauro Borges, the microregion of Iporá is comprised of 10 municipalities, totaling 59,086 inhabitants. Of this population, 79.8% live in urban areas and 20.2% in rural areas and most of these residents are in the municipality of Iporá (IBGE, 2019).

According to data of the census IBGE (2010), updated in partnership with the state agencies statistics, the monthly income of formal workers in 2017 was a 2,2 minimum wages, presenting 18.5% since the percentage of the population with monthly nominal income per capita up to half the minimum wage in 2010 was 33.3%.

The rate of schooling of 6 the 14 years of age, also in 2010 was at 98.4%. 2017 data showed that the Basic Education Development Index (IDEB) of the initial years of elementary school (Public Network) was 6.9 and of the final years of elementary school (Public Network) was 5.7.

In 2008, the federal government restructured the Federal Network for Professional and Technological Education, resulting in the Federal Institutes. That same year, the construction of the Iporá Campus of IF Goiano began. But this beginning of its activities started in August 2010. (IF Goias, 2016).

## **2. Methods**

For the analysis, an analysis a collection of printed material was carried out in the city, which had a record of its history, as well as the implementation of the Federal Institute of Education Goiano, as well as 27 interviews with a semi-structured script for investigation with the actors: representatives of the local media, unions, current public management, and the time of implementation of the educational institution, managers and the institution's staff present, as well as those in charge at the time of this study. The audience included representatives of IF Goiano and Campus Iporá (managers IF Goiano, managers Campus Iporá, coordinators/representatives for projects/research-extension activities of Campus Iporá and teachers, students, and graduates); a representative of the agricultural sector, a business association representative, representatives of the union of rural workers and other, representatives of other class associations a representative of the executive power, representative of the legislature, the law enforcement agent/security

segment of the representative of educational institutions, and representative of community associations, development agencies, other representations.

From this perspective, the external documents - printed and virtual - and internal to the Federal Institute are included in the methodological procedures of empirical research. From the external perspective, a search for journal material among printed and virtual media (websites) and official documents (e.g., minutes of the Economic Development Council) will be carried out. From an internal perspective, the Institutional Development Plans of the IF Goiano (PDI), contracts, and ordinances of the Extension, Research, and Rectorate Provinces, available since the implementation of the Iporá Campus, have been observed. As the study in question will involve empirical data, triangulation applies as this approach aims to minimize the “gap between the theoretical foundation and the research practice” (GOMES, 2004, p. 69). The analysis by triangulation of methods is used to verify the proposed theme.

This research utilizes suggestions Marcondes and Brisola (2013) based on Gomes (2010) that interpretation is divided into three processes: 1) phenomenal and technical valorization of the information collected, 2) analyzing context and triangulating the data, and 3) the apex of interpretation.

According to Gomes et al. (2010), this process aims “to the theoretical reconstruction of reality.” Therefore, the analysis procedures require a) in-depth reading of the collected material; and b) appropriation of the content to obtain an overview of the set as well as the specificities evidenced in the partial set of data collected, that is, in the semi-directed interviews and selected documents.

So, they were used as methodological procedure semi-directed interviews with one intentional group of actors-c have, as well as secondary data for environmental context before and after the installation of the IF Campus Iporá. Furthermore, were used data and documents officers and the media, as more one initiative to insert the view of the IF Campus Iporá community, under a selected theoretical orientation and focused on references to local development and the discussion about the movements of the extension activities.

### **3. Conclusion**

Located in the municipality of Iporá, the Iporá Campus was placed in the central-west region of Goiás. It is 1030 km<sup>2</sup> in area, has an altitude of 584 meters, and is 222 km from Goiânia, the state capital.

Access for the members of this institution (teachers, students, and administrative staff) and the community was easily accomplished due to the junction between BR 060 and GO 060. Because this region is considered a commercial, educational, and health hub, with a diversified service provision sector, the road infrastructure allows access to more than 40 municipalities in Goiás within a radius of 200 km.

The campus has two functional units: the administrative headquarters and its dependencies and four spaces for professional training, in addition to the school farm, which is located 2 km from the administrative

headquarters.

The Iporá Campus was inaugurated on February 1, 2010, but the first academic activities, of technical courses in agriculture and information technology, only started in August 2010. In 2011, the following courses began: Technician in Informatics Integrated to High School, Technician in Secretarial, Technician in Chemistry, and Degree in Chemistry.

In the center-west of Goiás, the traditional economic activities are mostly preserved, which centers around beef and dairy cattle, in addition to low-tech agriculture, typical of family farming. Due to this characteristic, in 2012, two more courses were offered: Technology in Agribusiness and Technology in Agriculture Integrated into High School. In 2013, distance education courses were also offered, allowing for the consolidation of the expansion of the Campus and the verticalization of teaching. In the same year, more advanced-level courses were created: Technology in Analysis and Systems Development and in 2014 the Agronomy course.

Table 2 shows the courses offered at Campus Iporá, diagnosed in the PDI from 2014 to 2018.

Table 2. Courses offered at the Iporá Campus

COURSE	MODALITY	LEVEL	SHIFT	STUDENTS 2018
Agronomy	bachelor degree	University graduate	Integral	132
Chemistry graduation	Graduation	University graduate	Night	47
Technology in Systems Analysis and Development	Technological	University graduate	Night	85
Technology Agrone gócio	Technological	University graduate	Night	99
Qualification in Administration Assistant	PROEJA	Medium	Night	16
Agriculture and Livestock technician	Concomitant/Subsequent	Medium	Evening	13
Secretarial Technician	Concomitant/Subsequent	Medium	Night	36
Agricultural Technician	Integrated	Medium	Integral	70
Systems Development Technician	Integrated	Medium	Integral	51
Chemistry Technician	Integrated	Medium	Integral	64
Science and Mathematics Teaching	Specialization	Postgraduate studies	Night	-
Teaching Humanities	especialização	Postgraduate studies	Integral	---

Source: PDI- IF Goiano 2014-2018



The process of implementing a teaching unit of the Federal Institute of Education nature, despite the Phase II expansion mentioned above, was envisioned as a singularity in the case of Campus Iporá.

This fact that stood out and made this unit chosen for study, according to internal historical reports, the implementation of the Iporá unit of the Federal Education Network only occurred through the intense mobilization of the population of the municipality, demonstrating the local demand/regionalized mobilization of the local community, using public policies to its benefit.

This base uniqueness is the city's clamor for the educational institution. This was revealed through reports from those who participated in the process. The interviews delved into how this process occurred, and with the binding of reports, combined with recorded historical facts (e.g., the minutes from the public hearing held on December 18, 2006, at the Plenary of the City Council of Iporá at 7:30 pm) proved this fact to be true. This document contains a register of those present, representing all segments of the city. It states, "CEFET is the guarantee of access to good quality education and above all free."

The terminology CEFET refers to the Federal Center for Technological Education and was renamed after the reformulation, as the Federal Education Institute.

This document also includes the presence of the CEFET representative from Rio Verde, the closest city to this type of educational institution, and that, in principle, the implementation in Iporá would be an extension of the first. He considered the city of Iporá as a pole and a reference for the others, that's why it was chosen.

The Rio Verde representative stressed the importance of implementation in Iporá. Other participants in management positions mentioned that studies carried out by the working group that prepared, at the time, the master plan for the city of Iporá, confirmed that the city was considered a central hub and that with the advent of the improved education segment, it could expand even more. Reports still occur regarding the need to offer education in that region, since the city experienced an evasion of young people to carry out studies.

The mobilization of the city to attract the institute caused a movement to abandon political "party lines" and come together for a single goal. Political forces joined to create better living conditions for the population, as leaders of different parties were present and, despite ideological differences, all agreed and cooperated for the good of both the population of Iporá and the region, which would come with the advent of the educational institution. Some cities gave up entering the dispute and started to support and commit to Iporá.

An interview about this study, it was reported about the community's engagement to have the institute, such as the donation of land, as also, recorded in the minutes of the public hearing, was affirmed by the highest authority in the municipality: the mayor.

The chief of staff at the time, interviewed in this study, was also part of a commission created to acquire equipment (e.g., chairs and computers), visited several cities around Iporá to raise funds by signing a terms of commitment agreement (a document that was part of the institute's fundraising process to be placed in the application dossier).

One of the interviewees present during the implementation process stated that it was due to the great mobilization efforts from the local community, which initially was an expansion of the Rio Verde Campus, as a demand from the West Goiano, mostly small producers and also councilors, deputies, and mayors of the region.

Another interviewee pointed out that IF Goiano was the expansion of Rio Verde into the western region of the state that was in need, and that the city of Iporá would become another pole and reference for its neighboring cities. This reasoning was echoed by another interviewee, as he considered it to be a growth opportunity for the region with a multiplying effect of qualified labor for the new generation.

The city's vocation in the agricultural sector has already shown itself in the public audience where a certain fruit-growing project did not develop due to the lack of trained technicians. The citizens realized that knowledge and economics could change the current state of stagnation.

In the process of its installation, according to the minute registration document, the CEFET representative mentioned the importance of a study in the region to inform which courses ought to be implemented; that is, the local context and its potential directly influence what could be offered, thus enabling greater applicability of the study institution.

During their interviews, the teachers and other actors in the local community confirmed the agricultural characteristics of the region.

Some teachers reported that some small producers forwarded their demands to the IF Goiano Campus Iporá to attend the institute or the search occurs by students who are children of rural producers to explore what they learned in class and potential applications to their home environment.

Thus, according to the purpose set out by law regarding the actions that these institutions must exercise, stimulate, and support, during the educational process, activities that lead to the generation of work, income, and the emancipation of the citizen from the perspective of local and regional socio-economic development that's what IFGoiano from the Iporá campus represents.. One of the interviewees stated that “The institute's appeal is to serve small producers, as it is a small city here.”

Thus, since its inception, the campus has sought to respond to demands for professional training and to disseminate scientific and technological information to support productive arrangements not only in Iporá but in the entire West Region of Goiás, which has low indicators of economic and social development relative to the rest of the state per the rules governing institute creation (BRASIL, 2008).

The results measured concerning extension activities, that is, service provision, project, or other instruments, in which the institute is talking to the community, as one of its actors were carried out to analyze the Extension Project Report, he found. Around 50% of the 62 extension projects in execution from the second half of 2017 until December 2019 had an agricultural theme.

Projects such as the recovery of gullies in rural areas implemented from 01/04/2019 to 30/11/2019, contemplated by Notice nº10/2018, were carried out in rural properties at the request of a producer who sought IF Goiano, demonstrating the content quality with the region, since this type of erosion is considered very common in the region, as well as the theme focused on agriculture.

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