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Micro-credentials and Short Courses in the Latin American and Caribbean Region

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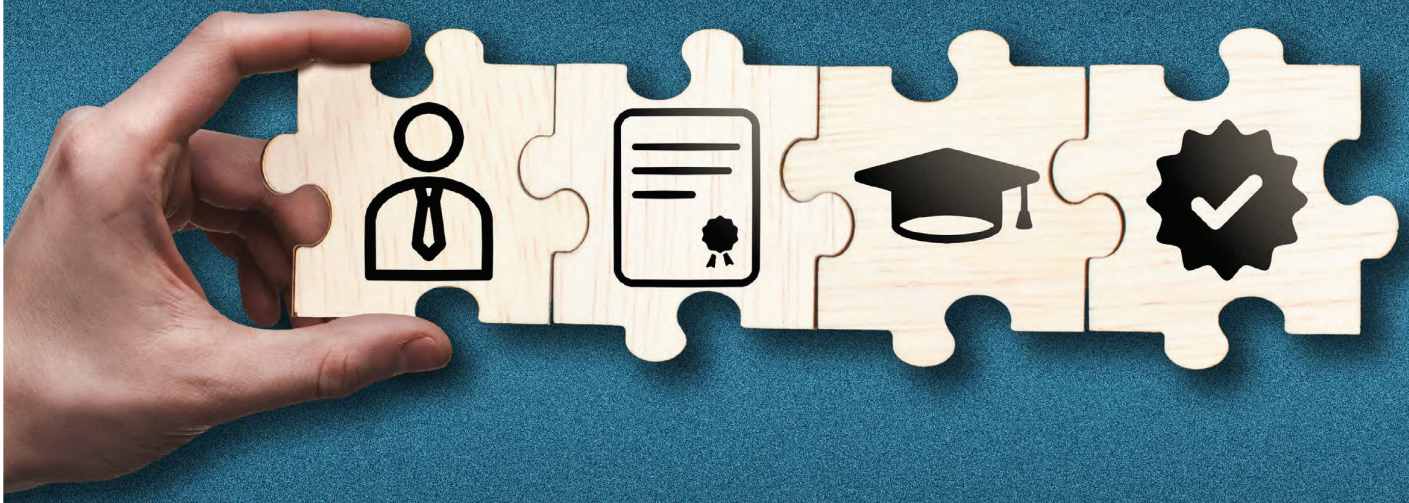

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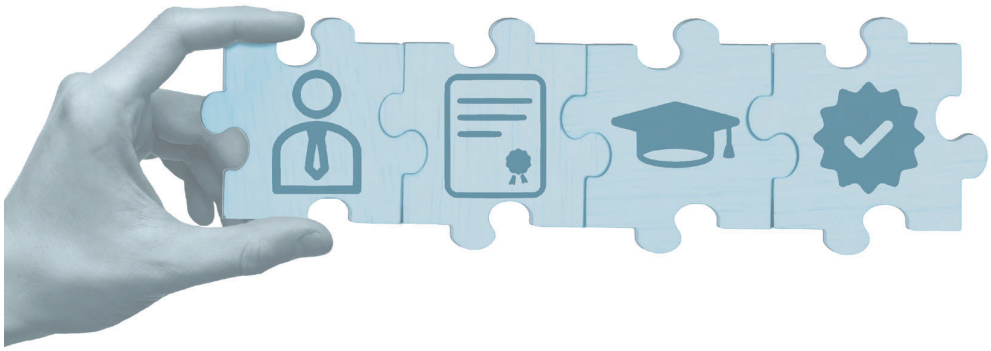
Content



Executive Summary

Micro-credentials have the potential to expand access to post-secondary education by offering students more flexible and cost-effective alternatives to traditional higher-education pathways. They can also help bridge the gap between jobseekers and employers by reducing information frictions that hinder efficient job matching, while enabling individuals to upgrade their skills without leaving the workforce. As such, micro-credentials can accelerate career advancement. However, in Latin America and the Caribbean, evidence of their effectiveness remains limited and, at times, mixed. This note outlines a set of measures aimed at improving both the quality and relevance of micro-credentials, as well as the methods used to assess their impact, so that countries can fully harness this promising public-policy tool.

1. Introduction

Context. Over the last decade, the digitalization and automation of the global economy together with demographic changes and macro-economic shocks related to climate change and the COVID-19 pandemic have shifted the needs of employers. In turn, these trends have substantially increased demand for a flexible and agile response from the education and training system to the needs of the labor market (ILO, 2021a).

School closures following prolonged COVID-19 lockdowns accelerated the use of technologies and remote learning (Muñoz-Najar et al., 2021). The pandemic and the subsequent economic crisis exacerbated pre-existing inequalities in access to education and labor opportunities. As a result, it has become even more important for members of the labor force to continue learning, upskilling and reskilling[1] so that they can adapt to an ever-changing labor market and workplace (ILO, 2021b). In this context, short skills training programs (or micro-credentials)[2] can be a dynamic, affordable and easily accessible tool workers can use to acquire marketable skills and respond to the changing demands of the workplace.

[1] Upskilling refers to enhancing existing skill sets to make employees more proficient in their current roles or prepare them for new ones, while reskilling refers to the acquisition of entirely new skills for individuals to be able to transition into a different job, role, or career path.

[2] In this paper, the term "micro-credentials" is used interchangeably with "short skills training programs," implying necessarily that the type of short skills training programs included in the analysis lead to a formal credential.

The supply of short skills training programs (or micro-credentials) has grown exponentially over the last decade in the Latin American and Caribbean (LAC) region, and similar growth in supply has been observed in other regions for even longer. As such, in some countries, these programs have begun to exceed the reach of the formal national education system. According to the European Training Foundation (2022), the number of global learners in the five major global digital learning platforms for micro-credentials (Coursera, edX, Udacity, Future Learn and LinkedIn Learning) exceeds 100 million annually. This rapid expansion is due to the growing costs of higher education, the need for reskilling and upskilling, the development of new technologies, and, in some cases, the low return on investment of poor-quality formal education.

Micro-credential programs do not seek to replace traditional qualifications but rather complement them to better respond to the needs of the labor market and individuals. As such, micro-credentials can provide education and training that is flexible, adaptable and relevant to the labor market's demands while also providing lifelong learning opportunities. This is particularly relevant in the LAC region where rates of unemployment, informal work and inactivity are high, and labor productivity is often constrained because workers lack skills needed by employers in the region (Novella et al., 2023a; Manpower, 2018; Gontero and Albornoz, 2019).

Nevertheless, employees in certain occupations do not tend to benefit from micro-credentials. Typically, micro-credentials are not used in traditional occupations that require long periods of education and training. As such, it is uncommon for individuals working as lawyers, judges, medical doctors and pharmacists, for example, to acquire micro-credentials. On the other hand, workers in other fields like information and communication technology (ICT) can benefit from alternative, shorter duration credentials.

Micro-credentials can deliver value to both recent school graduates and current employees. For recent school graduates, micro-credentials can provide a streamlined and practical pathway to acquiring job-ready skills. For active employees, they can offer the opportunity to develop new skills to change jobs or move to a new position ("reskilling") or to enhance their skills for better job performance ("upskilling"). For both school graduates and current employees, the returns to micro-credentials depend on the new skills acquired, the demand in the labor market for this skill and the signal the micro-credential sends to employers.

Evidence on the effectiveness of micro-credentials is still scarce due to a lack of data on enrolment and completion of micro-credentials, particularly in low-and-middle-income countries, and the lack of a standardized definition of what should be considered a micro-credential. That said, existing evidence indicates micro-credentials have a positive labor market effect, though with significant variation in returns across fields of study. This evidence also shows a tendency for the benefits

of micro-credentials to phase out faster than longer training programs that lead to certificates.

Definition of micro-credentials adopted in this report. Currently there is not a universally acknowledged definition for what qualifies as a micro-credential. Micro-credentials are usually short courses that can be taken on their own and help individuals to acquire specific skills. In addition, micro-credentials can be aggregated with other courses into a larger training program. In this report, we define micro-credentials as short courses with a duration of six months to two years. Finally, we use the term micro-credential and short course interchangeably. The choice of definition is discussed in more detail in the next section.

Objectives and scope of the report. Despite the magnitude and quick expansion of micro-credentials worldwide, discussions surrounding micro-credentials are at an initial stage and the literature assessing their effectiveness is very slim. Furthermore, the recent proliferation of micro-credentials has made it challenging to monitor and ensure the quality of both the credentials and their providers. Overall, there is a lack of adequate quality assurance mechanisms for micro-credentials. The heterogeneity in the quality of micro-credentials offered across different occupations is vast and difficult to recognize in the absence of clear accreditation systems, regulations and certification frameworks. Additionally, there is a lack of reporting on the learning outcomes and assessments of micro-credentials. Not surprisingly, as a result, employers' recognition of the value of micro-credentials is mixed.

This document aims to contribute to the discussion by offering an overview of micro-credentials available in the LAC region, along with several important recommendations.

The remainder of the report is structured as follows: Section 2 discusses various definitions of micro-credentials, emphasizing the absence of a universally accepted standard definition. It also introduces and discusses the definition used within this report. Section 3 examines the historical trends in demand and supply of micro-credentials in the region. Section 4 highlights the key advantages and disadvantages of micro-credentials compared to traditional educational programs, reviews the suitability of household surveys in LAC for measuring micro-credentials, and analyzes existing evidence on their returns. Section 5 discusses various empirical methods for evaluating their effectiveness and outlines a proposed strategy for collecting relevant data and information concerning micro-credentials, aiming to enhance the assessment of their impact in the region. Section 6 provides key recommendations and priority investment areas for policymakers in the LAC region to realize the full potential of these flexible and dynamic learning tools to expand access to educational opportunities and equip the workforce with marketable skills in an ever-changing context. Finally, Section 7 concludes.

2. Micro-credentials: definitions and key features

Working definitions of micro-credentials. A variety of terms is used in reference to micro-credentials. There is no universally acknowledged definition of what can be considered a micro-credential or what distinctive features micro-credentials have compared to other short skills training courses or programs. Table 1 reports a non-exhaustive list of working definitions of micro-credentials.

The absence of a clear and acknowledged definition is due in part to the fact that the nature and purpose of micro-credentials have changed over time. Micro-credentials emerged primarily within the private sector to respond to: 1) skills needs in the labor market; and 2) evolving pathways to enter and move within the workforce. Subsequently, micro-credentials began to be seen as a route to further learning that was alternative or complementary to standard education paths and often operated outside of formal qualifications systems.

Table 1. *Working definitions of micro-credentials*

Source	Definition
United Nations Educational, Scientific and Cultural Organization (UNESCO)	A record of focused learning achievement verifying what the learner knows, understands, or can do. Includes assessment based on clearly defined standards and is awarded by a trusted provider and has standalone value and may also contribute to or complement other micro-credentials or macro-credentials, including through recognition of prior learning. Meets the standards required by relevant quality assurance (UNESCO, 2022).
European Commission	Micro-credential means the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes have been assessed against transparent and clearly defined standards (European Commission, 2021).
Organisation for Economic Co-operation and Development (OECD)	A micro-credential is an organized learning activity with an associated credential; the credential recognizes a skill or competency that has been acquired through an organized learning process and validated through an assessment (OECD, 2021).
eCampus Ontario	A micro-credential is a certification of assessed learning associated with a specific and relevant skill or competency. Micro-credentials enable rapid retraining and augment traditional education through pathways into regular post-secondary programming (eCampus Ontario, n.d.).

Malaysian Qualification Agency	A micro-credential is defined as digital certification of assessed knowledge, skills, and competencies in a specific area or field, which can be a component of an accredited programme or stand-alone course supporting the professional, technical, academic, and personal development of the learner (Malaysian Qualification Agency, 2020).
New Zealand Qualifications Authority	A micro-credential certifies achievement of a coherent set of skills and knowledge, and is specified by a statement of purpose, learning outcomes, and strong evidence of need by industry, employers, and/or the community (New Zealand Qualifications Authority, n.d.).
University Council of Jamaica	A micro-credential is a certified small volume of learning which attests to knowledge, skills, and competencies (autonomy, responsibility, and life skills) in a specific area or field. It may be acquired through assessed life and work experience or a dedicated short course. Micro-credentials support the professional and personal development of the learners. They may also be combined into larger qualifications (University Council of Jamaica, n.d.).
National Centre for Vocational Education Research (Australia)	A course in vocational education and training (VET) which stands alone and does not usually lead to a full qualification. A statement of attainment may be issued on successful completion (National Centre for Vocational Education Research, 2021).
South African Qualifications Authority (SAQA), TVET Standard Glossary of Terms	A short learning programme through which a learner may or may not be awarded credits towards a qualification or a part qualification, depending on the purpose of the programme (South African Qualifications Authority, 2013).

Note: Each definition in the table is quoted directly from its source organization. For more information on each organization's definition, please refer to the source documents listed in the reference section of this report.

Key features of micro-credentials. While there is not a clear nomenclature for micro-credentials, there are at least two common features reported across the various definitions:

- **Length and scope of the training:** The above organizations commonly describe the length and scope of training for micro-credential programs as short and targeted to specific knowledge, skills, and competencies in specific fields.
- **Accreditation and incorporation into national qualification systems:** Micro-credentials are also commonly defined as stand-alone credentials that do not result in a full qualification, that are at times part of an accredited program or course and that rely on assessments for validation.

Overall, micro-credentials can be defined as accredited stand-alone short training programs that focus on narrower specializations and on the acquisition of

a specific set of knowledge or skills. They might or might not be incorporated into the national qualification system.

Any definition of such programs should be broad enough to include a variety of different micro-credentials. As Diaz et al. (2022) suggest, micro-credentials can take different forms depending on: 1) the types of skills that are measured or assessed; 2) the duration and time investment required; 3) the type of provider; 4) the market value of the accreditation; 5) the level of involvement with industry; 6) the social capital value; and 7) the degree of connectivity (i.e. the degree to which credentials can be combined, linked or built on each other).

Furthermore, the mode of delivery may vary as well. Micro-credential courses are taught online, offline or in a hybrid manner, though the majority are taught online. Finally, some micro-credentials can lead to nationally recognized qualifications. Incorporation of micro-credentials into national qualification systems requires a delicate balancing act – preserving the distinct features of micro-credentials by keeping the regulatory requirements to a minimum while at the same time monitoring the quality and accreditation systems tied to such types of programs to ensure standards. We will return to these two aspects in Section 6.

Definition of micro-credentials adopted in the report. As highlighted above, there is no clear consensus on the definition of a micro-credential, and there is a diverse range of course durations, spanning from just a few weeks to several years. In this report, we have chosen to define micro-credentials as courses with a duration of six months to two years, following UNESCO's International Standard Classification of Education (ISCED) framework for categorizing formal education programs (UNESCO Institute for Statistics, 2012), called ISCED 4. This classification pertains to post-secondary, non-tertiary education typically encompassing short programs lasting six months to two years that are designed to facilitate direct entry into the labor market. These programs aim to equip individuals with knowledge, skills and competencies that are generally of shorter duration and lower complexity than those offered by traditional tertiary education.[3]

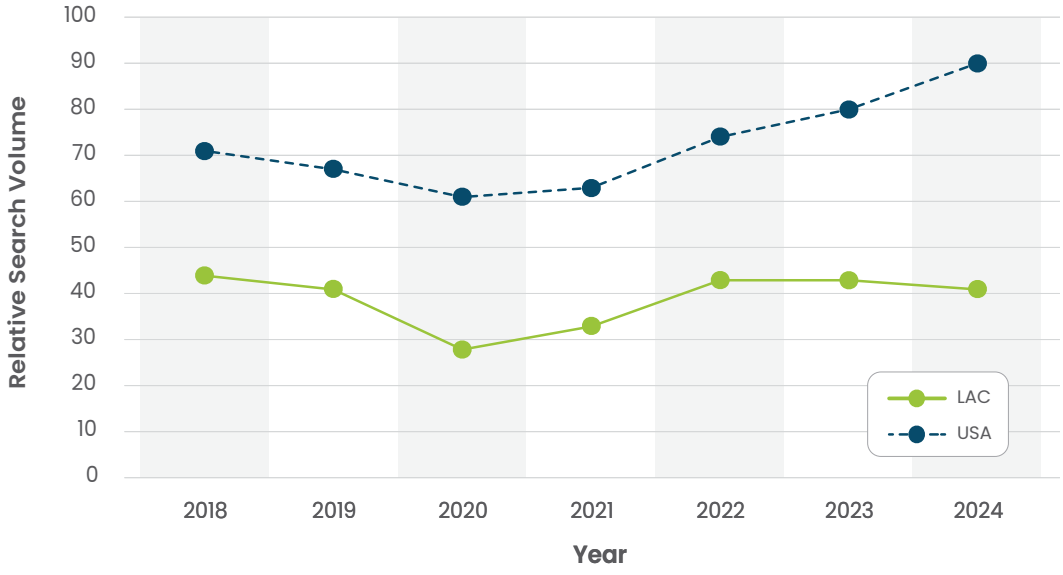
It is important to notice that by examining courses within this classification, we complement the findings of a recent World Bank report on short-cycle higher education programs that focuses on programs with a duration of two to three years (see Ferreyra et al., 2021).

[3] Micro-credentials can vary significantly by mode of delivery. They can be offered as fully online courses (often through massive open online courses (MOOCs), blended or hybrid programs, or in-person short courses. The delivery mode shapes both the learning experience and the perceived rigor of micro-credentials, but there is no systematic analysis available about the different types of delivery. MOOCs have been studied more in depth because of concerns about completion rates and instructional quality (EDUCAUSE, 2019).

3. Demand and supply of micro-credentials in the Latin American and Caribbean region

Demand and supply of micro-credentials. As labor markets continue to evolve and the costs of higher education steadily increase, on average, the popularity of micro-credentials has been on the rise globally with differences between countries and regions. Figure 1 presents Google Trends data from 2018 to 2024 for the search term "short course" in LAC and the United States of America (USA), that, while varied across countries and time, serves as a proxy for "micro-credentials" specifically. The LAC sample includes Argentina, Brazil, Colombia, Jamaica, Mexico, Peru, and Trinidad and Tobago. As can be seen from Figure 1, searches for the term "short course" began to increase in the USA starting in 2021, during the pandemic, and continued to grow post-pandemic. Meanwhile, in LAC, searches also began to increase in 2021, but as opposed to what happened in the USA, the region experienced a return to pre-pandemic levels from 2022 onwards.

Figure 1. *Google Trends for "short course" in LAC and the US, 2018-2024.*



Data source: Google Trends

Note 1: Sample includes Argentina, Brazil, Colombia, Mexico, Peru, Trinidad and Tobago, Jamaica, and the United States. Venezuela, Costa Rica, Panama and Guatemala were also included, but data were not reported for "short course" for these countries because searches for this term were very low in volume in these countries.

Note 2: The Y-axis in each figure displays the Relative Search Volume (RSV), a normalized index ranging from 0 to 100. A value of 100 represents the term's peak popularity during the selected period and region, while 0 indicates insufficient search activity. RSV values are relative and do not reflect absolute search counts; they indicate interest as a proportion of the term's highest observed value. When multiple terms are included, all values are scaled relative to the highest point across the complete set. Each point in the line charts represents the RSV for the corresponding year (January–December). The figures do not show month-to-month variation.

These findings raise two policy-relevant questions:

- Why is interest in "short courses" consistently higher in the USA than in LAC?
- Why has interest in "short courses" continued to grow in the USA, while declining in LAC?

To explore these questions further, the authors replicated the same exercise using the terms "online course" [4] and "free course" given that the discrepancies seen between the USA and LAC may be associated, on the one hand, with differences in digital conditions (i.e. availability of digital devices and internet), and, on the other, with economic constraints.

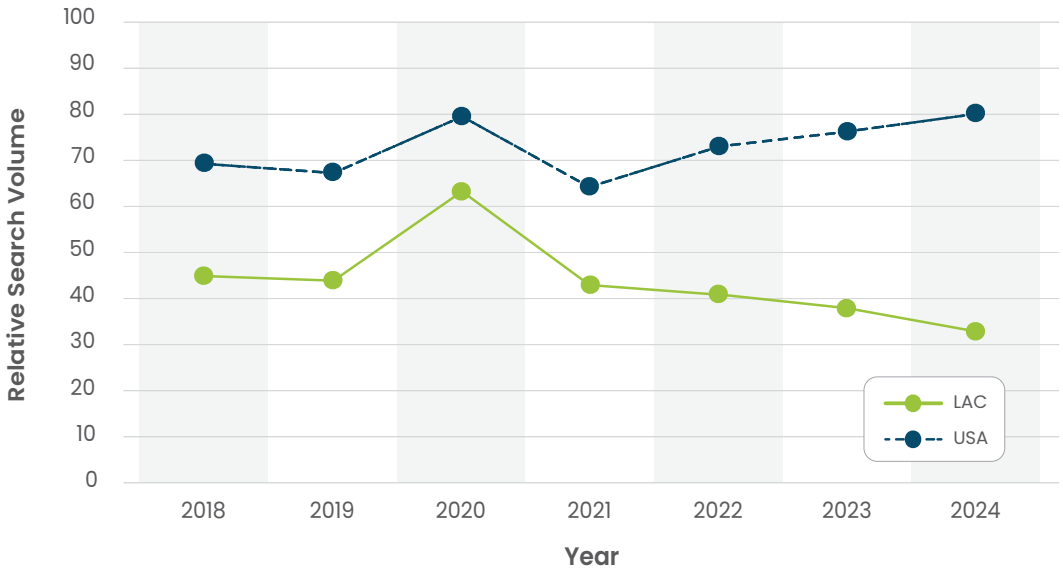
Google Trends data for the search term "online course" in LAC and the USA show two key trends. First, interest in online courses – of varying durations – rose sharply in both regions in 2020, during the COVID-19 lockdowns, but reverted to pre-pandemic levels by 2021. This pattern suggests that part of the spike in interest in online courses in both the USA and LAC may have been due to temporary increases in free time due to school closures and labor market disruptions such as furloughs, layoffs and other forms of involuntary downtime.

Second, interest in online courses has remained consistently higher in the USA than in LAC, which may point to structural differences in digital conditions between both regions. This statement is consistent with evidence that suggests that enrollment – and completion - in micro-credentials may depend on several factors, such as the degree of internet connectivity (e.g., devices with internet access, Wi-Fi, electricity etc.), as well as socioemotional skills for learning (e.g., grit and conscientiousness) and other household conditions (Novella et al., 2023b).

Third, the gap in searches for "online course" between the two regions has widened since 2021, as interest in online courses continued to grow in the USA while declining in LAC. Given that this follows the same pattern as that observed for the search term "short course", the divergence in interest for "short course" between the USA and LAC seems to go beyond the online nature of the courses.

[4] The term "online course" has higher search volumes, which leads to more stable and less spurious trends. See Appendix 2 for a full discussion of the criteria used to select the search terms.

Figure 2. *Google Trends for the term "online course," in LAC and the US, 2018-2024*



Data source: Google Trends

Note 1: LAC figure comes from an equally weighted average of Google Trends in Argentina, Brazil, Colombia, Costa Rica, Guatemala, Jamaica, Mexico, Panama, Peru, and Trinidad and Tobago.

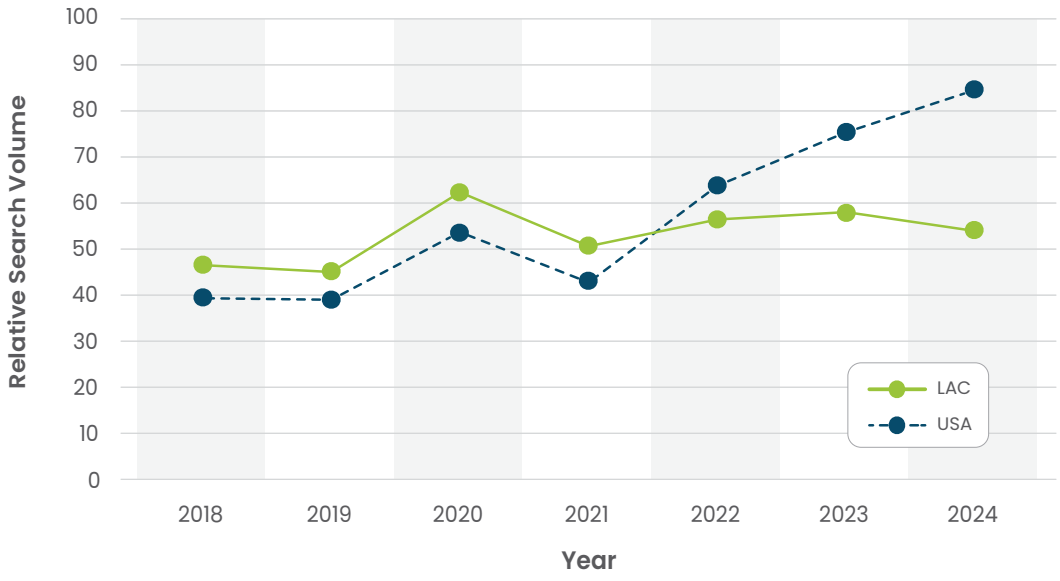
Note 2: The Y-axis in each figure displays the Relative Search Volume (RSV), a normalized index ranging from 0 to 100. A value of 100 represents the term's peak popularity during the selected period and region, while 0 indicates insufficient search activity. RSV values are relative and do not reflect absolute search counts; they indicate interest as a proportion of the term's highest observed value. When multiple terms are included, all values are scaled relative to the highest point across the complete set. Each point in the line charts represents the RSV for the corresponding year (January–December). The figures do not show month-to-month variation.

Finally, Google Trends data for the search term "free course" in LAC and the USA show contrasting trends relative to searches for the previous two terms. As shown in Figure 3, LAC's Relative Search Volumes (RSV) for "free course" between 2018 and 2021 are higher than those in the USA, which reflects a strong baseline demand for cost-free learning opportunities that was augmented by pandemic-related financial constraints. After 2021, however, LAC interest remained relatively stable while searches in the USA rose sharply, surpassing LAC by 2022.[5]

The abrupt increase in "free course" RSV seen in the USA, together with the same post-pandemic surges in the previous analyses for "short course" and "online course", may reflect a growing orientation towards continuous learning in the USA, contrasting with the more stable but persistently high demand in LAC driven by affordability concerns.

[5] See Annex B for a country-by-country analysis of "online course" and "free course" popularity during 2018-2024.

Figure 3. *Google Trends for "free course" in LAC and the US, 2018-2024*



Data source: Google Trends

Note 1: LAC figure comes from an equally weighted average of Google Trends in Argentina, Brazil, Colombia, Costa Rica, Guatemala, Jamaica, Mexico, Panama, Peru and Trinidad and Tobago.

Note 2: The Y-axis in each figure displays the Relative Search Volume (RSV), a normalized index ranging from 0 to 100. A value of 100 represents the term's peak popularity during the selected period and region, while 0 indicates insufficient search activity. RSV values are relative and do not reflect absolute search counts; they indicate interest as a proportion of the term's highest observed value. When multiple terms are included, all values are scaled relative to the highest point across the complete set. Each point in the line charts represents the RSV for the corresponding year (January–December). The figures do not show month-to-month variation.

Taken together, on the demand side, the findings point to the following:

1) For both "short course" and "online course" searches, there appears to be higher demand in the USA than in LAC.

2) Demand for both "short course" and "online course" has steadily increased post-pandemic in the USA, while decreasing in LAC.

3) Demand for "free course" was higher in LAC than in the USA before and during the peak of the pandemic, with the USA having higher relative search volumes thereafter.

On the supply side, Table 2 provides an overview of the trends in micro-credentials offered by Coursera and edX, the two largest global digital learning platforms for micro-credentials. We have excluded other notable online course providers, such as Udacity and

FutureLearn, as none of their offers exceed six months. The duration of many of the courses offered by the platforms included in Table 2 are described using a range of months. Disaggregated information on the length of these courses is not available. As such and in accordance with the definition presented earlier for micro-credentials, Table 2 only reports credentials with duration ranges that reach six months or more on the longer end.[6]

Table 2 shows that these platforms markedly increased the number of micro-credentials they offered between 2018 and 2021. For instance, the number of Professional Certificates offered on edX rose by nearly 200% from 2018 to 2021.

Table 2. *Number of micro-credentials offered by Coursera and edX, 2018-2021*

Provider	Type	2018	2019	2020	2021
Coursera	Professional certificates (1-6 months)	0	13	26	55
	MasterTrack Certificates (4-7 months)	3	6	18	22
edX	Professional Certificates (1-17 months)	89	123	176	265
	MicroMasters (4-20 months)	51	56	67	57
	Xseries (1-19 months)	29	40	40	52
	MicroBachelors (2-9 months)	0	0	8	12
TOTAL		**172**	**238**	**335**	**463**

Source: Shah, D. (2021). By the numbers: MOOCs in 2021. The Report. *https://www.classcentral.com/report/mooc-stats-2021*

Notes: The table only shows micro-credentials that offer courses with duration ranges of six months or more on the longer end Length of micro-credentials were determined through a desk review in September 2023.

[6] Coursera also offers credentials called Guided Projects (1-2 hours), Courses (4-12 hours), Specializations (1-3 months) and Degrees (2-4 years). EdX also offers Professional Education Certificates, which typically run for a few weeks.

Although more recent data are not available, it's plausible to expect that platforms have continued expanding their micro-credential offerings in response to their understanding of employer and student demand. In its 2025 Micro-Credentials Impact Report, Coursera reported that 96% of employers believe micro-credentials strengthen job applications. According to the same report, that belief is also prevalent among students: 77% say they are more likely to enroll in a degree program that includes credit-bearing micro-credentials than a program without them (Coursera, 2025b). This rate is twice that of the rate of students saying they are likely to enroll in a program that doesn't include micro-credentials. Finally, according to the same report, at least one-third of students report have already earned a micro-credential.

Coursera currently has 27 million learners in the LAC region, accounting for roughly 15% of its global user base. This number has grown steadily since 2020, with a compound annual growth rate of 21%. While Brazil and Mexico make the largest contributions to the learners' base, enrolments as a percentage of the labor force are highest in Trinidad and Tobago (1.4%), Colombia (1.2%) and Uruguay (1%), all of which exceed the global average of 0.7% (Coursera 2024, 2025a, 2025b).

As Table 2 highlights, there is considerable variability in the type of courses offered, even within the category of micro-credentials. As noted by Diaz et al. (2022), micro-credentials may take different forms depending on seven dimensions:

- Types of skills that are measured or assessed (traditional vs. new skills).
- Duration and time investment required (short vs. long courses).
- Type of provider (formal providers vs. new providers).
- The market value of the accreditation (high recognition and trust vs. low recognition and trust).
- Level of involvement with the industry (highly connected and relevant vs. less connected and relevant).
- Social capital value (high networking value vs. low networking value).
- Connectivity (i.e., the stackability of micro-credentials – are credentials linked to other learning experiences or each other? Is a credential a building block that can be used to acquire new credentials?).

There are several different institutions that offer micro-credentials in the LAC region, as illustrated in Figure 4. The landscape is primarily shaped by private online learning platforms, such as Coursera and edX, which serve as central hubs for a diverse range of micro-credentials. These platforms collaborate with external institutions to develop in-demand short courses. For instance, Coursera's MasterTrack Certificates feature credentials from universities like Universidad de los Andes and Pontificia Universidad Católica de Chile, while professional certificates showcase micro-credentials from large private companies like Microsoft and Amazon Web Services.

Traditional higher education institutions have been somewhat belated in entering the micro-credential domain, though they have been increasingly doing so in recent years. According to Coursera's 2024 Micro-Credential Impact Report, there has been growing adoption of micro-credentials among university leaders. Currently, 53% of over 1,000 higher education leaders across over 850 institutions in 89 countries say their institutions offer academic credit for micro-credentials. Moreover, 82% are planning to do so within the next five years. The same report indicates that in Latin America, 46% of surveyed institutions offer micro-credentials and that 71% of surveyed leaders say their campuses are likely to adopt micro-credentials in the next five years (Coursera, 2025a). Some examples of this include institutions like Tecnológico de Monterrey in Mexico, which offers micro-credentials called High Specialty Certificates in areas such as data science and business analytics (Tecnológico de Monterrey, n.d.).[7] The Pontificia Universidad Católica de Chile and Universidad de Chile also provide short diploma courses, though some credentials target individuals with existing bachelor's degrees.

Multilateral institutions have also entered the micro-credential space. The Development Bank of Latin America and the Caribbean (CAF), for instance, offers a professional certificate in Governance and Public Innovation. Individuals in Barbados, Jamaica and Trinidad and Tobago can take the course through a partnership with The University of the West Indies (Development Bank of Latin America and the Caribbean, n.d.). Additionally, many multilateral institutions collaborate with private online learning platforms. edX, for example, features numerous short courses developed by the IDB and the World Bank. Finally, bootcamps—institutions that provide intensive, short-term training programs focused on practical software development skills, such as Laboratoria with its six-month Web Development and UX Design courses—also offer micro-credentials.

With regards to technical and vocational education and training (TVET) providers, although these typically offer courses that are shorter than traditional bachelor's degrees, they tend to provide courses that are longer than micro-credentials (Ferreyra et al., 2021). For example, the Servicio Nacional de Adiestramiento en Trabajo Industrial (SENATI) in Peru offers courses that span 2-4 years in length. Additionally, while certain higher education institutions have introduced short courses that offer diplomas or continuing education certificates, many are of much shorter duration than micro-credentials, and often last just a few days.[8]

7 *https://maestriasydiplomados.tec.mx/certificados-de-alta-especialidad*

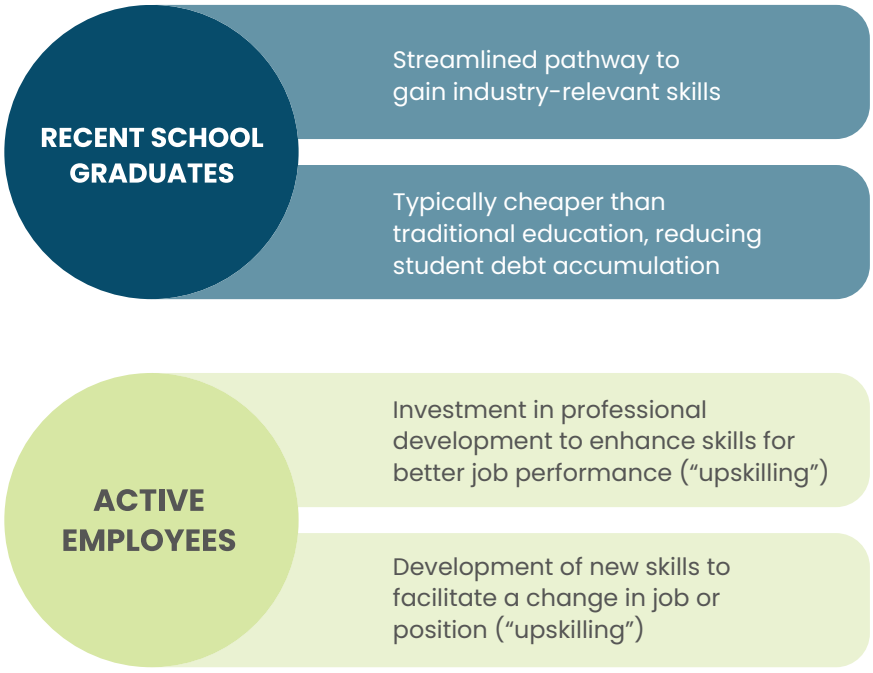
8 *https://educacioncontinua.unam.mx/index.php/actividad/oferta*

Figure 4. *Examples of different micro-credential providers in LAC*

4. Conceptual framework, advantages and disadvantages

Recipients of micro-credentials. Micro-credentials can deliver value to both recent school graduates and current employees (Figure 5). For recent graduates, these credentials serve as a pathway to expedite entry into the job market. For active employees, micro-credentials can play a role in facilitating upskilling and reskilling.

Figure 5. *Applications of micro-credentials for school graduates and active employees*



Source: Authors' own elaboration.

For recent school graduates, micro-credentials can provide a more streamlined and practical pathway to acquiring job-ready skills compared to pursuing a traditional four-year degree immediately. Micro-credentials can help students to gain specific, industry-relevant skills quickly, making them more employable with regards to entry-level positions. Micro-credentials can be more cost-effective than enrolling in a full degree program right after high school. This affordability allows recent high school graduates to start their careers or continue their education without accumulating significant student debt. When compared to traditional post-secondary education, returns for students will depend on how much value a potential employer places on micro-credentials compared to a formal degree. The value of micro-credentials also depends on to what extent they can help individuals bridge a skills gap, either through skilling, reskilling or upskilling.

Micro-credentials offer active employees the opportunity to acquire new skills or update existing ones, aligning their competencies with the evolving demands of their industries. This can result in improved labor market returns through several channels. First, by pursuing micro-credentials, employees demonstrate their willingness to invest in their professional development and commitment to enhancing their skills for better job performance ("upskilling"). This effort can be particularly valuable for employees seeking promotions or transitions to different roles within the same organization. Second, employees may be able to use micro-credentials to develop new skills necessary to change jobs or move to a new position ("reskilling"). Employees can quickly gain expertise in areas where demand is growing, increasing their marketability and potential for career advancement.

For both students and current employees, the return to micro-credentials depends on two factors: 1) the new skills acquired (and the labor-market demand they fulfill); and 2) the signal the micro-credential conveys to employers. The latter depends critically on the extent to which employers understand, trust and value the skills offered by micro-credentials. International evidence suggests that across all employers and industries, there is substantial uncertainty or ignorance among employers about short-term, targeted learning (OECD, 2023). These doubts may arise from several factors. For instance, long-term or traditional degree programs typically provide more information about a worker than just their skills, such as their commitment to completing their degrees. Furthermore, universities offering traditional programs often have a stronger reputation compared to providers offering short courses. Short courses also tend to focus on teaching a limited set of skills, which might not be adequate for someone aiming to specialize in a particular occupation.

Although by some accounts employer trust in traditional degree credentials is declining, a lack of understanding and awareness of alternative credentials means that employers continue to default to using degree credentials during their hiring processes. This in turn disadvantages learners with alternative credentials or skills

that are uncredentialled (Diaz et al., 2022; Gallagher, 2018). Targeted and short-term credentials appear to be most recognized in industries where firms or professions are active in the development and management of credentials. Micro-credentials are also well-received in industries that are experiencing acute labor shortages, such as IT, healthcare and manufacturing (OECD, 2023).

Comparison of micro-credentials to traditional qualifications. Traditional higher education qualifications have long served as the cornerstone of national qualification systems, carrying significant value for both learners and employers. Micro-credentials do not replace these traditional qualifications but rather complement them by delivering added value to various stakeholders, including learners, the labor market and society at large. Indeed, when compared to traditional qualifications, micro-credentials have distinct advantages and disadvantages. Figure 6 summarizes the key advantages and disadvantages of micro-credentials.

Potential advantages of micro-credentials. Micro-credentials have five main advantages compared to other skills training programs:

- **Flexibility and industry responsiveness:** Micro-credentials offer greater flexibility with regards to responding to the changing needs of industry. They provide short, customized courses tailored to skills development and often address competencies that are limited or not yet covered by conventional degrees. This flexibility can enable micro-credential holders to access employment opportunities in emerging sectors.
- **Accessible learning:** Micro-credentials can provide access to the education system to those who have traditionally been discouraged from entering it due to time constraints or other responsibilities. The concise and flexible nature of micro-credentials accommodates learners with multiple responsibilities, including many women. Micro-credentials can also offer individuals easy access to the world's best education providers, even in places with poor-quality local institutions and limited access to traditional education.
- **Inclusivity and equity:** Micro-credentials have the potential to reach individuals in vulnerable situations, including those with limited opportunities and those from disadvantaged backgrounds. Their shorter duration and lower cost mean that they may be better suited to individuals who lack the funds for traditional education, or for whom the opportunity cost is too high. Consequently, micro-credentials have the potential to advance equity in education by making learning accessible and affordable for vulnerable communities.
- **Lifelong learning:** Unlike traditional education, where one typically obtains one degree early in life, micro-credentials offer the possibility of accumulating and combining credentials, which encourages lifelong learning. Indeed, micro-credentials allow individuals to collect learning experiences at their own pace and throughout their lives.

- **Versatility:** While formal degrees are often sought primarily for initial job entry, micro-credentials serve multiple purposes, including job entry, changing jobs, further learning and career change. In this regard, they provide a format well suited to skilling, upskilling and reskilling for building sector- or occupation-specific skills.

Potential disadvantages of micro-credentials. Conversely, micro-credentials also have some disadvantages:

- **Unclear definition:** The distinction between micro-credentials and other short skills certificates is often unclear, leading to difficulties in evaluating their usefulness for employers and the benefit for students and employees. Table 2 illustrates that even within a particular micro-credential category, there is often considerable variation in course intensity and length.
- **Lack of quality assurance:** There is a lack of adequate quality assurance mechanisms for micro-credentials, particularly those offered by the private sector. This lack of quality control acts as a deterrent to employers, which in turn hinders the widespread acceptance and utilization of micro-credentials. Indeed, Cedefop (2023) reports that a lack of adequate quality assurance mechanisms is one of the main factors hindering the utilization of micro-credentials. Moreover, the proliferation of micro-credentials of unclear quality makes it difficult for individuals to decide which courses to pursue and how to structure a coherent and valued learning path tailored to a specific profession. This issue is especially relevant for vulnerable individuals who may have limited access to information or diminished capacity to make well-informed decisions. As discussed subsequently in this report, while the need for quality standards is needed, overregulation should be avoided to preserve the flexibility and dynamism of micro-credentials.
- **Unclear learning and employability outcomes, as well as assessment:** More often than not, there is no standardized and transparent process to assess the learning and employability outcomes of micro-credentials. Moreover, when there are assessments, it is often unclear how they are conducted or how rigorous they are. This leads to students relying solely on the credibility of the credential and the training provider.
- **Perceived value:** Ultimately, the value of micro-credentials to individuals hinges on whether they are recognized and deemed by employers as valuable qualifications. The evidence on this matter is mixed, with some employers not considering micro-credentials as bona fide qualifications (Cedefop, 2023). Indeed, in Costa Rica and Peru, firms currently only express a moderate willingness to hire boot camp graduates and jobseekers with the required skills who lack a formal higher education degree (Novella and Rosas-Shady, 2023a; 2023b). This indicates that, although companies might be willing

to hire graduates from short course programs, they continue to have a strong preference for hiring jobseekers who have a formal higher education degree. Successfully incorporating micro-credentials into education and employment pathways therefore requires a shift in the perception of short duration learning as an alternative to traditional qualifications.

Figure 6. *Key advantages and disadvantages of micro-credentials*

Advantages	Disadvantages
✓ Flexibility and industry responsiveness	✗ Unclear definition
✓ Accessible learning	✗ Lack of quality assurance
✓ Inclusivity and equity	✗ Unclear learning and employability outcomes and assessment
✓ Lifelong learning	✗ Perceived value
✓ Versatility	

Review of household surveys that identify enrollment and completion of micro-credentials. Micro-credentials have typically not been included in population censuses or household surveys, as opposed to traditional educational qualifications like high school diplomas or bachelor's degrees. In some countries, however, a shift in this approach has begun. For instance, the United States expanded the scope of its Adult Training and Education Survey (ATES) in 2016 to encompass non-degree credentials such as post-secondary certificates, occupational licenses, and industrial certifications (Cronen et al., 2018). In 2022, building upon the ATES questionnaire, the US Census Bureau conducted its first National Training, Education, and Workforce Survey to continue gathering data on non-degree credentials (US Census Bureau, 2023). Similar adjustments to national surveys have not yet been implemented in Europe.

Table 3 reviews household surveys in the LAC region with the aim of determining their capability to identify micro-credential enrollment and completion. The questions presented in the table do not represent an exhaustive list of education-related questions but rather focus on those most relevant to identifying micro-credentials.

The table reveals that most household surveys in LAC are not adequately equipped to identify whether individuals have enrolled in or completed micro-credentials. Only surveys in Costa Rica, Jamaica and Peru include options for respondents to report "alternative" education experiences, such as short courses resulting in certificates, skills training programs or short technical education courses. In contrast, the remaining surveys do not reference micro-credentials. Their questions regarding education enrollment or attainment predominantly revolve around conventional categories like school grades, university degrees, or occasionally, technical training.

Surveys that may be able to identify micro-credentials typically feature only one or two concise questions on the topic. None of these surveys incorporate detailed questions or modules designed to capture additional aspects like participant satisfaction with the program, skill acquisition or anticipated labor market benefits. Hence, based on the current findings, it is evident that to gain deeper insight into the potential advantages and outcomes of micro-credentials in the LAC region, it is important to incorporate more comprehensive and specific questions in household surveys (see Section 5).

Table 3. *Assessment of micro-credential identification in LAC household surveys*

Country	Name of the survey used in the report	Year	Relevant questions
Argentina	Encuesta Permanente de Hogares (EPH)	2021	Do you attend or did you attend any educational establishment (primary school, secondary school or university)? What grade are you in now, or what is the highest grade you have completed? What was the last year you passed?
Bolivia	Encuesta de Hogares	2020	What was the highest level and course that you passed? During this year, did you register or enroll in some course or degree in school, or did you register or enroll in alternative, superior or postgraduate education? At what level and course of school education, alternative, higher or postgraduate education did you register this year?
Brazil	Encuesta Nacional por Muestra Continua de Hogares (PNADC)	2021	Not found

Country	Name of the survey used in the report	Year	Relevant questions
Chile	Encuesta de Caracterización Socioeconómica Nacional (CASEN)	2020	When was the last time you attended or participated in virtual or in-person classes taught by an educational establishment? What is the highest level you achieved or what is your current educational level?
Colombia	Gran Encuesta Integrada de Hogares (GEIH)	2021	Is the establishment you attend accredited? What is the highest educational level you have achieved? And what is the last year or grade you passed at this level? What is the highest educational degree or diploma you have received? What activity did you spend most of your time doing last week? Did you graduate from a higher education institution that trained educators and teachers (an Escuela Normal Superior)?
Costa Rica	Encuesta Continua de Empleo (ECE)	2021	What is the highest level of education you have completed? Aside from regular education, have you registered for a course or any other type of learning or continuing education for which you have received a diploma or been certified? What is the name of the course? Which institution was in charge of the course?
Ecuador	Encuesta Nacional Empleo, Desempleo y Subempleo (ENEMDU)	2021	What is the highest level of education you have obtained? In what year did you graduate? Did you obtain a higher degree in your field of study?
Jamaica	Jamaica Survey of Living Conditions (SLC)	2019	What type of school are you attending this academic year? What is the highest (academic /vocational) examination that you have passed? Have you ever enrolled in any skills training program? What skills did you learn?
Mexico	Encuesta Nacional de Ocupación y Empleo (ENOE)	2021	Not found

Country	Name of the survey used in the report	Year	Relevant questions
Peru	Encuesta Nacional de Hogares (ENAHO)	2021	In the past 12 months, did you study or take a class in any center or study program with a duration of less than three years (CETPRO, academy or others)? In the present year or in previous years did you receive technical or auxiliary-level education in any study center or program with a duration of less than three years? What is the name of the technical or vocational degree you are studying for or have completed? What is the duration of the technical or vocational degree you are studying for or have completed? What is the name of the study center that offers the technical or vocational degree you are studying or completed?
Dominican Republic	Encuesta Nacional Continua de Fuerza de Trabajo (ENCFT)	2020	Are you attending school or university? What grade are you enrolled in this year? Are you currently taking any technical or vocational course? What is the highest degree or diploma you have received?
Uruguay	Encuesta Continua de Hogares (ECH)	2021	Do you attend an educational institution? Is this educational institution public or private?

Review of evidence on the returns to micro-credentials (6-24 months)

Evidence on the returns to micro-credentials – defined in this publication as short courses lasting between six months and two years – is limited, particularly in lower- and middle-income countries (LMICs). This is due in part to data limitations on enrollment and completion, as well as the absence of a standardized global definition of micro-credentials. Most of the available evidence comes from high-income countries, particularly the United States. Studies in these countries suggest that micro-credential programs can yield positive labor market outcomes, though these outcomes are generally smaller in magnitude than the outcomes related to obtaining associate and bachelor's degrees (Belfield & Bailey, 2017; Carnevale et al., 2012; Backes et al., 2015; Jepsen et al., 2014; Liu et al., 2015; Meyer et al., 2022). Some studies, such as Baum et al.

(2020), Darolia et al. (2023), and Carnevale et al. (2012) find that very short certificates programs with durations of under one year can have positive labor market effects that are close to those of longer certificates.

Several studies underscore the variability in returns to micro-credentials across fields of study. Micro-credentials in vocational and technical fields tend to produce more returns than those in academic or general education programs (OECD, 2023). For instance, Baum et al. (2020) find that micro-credential certificates in areas such as engineering, mechanics and law enforcement yield higher earnings than a high school diploma, whereas fields like cosmetology and culinary arts show minimal or negative returns. Jepsen et al. (2014) report the highest returns in vocational fields for men and in health-related fields for women. However, gender-based outcomes are mixed across studies. While Baum et al. (2020) find lower earnings returns for women in the USA despite higher participation rates in micro-credentials, Jepsen et al. (2014) report higher returns for females in some fields.

The practice of "stacking" micro-credentials – that is, combining multiple certificates or adding them to a longer qualification – may amplify returns. Ntwari and Fecteau (2020) find that stacking certificates with associate or bachelor's degrees leads to higher earnings. Meyer et al. (2022) also find positive results from stacking, especially when the second credential is "bigger" (e.g. an associate degree), although they caution that the returns may not always differ based on the length of the second credential. That is – the payoff for choosing a longer versus a shorter second credential is not always statistically significant. Again, outcomes vary by field: stacking in healthcare appears particularly effective.

Despite these encouraging signs, researchers caution that very short certificates (of less than one year) may offer only temporary benefits, possibly due to their limited scope and focus on highly specific skills (Darolia et al., 2023; Liu et al., 2015).

Emerging evidence also suggests that employer recognition of micro-credentials is influenced not only by duration, content and alignment with skills demand, but also by how they are delivered and certified. Evidence shows that credentials issued by accredited institutions tend to be more highly valued, whereas stand-alone MOOCs and fully online formats are sometimes met with skepticism regarding assessment and practical skills acquisition (Bruguera et al. 2024).

Evidence from shorter programs (less than six months). Although this publication focuses on micro-credential programs with a duration of 6-24 months, emerging evidence from very short courses (less than six months) is worth noting, particularly due to their rapid proliferation. These ultra-short courses can still develop skills that are valued in the labor market, including soft skills and language proficiency. For example, online training programs in entrepreneurship have been shown to improve socio-emotional skills and English proficiency (Baptista,

Freund, & Novella, 2024; Fazio, Freund, & Novella, 2025). Programs emphasizing soft skills have demonstrated impacts on communication and organizational abilities (Barrera-Osorio, Kugler, & Silliman, 2022).

These types of training have also improved performance in online freelance labor markets, increasing the likelihood of profile creation, proposal submissions, offers and contracts (Baptista, Freund, & Novella, 2023; Fazio, Freund, & Novella, 2025). However, not all results are positive: an evaluation of a free MOOC-style Coursera course offering industry-recognized certification found no significant effects on formal employment, likelihood of employment or wages two years after course completion (Novella, Rosas-Shady, & Freund, 2024).

Evidence from longer short-cycle programs (two to three years). Short-cycle programs (SCPs) typically last two to three years. Evidence on their uptake and efficacy offers useful insights into somewhat longer alternatives to traditional degrees. These programs, while slightly outside the parameters of this publication's review of programs in the 6–24-month range, share similar goals: practical, labor-market-relevant training delivered in a condensed format.

A World Bank study (Ferreyra et al., 2021) [9] shows that students who complete SCPs have better labor market outcomes than students who drop out of bachelor's programs, with lower unemployment, higher formal employment and higher wages. However, SCP graduates still tend to earn less than those with bachelor's degrees. Importantly, SCPs tend to perform best in vocationally oriented fields (e.g., engineering, business) and worse in academic ones (e.g., humanities, education, arts). The study also highlights the risk of the proliferation of low-value, low-cost programs, which do not yield substantial returns.

Additional evidence: education continuation and spillovers

Some micro-credentials and short-term programs also influence further educational investment. For example, a six-month program offered in Colombia that combined vocational classroom training courses in a variety of occupations for disadvantaged youth in urban areas in Colombia (Young in Action) with a private apprenticeship led to increased secondary school completion and higher enrollment in technical higher education, with spillover effects on relatives, particularly women, who also pursued technical studies (Kugler et al., 2019). Similarly, while completion rates for MOOCs are low, those who finish a CINDE-Coursera job training program and certificate in Costa Rica to improve specific skills related to technology such as those demanded by jobs in data analysis, software development and cybersecurity are more likely to enroll in higher education (Novella, Rosas-Shady, & Freund, 2024).

[9] To assess their effectiveness, the study explicitly designed and implemented the World Bank Short-Cycle Program Survey (WBSCPS) in Brazil (in the states of São Paulo and Ceará), Colombia, the Dominican Republic, Ecuador and Peru (for licensed programs).

Despite the promising findings in these studies, overall evidence of the efficacy of micro-credentials remains scarce. Information asymmetries – especially among students from low-income backgrounds – can limit participation in higher education or short-term upskilling programs (Jensen, 2010; Dinkelman & Martínez, 2014; Bobba & Frisancho, 2016; Hastings et al., 2016).

In summary, while the body of evidence is growing, rigorous evaluations of micro-credentials lasting 6-24 months – particularly in LMICs – remain limited. Available data suggest micro-credentials hold promise for improving labor market outcomes, especially in vocational fields and when combined with other credentials. However, the wide variation in outcomes across fields and populations, combined with measurement and definitional challenges, warrants cautious interpretation. Strengthening data systems and conducting context-specific evaluations is critical to understanding the true value of micro-credentials in Latin America, the Caribbean and beyond.

Methods to measure return to skills training programs and micro-credentials.

There are several different empirical approaches that researchers can use to measure the returns to micro-credentials. Due to cost constraints and ethical considerations, assessments typically rely on observational data rather than experimental studies. Some common methods include:

Mincerian regressions: The simplest approach involves Mincerian regressions, which estimate earnings as a function of education, employment and demographic factors.[10] For instance, Baum et al. (2020) examined the relationship between micro-credentials and labor income by performing a regression on earnings on educational achievement, race, gender, age, work hours per week, weeks worked per year and other types of certificates obtained from employers or high school vocational programs.

Pros:

- ✓ These regressions are widely used and well understood.
- ✓ These regressions don't have strict data requirements. In addition, they can be conducted with simple cross-sectional data.

Cons:

- ✗ The relationship between education attainment and earnings does not necessarily imply causality. This is particularly likely to be true when data are limited, and the regression suffers from omitted variable bias. For example, micro-credential completion may be correlated with unobserved characteristics that are not included in the data, such as motivation, biasing the estimated effect of the credential.

Quasi-experimental analysis: Researchers who have access to longitudinal

[10] The justification for interpreting the coefficient on schooling as a rate of return derives from a model by Becker and Chiswick (1966). It was popularized and estimated by Mincer (1974), which is why it is now called the Mincerian model.

surveys or administrative data often employ individual fixed effects models or the "difference-in-differences" to estimate the changes in earnings associated with micro-credential attainment. These models compare the change in earnings over time between individuals who have obtained micro-credentials and those who have not. For example, a study by Jepsen et al. (2014) used a detailed administrative panel dataset to estimate a two-way fixed-effects model that compared earnings over time among individuals with and without credentials in Kentucky.

Pros:

- ✓ Controls for (unobserved) fixed personal characteristics such as motivation, which are not observable in the data.
- ✓ Can be easily combined with other statistical methods, such as propensity score matching, to further enhance credibility.

Cons:

- ✗ Requires more extensive data, including longitudinal data from the same individuals before and after micro-credential completion.
- ✗ Credibility relies on assumptions, such as assuming earnings patterns are similar between students who have and have not received a micro-credential (also known as "parallel trends"). This typically requires multiple rounds of data regarding individual educational attainment and labor status prior to taking a micro-credential program to empirically assess.

Randomized controlled trials (experimental): When researchers can assign a program randomly over a large eligible population, they can evaluate the effect of micro-credentials using experimental methods. This could be done, for example, when the eligible population is greater than the number of program spaces available, or when a program needs to be gradually phased-in until it covers the entire eligible population. To estimate the average impact of a program under randomized assignment, the researcher simply takes the difference between the outcome under treatment and the estimate of the counterfactual (i.e. the average outcome of the randomly assigned comparison group). While this method has not yet been applied in micro-credential research, it is well-established in the broader literature on training programs in LAC (e.g., Escudero et al., 2018; Card et al., 2018).

Pros:

- ✓ This method is considered the "gold standard" of impact evaluation, as randomized assignment ensures that the estimated counterfactual approximates the true value of the outcome in the absence of treatment.

Cons:

- ✗ This method requires careful planning of implementation before the program is rolled out, including multiple rounds of data collection.

- ✖ In some cases, a randomized evaluation may not be cost-effective, may be too time-consuming or may be politically infeasible.

Subjective treatment effects: This method, not yet applied in micro-credential research but gaining prominence in the broader educational literature, involves assessing the causal effect of a treatment by asking respondents about their current experiences and how those experiences would differ without the treatment. Recent articles investigate the effects of university completion (Wiswall and Zafar, 2021), university major (Arcidiacono et al., 2020), and university choice (Delavande and Zafar, 2019) on the experiences and expectations of university students.

Pros:

- ✓ Avoids the empirical challenge of constructing an appropriate counterfactual.
- ✓ Requires minimal data, as researchers can collect information on both experiences within the same survey.
- ✓ Examines individuals' beliefs, which have been shown to play a key role in decision-making and behavior.

Cons:

- ✖ The estimated treatment effects are subjective, and do not necessarily correspond to an objective effect. For the effects to be objective, individuals must have well-formed expectations of outcomes in both the realized state and the counterfactual state.
- ✖ In sum, researchers have multiple methods at their disposal to assess the returns of micro-credentials. The choice of method fundamentally depends on the available data and research objectives.

5. Proposal for measurement

- As observed in the previous section, measuring the return to micro-credentials is challenging, partly due to the lack of a standardized definition of what should be considered a micro-credential, and partially due to the lack of data. This challenge becomes even more pronounced in the LAC region, where information regarding micro-credentials is notably scarce.
- To assess the effectiveness of micro-credentials, a multi-stakeholder approach is recommended. This entails evaluating micro-credentials not only by examining student and employee outcomes, but also by considering the perspective of employers.
- From the perspective of an employer, enhanced productivity, a reduction in hiring costs, a streamlined recruitment

process and workers who possess in-demand skills that are in short supply would be key indicators of the positive benefits of employing micro-credential graduates as opposed to those exclusively educated within the traditional education system. A mixed-method approach, combining a standard enterprise survey and focus groups with a select group of employers, would be an effective way to collect the information needed to assess return to micro-credentials from an employer perspective.

- In the rest of this section, we focus on the returns to micro-credentials for students and employees. More specifically, we discuss what indicators, survey tools and survey questions would be most appropriate to use to assess the outcomes of micro-credentials.

Measuring the returns to micro-credentials

Potential outcomes

For micro-credential graduates, micro-credential outcomes can be measured in terms of education outcomes, labor market outcomes and well-being.

Regarding educational outcomes, two primary indicators are completion rate and learning retention (i.e., the ability to absorb and recall learned information). Additionally, from a policy perspective, it is important to understand to what extent micro-credentials are a substitution of or complement to traditional education, as well as what students' learning objectives and expectations are.

In terms of labor market outcomes and well-being, Gallup and Amazon (2021) have identified 11 dimensions to assess job quality: 1) level of pay; 2) stability and predictability of pay; 3) stability and predictability of hours; 4) employee benefits (e.g. health insurance, retirement); 5) job security; 6) control over working schedule; 7) career advancement opportunities; 8) enjoyment of day-to-day life at work; 9) sense of purpose and dignity of the work being done; 10) power to change things about the job that workers are dissatisfied with; and 11) the health and safety of the work environment. It is important to assess how micro-credentials can or cannot help individuals attain employment in jobs that are high-quality according to these dimensions. Finally, additional labor market outcomes could be related to the graduates' general satisfaction with the course, the (self-reported) acquisition of marketable skills and how the training course has changed graduates' employment and earnings expectations. employment and earnings expectations.

Methodology

The ability to evaluate the quality of micro-credentials is greatly hindered by

a lack of available data. In Annex A, we propose a short survey module that could be used as part of a standard household survey to overcome this limitation. The underlying assumption is that, together with the proposed module, standard information about employment and education would be collected.

The survey module includes five sections:

1) **Enrollment in micro-credentials:** The objective of this module is to capture participation in micro-credential programs. Micro-credentials are defined as short training and education programs lasting between six months and two years. These programs can be provided by employers, colleges, universities, professional associations and other educational organizations. The survey module gathers essential details about each program, such as the provider and delivery mode, and assesses whether participants completed the program and received a certificate.

2) **Education plans and acquisition of further education:** This module aims to understand the highest level of education achieved by participants, as well as their education and employment status when they enrolled in a micro-credential. It also explores how the course may have influenced their educational trajectories and whether they intend to enroll in another micro-credential, along with their reasons for doing so.

3) **Skills acquisition and overall satisfaction:** The purpose of this module is to capture the type of skills taught, the extent to which graduates believe their skills improved because of the course, their overall satisfaction with the course and the impact it had on their lives.

4) **Return on employment opportunities:** the purpose of this module is to understand to what extent the completed course alters career trajectories and increases the graduates' labor market opportunities (both in terms of employment status and earning). As a part of this, we propose a set of questions based on the subjective treatment effect methodology discussed in the previous section, aiming to assess the impact of the course on the extensive margin (e.g. reducing inactivity and unemployment) and on the intensive margin (e.g. changing the number of working hours and increasing earnings).

5) **Satisfaction about the current employment:** this section aims to gauge respondents' satisfaction with their current job, their perception of possessing the appropriate level of skills, and whether they believe they are overqualified or underqualified for their position. It also explores their aspirations for career advancement.

6. Discussion

This report highlights the significant potential of micro-credentials to contribute to positive education and labor outcomes across LAC. While micro-credentials offer several advantages, the report also identifies key limitations and challenges. To fully unlock the potential of micro-credentials in the region, it is essential to consider a range of enabling factors.

One of the main strengths of micro-credentials lies in their flexibility, accessibility and responsiveness to the evolving needs of industry. However, the challenge is to maintain these benefits while ensuring appropriate quality assurance and accreditation. Striking the right balance is critical: excessive regulation could stifle innovation and adaptability, while a lack of oversight may compromise transparency and quality. Establishing clear and coherent standards – potentially by integrating selected micro-credentials into national qualifications frameworks – could help ensure both innovation and credibility.

Micro-credentials can serve as an effective and inclusive instrument to address employers' growing demand for specific skills. They also offer individuals a fast and agile path to acquiring transferable competencies that enhance employability across different sectors. The key question for the LAC region is how to maximize these opportunities while ensuring quality and understanding the broader implications of micro-credentials for labor markets and skills development systems, both in the short and long term.

Based on the evidence presented, this report outlines key recommendations and priority investment areas for policymakers in the LAC region to realize the full potential of micro-credentials. These are divided into 4 main blocks: 1) building the foundation; 2) support for providers; 3) support for individuals; and 4) support for employers, as summarized in Figure 5.

Building the foundation

Policymakers should collaborate to create a common definition of micro-credentials for the LAC region and work closely with education and training providers to map the current landscape. This step includes clarifying the distinguishing features of micro-credentials, their intended purpose and how they differ from traditional qualifications or other short-term training opportunities. Most countries currently lack an official definition of micro-credentials, which creates uncertainty around their role and value. Clarifying how micro-credentials align with or complement national qualifications frameworks is essential to positioning them within a coherent lifelong learning system.

Enhance data collection and information systems. Governments should integrate micro-credentials into national data systems such as population censuses and household surveys, alongside formal educational qualifications. This would help distinguish micro-credentials from other forms of training and identify their specific impacts on skilling, upskilling and reskilling. At the program level, publicly available, transparent information – such as employment outcomes, course content, costs, funding options and admission requirements – should be made accessible to both students and employers. In most countries, learners lack reliable sources of information that enable them to systematically compare the key features of micro-credentials offered by higher education institutions or private providers. This information should also be aligned with up-to-date labor market data to ensure learners can make informed decisions based on the most in-demand skills and occupations.

Build robust quality assurance and regulatory frameworks. Quality assurance and regulation are foundational to building trust in micro-credentials and increasing their acceptance and recognition. Drawing lessons from regulations in other regions – such as the European Commission's 2022 recommendation on micro-credentials – can be instructive. This proposal has identified several principles that make up the European approach to micro-credentials:

- A common and transparent definition.
- A defined list of critical information elements to describe micro-credentials, such as identification of the learner, title of the micro-credential, country and region of the issuer, awarding body, date of issuing, learning outcomes, notional workload needed to achieve the learning outcomes, level (and cycle if applicable) of the learning experience, type of assessment, form of participation in the learning activity, and type of quality assurance used to underpin the micro-credential for further studies and employment purposes.
- Internal and external quality assurance standards. Internal quality assurance that includes aspects like the overall quality of the micro-credential, quality of the course, learners' feedback and peer feedback. External quality assurance that is aligned with national qualifications frameworks (NQFs), the European Qualifications Framework (EQF), Standards and Guidelines for Quality Assurance in the European Higher Education Area, and the European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET), among others.
- Transparency with regards to student earning outcomes, workload, content, level and learning offers.
- Relevance to labor market needs.
- Valid assessment against transparent standards.
- Possibility of stacking, validation and recognition across different systems to support flexible learning pathways.

- Recognition of the credential that signals clear value of learning outcomes for academic or employment purposes.
- Portability, which implies technology based on open standards and data models that can securely issue micro-credentials, store them, and share them, and through which the micro-credentials can be owned by the credential-holder (learner).
- Learner-centeredness to meet the needs of the learner and integrate their continuous feedback.
- Authentic nature based on sufficient information to check the identity of the credential-holder (learner), the legal identity of the issuer, and the date and location of issuance. Inclusive promotion of micro-credentials through the provision of information and lifelong learning guidance services.

In the LAC context, regulation should ensure flexibility without sacrificing quality. Regulators must adopt outcome-based accountability standards, including mechanisms such as a "do no harm" rule to protect students from financial or employment-related risks. New programs should be vetted for positive expected outcomes, monitored regularly and transparently evaluated. Underperforming programs must be discontinued swiftly. In parallel, providers should be required to disclose clear learning outcomes and assessment criteria, allowing employers to assess the relevance of credentials.

Support to providers

Policymakers should work to strengthen the role of education and training providers through partnerships and incentives. Education and training providers – both public and private – play a pivotal role in scaling high-quality micro-credentials. Their active engagement is essential, not only for the supply of programs, but also for ensuring their relevance and responsiveness to labor market needs. While collaboration with regulatory agencies and employers is necessary, it is equally important to provide the right set of incentives to encourage providers to invest in, develop and integrate micro-credentials into their core offerings. Incentives can include performance-based funding, support for curriculum co-design with industry and recognition mechanisms that reward alignment with labor market demands. International experience shows that when providers are incentivized through outcome-based funding and demand-side grants (e.g. training vouchers), their participation and innovation in skills development increase significantly (OECD, 2023; UNESCO, 2022).

Help establish strong linkages with industry to ensure that micro-credential programs are both high-quality and relevant to the evolving needs of the workforce. This may entail regular collaboration between micro-credential programs and partner firms that assess the content of the micro-credentials, allowing them to assess the content of micro-credentials. By maintaining these strong connections, educational providers can receive real-time feedback on industry

requirements and swiftly adjust course content to address emerging skills gaps. This dynamic relationship not only guarantees the relevance of the micro-credentials' content but also enhances participants' employability by aligning their skill sets with the specific demands of evolving industries. Through this effort, industry partnerships become a form of a regulatory mechanism, ensuring that micro-credentials consistently meet the changing demands of the job market.

Support to individuals

Stimulate the uptake of micro-credentials. This can be achieved through the dissemination of readily accessible and up-to-date information regarding labor market demand, available providers and funding options. Additionally, it can be achieved through communication on the value of specific micro-credentials and their returns on employability.

Guarantee micro-credentials' portability and "stackability" in blocks or modules as a part of lifelong learning strategies. The objective is to create opportunities for individuals to accumulate different competences, which can be officially documented and recognized by learning providers and employers. In some European countries this is already a possibility. For example, in Spain, micro-credentials can be stacked and lead to a formal Vocational Education Training (VET) certificate.

- **Provide comprehensive support to individuals by addressing the other factors that enable access to online micro-credentials**. As mentioned earlier, supporting individuals so that they can access micro-credentials involves the dissemination of readily accessible and up-to-date information regarding labor market demand, available providers, funding options and more. However, it also entails ensuring that individuals have adequate access to the Internet, online devices, training in socioemotional and digital skills, and other essential resources (including financial resources). Without these additional interventions, micro-credentials are unlikely to create new opportunities for professional labor market growth among the most vulnerable individuals in the region. Instead, their benefits may only accrue to those who already possess advantages.

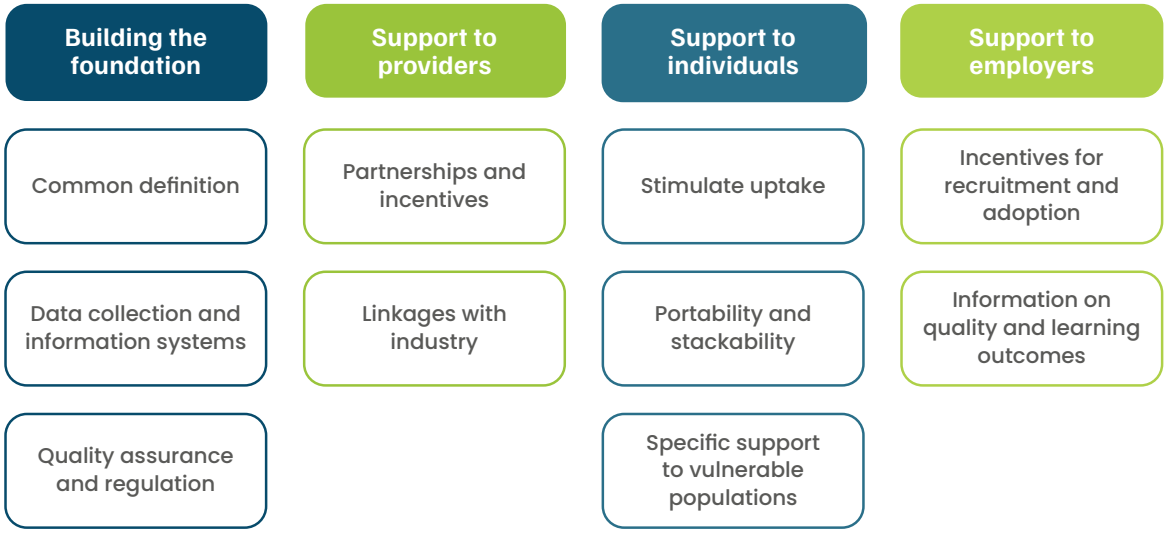
Support to employers

- **Provide incentives to employers to recruit micro-credential graduates or adopt micro-credentials into the upskilling and reskilling of their current workforce**. Currently, there are limited available data on how employers interpret and value alternative credentials, along with the potential factors that may impact their perceptions. It is worth noticing that a common and transparent definition of micro-credentials, coupled with the assurance of quality standards as suggested above, would play an

important role in improving employers' comprehension of micro-credentials and bolstering their trust and confidence in them (Novella and Valencia, 2022).

- **Provide information on quality and learning outcomes** to ensure that employers have access to accurate information about the quality and learning outcomes of micro-credentials. Such transparency helps to foster trust among employers and enhance the perceived value of programs.

Figure 7. *What can be done in the region to realize the potential of micro credentials and overcome their shortcomings*



7. Conclusion

This report highlights the potential of micro-credentials as a strategic instrument for addressing skills mismatches and enhancing labor market outcomes in Latin America and the Caribbean. Defined here as short courses ranging from six months to two years, micro-credentials offer a flexible, modular alternative to traditional degrees. In addition, they are particularly well-suited to upskilling, reskilling and expanding access to lifelong learning. Despite growing learner and institutional interest, the micro-credential ecosystem remains fragmented, with no universally accepted definition, limited integration into national qualifications frameworks, and a wide variation in quality, delivery modes and labor market value.

From a measurement and evaluation standpoint, significant data limitations hinder robust impact assessments of micro-credentials in the LAC region. Existing household surveys rarely capture participation in non-traditional educational

pathways, and where they do, the granularity and coverage are insufficient to assess outcomes such as labor market returns, skill acquisition and learner satisfaction. This lack of standardized metrics and survey instruments makes it difficult to compare programs and assess effectiveness across populations, fields of study and duration to guide public investment. The measurement framework proposed in this report – including the household survey module and a mixed-method approach incorporating employer feedback – provides a foundational tool for improving data collection and informing evidence-based policy.

Going forward, a coordinated policy approach is required to ensure micro-credentials can fulfill their promise as high-quality, demand-driven learning pathways. Key recommendations include: adopting a regional definition aligned with quality assurance standards; integrating micro-credentials into national data systems and qualification frameworks; supporting the stackability and portability of credentials; and enhancing transparency for learners and employers. Stronger linkages with industry are essential to guarantee relevance and recognition. Without these foundational elements, the risk remains that micro-credentials may perpetuate inequities or become low-value offerings with limited signaling power in the labor market.

Crucially, education and training providers must be recognized as central actors in this agenda. Their active participation is needed not only in the design and delivery of relevant programs, but also in co-defining standards, ensuring quality and aligning offerings with labor market needs. This requires putting in place the right incentives – financial, regulatory and reputational – to encourage providers to invest in micro-credentials as a meaningful component of their training portfolio. Collaboration with employers and accreditation bodies can help ensure that these offerings lead to recognized outcomes. Without the proactive involvement of providers, micro-credentials risk remaining fragmented, uncoordinated and disconnected from both workforce needs and broader education systems.

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Annex A. Household survey module: the returns to micro-credentials

1. Enrollment in short courses and micro-credentials

[Instructions: All respondents]

Q1. In the past 24 months, have you participated in any short course or micro-credentials to upgrade your skills or learn new skills?

[Short courses and micro-credentials include short training and education programs with a duration of six months to two years. Employers can provide them or individuals can pursue them on their own through a college or university, professional association or other training and education providers. You should not include routine trainings that are a part of the regular requirements of a job.]

01= Yes

00=No -> Skip to Q.

Q.2 Please list all the short courses and micro-credentials you have participated in during the past 24 months. If you have done more than one, please start by answering questions about the recent one and move back in time. You should include all short courses and micro-credentials you have started regardless of whether you completed them or not.

[Instructions: Administer row by row]

	Q.2.1 Who provided the training? 01=employer 02=college or university 03=professional association 04=Other training or education provider ->	Q.2.2 Which of the following best describes the delivery format? 01=Online learning 02=In-person or in-classroom learning 03=Hybrid (some in-person instruction and some online learning) 04=Other [Please specify]	Q.2.3 Did you complete it? 01=Still attending -> Skip to Q.3 02=left before completion 03=Completed ->Skip to Q.2.5	Q.2.4 What is the main reason why you didn't finish it? 01=I found a job 02=I started studying 03=I got sick from COVID-19 04=I had to dedicate myself to the home or caring for children, the elderly or sick 05=Lack of information about which courses to choose 06=I did not understand how the platform works 07=Connectivity problems (low-quality or no Internet access, lack of computer or other devices) 08=Lack of motivation or concentration to follow online courses 09=Lack of communication channels/active support 88=Other (specify)	Q.2.5 Have you received credentials or a certificate? 01=Yes 02=No
[Training 1]					
[Training 2]					
[Training 3]]					
[Training N]					

Q.3 Was any of the training provided by any of the following providers.

[Instructions: Please select all that apply.]

- ☐ Coursera,
- ☐ edX,
- ☐ Udacity
- ☐ Future Learn
- ☐ LinkedIn Learning
- ☐ Others [Please specify……..]

2. Education plans and acquisition of further education

[Instructions: for respondents who attended a short course or micro-credential program]

Q.4 What is the highest level of school you have completed or the highest degree you have received?

1=Less than a high school diploma (e.g. up to grade 11 or no schooling)

2=High school graduate (e.g. grade 12 with diploma or GED certificate)

3=Some college – college, university or community college – but no degree or certificate

4=Completed industry certification or certificate program

5=Two-year associate degree from a college, university or community college

6=Four-year bachelor's degree from a college or university (e.g. BS, BA, AB)

7=Some postgraduate or professional schooling after graduating college or university, but no postgraduate degree (e.g. some graduate school)

8=Postgraduate or professional degree, including master's, doctorate, medical or law degree (e.g. MA, MS, PhD, MD, JD)

Q.5 Were you enrolled as a student when you started the short course or micro-credential?

1=Yes, full-time undergraduate student

2=Yes, full-time grad student

3=Yes, part-time undergraduate student

4=Yes, part-time grad student

5=No, I was not a student

Q.6 What was your employment status when you started the short courses or micro-credentials?

1=Employed full-time (i.e. working at least 35 hours a week for pay)

2=Employed part-time (i.e. working less than 35 hours a week for pay)

3=Self-employed (e.g. you own you own business or work as a gig worker or independent contractor)

4=Unemployed

5=Disabled and unable to work

6=Retired

7=Taking care of house or family

Q.7 Has participation in short courses/micro-credentials to upgrade your skills or learn new skills changed your educational trajectories?

01=I left education

02=I have decided to pursue further education

03=I have decided to apply to other short courses/micro-credentials

04=No, no changes in plan

Q.8a Would you like to participate in another short course or micro-credential program to upgrade your skills or learn new skills that could help you advance in your career?

05=Extremely interested

04=Very interested

03=Moderately interested

02=Slightly interested

01=Not interested at all -> Skip to next section

Q.9a What is the main reason you are interested in participating in additional short courses/ micro-credentials?

01=Advance in your current job in some way (e.g. get a promotion or salary increase)

02=Find a new job at a different company doing similar or the same type of work, but at a higher level or with better pay

03=Find a new job in a different company doing a different type of work than you currently do and that is also higher level or pays more

04=Find a new job with greater growth potential

05=Find a new job that is more personally fulfilling or rewarding

06=Other [Please specify]

[Instructions: For respondents who did not attend short courses/micro-credentials. Assumption: Information about the current education and employment status are collected through standard survey modules.]

Q.8b Would you be interested in participating in short courses/micro-credentials to upgrade your skills or learn new skills that could help you advance your career?

05=Extremely interested

04=Very interested

03=Moderately interested

02=Slightly interested

01=Not interested at all

Q.9b What is the main reason you are interested in participating in short courses/micro-credentials?

01=Advance in my current job in some way (e.g. get a promotion or salary increase)

02=Find a new job at a different company that is higher-level or pays more, but is similar or the same as the type of work at your current job

03=Find a new job in a different company that is higher-level or pays more, doing a different type of work than you currently do

04=Find a new job with greater growth potential

05=Find a new job that is more personally fulfilling or rewarding

06=Other [Please specify]

3. Skills acquisition and overall satisfaction

[Instructions: For respondents who attended a short course or micro-credential program]

Q.10 Now, thinking about the short courses and micro-credentials you have participated in during the past 24 months, on a scale of 0 to 100 points, where 0 corresponds to "not at all" and 100 corresponds to "completely," to what extent do you think they have improved your work skills?

Score:

Q.11 Which of the following skills were taught in the short courses/micro-credentials you have participated in during the past 24 months? [Instructions: Please select all that apply.]

- ☐ Technical/digital skills (e.g. programming, software development, information technology)
- ☐ Analytical skills (e.g. data analysis, research, problem solving, critical thinking)
- ☐ Writing or presentation skills
- ☐ Communication skills (e.g. active listening, methods for sharing feedback)
- ☐ Marketing skills (e.g. brand promotion, social media engagement)
- ☐ Leadership skills
- ☐ Managerial skills
- ☐ Networking skills
- ☐ Project management skills
- ☐ Social skills (e.g. teamwork and collaboration methods, conflict avoidance)
- ☐ Specialized skills specific to my field or occupation
- ☐ Other skills (please specify)

Q.12 What was your overall level of satisfaction with the short courses/micro-credentials you have participated in the past 24 months?

05=Very satisfied

04=Satisfied

03=Neither satisfied nor dissatisfied

02=Dissatisfied

01=Very dissatisfied

Q.13 Thinking about the impact that the short courses/micro-credentials you participated in have had on your life, please rate your level of agreement with the following items.

05=Strongly agree; 04=Agree; 03=Neither agree nor disagree; 02=Disagree; 01=Strongly disagree

a. My overall satisfaction with my job or career has increased

b. My standard of living has increased

c. My overall quality of life has improved

d. I regret having decided to participate

e. My opportunities in the labor market increased

f. I am more confident in what I can achieve in life

4. Return on employment opportunities

[Instructions: For respondents who attended short courses or micro-credential programs]

These next questions are about the impact that the short courses or micro-credential programs you participated in during the past 24 months have had on your employment opportunities.

Q.14 At any time in the last 24 months have you worked on topics related to the short courses or micro-credential programs you attended?

01=Yes

02=No

Q.15 Based on the training or education program you participated in, how prepared do you feel to meet your future career goals?

05=Extremely prepared

04=Very prepared

03=Moderately prepared

02=Slightly prepared

01=Not prepared at all

Q.16 Have you experienced any of the following since participating in short courses/micro-credentials to upgrade your skills or learn new skills?

[Instructions: Please select all that apply]

- ☐ Career advancement at my current employer (promotion to a higher-level job or pay increase)
- ☐ Started a job that is higher skilled or better paying
- ☐ Changed industries or occupations
- ☐ Started a job that is more fulfilling or rewarding to me personally
- ☐ Other [Please specify]
- ☐ None – there has been no change in my employment situation

Q.17 Have you experienced any of the following changes to your employment since you completed the most recent short course or micro-credential?

[Instructions: Please select all that apply]

- ☐ Temporarily laid off
- ☐ Permanently let go
- ☐ Had your hours reduced
- ☐ Seen a loss of income
- ☐ Returned to work after being temporarily laid off

4.1 Subjective treatment effect on employment and earnings

Q.18 Would you have done any paid or unpaid work if you had not participated in any of the short courses or micro-credentials you participated in?

01=Yes

00=No

Q.19 What would you be doing as a main activity (i.e. the activity you spend the most time on) instead of paid work if you had not participated in any of the short courses/micro-credentials you participated in?

01=Studying

02=Taking care of the house 03=Taking care of children, disabled or elderly family members

04=Volunteering

05=Other, specify [__ __]

Q.20 Would you be doing the same job as your current one if you had not participated in any of the short courses/micro-credentials you participated in?

00=No

01=Yes -> Skip to Q. 21

77=Don't know -> Skip to Q.21

Q.21 What kind of paid work would you be doing instead if you had not participated in any of the short courses/micro-credentials you participated in?

[Occupation code box]

Q.22 Would you be working in the same economic sector if you had not participated in any of the short courses/micro-credentials you participated in?

00=No

01=Yes -> Skip to Q.23

77=Don't know -> Skip to Q.23

Q.23 Which economic sector would you be working in instead?

[Economic sector code box]

Q.24 You reported working x days per week in the past 12 months. Is the number of working days per week that you reported the average amount you worked per week in the past 12 months?

Enter 01-07

77=Don't know"

Q.25 You reported working x hours per day in the past 12 months. How many hours in a day would you have worked on average in the past 12 months?

Enter 01-24

77=Don't know"

Q.26 How many days in a week would you have worked on average in the past 12 months?

Enter 01-07

5. Current job: Overall satisfaction

[Instructions: All respondents]

The next questions will be about how satisfied you are in your current job and workplace.

Q.27 Please imagine a ladder with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible employment situation for you and the bottom of the ladder represents the worst possible employment situation for you.

On which step of the ladder would you say you personally feel your employment situation is at this time?

Score:

Q.28 Thinking about your current employment situation, please rate your level of agreement with the following statements. If you have more than one job, please think about your primary job or the one where you spend most of your time.

05=Strongly agree; 04=Agree; 03=Neither agree nor disagree; 02=Disagree; 01=Strongly disagree

a. At work, I have the opportunity to do what I do best every day.

b. There is someone at work who encourages my development.

c. At work, my opinions seem to count.

d. In the last year, I have had opportunities at work to learn and grow.

Q.29 Thinking about your current employment situation, how satisfied are you with each of the following aspects of your job? If you have more than one job, please think about your primary job or the one where you spend most of your time.

05=Very satisfied; 04=Satisfied; 03=Neither satisfied nor dissatisfied; 02=Dissatisfied; 01=Very dissatisfied; 88=Does not apply

a. Level of pay

b. How stable and predictable the pay is

c. How stable and predictable the hours are

d. Job security

e. Employee benefits (e.g. health insurance, retirement)

f. Opportunities to participate in training and education to upgrade your skills or learn new skills that could advance your career

g. Control over your schedule (e.g. ability to work flexible hours)

h. Control over your work location (e.g. ability to work remotely)

i. Career advancement (e.g. opportunities for promotion)

j. Enjoying your day-to-day work

k. Having a sense of purpose and dignity in your work

l. Having the power to change things about your job that you are not satisfied with

m. The health and safety of your work environment

Q.30 Would you say that you are overqualified, perfectly qualified or underqualified for your current job?

01=Overqualified

02=Perfectly qualified

03=Underqualified

Q.31 How confident are you that you currently have the level of skills needed to advance in current job and career?

05=Completely confident

04=Very confident

03=Moderately confident

02=Slightly confident

01=Not confident at all

Annex B. Tracking interest in micro-credentials using Google Trends

We use Google Trends to approximate public interest in micro-credentials across the Americas. Before doing so, we identified a search term that could serve as a suitable proxy, balancing semantic relevance (how closely the term aligns with "micro-credentials") and search popularity (a reasonable volume of searches across countries without extreme variations over time).

The relevance-popularity trade-off is well-documented in research using search data. Choi and Varian (2012) emphasize that selected terms must be conceptually appropriate and frequent enough to generate consistent signals. Mavragani et al. (2018) similarly stress the need to justify term choices to ensure data reliability and transparency.

Our approach follows the criteria outlined by Hölzl et al. (2025), who identify three key considerations: construct validity, reliability and generalizability. Following these, we:

- Compared a shortlist of candidate terms (e.g. "online course," "short course," "free course") based on search volume and relevance.
- Rated terms for how well they represent micro-credentials. For example, "short course" closely aligns with the definition of micro-credentials, whereas "online course" fits more loosely, as not all micro-credentials are delivered online.
- Verified each term's stability by sampling Google Trends popularity across the 2018-2024 period.
- Prioritized terms with consistent behavior across Latin America, the Caribbean and the US. When measuring popularity at the national level, each term was translated into the official language of the country.

As shown in **Table A.1**, the term *"online course"* offered the best balance between reach and conceptual fit. Though more specific terms like "short course" were ideal in theory, their low visibility made them unsuitable for trend analysis.

Table A.1 Relative popularity and relevance of search terms

Terms	Popularity/Stability	Relevance
Short course	Low	High
Online course	High	Medium
Free course	High	Medium
Virtual course	Medium	Medium
Online training	High	Medium/ Low

Source: IDB analysis of Google search trends. Popularity is based on the search popularity rank of all terms worldwide (in both English and Spanish).

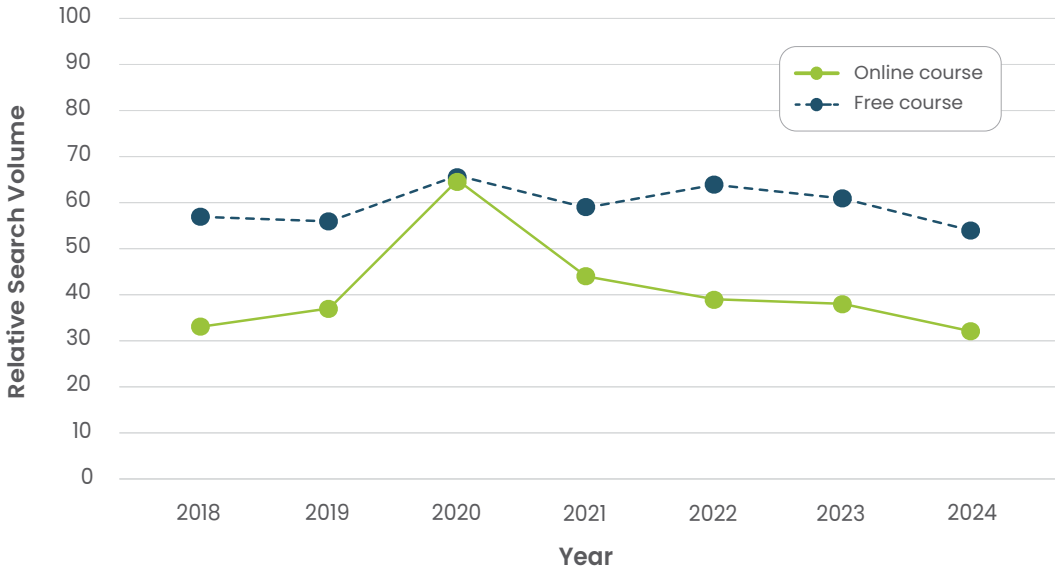
Annex C. Interest in micro-credentials across countries

Figures C.1 through C.11 present country-level trends with regards to public interest in micro-credentials. They use Google Trends data for two search terms: "online course" and "free course." Both terms were selected for their relative popularity and relevance as proxies for short format learning, as detailed in Table A.1.

The Y-axis in each figure displays the Relative Search Volume (RSV), a normalized index ranging from 0 to 100. A value of 100 represents the term's peak popularity during the selected period and country, while 0 indicates insufficient search activity. RSV values are relative and do not reflect absolute search counts; they indicate interest as a proportion of the term's highest observed value. When multiple terms are included, all values are scaled relative to the highest point across the complete set.

The analysis includes ten countries from Latin America and the Caribbean, as well as the United States: Argentina, Brazil, Colombia, Costa Rica, Guatemala, Jamaica, Mexico, Panama, Peru, Trinidad and Tobago, and the United States. For each country, search terms were translated into the country's official or most widely used language (Spanish, Portuguese or English) to ensure comparability across national contexts.

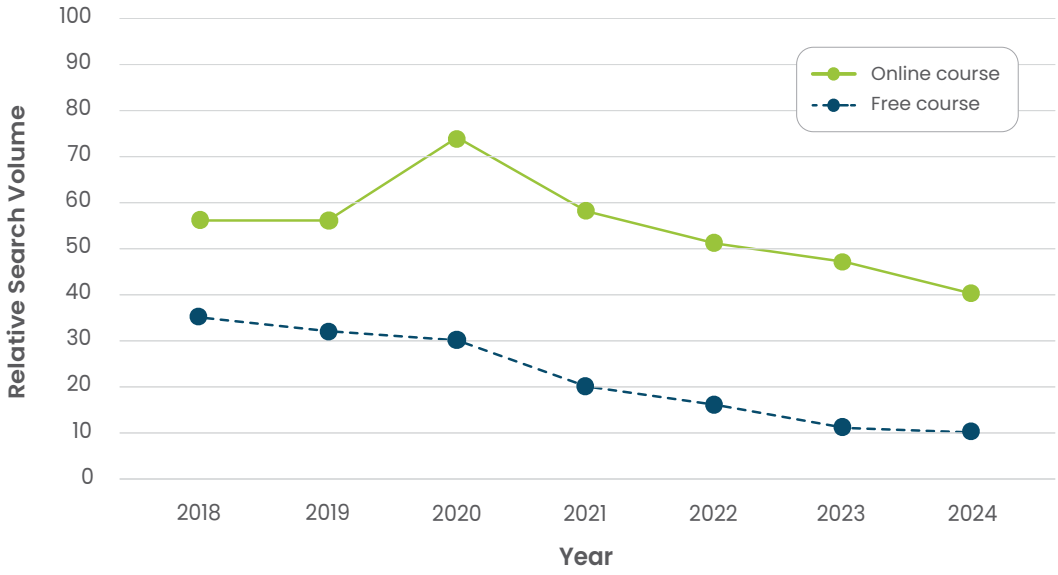
Fig C.1. *Mean Relative Search Volume in **Argentina** for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

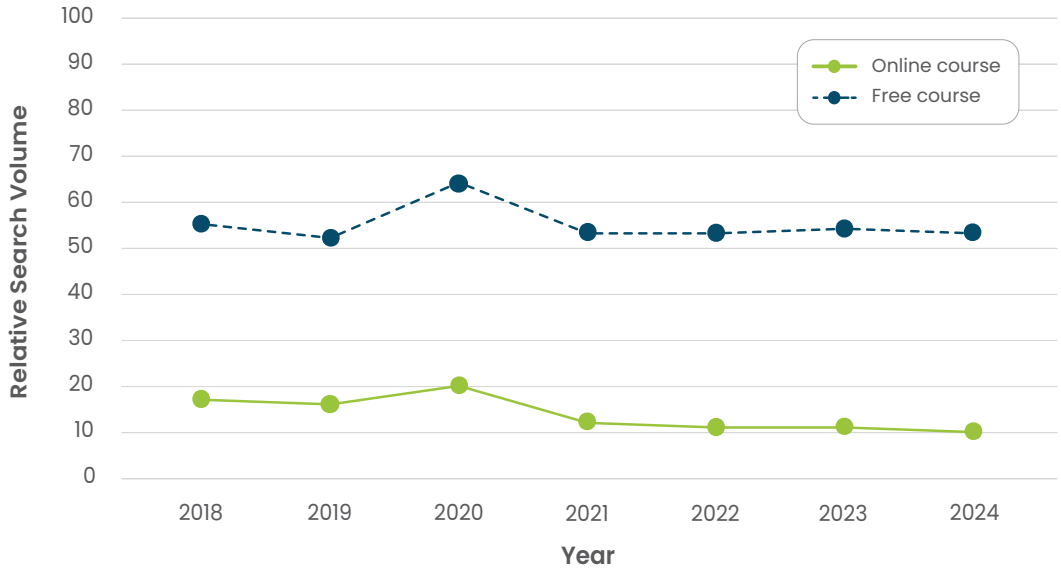
Fig C.2. *Mean Relative Search Volume in **Brazil** for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

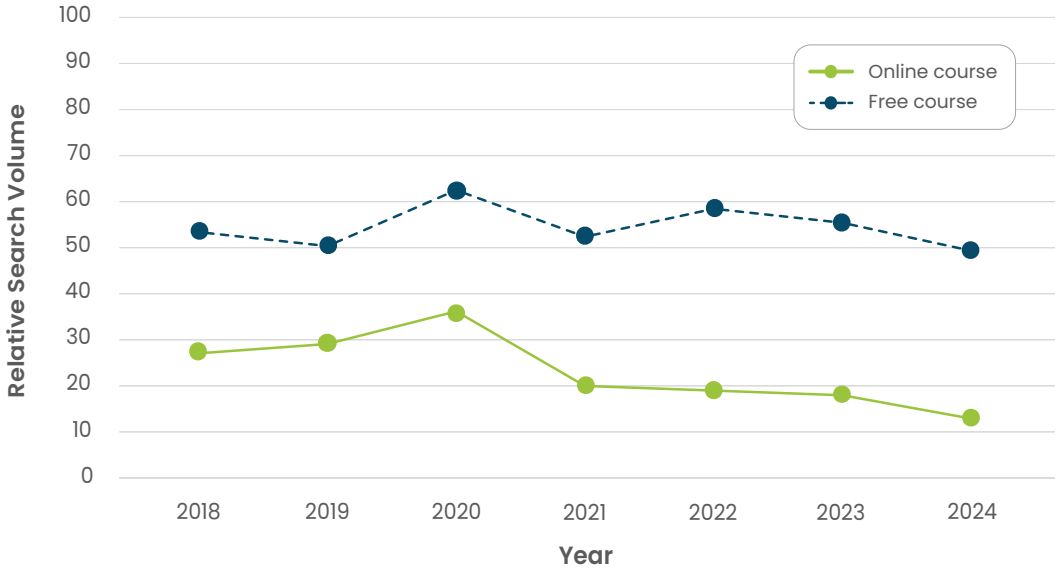
Fig C.3. *Mean Relative Search Volume in* ***Colombia*** *for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

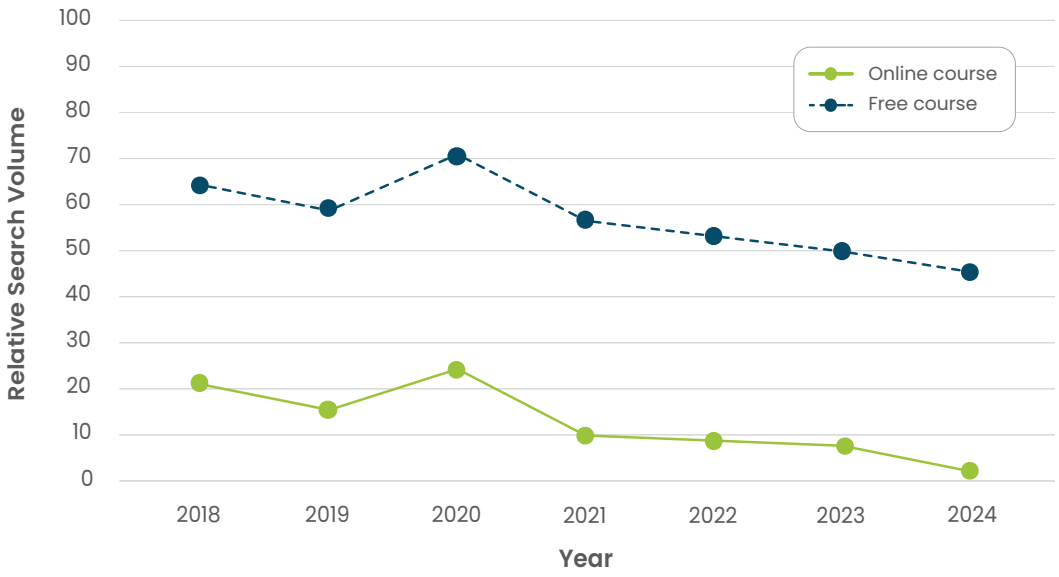
Fig C.4. *Mean Relative Search Volume in* ***Costa Rica*** *for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

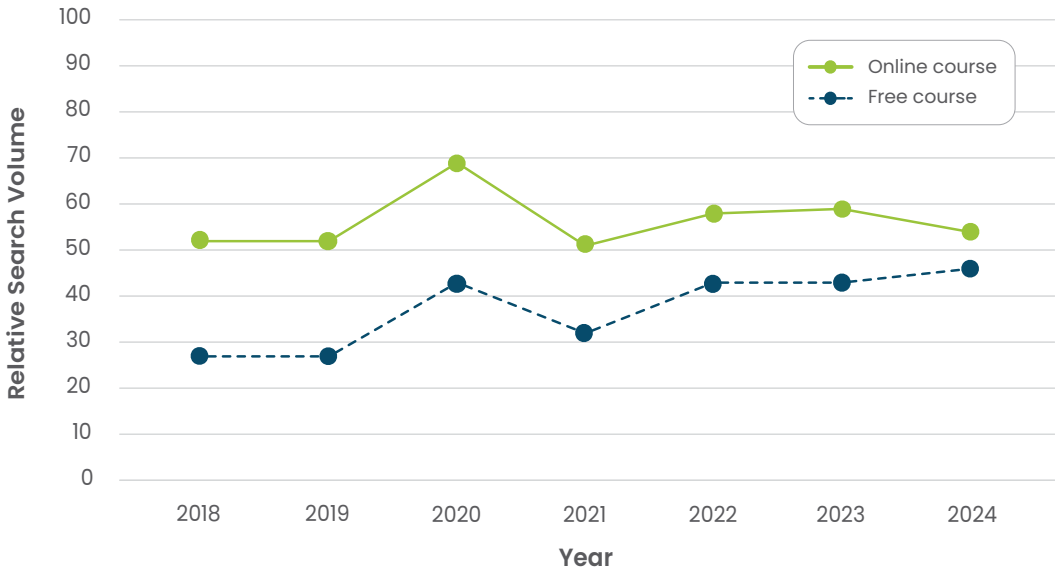
Fig A.5. *Mean Relative Search Volume in **Guatemala** for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

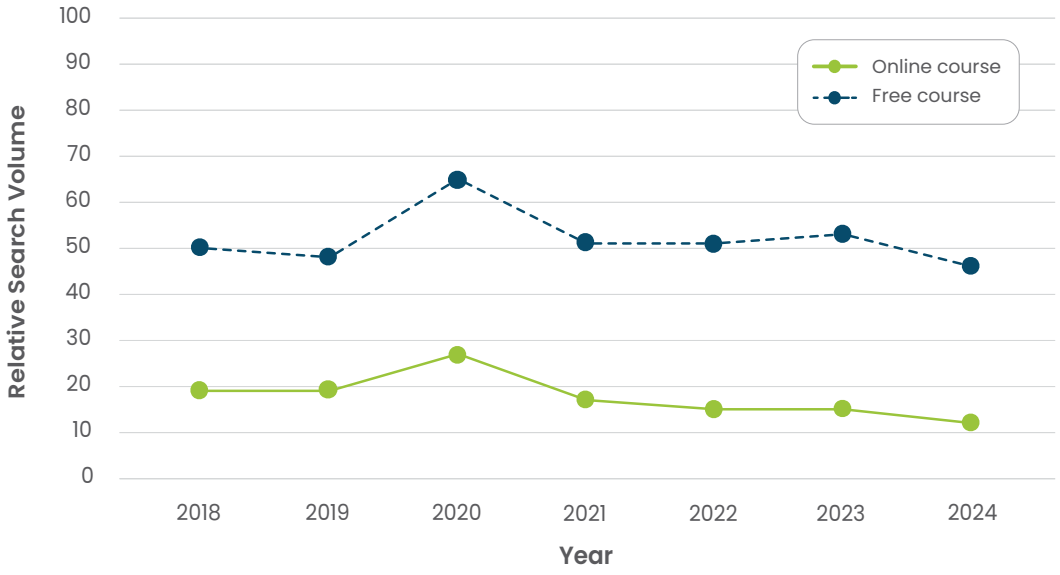
Fig C.6. *Mean Relative Search Volume in **Jamaica** for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

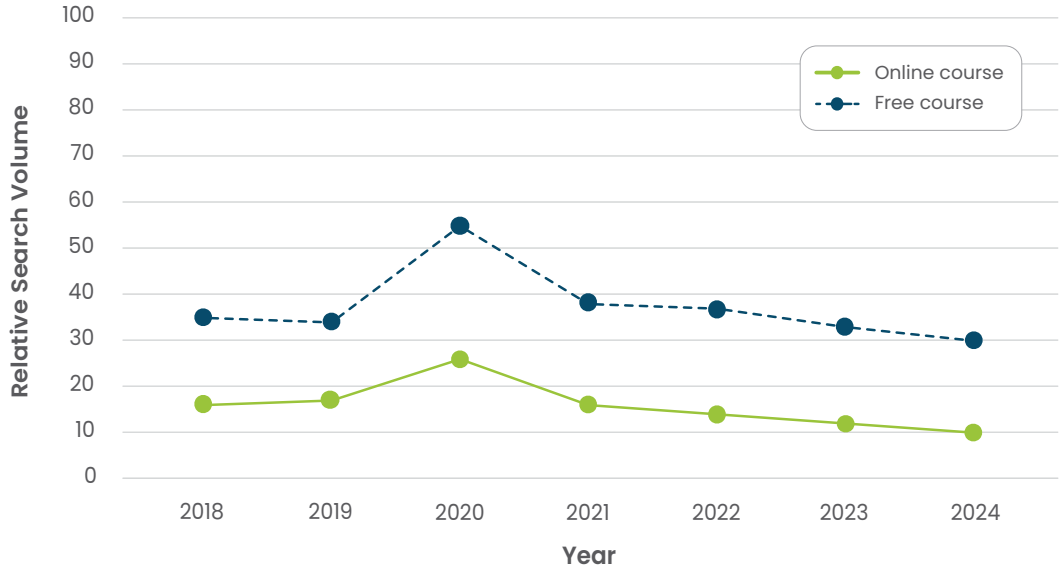
Fig C.7. *Mean Relative Search Volume in* ***Mexico*** *for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

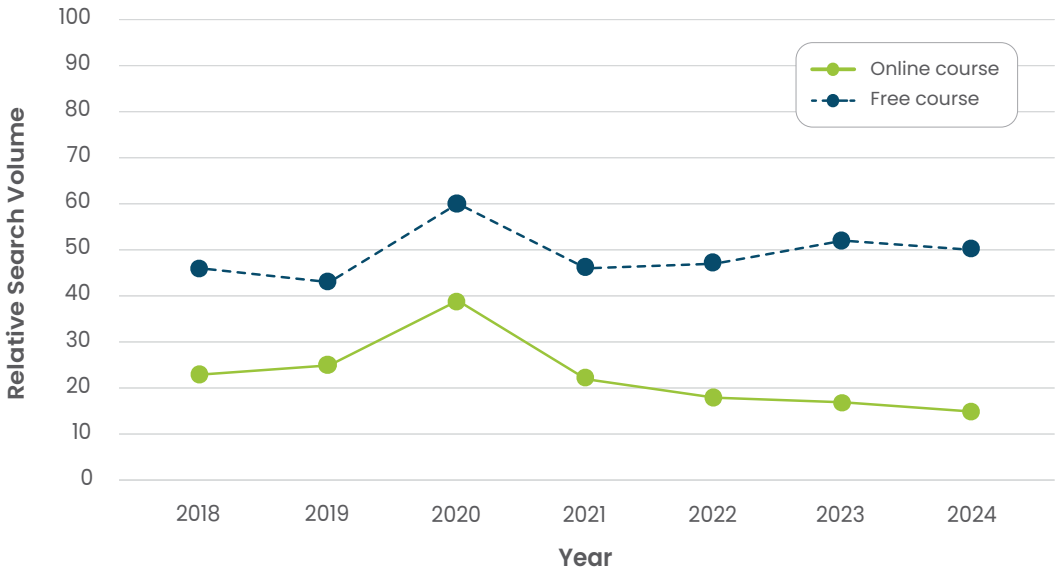
Fig C.8. *Mean Relative Search Volume in* ***Panama*** *for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

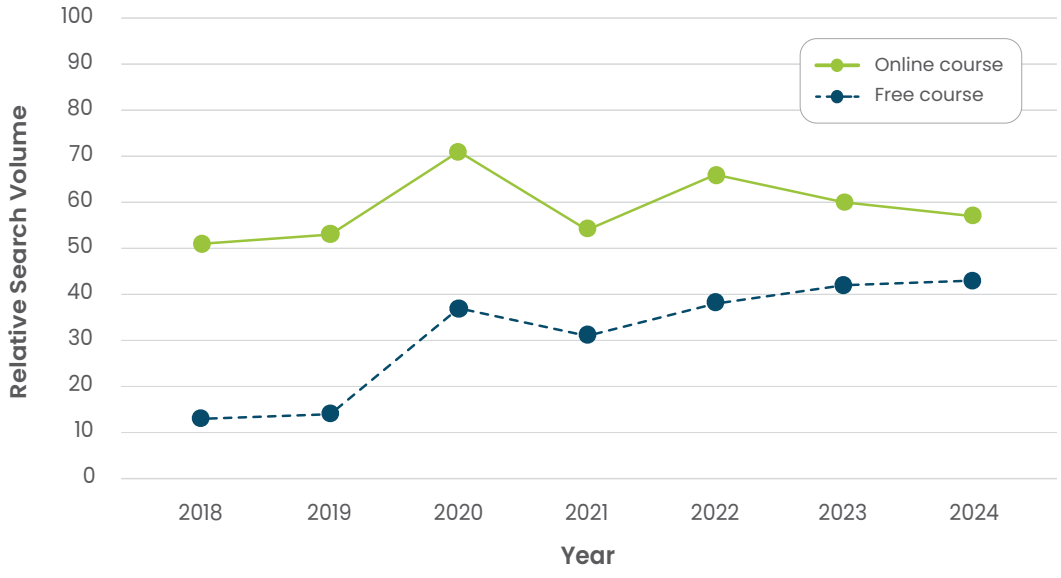
Fig C.9. *Mean Relative Search Volume in* ***Peru*** *for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

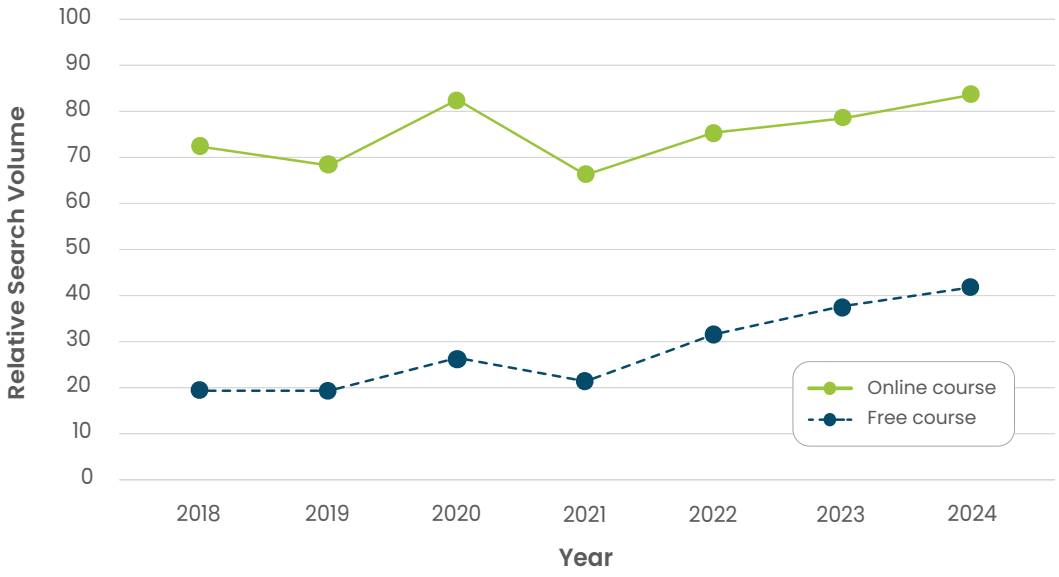
Fig C.10. *Mean Relative Search Volume in* **Trinidad and Tobago** *for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

Fig C.11. *Mean Relative Search Volume in the* ***United States*** *for "online course" and "free course" (2018–2024).*



Data source: Google Trends

Note: IDB calculations. Terms were translated into each country's official language before data collection.

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