

## Article

# Challenges and Difficulties in Implementing an Income-Contingent-Financing Model in Higher Education in Colombia

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**Abstract:** Background: One of the challenges of countries is offering higher education (HE) to populations that are not able to access it. The problem lies in the fact that many citizens are unable to finance the costs of their education. Some countries have implemented a system of financing that is contingent on income, seeking to improve the number of students entering HE and to increase access to educational financing; however, this system requires commitments from higher-education institutions, the country, and companies; thus, this text analyzes the challenges and difficulties regarding the implementation of the current system. Methods: Based on comparative international experience, an analysis of the political and social factors that hinder the implementation of ICF was conducted. This article focuses on countries with average development indexes that are on the verge of applying such a model, as is the case with Colombia. Results: From the economic point of view of the public and private sectors, an ICF model is justified in countries with different economic and social conceptions, and reforms for the implementation of ICF are given by the vision of the political and economic system that each country might have. Conclusion: International experience concludes that, for the ICF model to be successful, it should focus on its beneficiaries; that is, it should accurately identify the aspects of the users of educational credit. Furthermore, politicians must show prodigious leadership skills to effectively explain the economic logic of political leaders.

**Keywords:** income-contingent financing; ICF; student loans; higher-education financing; educational finance



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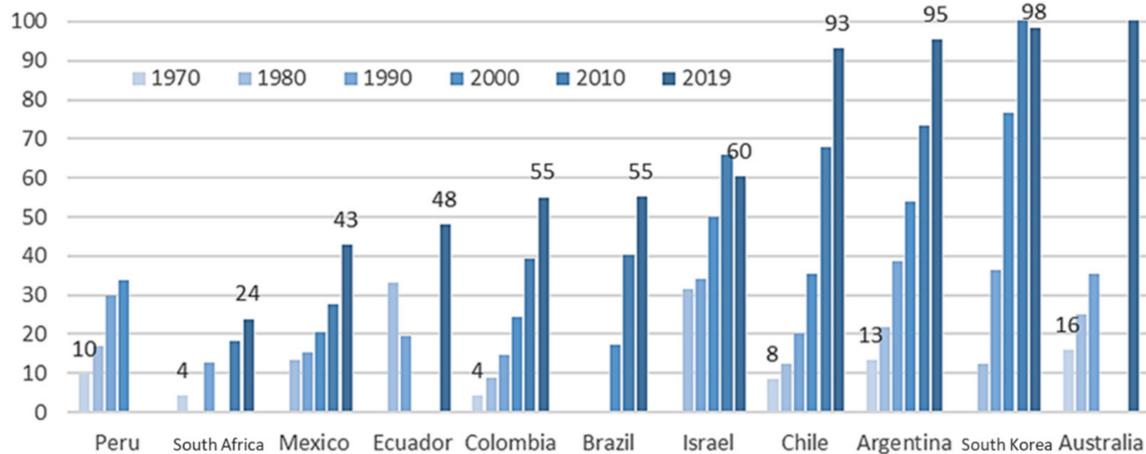
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## 1. Introduction

This article aims to describe and analyze the challenges and difficulties of implementing a financing system for higher education in developing countries. Even though the ICF system has been successful in some countries, such as Australia, it still requires regulatory modifications and policies to be implemented in the Colombian higher-education system. This model has been strongly recommended by the World Bank for countries such as Colombia and other countries in the Latin American region.

Access to higher education (HE) is a major issue that is on the agendas of modern countries. The development of countries and people mostly depend on how much countries invest in their students [1]. Over the past two decades, countries in the European Union—especially new members—and in Asia, Oceania, Africa, and Latin America have made

considerable progress in providing access to HE [2]. According to the UNESCO, between 2000 and 2018, HE enrollment worldwide doubled from 19% to 38%. In 2000, HE enrollment for Latin American countries was 23%. In 2010, it rose to 41%, and in 2018, it was 52% (Figure 1) [3].



**Figure 1.** Gross enrollment rates in tertiary education. Source: The UNESCO Institute for Statistics (UIS).

Despite the increase in HE enrollment in Latin America, HE dropout levels remain high on the continent, with half of its population aged between 25 and 29 years not finishing their studies [4]. The combination of both indexes affects the completion rate [5].

The rise in enrolments throughout Latin America and the Caribbean is due to the foundation of new public and private universities, as well as to the expansion of existing institutions. At the beginning of the 2000s, nearly 2300 new higher-education institutions (HEI) were opened, and 30,000 new training programs were created. Therefore, one-quarter of HEIs (higher-education institutions) and half of the current programs appeared at the beginning of the 2000s [4].

In countries such as Brazil, Chile, Colombia, Ecuador, and Peru, the range of private universities is higher than that of public ones [6,7]. On the one hand, this has led to new actors in the HE fields, such as private nondenominational providers. On the other hand, a wider availability of private universities has reduced homogeneity and the criteria meant to regulate growth and guarantee the quality, supervision, and control of educational institutions [8].

Multiple hindrances prevent people from accessing HE. Among these, the most significant is that people are unable to finance the costs of going to school (e.g., registration, tuition, and living expenses). Other hindrances that prevent universal access to HE stem from poverty, the lack of primary education, high tuition fees, and the fact that people interested in accessing HE often live far from respective universities. Furthermore, in certain Latin American countries, the people responsible for devising the standard admission exams do not consider differential factors related to whether people are victims of violence, belong to minority ethnic groups, live far away, or have any physical disabilities [9].

Over the past decade, civil societies in various parts of the world have promoted social demonstrations, where one of the main demands is greater access to HE. In countries such as Colombia and Chile, free education is part of these requests [10]. Some Chilean university students put forth an ideology based on concepts such as “profitless education” or “quality education”. The commitment of some groups to free education calls into question the role of private universities. The concepts that summarize some of the social demands look to influence countries’ agendas directly.

On another note, financial evidence from various other countries has shown that a citizen with HE obtains a higher future income than a person with no HE. This difference in

income is significant, as people with HE and higher incomes are able finance their student debt with only a marginal part of their future salary. Various authors have studied the effects of ICF in different countries. Bassi et al. studied its positive effects in Argentina and Chile [11]. Donald et al. studied its effects in England [2]. DiPrete et al. noticed increases in the numbers of graduates joining the labor market in France, Germany, and the United States [12]. Francesconi and Parey found that a high percentage of people with HE in Germany obtained a job more quickly after graduating than a person with no HE [13]. Cai et al. found there are higher numbers of job offers in China for university graduates than people with lower levels of education, and they conclude that the country's industrial base has enabled graduates to more easily obtain jobs [14].

Public policies that promote access to HE not only contribute to the country's progress economically, but also to other critical areas, such as public healthcare, social services, and crime prevention [15]. Currently, access to HE for young people living in Latin American countries increases their opportunities to progress and develop. In a certain sense, having formal employment prevents people from joining illegal groups [16]). Access to education is a way of stopping the perpetuation of social inequality from generation to generation [17].

HE is essential for the economic stabilization of a family, an individual, or even a country. There is a positive connection between education and economic mobility. People born into families with the lowest levels of income distribution are four times more likely to move to the upper quintile if they have a college degree [18]. In Colombia, when a young person turns 18 years, they can only be 60% as productive as they could have been if they had had access to education in their formative years [19].

Policies on financing HE results in individual and social advantages. They directly benefit students and are fundamental in strengthening countries, and especially those with emerging economies. To increase HE enrollment and finance access to it for new segments of the population, countries must either supply free access or loan-based access. Several studies have analyzed free access, along with its strengths and drawbacks [20]. However, according to some authors, the former is regressive for society and unfair to people who are unable to receive access to it, and this would require taxpayers to finance it through taxes [21]. Regarding loan policies, few studies have addressed ICF. While Volume 19 of the Economics of Education Review is worth highlighting, none of the papers within it regard the situation from the point of view of potential students, who are both the beneficiaries of the system and the weakest link in it. Some studies have compared the perceptions of students in two different rich countries, such as the United States and England. The first has a system based on mortgage-backed loans, while, in the second country, the loans are paid with repayments that are contingent on income. These studies have shown that the beneficiaries of student loans had a better perception of the payment system of England [22].

The increase in global demand for HE comes from lower-income sectors. New groups of students who wish to access universities include women, adults who are 30 years old or older, rural populations, foreigners, native communities, and young people who are just becoming adults or who, in many cases, are already parents [23].

Many challenges and opportunities in the higher-education sector of developing countries such as Colombia remain, and particularly when it comes to financing it in a post-pandemic scenario. This article analyzes some of these scenarios, for example: the management of dual systems of higher-education supply subsidies, demand subsidies, traditional educational credit, and financing education through employment after graduation (income-contingent financing).

According to the literature, countries that have adopted ICF systems for HE have faced multiple hindrances when implementing it. In the cases of Australia and the United States, there are risks associated with obtaining a college degree, uncertainty about the individual financial returns related to HE, and no loan guarantees [24]. Moreover, it was reported that the emigration of people between countries might hinder the process of calculating and estimating the costs [14]. These costs, which are sensitive to sociocultural contexts,

are not the same in all countries and change over time. This article aims to analyze these difficulties in implementing ICF, with particular emphasis on countries such as Colombia.

First, in the introductory section, there is a general overview of the subject. Second, the method implemented in the current research is described. Third, we present an extensive review of the worldwide context of income-contingent financing. Fourth, the findings and practical implications of the article are described. Lastly, the limitations of the current research and possibilities of future research on this topic are discussed. This article concludes with a reference list.

## 2. Materials and Methods

This is a nonexperimental study and a review of the literature, or a compendium of the literature on which conclusions have been drawn. First, the research process was started with the formulation of the problem, and a review protocol was applied. After designing a protocol, a search was conducted on databases to perform an entire analysis of the data.

This type of method is usually used for different purposes, such as obtaining a global understanding of a phenomenon or situation; studying the depth, richness, and complexity of phenomena; creating emergent or data-driven theories inductively; and understanding human experiences, processes, or the cultures of groups as they are experienced by people.

Funding contingent on income was defined as a keyword; additionally, SCOPUS was used as a database to ensure the ability to locate studies published in high-quality peer-reviewed journals. Relevant information from international organizations, such as the UN, OAS, IDB, and World Bank, was also discussed.

Different studies with the purpose of explaining the difficulties and challenges that are faced by countries that have implemented the FCI as a financing system for access to higher education were also reviewed.

## 3. Results

Countries assume different roles in financing HE that depend on their conception/model. Gonzalez and Espinoza distinguish three basic financing models [25].

The first such model involves the subsidiary countries. In this model, the country assumes a supporting role and only intervenes in situations where the private sector has not been used adequately. From another perspective, it is accepted that the market is limited when it comes to providing these resources efficiently. Therefore, countries must intervene through public policies and regulations to reduce inequalities in the distribution of wealth and other such goods/services [26], such as HE.

The second model is that of the Welfare State, in which the country is primarily responsible for guaranteeing universal access to the different basic services, which creates the possibility of implementing these services in both the private sector and the public sector.

The third model is the socialist model, in which the country favors social welfare over any individual goods. From this point of view, HEIs belong to the country, and education is public and free of charge for all. In instances where the country finances HEI directly, regardless of whether they are secular or denominational, HE studies are free of charge for students. However, universally free education is not the general rule at the international level, but the exception (e.g., in countries such as Denmark, Sweden, and Finland) [25]. What is more common is for the country to combine two means of financing: demand financing and supply financing. In demand financing, students who meet certain criteria choose the option that best suits them, and in supply financing, the country subsidizes educational institutions, with both students and institutions thereby receiving benefits from it [25]. In fact, universities could not be financed exclusively through students' tuition, as this would mean that students would be charged for the costs of research conducted in HE, and they would be charged for the social appropriation of knowledge and innovation.

When it comes to assuming the costs of HE, the World Bank points out the financial limitations of countries—especially the ones with the weakest economies [27]. The World Bank analyzes two types of financing tools: public subsidies for tuition at country

institutions of HE, and direct subsidies to students, called vouchers, which give them the freedom to choose the most appropriate HE institution. The way that these strategies are implemented varies in Latin America and the Caribbean, with two extreme cases of universally free education and education loans standing out [28]. The former does not create positive incentives if students do not bear the costs of their education and, thus, do not bear the risk of not graduating. This promotes fiscal responsibility, as students are more aware of the costs of their education and the consequences of not completing their studies. However, only students with high probabilities of graduating apply for the loans, as is the case with programs such as medicine. The World Bank thinks that universally free education is more expensive than loans granted by private institutions with public guarantees [4].

According to Merton [28], factors such as indirect fiscal financing from sending the best students to university following national tests, competitive funds meant to finance research, and funds provided to HEIs based on the quality of their academics, scientific results, or financial performances result in the Matthew effect. The Matthew effect is phenomena where more resources end up being distributed to the universities with better results, which are usually located in larger urban centers, which results in the exclusion of universities in more remote regions. If funding is allocated in a more equitable manner, then it could contribute to the development of the rural areas where students are situated [29]. This strategy of distributing resources gradually increases the strength of the country's strongest institutions, creates centralism, neglects remote regions of the country, and does not respond to specific people's needs [30]. This type of financing, backed by the elite, aims, in theory, to promote equal access, but it ends up favoring the wealthiest people (i.e., those who can already access the said universities without financial aid) [17–31].

According to the World Bank, in OECD member countries, the spending per student on higher education as a proportion of gross domestic product (GDP) per capita was 25.4% on average in 2016, while, in Colombia, it was 20.7%. Similarly, the most recent data show that the average proportion of GDP spent in Latin America was 31.1% in 2015.

Likewise, various countries do not offer just one form of financing but promote those that guarantee greater social mobility, according to the needs of each country and to the conditions of the population. For example, in Colombia, a system of scholarships and loans has traditionally been used, and this has not been sufficient to diminish the inequality gap in the country. Presently, Colombia has a level of inequality of 0.53, according to the Gini index, which is the highest of any country in the Organization for Economic Co-operation and Development [19]. In its desire to create greater opportunities for accessing HE and to improve conditions for educational loans, in 2019, the Colombian Parliament issued a law that regulates the ICF system for HE, which is currently awaiting its implementation by the country's government.

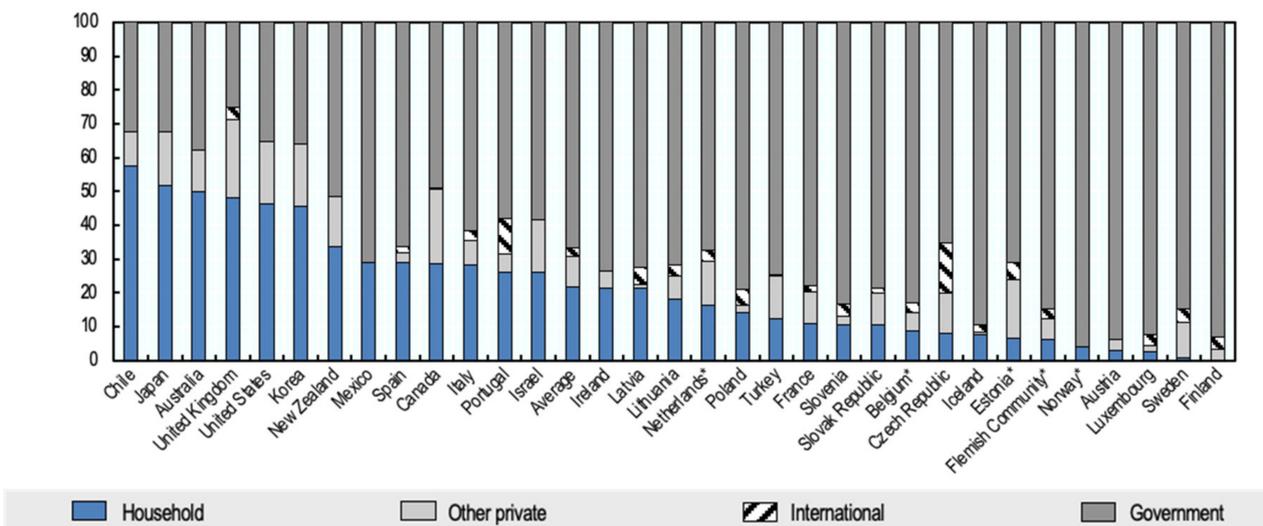
The current options for financing the HE demand include scholarships, ICF, and private-guarantee soft loans. Tuition scholarships are awarded to students who meet certain criteria and are nonrefundable. They are meant to cover, or partly cover, the costs incurred by households for their children's education, including housing, transportation, food, and the cost of education itself. These scholarships may have different origins, such as the central government/territorial entities budget, as well as private donations or contributions from private companies. Usually, beneficiaries must meet certain criteria, be they academic, economic, or ethnic [32]. ICFs are granted to people who are unable to pay for their HE studies initially and thus go into debt with the country or with a regulated entity. Normally, these debts are to be paid once the people join the labor market.

Private-guarantee soft loans are sponsored by a solidary credit fund, which enables students to pay their tuition. In most cases, these loans have low interest rates, and only a part of the loan is paid by students while in school, and the other part of the loan is paid after graduation. These loans require a co-debtor or a real guarantee to back the debt. According to the study conducted by *eurydice* on European countries, nine of them have regulated a loan or fee-exemption policy from the first cycle, 12 of them have no exemptions,

and, in 24 other countries, some students paid fees while others were exempted from doing so. In half of the European HE systems, the most common first-cycle fees were higher than EUR 100 [32].

When it comes to all these means of financing, the problem is that certain inequalities—and thus inequity—have been detected between two types of people who are earning a similar income: the beneficiary who ought to pay additional taxes for having financed his/her HE through soft loans, and the other beneficiary who received a scholarship [33].

Overall, financing for higher education depends on private investment. In the case of Colombia, 50% of higher-education expenses are paid by students and their families, which is not common in OECD countries, since only seven countries exceed 30 percent of the financing, including Chile, Japan, Australia, the United Kingdom, the United States, South Korea, and New Zealand (see Figure 2). Among these countries, only in Chile and the United States are the primary sources for financing HE educational loans. In Japan, Australia, the United Kingdom, Korea, and New Zealand, financing occurs through mixed income-contingent payments. In Chile, the model has been changed in recent years to include full financing for the first six income deciles, and, in the United States, there has been an increasing number of questions about the sustainability of the credit system.



**Figure 2.** Source of funding for higher education in OECD countries. Source: OECD 2020, [34].

The real ICF interest rates are noticed in England (3%), New Zealand (3.5%), Australia (4%), Chile (2%), and the United States (4.45%) [35].

## 4. Discussion

### 4.1. Income-Contingent Financing for Higher Education

In different country models, and especially in those with emerging economies, public investment in HE is not enough to meet the demands of the population wishing to access it. Countries have sought to create a balance between the educational services provided by public and private actors, and this is how both sectors contribute to financing young people's access to HE [36].

Milton Friedman, winner of the Nobel Prize for Economics in 1976, proved that having HE generates private profit; thus, HE should be financed by the very ones that benefit from it. The state's role is reduced to guaranteeing fair loan conditions so that the people who need them can obtain them and finance their education. To this end, ICF emerges as a type of loan that is aimed at helping students to defer the payment costs with a soft interest rate, guaranteed by the country. This interest rate would be reimbursed to the students after a period upon the completion of their studies, with a quota contingent on the students' future incomes, and a maximum number of years available for paying their debts. At the end of

this grace period, should a student's income not be sufficient to pay their debt, the latter would be canceled [37]. The funds against which the loans are offered are provided by the country, and, after the first investment period, the system would finance itself, without the need for new financial contributions. ICF guarantees access to education for large or low-income families, going beyond the real guarantees required for financing education through a conventional bank loan [38]. Countries such as Australia, the United States, England, New Zealand, South Korea, Japan, and Chile have successfully implemented such loan programs [39].

By assuming the role of guarantor, the country eliminates risk, allowing private financial institutions to incur the cost of the ICF system at a zero-risk interest rate. The country assumes the risk of potential noncompliance by students. Thus, the government privatizes part of the financing of HE costs, which reduces the total cost of the payment to the noncompliance amount [40].

#### *4.2. Instances of ICF Implementation in Various Countries*

In 1989, Australia implemented the Higher Education Contributions Scheme (HECS), the world's first financing system for HE through ICF. Upon the completion of their studies, all students pay a fee for their HE, which is deducted by the country's tax service. The fee depends on each student's income; thus, graduates are somewhat protected from the risk of becoming unemployed or from fluctuations in their salary. In 2019 and 2020, the figure of 2.9 million debtors (beneficiaries) was reached. The process of refunding the ICF was set within a range of between 4% and 8% of annual income [37]. Upon graduation, debtors must repay the debt when their annual income exceeds an established threshold. For the 2019–2020 period, the mandatory loan-repayment threshold was AUD 45,881, while, for the 2020–2021 period, it was AUD 46,620. If a student's income was less than both amounts in the indicated periods, then they were not obliged to pay the debt. Meanwhile, if a student's income was higher than the two amounts indicated, students were required to pay a certain percentage of their income to service the debt [41]. On average, graduates pay off their debts 10 years after graduating [42]. Australian law authorizes employers to withhold ICF servicing from graduates' salaries [43]. Incorporating ICF gave way to a radical change in the country. The number of students whose quality of life improved due to the ICFs increased to 70% between 1988 and 2007 [40].

Starting in 2009, the U.S. Department of Education created a system equivalent to ICF called the Income-Driven Repayment Mechanism, which is a loan plan with diverse options, all based on an income-contingent collection of student loan debts: Income-Contingent Repayment (ICR), Income-Based Repayment (IBR), Pay As You Earn Repayment (PAYE), and Revised Pay As You Earn Repayment (REPAYE). The main difference between these forms of payment is the different payment periods, which range between 20 and 25 years. They all had a clause on the maximum number of loan years, whereafter unpaid balances were canceled [44]. These clauses helped more than 8 million students who were benefiting from federal loans to manage their debt and avoid default [45]. However, it is important to highlight that the student loan system in this country faces difficulties related to loan repayment. According to information from the National Student Loans System, as of March 2018, seven million beneficiaries were in default, while others were delayed or unable to pay. This is a 30% outstanding balance of student debt [24]. For some writers, this creates stress and the loss of credit reputation for borrowers [24–43]. Another relevant aspect is that IBR, compared with the English or Australian FCI, has low coverage, the eligibility criteria are restricted, and it has a high administrative complexity [24].

A case of interest related to HE in Latin America is Chile. For over 25 years, the country has attempted to implement several means of financing, all of which have been merged into one system for the last 3 years, with the pillar being ICF [46]. Apart from implementing ICF, or the state-backed loan system, Chile looked to enable mass access to HE, and especially for students with limited resources. In 2020, Chile reached a 69.2% enrollment rate for students aged between 18 and 24 years, which was the highest enrollment rate in the region.

In this country, the system grants loans to students enrolled in undergraduate courses provided by accredited tertiary institutions. Applicants must have a low socioeconomic status and a commendable academic performance [17] (the universities had to guarantee the consistency of the students who had benefited from ICF loans).

The university itself was the guarantor of the loan while the students completed their education and after graduation. If they did not graduate, the university became responsible for paying the loan. Should students not pay their debts upon graduation, the country became the guarantor. All this took place in a country that has a single national university admission system; thus, universities could not discriminate against candidates because of their socioeconomic status when admitted. Universities managed to level out their students' lack of primary education and to ensure that they would continue attending the program. This was a crucial step in guaranteeing the quality of education students received. To receive these students, institutions had to be institutionally accredited. The mere status of a university as public did not entitle it to receive those students because it had not publicly displayed its quality. The interest rate charged for these loans in Chile has been 2% per year since 2012. Payment of the loan is required 18 months (about one and a half years) after graduation, or 24 months (about two years) after enrollment. The repayment periods are 10, 15, or 20 years. The repayment period is decided by the lending institution, and it is based on the amount borrowed. Regarding the financial burden, there is a benefit that allows institutions to request students to pay up to 10% of their income from the previous year, calculated against the minimum income. If graduates do not have jobs, it is possible for them to request a suspension of payments for up to six renewable months [47]. The interesting thing about this system is that, with it being linked to the national financial system, financial institutions repurchase the portfolios from the country. In other words, the very institutions that granted the loans—guaranteed by the state—manage the debt collection for steadily maintaining the interest rate and for insurance in case of default.

Moving on, in 2018, Brazil also put forth legislation to implement an income-contingent system of deduction by the employer, with a maximum repayment rate of 20% of total gross earnings. Nevertheless, this repayment threshold is still unclear, even if a potential adjustment to a maximum of 13% was announced [48].

Following in the steps of the aforementioned countries, in 2018, Colombia enacted Law 1911 of 2018, through which it created the solidary contribution to HE, and issued further provisions on mechanisms and strategies aimed at achieving sustainable HE financing. We must emphasize that this has not been regulated to this day. Financing will be granted to users who meet the criteria set by the regulations, with them receiving tuition support and sustenance. Afterwards, once they join the labor market, they repay the amounts received through a system of direct deduction by the employer and based on their level of income, calculated against the current average monthly minimum income, and with a marginal rate ranging between 12% and 19%. Should the beneficiary die, the income disappears and the contribution ceases. In Colombia, ICF will not need a joint debtor, nor will it involve processes of legal debt collection. Moreover, it will not capitalize on interest. Law 2159 of 2021, which decrees the Budget for Income and Capital Resources and the Appropriations Law for the fiscal period from 1 January to 31 December 2022, shows, in article 117, that deductions and withholdings might be conducted for a maximum period of 20 years. At the end of this period, if total collection has not been successful, the obligation will be canceled. This same regulation mandates the national government with regulating the payment mechanism within a period of 6 months for new obligations incurred with the ICETEX, which will be proportional to the income received by the beneficiaries of the said obligations.

#### *4.3. Social and Political Context: The Need for a Differential Approach in the Implementation of ICF in Colombia*

The FCI is characterized by the flexibility of its formulation. In other words, governments have the possibility of adapting their design and implementation to the institutional

and cultural particularities of the country. Such adaptability allows political leaders to find the trade-off strategy between equity and taxpayer subsidies [43].

In the Colombian case, the challenges of the FCI are determined by the singularity of the country's social and political context, and to phenomena such as armed conflict, and the high number of victims that result from it. Therefore, policies that promote access to HE and its continuity may require diverse approaches when being implemented.

Since the mid-20th century, Colombia has been affected by armed conflict. The intensity of this armed conflict decreased because of the signing of the Havana peace agreement, but this has not yet culminated in a significant reduction in violence. Drug trafficking, which fuels this conflict, has managed to take root very deeply in Colombian society. It has constantly mutated, which has resulted in social problems that are related to the use of arms by illegal groups. Today, thousands of people are still being displaced from the countryside to the country's cities. The number of victims of this conflict was estimated at 9.2 million (i.e., 23% of the country's population). In such a context, access to HE is a way of creating opportunities for young people, which keeps them away from drug trafficking and paves their path toward a better future [49].

If the expenditure per student is calculated, Colombia has the lowest index in an international comparison of the OECD countries (Figure 3). In addition, the spending per tertiary student in this country has declined in recent years, decreasing by 4% between 2012 and 2017, which is contrary to what has happened with spending per student in the basic and secondary education system, where a growth in spending per student of 6% is seen in the same period.

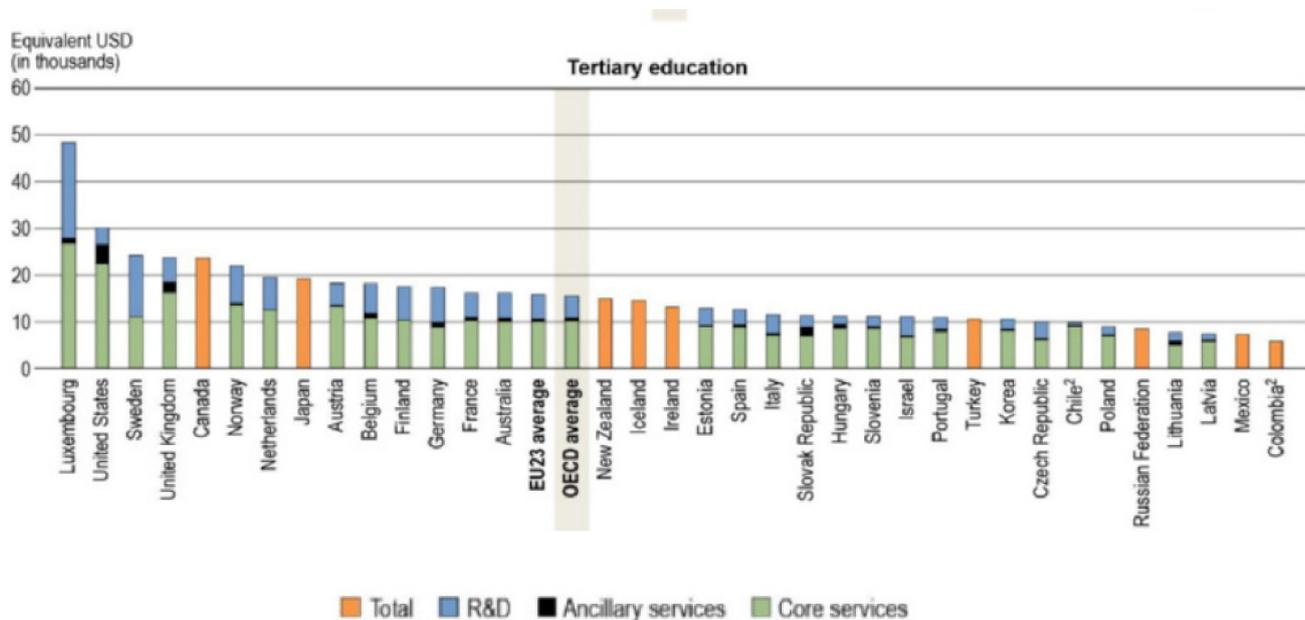


Figure 3. Total spending on tertiary education per student. Source: OECD, Education at a Glance, 2019 [50].

A particularly significant variable in the Colombian social context is the poverty in which a large part of the population lives. In 2020, 21.02 million people were in a situation of poverty, 9.04 million in multidimensional poverty, and 7.4 million in extreme poverty [51]. These sectors could benefit from the ICF system. However, this instrument of public policy does not tackle certain barriers that have existed historically, such as the lack of social inclusion, low levels of education, significant differences between the different social strata, and a high percentage of unsatisfied basic needs.

Colombian society, in general, is highly unsatisfied, and because of this, the implementation of the ICF system is delayed. The dissatisfaction in Colombia is strongly reflected by social outbursts, voices of protest, and discontent about certain government measures or

issues, such as access to HE in the country—something that started developing at the end of 2019 and was even echoed during the pandemic in 2021.

Young people's frustrations over systems in high demand, such as ICF, also stem from the fact that obtaining a university degree in Colombia is costly, with tuition costs increasing each year. In Colombia, Law 30 of 1992 (General Law of Education) establishes that universities have the independent power to increase tuition costs, but the increase must be governed by the variation in the Consumer Price Index (CPI) of each year. If universities increase tuition, they must provide a sufficient justification to the Ministry of Education, which is responsible for substantiating the request.

Additionally, the programs available are not attractive to new generations of students. Official statistics show that, between 2001 and 2018, 4,800,920 people in Colombia graduated with HE, with the percentage of HE graduates employed between 2006 and 2015 at 76% [52]. National statistics show that, in 2019, while the annual per capita income in Colombia was USD 6562 [53], in 2020, the average salary of a professional dropped to USD 6180 per year. The connection between salaries according to the level of education is significant: a person with HE earns 3.5 times more than a person with basic education, and 2.2 times more than a person with average education. Therefore, a person with a university degree in Colombia earns 71% more than a person with a basic education. By 2021, the COVID-19 pandemic had led to a reduction in professionals' annual salaries to USD 5556 [54].

Diversity is another unique element to the Colombian social context, with minorities coexisting in the country. The Afro-Colombian, *Raizal*, and *Palenquera* minorities account for 10.62% of the country's population, while the Indigenous and the Roma account for 3.43% and 0.01%, respectively [51]. Minorities can usually be found in contexts and territories defined by poverty, as well as insufficient or completely absent academic offerings. According to official figures, only 6.7% of the Indigenous population and 14.3% of the Black, Afro-Colombian, *Raizal*, and *Palenquera* populations have access to HE. This is compared with 18.8% of the total national population who have access to HE [55].

The outlook for Indigenous communities is not very encouraging. These groups have particularly suffered the consequences of violence, abandonment by the country, and forced displacement from their territories. Nevertheless, we must keep in mind that their belief systems are different, and so are their educational needs. Financing access to HE should not favor processes of transculturation or the loss of roots/customs. In this scenario, the ICF is challenged to become a tool that protects multiculturalism and the ancestral richness of Indigenous peoples, guaranteeing them continued access to HE.

Moving on, the unique geography of Colombia contributes to the establishment of heterogeneous populations, who have differing values and cultures. The Orinoquia, the Caribbean, the Andean zone, the Pacific, and the Amazon come together to create a diversity of perspectives, expressions, and worldviews, which ought to be considered when developing an inclusive and differential public policy aimed at fostering HE, such as ICF. In Colombia, there are 359 active institutions of HE, which are divided into 38 professional technical institutions, 59 technical institutions, 141 university institutions/technological schools, and 141 universities, 119 of which are public, and 260 of which are private.

Considering the current tax situation in Colombia, the resources of public universities must be complemented with the financing contingent on income (ICL) initiative. Because the country has not managed to combine a progressive tax system, it is necessary to look for alternatives [56].

When implementing ICF, the fact that HEIs concentrate their facilities and available programs in more central parts of the country, such as the Andean region, has led to these parts being historically better developed than the rest of the country. This concentration of HE is to the detriment of the populations that inhabit peripheral regions, such as the Orinoquia, Pacific, and Amazon [57]. Therefore, access and the continued attendance of students from these marginalized regions is fraught with inconveniences and obstacles, such as excessive costs of living, dropouts, forced migrations, as well as the lack of guarantee concerning the return of professionalized inhabitants to these territories.

To sum up, we admit that, within the heterogeneous Colombian society, there are minority populations with special characteristics, displacement situations, etc. Therefore, when implementing ICF, the country must consider this differential approach. The country plays the main part in financing HE, given that the market clearly cannot implement an efficient loan system, owing to significant issues of risk [58], which stem from lending to these sectors of the population.

## 5. Conclusions

The gross HE-enrollment rates in Latin American countries are a constant challenge for their governments. Even though the various mechanisms for financing HE have contributed to increasing access to it in recent years, these mechanisms have not reached the level of growth that other regions in the world have reached. This fact reflects the difficulties experienced by these countries when it comes to social mobility. The implementation of new financing systems, such as ICF, is expected to improve the conditions of admission to HE and social mobility.

ICF appears as a way for countries to guarantee greater access to HE and continued attendance, and particularly for people with limited resources. This system is characterized by the fact that students begin repayment once they join the labor market and start earning an income that is higher than the established thresholds. Furthermore, ICFs have a soft interest rate that is lower than that of banking institutions, a period of repayment that varies with each country, and a debt that is canceled once it ends. For the beneficiaries, the country acts as the guarantor, assuming the risk of noncompliance.

Australia, the United States, England, New Zealand, South Korea, Japan, and Chile have all implemented ICF, each with certain variations based on the state's specific situation. For example, Australia does not cancel the debts within the established repayment period, and the interest rate there is 4%. In Latin America, Chile has been the pioneer in this matter for 25 years. The interest rate there is 2%, and the repayment period is 10, 15, or 20 years. In addition, if graduates do not obtain jobs, their payments are suspended for up to 6 months. Colombia intended to follow suit by issuing Law 1911 in 2018, which sought to grant tuition support and sustenance to students, so that when they entered the labor market, they would be able to repay the loan through a system of direct deduction by their employer. Thus, in Colombia, payments are calculated against the current average minimum monthly income, ranging between 12% and 19%, making it a high-repayment-percentage ICF when compared with those offered by other countries.

Finally, the ICF strategy ought to consider other factors. Different countries need to bear in mind variables such as the existence of minorities, multiculturalism, the poverty rate, the presence of armed conflicts, and the perspectives of young people and other users to meet the unique nuances of each country.

## 6. Limits and Future Investigations

This article presents a characterization of the ICL model(s) and its implementation in some countries. In this sense, the document is not an economic analysis on the possible effects of its implementation, or on the behavior of different economic variables that might have an impact on the model, nor does this document analyze or compare the entries of educational credit beneficiaries into the labor market. This research does not describe the repercussions of ICL on Colombian students because these types of loans have not yet been implemented. Nevertheless, developing countries are in the process of developing legal frameworks, and the government has relied on the previous experiences of some other countries in order to create its own set of regulations. Consequently, this article describes a comparative perspective of the ICL model based on the complexities and diversities of various Colombian regions.

This study provides a general understanding of the current challenges of the education loan system in the Latin American region, and especially in Colombia, which helps future researchers to become better informed about the current state of affairs. Furthermore, future

studies may be conducted on how different countries support access to higher education for subjects under special protection, such as Indigenous communities, Afro-descendants, or victims of internal and external armed conflicts.

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