



**Global
Entrepreneurship
Monitor**

**Puerto Rico 2023
National Report**

Puerto Rico 2023 National Report – *Global Entrepreneurship Monitor (GEM)*

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The authors acknowledge the social and linguistic relevance of naming gender differentiation and its correlation with grammatical gender. However, to avoid constant repetition in this document writing, the masculine gender was used generically when referring to persons of the feminine and masculine gender. The interpretation of the results of this report is the sole responsibility of the authors, not of the GEM consortium.

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INTRODUCTION

Entrepreneurship is a key catalyst for economic development. In the case of Puerto Rico, demographic changes, high energy costs, the government's fiscal situation, among other socioeconomic challenges, as well as the volatile climate of the global economy, have forced the public and private sectors to give greater importance to entrepreneurship as a short- and long-term economic development strategy.

All sectors that impact the country's economic development, the public sector, the private sector, and the third sector in one way or another, are involved in the development of multiple initiatives and alliances to develop and strengthen entrepreneurship in Puerto Rico through an ecosystem that responds to the socioeconomic and cultural reality of the island.

This process requires reliable data that allows the ecosystem's performance to be monitored. To this end, since 2013, the University of Puerto Rico's Rio Piedras Campus has supported the ecosystem through research such as the Global Entrepreneurship Monitor.

The Global Entrepreneurship Monitor (GEM) initiative is the world's most widely recognized academic research project to measure entrepreneurial activity in participating countries and simultaneously allows for comparable analyses among economies. The research methodology considers the activities of individuals and the economic, social, and cultural aspects that influence their entrepreneurial initiatives.

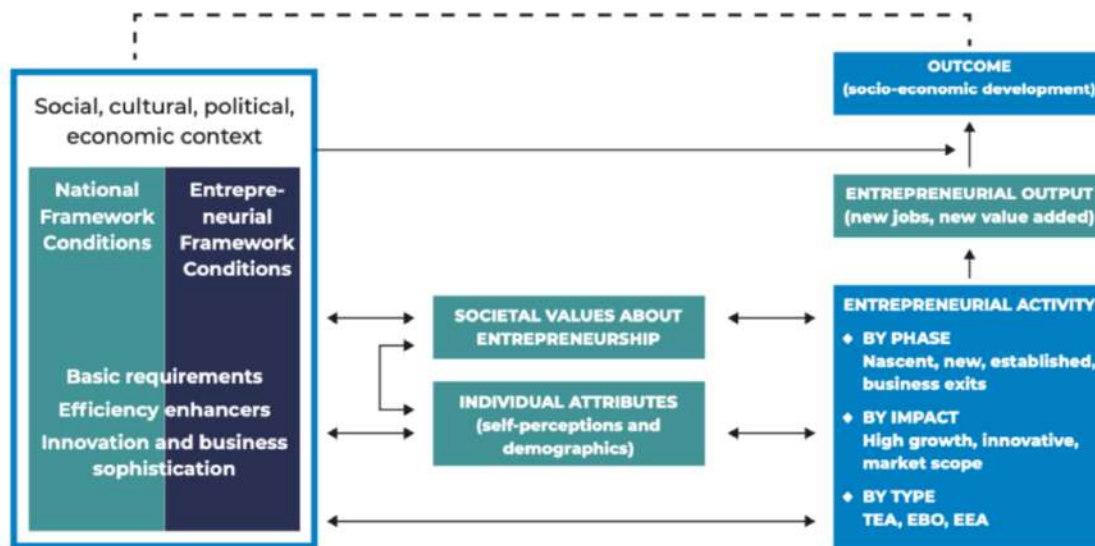
CHAPTER 1. GEM CONCEPTUAL FRAMEWORK

1.1 GEM theoretical framework

Since 1999, the Global Entrepreneurship Monitor (GEM), resulting from an alliance between Babson College and London Business School, is the most representative study of entrepreneurial activity worldwide. The study's methodological rigor makes it one key source for those in charge of designing public policies and programs to support the entrepreneurial process related to their ecosystems. It also links academics, entrepreneurs, and other entities that sponsor the entrepreneurial process.

Puerto Rico began participating in GEM in 2013, and the data generated is summarized in reports that analyze the evolution of entrepreneurship on the island. The data collected and reports are public and available to researchers, businesses, government, and other entities interested in developing entrepreneurship in Puerto Rico. Figure 1 illustrates the conceptual model of GEM.

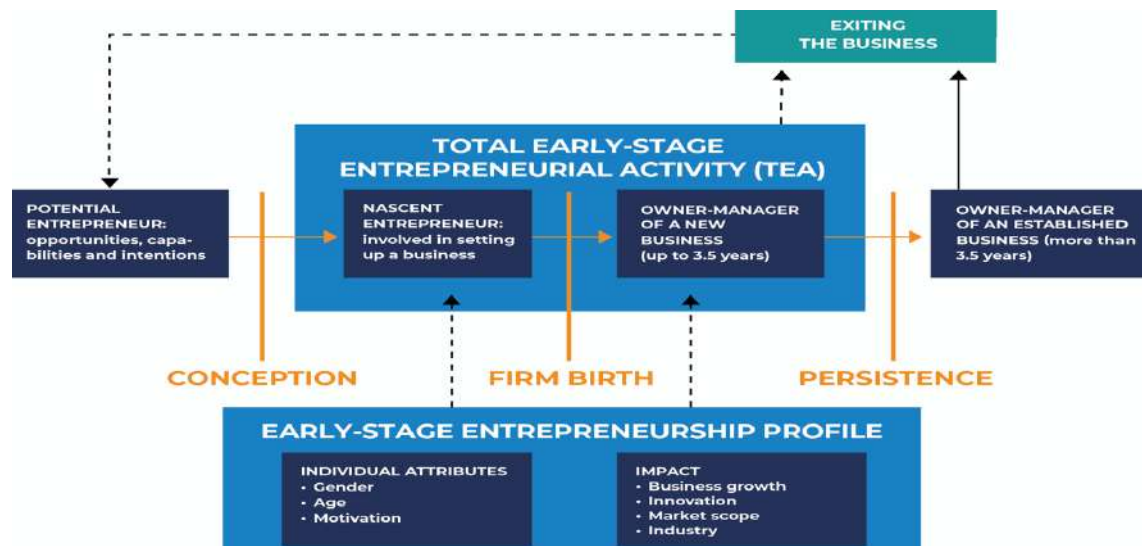
Figure 1: GEM conceptual model



Source: GEM (Global Entrepreneurship Monitor) (2023). Global Entrepreneurship Monitor 2022/2023 *Global Report: Adapting to a "New Normal"*. London: GEM.

According to the model, the social, cultural, political, and economic context influences and is, in turn, influenced by social values towards entrepreneurship and the individual attributes of entrepreneurs. These factors, in turn, impact and are influenced by entrepreneurial activity. Meanwhile, the development of entrepreneurial activities results in the creation of employment and added value and, therefore, in socio-economic development for the country (see Figure 2).

Figure 2: The entrepreneurial process



Source: GEM (Global Entrepreneurship Monitor) (2023). Global Entrepreneurship Monitor 2022/2023 Global Report: Adapting to a “New Normal”. London: GEM.

1.2 GEM Methodology

Each GEM participating country uses the same methodology and questions with translations into the different national languages. The sample design and results are reviewed and harmonized by an international statistical team to ensure their quality and comparability.

The GEM research consists of two surveys. The first survey is aimed at the adult population (Adult Population Survey or APS) and uses a random representative sample of at least 2,000 adults between 18-64 years old. The sample design considers the geographic, gender, and age distribution of the population. Its objective is to obtain entrepreneurial activity indicators for each participating country, such as the population percentages that are actively participating in processes related to starting or managing a business at different development stages, whether incipient, new or established. Also, the population's characteristics, activities, attitudes, motivations, and ambitions regarding the entrepreneurial process. In Puerto Rico, the APS survey was conducted via telephone between June and September 2023 by Gaither International Inc.

The second survey consist of an opinion panel of at least 36 national experts (National Experts Survey or NES). The survey obtains opinions regarding the factors that impact the type and level of entrepreneurial activities in the country under study. The experts' sample is selected by convenience. However, GEM requires that a minimum of 25% of the experts should be small, medium, or large entrepreneurs. The results of this expert survey are significant for reviewing and development of public policy aimed at fostering a stronger entrepreneurial ecosystem. In Puerto Rico, the NES is conducted by a team of researchers

from the School of Business Administration at the University of Puerto Rico-Rio Piedras Campus. The survey is conducted online, virtually, and in person in between April and June. In 2023, 39 experts participated in the survey.

1.3 GEM Income Classification

Base solely on per capita gross domestic product (GDP/cap.) reported by the World Bank, GEM classify participating countries into low, middle, or high-income. In GEM 2023 the cutoffs used to classify the economies were as follows:

1. Level A: economies with a GDP/cap. greater than \$50,000.
2. Tier B: economies with a GDP/cap. between \$25,000 and \$50,000.
3. Level C: economies with a GDP/cap. less than \$25,000.

Using this criterion, Puerto Rico is considered a middle-income country. According to the World Bank, Puerto Rico's gross domestic product per capita (GDP/cap.) in 2023 was \$36,779.

1.4 GEM 2023 Participating Countries

For GEM 2023-2024, 46 countries participated in the Adult Population Survey (APS), including Ukraine, with limited participation, while 39 countries completed the National Expert Survey (NES). Puerto Rico participated in both surveys.

Table 1. GEM 2023 participating countries by geographic region and income level.

Level A >\$50,000	Level B \$25,000–\$50,000	Level C <\$25,000
Canada	Argentina*	Brazil
France	Chile	China
Germany	Croatia	Colombia
Italy	Cyprus	Ecuador
Rep. Korea	Estonia	Guatemala
Luxembourg	Greece	India
Netherlands	Hungary	Iran
Norway	Israel	Jordan
Qatar	Japan*	Mexico
Saudi Arabia	Latvia	Morocco
Slovenia	Lithuania	South Africa
Sweden	Oman	Thailand
Switzerland	Panama	Ukraine
United Arab Emirates*	Poland	Venezuela
United Kingdom	Puerto Rico	
United States	Romania	
	Slovak Republic	
	Spain	
	Uruguay	

* Participated only in the NES, not the APS. As a result, 46 economies participated in the APS (including Ukraine with a limited sample) and 49 participated in the NES

CHAPTER 2. ADULT POPULATION PERCEPTIONS AND ATTITUDES ABOUT ENTREPRENEURSHIP

Participants in the Adult Population Survey (APS) answer questions that seek to understand their attitudes, perceptions, and motivations for entrepreneurship. The answers obtained are analyzed in this chapter by comparing them with the responses from the other GEM 2023 participating economies, classified by income level and geographic region, as well as with the results from previous GEM Puerto Rico surveys.

2.1 Recognition of opportunities and capabilities for entrepreneurship

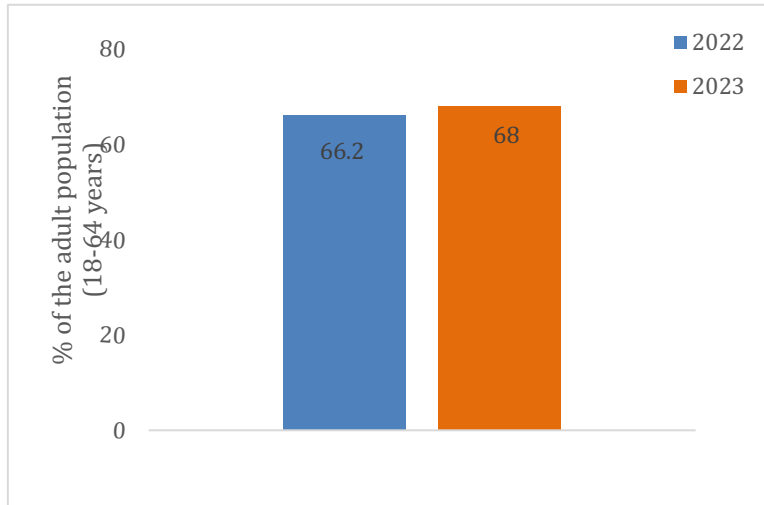
When answering the question: Do you know someone who has started a business in the last year? (68.0%) answered affirmatively. This response is higher than that obtained in the 2022 survey and 20.5% higher than the response obtained pre-pandemic (2019), placing Puerto Rico in ninth position out of the 45 economies in the world that participated in the survey in 2023, surpassing the average for the geographic area of Latin America and the Caribbean. It is clear from the data collected that Puerto Rico is more entrepreneurial than the United States (see Table 2 and Figure 3).

Table 2. GEM Puerto Rico 2023
- Know someone who has started a business in the last year.

	% of adult population (18-64 years)
Puerto Rico	68.0%
Position among participating economies	9/45
Geographic region:	
Latin America and the Caribbean	64.9%
USA	44.5%
Income level:	
Low income	56.1%
Medium income	56.4%
High income	52.5%

Source: GEM Puerto Rico. (2023). GEM Puerto Ric Adult Population Survey 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

Figure 3. The proportion of Puerto Rico adult population that knows someone who has started a business in 2023 vs. 2022.



Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022). GEM Puerto Rico Adult Population Survey 2022 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

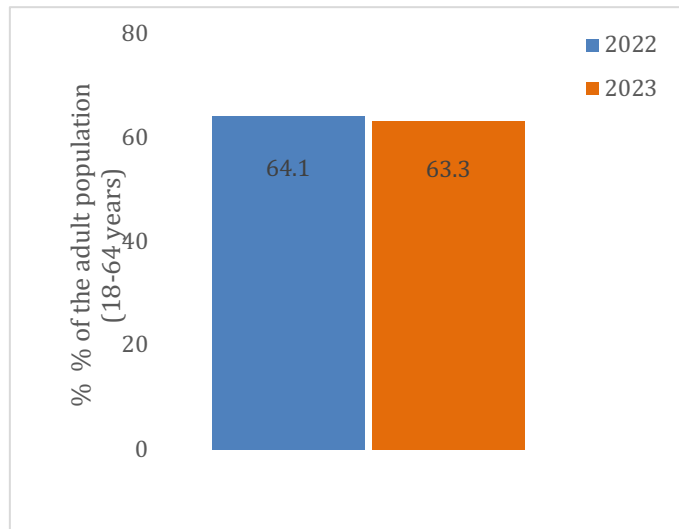
This data becomes more relevant when related to the answers to the question: In the next six months, Will there be good opportunities to start a business in the area where you live? Approximately 6 in 10 (63.3%) of respondents indicated that, in the next six months, there will be good opportunities to start a business in the area where they live. Even though compared to the responses obtained in 2022, for 2023, the proportion of adults who perceive good opportunities is 0.8% lower concerning the economies analyzed, the perception of good opportunities to start a business is higher in Puerto Rico than for the average of Latin America and the Caribbean, the United States, and the group of middle-income countries (see Table 3 and Figure 4).

Table 3. GEM Puerto Rico 2023 -Opportunity to start a business in the area where you live in the next six months.

	% of adult population (18-64 years)
Puerto Rico	63.3%
Position among participating economies	17/45
Geographic region:	
Latin America and the Caribbean	61.2%
USA	53.8%
Income level:	
Low income	63.0%
Medium income	51.4%
High income	56.4%

Sources: GEM Puerto Rico. (2023). Survey of the adult population GEM Puerto Rico 2023 [Databases and codes] Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022). GEM Puerto Rico Adult Population Survey 2022 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Figure 4. Recognition of opportunities in the next six months in the area where you live in 2023 vs 2022



Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022). GEM Puerto Rico Adult Population Survey 2022 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Another critical dimension is the perception of entrepreneurial capacity. This was measured by asking: Do you personally have the knowledge, skills, and experience necessary to start a new business? In Puerto Rico, 7 out of 10 (71.4%) respondents believe they have the skills and experience to start a business (see Table 4). Compared to the perception of the adult population of the other participating countries, Puerto Rico ranks 13th out of 45.

When compared to similar economies geographically located in Latin America and the Caribbean, in Puerto Rico, the perception of capacity is 2.5% lower than in Latin America and the Caribbean but higher than the self-assessment of capacity in the United States. In addition, the perception of capacity to undertake of the Puerto Rican surveyed is 9.8 percentage points higher than the average for middle-income countries.

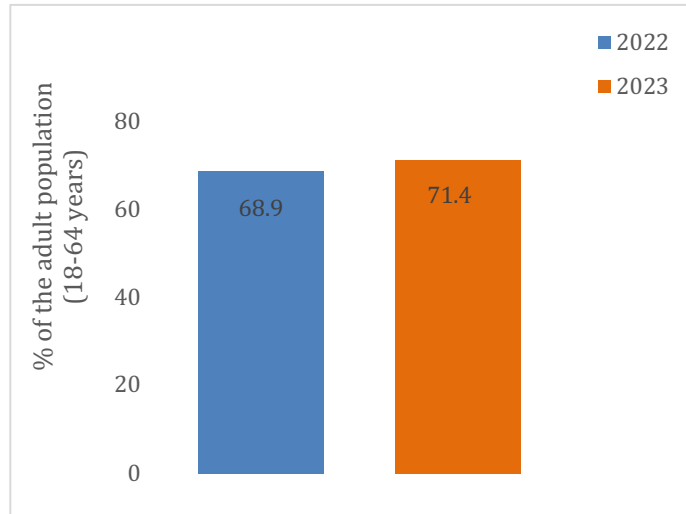
Table 4. GEM Puerto Rico 2023 - perception of own capabilities to start a business.

	% of adult population (18-64 years)
Puerto Rico	71.4%
Position among participating economies	13/45
Geographic region:	
Latin America and the Caribbean	73.9%
USA	49.0%
Income level:	
Low income	71.6%
Medium income	58.3%
High income	54.7%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Compared to the results for 2022, in 2023, 13.2% more Puerto Rican have greater confidence in their ability to undertake the entrepreneurial journey (See Figure 5).

Figure 5. Perception of own capabilities to start a business in 2023 vs 2022.



Source: GEM Puerto Rico. (2022 and 2023). Population survey Adult GEM Puerto Rico 2022 and 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

In summary, most of the adult population surveyed knows someone who has started a business in the last two years, sees opportunities for entrepreneurship in their environment, and perceives that they can do so. Does this mean that most of the respondents see themselves as entrepreneurs in the future?

The answer to the question "Would you not start a business for fear of failure?" seems to indicate that, despite having models, seeing opportunities, and perceiving the ability to undertake, just over 4 out of 10 respondents (42.0%) would not undertake for fear of failure (See Table 5).

Table 5. GEM Puerto Rico 2023 - Fear of failure if starting a business.

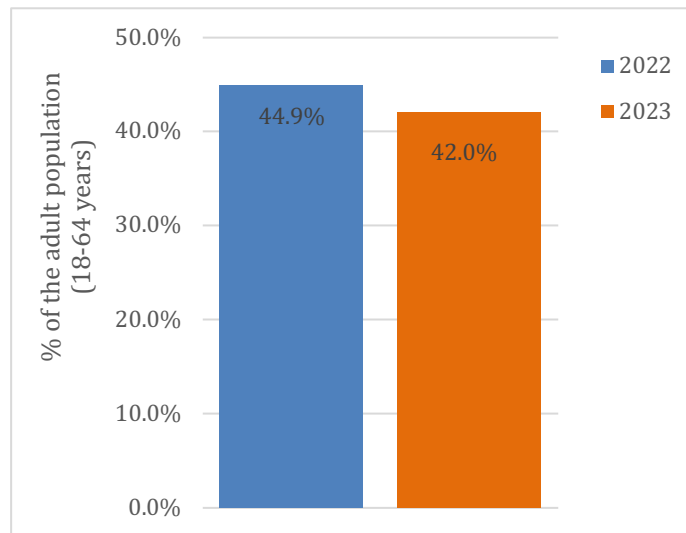
	% of the adult population (18-64 years)
Puerto Rico	42.0%
Position among participating economies	33/45
Geographic region:	
Latin America and the Caribbean	42.3%
USA	47.8%
Income level:	
Low income	46.1%
Medium income	48.0%
High income	47.4%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population

Regarding GEM 2022, Puerto Rico's position in fear of failure has improved, ranking 33rd out of 45 economies. Puerto Rico is very close to the average for Latin America and the Caribbean (only 0.3% higher), significantly below the United States (5.8 percentage points below), but with less fear of entrepreneurship than the average for middle-income economies (See Table 5).

However, compared to the results obtained in 2022, in 2023, a potential entrepreneur is less likely to give up on starting a business due to fear of failure. The fear of failure has decreased by 2.9% in 2023 compared to 2022. The decrease in the fear of failure may be due to multiple factors, including the change in the perception of risks and opportunities for entrepreneurship due to natural disasters, pandemics, and economic crises.

Figure 6. Fear of failure if starting a business in 2023 vs 2022.



Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.
GEM Puerto Rico. (2022). GEM Puerto Rico Adult Population Survey 2022 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>

Another way to assess whether respondents see themselves as entrepreneurs in the future is to ask them directly if they intend to start a business. To do this, the following question was asked: Do you expect to start a business in the next three years? Nearly 4 in 10 (37.1%) respondents indicated they intend to start a business in the next three years. For this metric, Puerto Rico ranks 13th out of 45 participating countries. Compared to the Latin American and Caribbean regions, the intention to start a business in Puerto Rico is 8.3% lower. However, it is almost double than for the United States (37.1% vs. 17.9%). And, compared to 2022, the intention to start a business in Puerto Rico is 9.8% higher for 2023 than in 2022

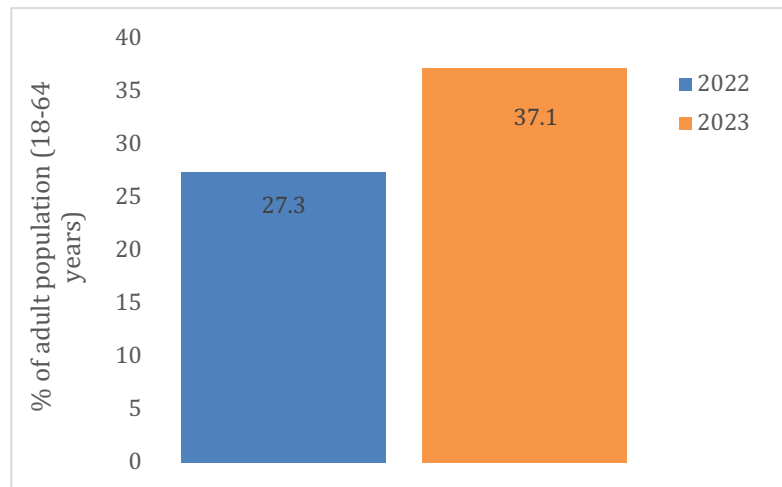
showing that the entrepreneurial spirit increased in 2023 (see Table 6 and Figure 7).

Table 6. GEM Puerto Rico 2023 - Intention to start a business in the next three years.

	% of adult population (18-64 years)
Puerto Rico	37.1%
Position among participating economies	13/45
Geographic region:	
Latin America and the Caribbean	45.4%
USA	17.9%
Income level:	
Low income	34.2%
Medium income	25.9%
High income	21.2%

Source: GEM Puerto Rico. (2023). GEM adult population survey Puerto Rico 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

Figure 7. Intention to start a business in the next three years, 2023 vs 2022.



Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022). GEM Puerto Rico Adult Population Survey 2022 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

As set out in Table 7, the increase in the intention to start a business appears to be in line with positive consumer opinions that starting a business is a good professional option (71.6%), the social attribution of high status to successful entrepreneurs (61.6%), and the perception that the media pays attention to the topic of entrepreneurship (80.4%).

Table 7. Social perceptions about entrepreneurship.

	Starting a business is a good career option	High status is attributed to successful entrepreneurs	In my country, there is media attention to entrepreneurship
Puerto Rico	71.6%	61.6%	80.4%
Position among participating economies	16/41	34/41	11/41
Geographic region: Latin America and the Caribbean	68.3%	64.1%	67.5%
USA	79.2%	78.9%	80.6%
Income level: Low income	74.3%	78.3%	73.0%
Medium income	64.2%	67.7%	63.7%
High income	66.1%	79.6%	73.7%

*Optional questions: 41 countries participated.

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

Regarding all the constructs studied to establish the differences in individual attributes, Puerto Rico best position is knowledge for entrepreneurship (9th place) while the most challenging is the 33rd place in fear of failure if starting a business (see Table 8).

Table 8. GEM Puerto Rico 2023 - Individual attributes about the perception of opportunities and the ability to undertake them

	Know someone	Opportunity	Ability to start a business	Fear of failure	Intention to start a business
Puerto Rico	68.0%	63.3%	71.4%	42.0%	37.1%
Position among participating economies	9/45	17/45	13/45	33/45	13/45
Geographic region: Latin America and the Caribbean	64.9%	61.2%	73.9%	42.3%	45.4%
USA	44.5%	53.8%	49.0%	47.8%	17.9%
Income level: Low income	56.1%	63.0%	71.6%	46.1%	34.2%
Medium income	56.4%	51.4%	58.3%	48.0%	25.9%
High income	52.5%	56.4%	54.7%	47.4%	21.2%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

2.2 Longitudinal analysis for the period from 2013 to 2023 of the perceptions and attitudes regarding entrepreneurship.

A longitudinal analysis of the constructs related to Puerto Ricans perceptions and attitudes toward entrepreneurship allows us to study how the business ecosystem has evolved and improved. Table 9 and Figures 8 to 13 show the evolution of these variables.

Table 9. 2013-2023* Individual attributes.

	Know someone	Opportunity	Ability to start a business	Fear of failure	Intention to start a business
2013	22.6%	28.3%	53.0%	24.6%	13.1%
2014	20.3%	25.1%	48.8%	24.0%	12.5%
2015	24.4%	25.0%	50.4%	17.7%	11.1%
2016	20.9%	25.1%	47.9%	20.1%	19.4%
2017	20.1%	28.0%	46.7%	28.6%	18.3%
2018	18.4%	35.2%	47.5%	20.7%	22.9%
2019	45.7%	39.4%	55.7%	33.2%	23.9%
2020	55.4%	60.0%	66.5%	43.2%	26.1%
2022	66.2%	64.1%	68.9%	44.9%	27.3%
2023	68.0%	63.3%	71.4%	42.0%	37.1%
Average	36.2%	39.4%	55.7%	29.9%	21.2%
Difference (2023-2022)	1.8%	-0.8%	2.5%	-2.9%	9.8%

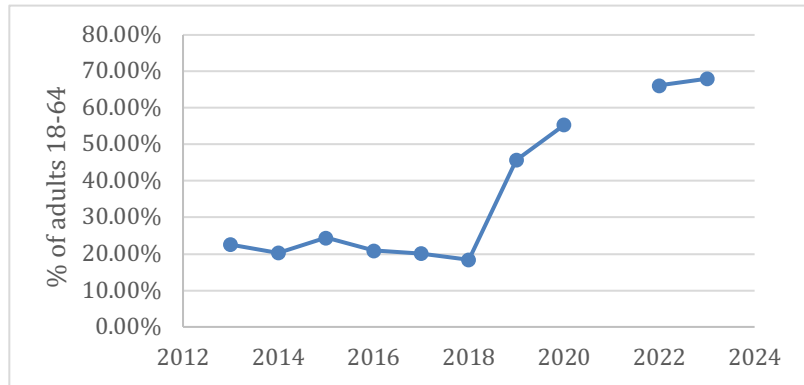
*In 2021, Puerto Rico did not participate in the GEM.

Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

GEM Puerto Rico. (2022 to 2013). Survey of the adult population GEM Puerto Rico [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

Figure 8 shows that the adult population reports three times more in 2023 than in 2013 knowing new entrepreneurs, for a percentage increase of 45.4%. This metric reflects a marked improvement since 2019.

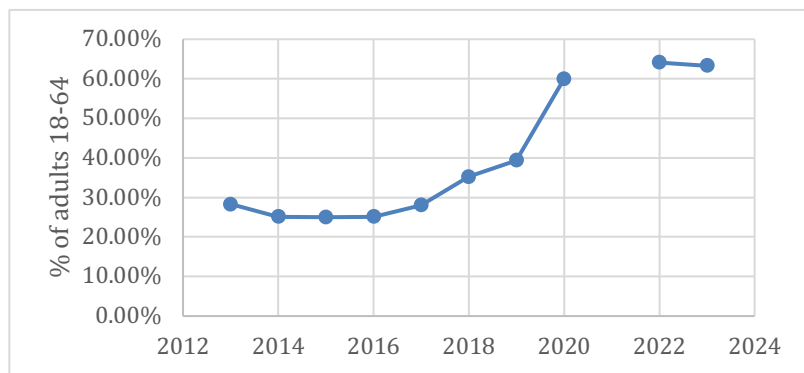
Figure 8- 2013-2023* longitudinal analysis for knowing someone who started a business in the last year.



*In 2021, Puerto Rico did not participate in the GEM.
 Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2022 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022 to 2019). Survey of the adult population GEM Puerto Rico 2022 to 2019 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

Regarding the perception of entrepreneurial opportunities in the area where they live, Figure 9 reflects that there has also been a considerable improvement since 2018. The perception of opportunities is now 35.0% or 2.2 times higher than in 2013.

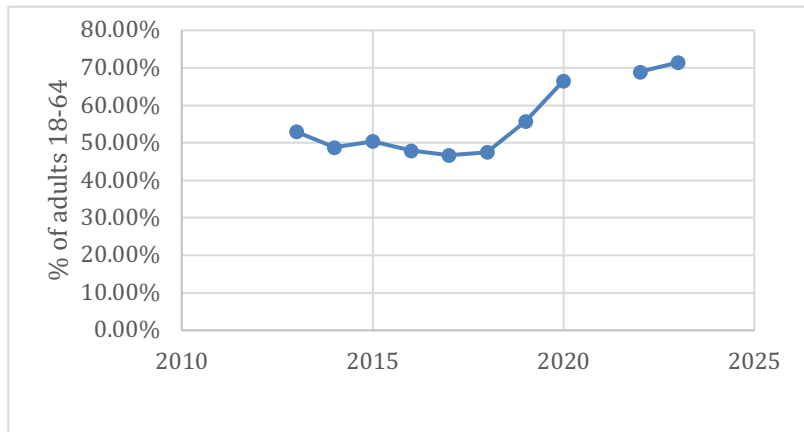
Figure 9- 2013-2023* longitudinal analysis of the recognition of opportunities to start a business in the next 6 months (Percentage of the adult population - 18 to 64 years).



*In 2021, Puerto Rico did not participate in the GEM.
 Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2022 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022 to 2019). Survey of the adult population GEM Puerto Rico 2022 to 2019 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

Also, as reflected in Figure 10, the capacity self-evaluation to start a business has improved since 2018, reflecting an increase of 18.4% between 2013 and 2023. This figure is not as forceful as for the two previous criteria, but it also indicates the positive evolution of the entrepreneurial mindset.

Figure 10- 2013-2023* longitudinal analysis of the capacity self-evaluation to start a business in Puerto Rico (Percentage of the adult population – 18 to 64 years old).

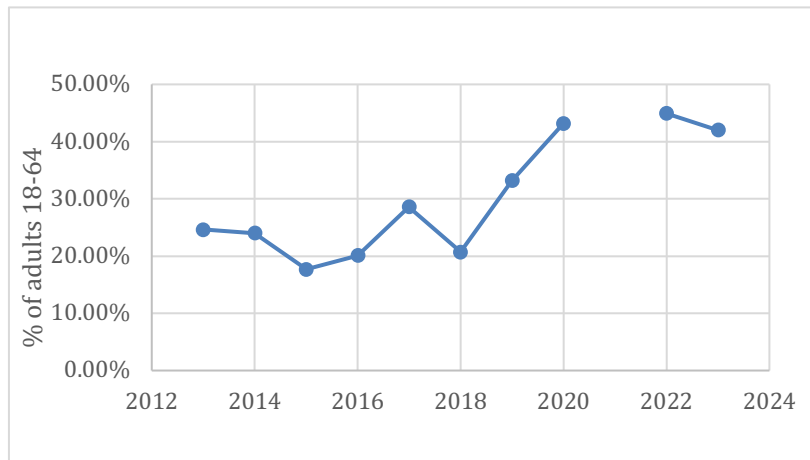


*In 2021, Puerto Rico did not participate in the GEM.

Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2022 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022 to 2019). Survey of the adult population GEM Puerto Rico 2022 to 2019 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

As shown below, the fear of failure increased significantly from 2018 up to 2022, but for 2023 there was a significant reduction in this metric (See Figure 11).

Figure 11- 2013-2023* longitudinal analysis of the fear of failure if starting a business in Puerto Rico (Percentage of the adult population – 18 to 64 years old).

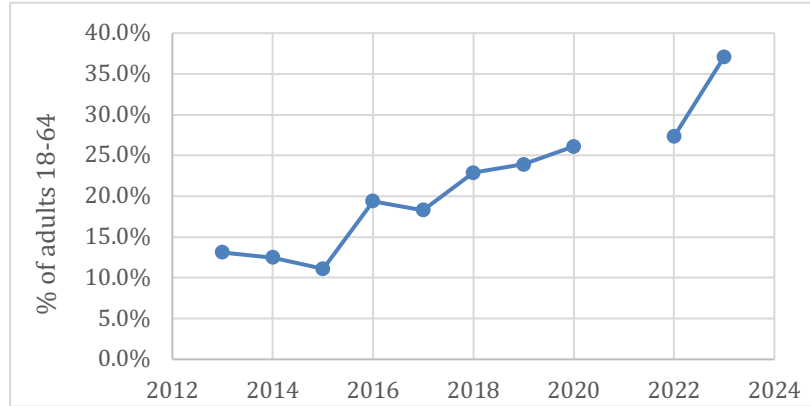


*In 2021, Puerto Rico did not participate in the GEM.

Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2022 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022 to 2019). Survey of the adult population GEM Puerto Rico 2022 to 2019 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

Finally, the analysis for the intention to start a business in the following three years after the interview is in 2023 more than double than in 2013 (see Figure 11). This increase is most notable for the 2022-2023 period, and although speculative, it probably started in the 2020 last quarter due to the destruction of jobs and the direct grants to the population to compensate for loss income during the pandemic.

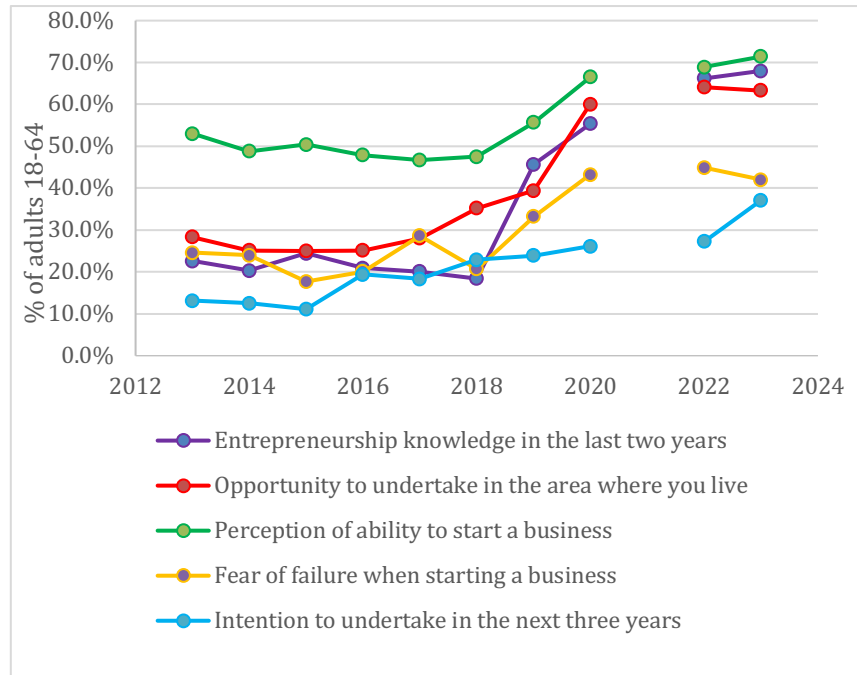
Figure 12- 2013-2023* longitudinal analysis of the intention to start a business in Puerto Rico in the next three years following the interview (Percentage of the adult population - 18 to 64 years old).



*In 2021, Puerto Rico did not participate in the GEM.
 Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2022 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022 to 2019). Survey of the adult population GEM Puerto Rico 2022 to 2019 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

In summary, in the last ten years (2013-2023), the positive evolution of Puerto Ricans' entrepreneurial mindset is remarkable (See Figure 13).

Figure 13: 2013-2023 longitudinal analysis of individual Puerto Ricans' attributes and perceptions toward entrepreneurship (Percentage of the adult population - 18 to 64 years old).



*In 2021, Puerto Rico did not participate in the GEM.
 Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2022 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.
 GEM Puerto Rico. (2022 to 2019). Survey of the adult population GEM Puerto Rico 2022 to 2019 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

CHAPTER 3. CHARACTERISTICS OF THE ENTREPRENEURIAL ACTIVITY IN PUERTO RICO

3.1 Levels of entrepreneurial activities

Under the GEM methodology the key metrics that define the entrepreneurial levels are: Total Early-stage Entrepreneurial Activity (TEA) and Established Business Owner (EBO). The nascent and new entrepreneurial rates comprise the Total Early-stage Entrepreneurial Activity (TEA) indicator. A nascent entrepreneur is any person spending resources in some activities to start a business that has not paid salaries or generated income for its owners for at least three months as of the survey date. New entrepreneurial activity is any owner or manager of an ongoing business less than 3.5 years old (42 months) that has paid salaries or generated income for at least three months. The nascent and new entrepreneurs' rates comprise the Total Early-stage Entrepreneurial Activity (TEA) indicator. Established Business Owner (EBO) is any owner or manager of an ongoing business that has generated income or paid salaries for more than 3.5 years.

3.2 Total Early-stage Entrepreneurial Activity (TEA)

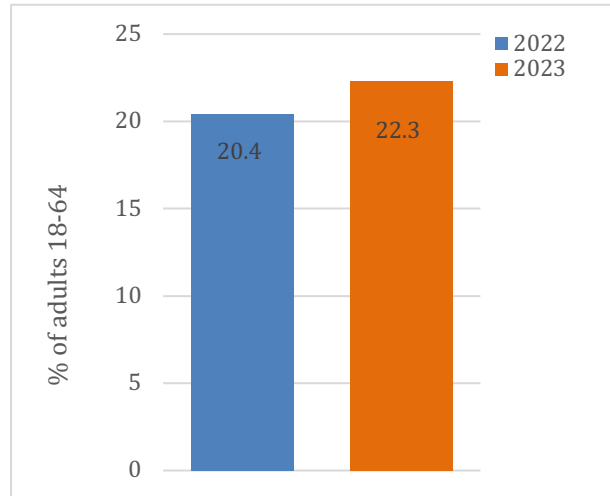
In 2023, Puerto Rico ranked 6th out of 45 countries in nascent entrepreneurial activity, 14th out of 45 in new entrepreneurial activity, and 10th out of 45 in early entrepreneurial activity (TEA). As shown in Table 11, 22.3% of the adult population surveyed is involved in early entrepreneurial activity (TEA) either because they were carrying out activities related to a new venture (16.7%) or because they participated in a new entrepreneurial activity (6.0%). Compared to 2022, in 2023 the early entrepreneurial activity (TEA) index increased by 6.9% (See Figure 14).

Table 10. Total Early-stage Entrepreneurial Activity (TEA)

	Nascent entrepreneurial activity	New entrepreneurial activity	Total Early Entrepreneurial Activity (TEA)
Puerto Rico	16.7%	6.0%	22.3%
Position among participating economies	6/45	14/45	10/45
Geographic region:			
Latin America and the Caribbean	17.6%	9.1%	25.8%
USA	12.3%	4.8%	14.7%
Income level:			
Low income	11.0%	7.7%	17.8%
Medium income	9.6%	4.6%	13.6%
High income	8.1%	4.8%	12.0%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

**Figure 14. 2023 vs 2022
Total Early-stage
Entrepreneurial Activity
(TEA) as a percentage of
the adult population – 18
to 64 years.**



Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

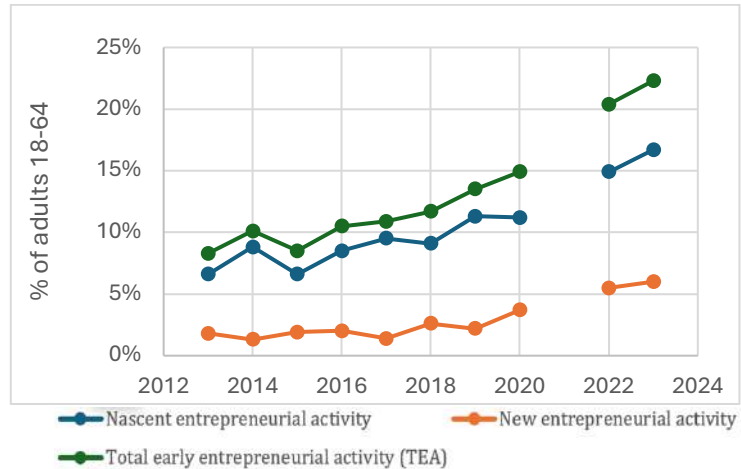
As set out in Table 11 and Figure 15, TEA’s composition in Puerto Rico is consistently dominated by the rate of nascent entrepreneurial activity with a low percentage of companies that move on to the next stage of the entrepreneurial cycle.

**Table 11. 2013-2023* Total
Early-stage Entrepreneurial
Activity (TEA) in the last ten
years.**

	Nascent entrepreneurial activity	New entrepreneurial activity	Total Early Entrepreneurial Activity (TEA)
2013	6.6%	1.8%	8.3%
2014	8.8%	1.3%	10.1%
2015	6.6%	1.9%	8.5%
2016	8.5%	2.0%	10.5%
2017	9.5%	1.4%	10.9%
2018	9.1%	2.6%	11.7%
2019	11.3%	2.2%	13.5%
2020	11.2%	3.7%	14.9%
2022	14.9%	5.5%	20.4%
2023	16.7%	6.0%	22.3%

* In 2021, Puerto Rico did not participate in the GEM.
Sources: GEM Puerto Rico. GEM Puerto Rico Adult Population Survey 2013 to 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

Figure 15: Total Early-stage Entrepreneurial Activity (TEA) in the last ten years (2013-2023*).



*In 2021, Puerto Rico did not participate in the GEM.

Sources: GEM Puerto Rico. GEM Puerto Rico Adult Population Survey 2013 to 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

In 2023, 74.8% of early entrepreneurial activity (TEA) is explained by the increase in nascent entrepreneurial activity. However, this result is historically lower than previous years, which is an indicator that the business ecosystem is more favorable now, allowing a greater number of nascent ventures to evolve into new ventures.

3.3 Motivations for entrepreneurship

An analysis of the motivations for entrepreneurship (See Table 12) highlights that 69.3% of emerging and new entrepreneurs in Puerto Rico indicate that making a difference is what motivates them to be in business (position 5 among the 45 countries participating in the survey). In descending order, other reasons for starting a business are to earn a living because jobs are scarce (position 25), to build significant wealth (position 33), and to continue a family tradition (position 22).

A comparison between the motivation to start a business in 2023 with the ones for years 2019 and 2020 shows that starting a business to make a difference is higher than in 2019 but slightly lower than in 2020 (see Table 13). Meanwhile, more entrepreneurs in 2023 justify entrepreneurship as a mechanism to build wealth. There is also a marked increase (1.6%) in continuing a family tradition as a reason to start a business. On the other hand, the percentage of entrepreneurs who identify earning a living because jobs are scarce has decreased (-2.7%). If these results are maintained in future surveys, this last motivation would indicate increased entrepreneurship due to opportunity.

Table 12. TEA percentage by motivation for entrepreneurship

	Making a difference (% TEA)	Building wealth (% TEA)	Family tradition (% TEA)	Jobs are scarce (% TEA)
Puerto Rico	69.3%	47.3%	31.0%	64.5%
Position among participating economies	5/45	33/45	22/45	25/45
Geographic region: Latin America and the Caribbean USA	61.4% 63.7%	56.8% 66.7%	41.5% 35.0%	79.3% 62.5%
Income level: Low income Medium income High income	51.5% 43.7% 46.8%	63.6% 56.2% 58.8%	43.1% 28.3% 29.0%	81.4% 68.5% 50.0%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Table 13. 2019-2023* TEA percentage by motivation for entrepreneurship

	Making a difference (% TEA)	Building wealth (% TEA)	Family tradition (% TEA)	Jobs are scarce (% TEA)
2019	65.9%	43.7%	43.5%	84.3%
2020	73.4%	44.6%	23.1%	78.2%
2022	70.6%	48.6%	29.4%	67.2%
2023	69.3%	47.3%	31.0%	64.5%
Average	69.8%	46.1	31.8	73.6
Difference (2023-2022)	-1.3	-1.3	1.6	-2.7

* In 2021, Puerto Rico did not participate in the GEM.

Sources: GEM Puerto Rico. GEM Puerto Rico Adult Population Survey 2013 to 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

In terms of new businesses growth expectations, although at a lower rate than for 2020, 39.7% of nascent and new entrepreneurs have optimistic growth expectations for their businesses, expecting to generate six or more jobs in the next five years (see Table 14). This expectation is higher than the average for participating middle-income economies. Meanwhile since 2013, the trend has been towards a reduction in the percentage of entrepreneurs who expect to create five or fewer jobs; however, by 2023, this variable experienced a slight increase (see Table 15).

Table 14. Growth expectations for new entrepreneurs

	% Entrepreneurs who expect to generate six or more jobs in 5 years
Puerto Rico	39.7%
Position among participating economies	4/45
Geographic region: Latin America and the Caribbean USA	28.9% 36.8%
Income level: Low income Medium income High income	24.2% 26.2% 29.7%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Table 15. 2013-2023* growth expectation for new entrepreneurs

	Generate 0-5 jobs in 5 years.	Generate six or more jobs in 5 years.
2013	88.9%	11.1%
2014	90.8%	9.2%
2015	90.2%	9.8%
2016	79.7%	20.3%
2017	77.1%	22.9%
2018	75.8%	24.2%
2019	71.6%	28.4%
2020	61.9%	38.1%
2022	65.6%	34.4%
2023	60.3%	39.7%

*In 2021, Puerto Rico did not participate in the GEM.
Sources: GEM Puerto Rico. GEM Puerto Rico Adult Population Survey 2013 to 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

3.4 Established Business Owners (EBO)

The Established Business Owners (EBO) rate is measured as the percentage of the adult population that currently owns and manages a business that has paid wages or generated income to owner-managers for more than 3.5 years (42 months).

In 2023, Puerto Rico ranked 27th out of 45 countries with 6.0% of the surveyed adult population involved in an established business. By geographic region, this rate is lower than the average for Latin America, the Caribbean, and the United States and lower than the average for low-, middle-, and high-income countries (see Table 16).

Among established entrepreneurs, 68.6% of respondents identified earning a living because jobs are scarce as a reason for starting a business (see Table 17). Making a difference is selected by 59.1% of entrepreneurs, followed by continuing family tradition (38.4%) and building great wealth (41.2%). Compared to nascent and new entrepreneurs, established entrepreneurs were motivated more by necessity than by opportunity.

Table 16.
Established Business Owners (EBO) as a percentage of the adult population – 18 to 64 years.

	EBO as a % of adult population (18-64 years)
Puerto Rico	6.0%
Position among participating economies	27/45
Geographic region:	
Latin America and the Caribbean	8.4%
USA	6.7%
Income level:	
Low income	9.1%
Medium income	7.4%
High income	7.6%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>

Table 17. EBO percentage by motivation by entrepreneurship

	Making a difference (% EBO)	Build great wealth (% EBO)	Continuing a family tradition (% EBO)	Making a living because jobs are scarce (% EBO)
Puerto Rico	59.1%	41.2%	38.4%	68.6%
Position among participating economies	10/45	33/45	20/45	24/45
Geographic region:				
Latin America and the Caribbean	57.1%	52.8%	48.7%	78.4%
USA	46.3%	52.6%	26.4%	46.2%
Income level:				
Low income	48.5%	58.0%	49.1%	82.4%
Medium income	39.0%	50.1%	34.0%	68.8%
High income	40.6%	49.6%	34.6%	51.0%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>

Finally, as shown in Table 18, from 2020 to 2023, the percentage of the population operating or owning an established business more than doubled. However, in 2021 Puerto Rico did not participate in the GEM research, so the dynamics of the growth pattern for established businesses from 2020 to 2021 are unknown. Notably, the number of established businesses had also more than doubled from 2019 to 2020, but the growth difference between 2022 and 2023 is just 0.4%. Is the EBO growing trend slowing down? In the next GEM research cycle this issue should be further analyzed.

Table 18. 2013-2023* Established Business Owners (EBO) as a percentage of the adult population - 18 to 64 years.

	EBO as a % of adult population (18-64 years)
2013	2.0%
2014	1.3%
2015	1.4%
2016	1.6%
2017	1.6%
2018	1.9%
2019	1.3%
2020	2.8%
2022	5.6%
2023	6.0%
Average	3.8%
Difference (2023-2013)	0.4%

*In 2021, Puerto Rico did not participate in the GEM. Sources: GEM Puerto Rico. GEM Puerto Rico Adult Population Survey 2013 to 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

3.5 Business discontinuation

Regarding businesses discontinuation or closures, 3.1% of the adult population sample indicated having closed or discontinued a business (See Table 19). In this regard, Puerto Rico ranked 24 out of 45 among participating economies. However, this percentage is lower than the average for the Latin America and Caribbean region, middle-income countries, and the United States.

Table 19. Business discontinuation as a percentage of the adult population – 18 to 64 years.

	% closure or discontinuation of the enterprise as a % of adult population (18-64 years)
Puerto Rico	3.1%
Position among participating economies	24/45
Geographic region: Latin America and the Caribbean	6.7%
USA	4.1%
Income level: Low income	5.8%
Medium income	3.6%
High income	3.2%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Table 20 shows the reported businesses discontinuation for the 2013-2023 period. Compare with 2022, in 2023 0.6% more people reported a business closure or discontinuation. However, as shown in Table 21, for 2023 the reasons for the closure or discontinuation were more “positive” than in the previous years.

For example, in 2023 opportunity to sell, retire, or other opportunities is the most cited reason for business closure, accounting for 27.5% of responses (see Table 20), which is 10.8% higher than in 2022. The second most cited reason for closure is the COVID-19 pandemic (22.1%), representing a significant decrease compared to 2022. Personal reasons (20.6%) are the third most common reason for closure, representing a 2.0% decrease compared to 2022. Profitability (16.3%) has moved from being the third most frequent reason for closure in 2022 to the fourth in 2023.

**Table 20. 2013-2023*
discontinuation or
closure of the
enterprise as a
percentage of the adult
population – 18 to 64
years.**

	% closure or discontinuation of the enterprise as a % of adult population (18-64 years)
2013	1.8%
2014	3.6%
2015	0.9%
2016	2.5%
2017	2.7%
2018	3.1%
2019	2.2%
2020	4.3%
2022	2.5%
2023	3.1%

* In 2021, Puerto Rico did not participate in the GEM.
Sources: GEM Puerto Rico. GEM Puerto Rico Adult Population Survey 2013 to 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

**Table 21. 2018-2023*
Reasons for businesses
closure as a
percentage of the adult
population: 18 to 64
years old.**

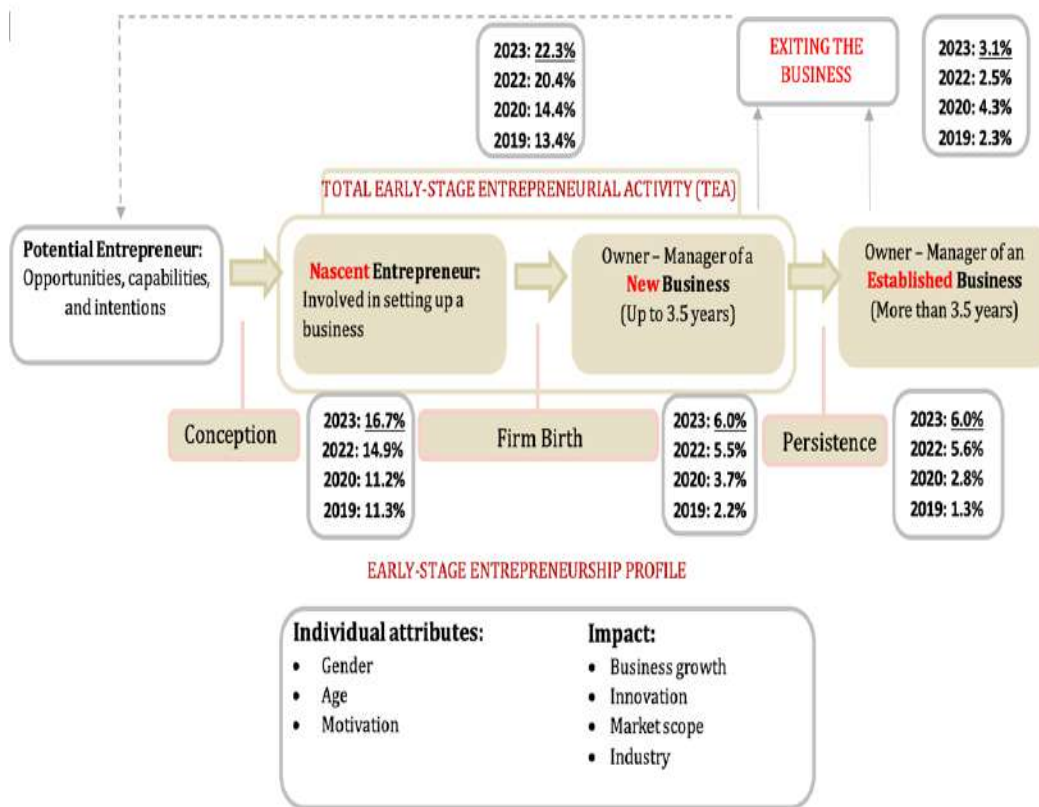
	2018	2019	2020	2022	2023
Pandemia Covid19	--	--	77.9%	28.2%	22.1%
Not profitable	17.2%	12.6%	3.9%	19.8%	16.3%
Funding issues	6.1%	0.0%	0.0%	2.3%	3.5%
Government bureaucracy, taxes	9.9%	9.4%	3.7%	5.5%	10.0%
Personal	22.9%	34.4%	5.4%	22.6%	20.6%
Incidents	27.3% **	3.1%	1.1%	4.8%	--
Opportunity to sell, withdrawal, another pre-planned opportunity	16.6%	40.5%	8.1%	16.7%	27.5%

* In 2021, Puerto Rico did not participate in the GEM.
Sources: GEM Puerto Rico. GEM Puerto Rico Adult Population Survey 2018 to 2020 and 2022-2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

3.6 Entrepreneurial levels evolution

Figure 16 summarizes the evolution of the entrepreneurial levels for 2019, 2020, 2022, and 2023. It shows that the Puerto Rico entrepreneurial ecosystem is evolving toward a system that is fostering more entrepreneurial activities. As previously indicated, from 2019 to 2023 the 4.3% increase in the consolidation of established ventures is notable. However, nascent entrepreneurial activity shows the most significant increase, which points to the need to continue offering support to nascent ventures to turn a greater percentage of them into new ventures that can scale up to established ones. Also, as pointed out, in 2023 they are proportionally more business discontinuation than closures.

Figure 16: Puerto Rico's entrepreneurial process and indicators for 2019, 2020, 2022 and 2023.



*Data for 2020 are not official. Although the adult population survey was conducted, the results did not arrive in time to be included in the GEM Global Report.

**For 2021, Puerto Rico did not participate in the GEM.

Sources: GEM Puerto Rico. 2023 to 2019. GEM Puerto Rico Adult Population Survey [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>

CHAPTER 4. CHARACTERISTICS OF THE PUERTO RICAN ENTREPRENEUR

4.1 Demographic characteristics

Who is starting a business in Puerto Rico? According to the Adult Population Survey (APS), in 2023, 51.9% of early-stage entrepreneurs are under 35 years of age. This finding is contrary to previous results. For the 2022 Adult Population Survey, at an aggregated level entrepreneurial activities were concentrated in the over 35 age group (see Tables 22 and 23). 18-24 years old Puerto Ricans are more involved in entrepreneurial endeavors than the average for Latin America and the Caribbean and the low-, medium-, and high-income countries.

Table 22. TEA by age group.

	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years
Puerto Rico	21.5%	30.4%	23.1%	15.4%	9.6%
Position among participating economies	8/45	25/45	36/45	29/45	25/45
Geographic region: Latin America and the Caribbean USA	18.4% 23.8%	29.9% 26.8%	23.9% 23.3%	17.7% 15.6%	10.1% 10.5%
Income level: Low income Medium income High income	17.2% 15.2% 14.4%	32.7% 31.6% 28.3%	25.1% 27.8% 26.7%	16.5% 16.2% 18.7%	8.5% 9.2% 11.9%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Table 23. 2017-2023* TEA by age group.

	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years
2017	17.7%	33.8%	25.1%	15.6%	7.8%
2018	15.5%	31.5%	24.9%	19.7%	8.5%
2019	20.0%	29.3%	27.8%	15.3%	7.5%
2020	17.9%	28.5%	28.1%	17.7%	7.9%
2022	17.0%	25.2%	28.3%	20.1%	9.4%
2023	21.5%	30.4%	23.1%	15.4%	9.6%

*In 2021, Puerto Rico did not participate in the GEM.

Sources: GEM Puerto Rico. GEM Puerto Rico Adult Population Survey 2013 to 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

In the case of established businesses owners, entrepreneurial activity is concentrated among the over 45 years of age group. (see Table 24). In Puerto Rico, this age group has a higher rate of business ownership than the average for Latin America and the Caribbean and the low- and medium-income countries.

Table 24. EBO by age group.

	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years
Puerto Rico	3.8%	19.4%	22.8%	26.7%	27.2%
Position among participating economies	22/45	20/45	34/45	24/45	18/45
Geographic region:					
Latin America and the Caribbean	6.1%	20.3%	29.1%	24.2%	20.2%
USA	1.7%	20.3%	23.6%	24.3%	30.1%
Income level:					
Low income	6.0%	22.6%	29.4%	25.0%	17.0%
Medium income	4.3%	16.0%	27.6%	28.0%	24.1%
High income	5.3%	16.5%	24.1%	28.3%	26.5%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Bases] [Data and Codes]. Retrieved from <https://gem.uprrp.edu/>

In terms of gender, for the early stages of the entrepreneurial process, men are more likely to start businesses than women (see tables 25 and 26). Furthermore, the gap in women's participation is proportionally greater in established ventures (EBO) than in early entrepreneurial activity (TEA). This is an indicator that more women are involve un the early stages of the entrepreneurial process, but also that they need support to establish their businesses.

Table 25. TEA by gender.

	% of women who are part of TEA, out of the total number of women	% of men who are part of TEA, out of the total number of men
Puerto Rico	20.0%	24.8%
Position among participating economies	10/45	7/45
Geographic region:		
Latin America and the Caribbean	24.3%	27.3%
USA	13.4%	16.0%
Income level:		
Low income	16.6%	19.1%
Medium income	11.8%	15.4%
High income	10.2%	13.7%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Table 26. EBO by gender.

	% of women who are part of EBO, out of the total number of women	% of men who are part of EBO, out of the total number of men
Puerto Rico	3.8%	8.5%
Position among participating economies	31/45	23/45
Geographic region:		
Latin America and the Caribbean	6.5%	10.4%
USA	5.9%	7.6%
Income level:		
Low income	6.4%	11.8%
Medium income	6.0%	8.9%
High income	5.7%	9.3%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Another characteristic worth highlighting about the Puerto Ricans entrepreneurs is their high level of education. Puerto Rico ranks 8th out of the 45 participating countries with entrepreneurs with a higher education degree (see Tables 27 and 28). This indicator could explain why 71.4% of respondents indicated that they feel capable to start a business.

In the case of established businesses, the proportion of graduates to non-graduates remains the same, although with a smaller gap. The concentration of new entrepreneurs with a high level of education could indicate that new businesses respond effectively to the perception of attractive business opportunities and not out of necessity, since graduates have a greater chance of having well-paid jobs.

Table 27. TEA by level of education.

	% Graduates	% non-graduates
Puerto Rico	24.7%	15.1%
Position among participating economies	8/45	14/45
Geographic region: Latin America and the Caribbean USA	29.6% 15.2%	24.7% 13.4%
Income level: Low income Medium income High income	21.7% 14.2% 12.9%	17.1% 12.5% 10.9%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Table 28. EBO by level of education.

	% Graduates	% non-graduates
Puerto Rico	6.5%	2.9%
Position among participating economies	26/45	39/45
Geographic region: Latin America and the Caribbean USA	8.6% 7.1%	7.5% 6.1%
Income level: Low income Medium income High income	9.1% 7.9% 8.2%	8.4% 6.8% 7.0%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

4.2 Ventures' characteristics

Among nascent and new ventures (TEA) 6 out of 10 ideas or businesses are concentrated in consumer-oriented services and 2 out of 10 ideas or businesses are concentrated in business-oriented services (See Table 29). That is, the total concentration in the service area is 8 out of 10 ideas or businesses. The high level of concentration in the service sector could have an impact on the ventures' low job creation. This level of concentration in the service sector is slightly lower than in Latin American countries but is higher than in middle-income countries.

Table 29. Sectoral distribution by % of TEA

	% TEA extractive sector	% TEA transformative sector	% TEA business-oriented services	% TEA consumer-oriented services
Puerto Rico	0.9%	18.7%	20.9%	59.5%
Position among participating economies	41/45	24/45	24/45	16/45
Geographic region:				
Latin America and the Caribbean	4.2%	20.8%	9.8%	65.3%
USA	4.2%	16.6%	16.9%	62.3%
Income level:				
Low income	4.0%	20.2%	7.2%	68.6%
Medium income	4.8%	21.4%	22.5%	51.3%
High income	3.8%	15.5%	26.5%	54.3%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Bases] [Data and Codes]. Retrieved from <https://gem.uprrp.edu/>

However, there is a better sectoral distribution among established businesses, although the service sector continues to dominate. Among established businesses, more than 4 out of 10 focus on consumer-oriented services and more than 2 out of 10 focus on business-oriented services. The transformative sector has a significantly higher weight among established ventures (25.0%) than in early entrepreneurial activity (18.7%) (See Tables 29 and 30).

Table 30. Sectoral distribution by % of EBO

	% EBO extractive sector	% EBO processing sector	% EBO business-oriented services	% EBO consumer-oriented services
Puerto Rico	1.7%	25.0%	26.2%	47.1%
Position among participating economies	35/45	24/45	18/45	21/45
Geographic region:				
Latin America and the Caribbean	4.5%	26.4%	14.2%	54.9%
USA	0.0%	35.5%	36.2%	28.3%
Income level:				
Low income	4.1%	25.9%	6.8%	63.2%
Medium income	6.7%	25.9%	24.1%	43.3%
High income	6.1%	22.2%	32.0%	39.7%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Bases] [Data and Codes]. Retrieved from <https://gem.uprrp.edu/>

In terms of the market scope, Puerto Rico ranks 1 out of 45 in national reach as well as for international customers; however, only 10.2% of new ventures expect to obtain 25% or more of their revenue from customers outside Puerto Rico (see Table 31). Compared to 2022, this represents a growth of 0.7%. (See Figure 19), which is an indicator that more new ventures creations are focusing on the diaspora in the US or on the international market (see Table 32). Although it is encouraging that new entrepreneurs are diversifying their customer

base, the growth in new ventures that aim to be export intensive is still too low for an economy which internal market is decreasing due to the demographic challenges that it is facing.

Table 31. TEA’s market scope

	At least national scope	International scope	Expect to earn at least 25% from customers abroad
Puerto Rico	4.3%	1.2%	10.2%
Position among participating economies	1/45	1/45	22/45
Geographic region:			
Latin America and the Caribbean	2.2%	0.3%	3.4%
USA	2.4%	0.5%	18.4%
Income level:			
Low income	1.1%	0.1%	3.9%
Medium income	2.0%	0.4%	12.5%
High income	1.9%	0.5%	17.8%

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Bases] [Data and Codes]. Retrieved from <https://gem.uprrp.edu/>

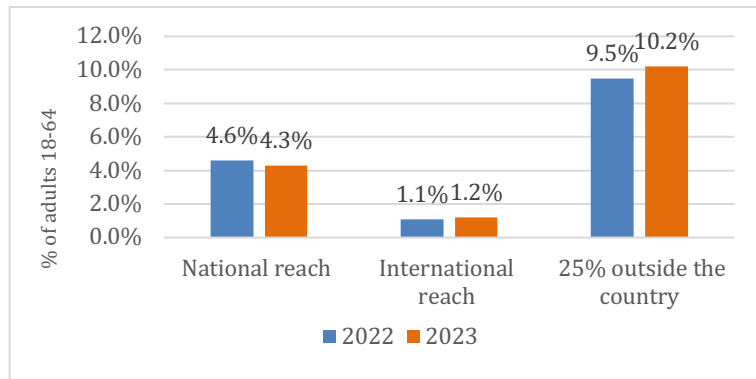
Table 32. 2019-2023* TEA’s market scope

	2019	2020	2022	2023	Average	2023-2022
At least national scope for customers and new products or processes	2.7%	2.8%	4.6%	4.3%	3.6%	-0.3%
International reach for customers and new products or processes	1.1%	0.9%	1.1%	1.2%	1.1%	0.1%
Expect to earn 25% or more of revenue from customers outside the country	23%	1.4%	9.5%	10.2%	5.9%	0.7%

*In 2021, Puerto Rico did not participate in the GEM.

Sources: GEM Puerto Rico. GEM Puerto Rico Adult Population Survey 2013 to 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

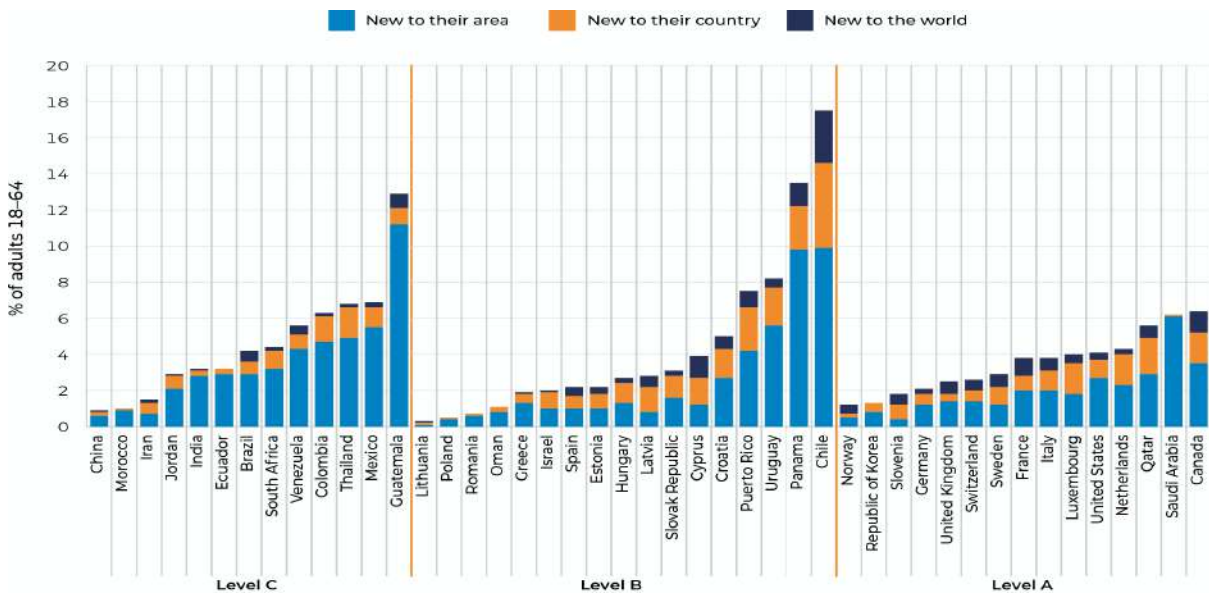
Figure 17. TEA’s market scope 2022 vs 2023



Source: GEM Puerto Rico. (2023 y 2022). GEM Puerto Rico Adult Population Survey 2023 y 2022 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

On the other hand, at the time of the survey, almost 8 out of 10 early entrepreneurs and just over half of established entrepreneurs planned to use new technologies or processes to sell their products (see Figure 18). In this regard, among early entrepreneurs, Brazil, the United Arab Emirates, Panama, Mexico, Puerto Rico, and Chile are the ones that most indicated that they will use digital technologies. These results are consistent with international trends of increased use of technologies.

Figure 18. Percentage of adults starting a business using new technologies or processes



Source: GEM (Global Entrepreneurship Monitor) (2023). *Global Entrepreneurship Monitor 2023/2024 Global Report: 25 years and growing*. London: GEM.

CHAPTER 5. CONDITIONS OF THE BUSINESS CONTEXT (NES)

5.1 Factors determining the business environment in Puerto Rico according to the NES

This chapter analyzes the context components essential to understanding the process of starting ventures and boosting existing businesses in the entrepreneurial ecosystem. The data for analyzing this context are obtained from the National Experts Survey (NES). Each participating expert evaluates a series of statements related to the conditions of their economy's entrepreneurial framework through nine factors described in Table 32. These conditions include the availability of financing, entrepreneurship education, research and development, the quality and accessibility of infrastructure, government policies and programs to encourage entrepreneurship, ease of market entry, and social and cultural norms. Each environmental factor is measured on a Likert scale from 0 to 10, where “0” refers to highly insufficient and “10” to highly sufficient. An intermediate score of 5.0 is considered sufficient to indicate that the economy under study meets the factor.

Table 33. Entrepreneurial Framework Conditions (EFCs)	A1. Entrepreneurial Finance	There are sufficient funds for new startups.
	A2. Ease of access Entrepreneurial Finance	Level of accessibility to funds to finance ventures.
	B1. Government Policy — Support and Relevance:	Policies promote and support startups
	B2. Government Policy — Taxes and Bureaucracy:	Startups are not over-burdened.
	C. Government Entrepreneurial Programs:	Quality support programs are widely available.
	D1. Entrepreneurial Education at School - K12:	Schools introduce entrepreneurial ideas.
	D2. Entrepreneurial Education – Post-School (vocational and university):	Colleges offer courses on how to start a business.
	E. Research and Development Transfers	Research is easily transferred into new businesses.
	F. Commercial and Professional Infrastructure:	Quality services are available and affordable.
	G1. Ease of entry — Market Dynamics:	Markets are free, open, and growing.
	G2. Ease of entry — Burdens and Regulations:	Regulations encourages not restrict entry.
H. Physical infrastructure:	Good quality, available, and affordable.	
I. Social and Cultural Norms:	Encourage and celebrate entrepreneurship.	

Source: GEM (Global Entrepreneurship Monitor) (2023). *Global Entrepreneurship Monitor 2023/2024 Global Report: 25 years and growing*. London: GEM.

According to the experts' perceptions about the nine conditioning factors of the environment (see Table 34), only access to entrepreneurship education at the post-secondary level (5.6),

ease of entry to markets: dynamics (5.3), physical infrastructure (5.3), and social and cultural norms (5.4) reach the level of sufficient. These factors have a positive impact on the development of the ecosystem in Puerto Rico.

Table 34. 2023 Expert Ratings of the Entrepreneurial Framework Conditions (EFCs)

Entrepreneurial Framework Conditions (EFCs) *	Puerto Rico	Position among participating economies	Geographic region:		Income level:		
			Latin America and the Caribbean	USA	Low income	Medium income	High income
A1. Entrepreneurial Finance	3.9	35/49	3.2	4.9	3.7	4.3	5.2
A2. Access to financing	3.9	32/49	3.4	4.2	3.7	4.1	4.8
B1. Government policies: support	3.6	26/49	2.9	3.8	3.7	3.8	4.9
B2. Government policies: taxes and bureaucracy	2.6	45/49	3.5	5.0	4.0	4.5	5.3
C. Government entrepreneurial programs	4.1	34/49	3.8	3.8	3.8	4.4	5.5
D1. Entrepreneurship Education: K12	2.7	30/49	2.5	3.6	2.9	3.0	4.1
D2. Entrepreneurship education: post-secondary	5.6	8/49	5.1	4.9	4.7	4.7	5.3
E. Research and development Transfer	3.6	31/49	3.1	3.8	3.3	3.9	4.9
F. Commercial and Professional Infrastructure	4.8	36/49	4.7	5.7	4.7	5.2	5.8
G1. Ease of entry - market Dynamics	5.3	29/49	4.6	5.0	4.9	5.0	5.3
G2. Ease of market entry: Burdens and Regulations	3.6	39/49	3.7	3.9	3.6	4.2	4.9
H. Physical Infrastructure	5.3	46/49	6.1	6.7	5.9	6.4	6.7
I. Social and Cultural Norms	5.4	20/49	5.1	6.7	5.2	4.9	5.6

*A Likert scale from 0 to 10 was used, where 0 = highly insufficient and 10 = highly sufficient

Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

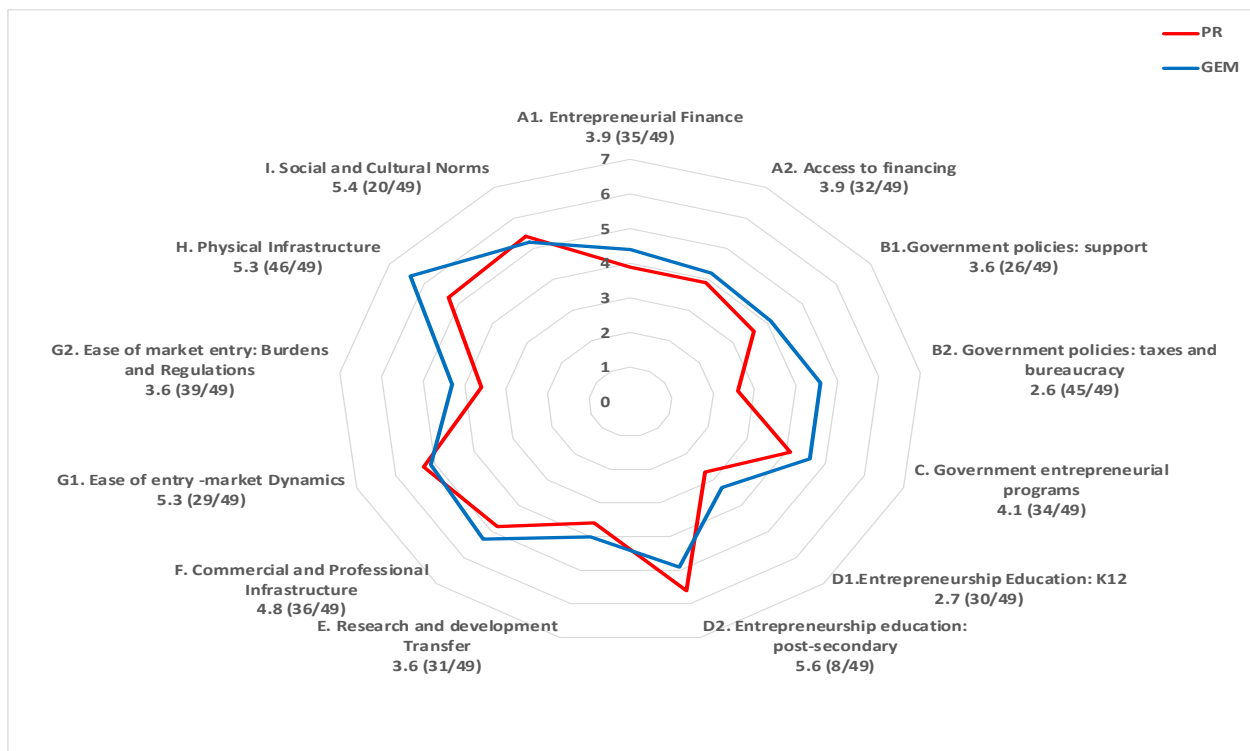
Except for the deterioration in the valuation of the commercial and professional infrastructure factor (4.8), which traditionally was valued as sufficient, the valuations for 2023 are higher than or equal to the perceptions of the experts in the 2022 survey. The

reduction in experts' assessment of the commercial and professional infrastructure factor is likely related to the inflationary process that the economy is going through, making it difficult for SMEs to access good quality commercial properties and professional services at affordable prices. The analysis also shows that the areas that deserve the most attention continue to be government policies linked to bureaucracy and taxes (2.6), and entrepreneurship education: K12 (2.7).

On the other hand, compared to the different participating countries, the factors where Puerto Rico is best positioned are post-secondary entrepreneurship education (8/49) and social and cultural norms (20/49). Comparatively, the factors with the greatest opportunity to improve the business ecosystem are physical infrastructure (46/49), government policies: bureaucracy, taxes, regulation (45/49), ease of market entry: barriers and regulation (39/49), commercial and professional infrastructure (36/51), and availability of financing (35/49).

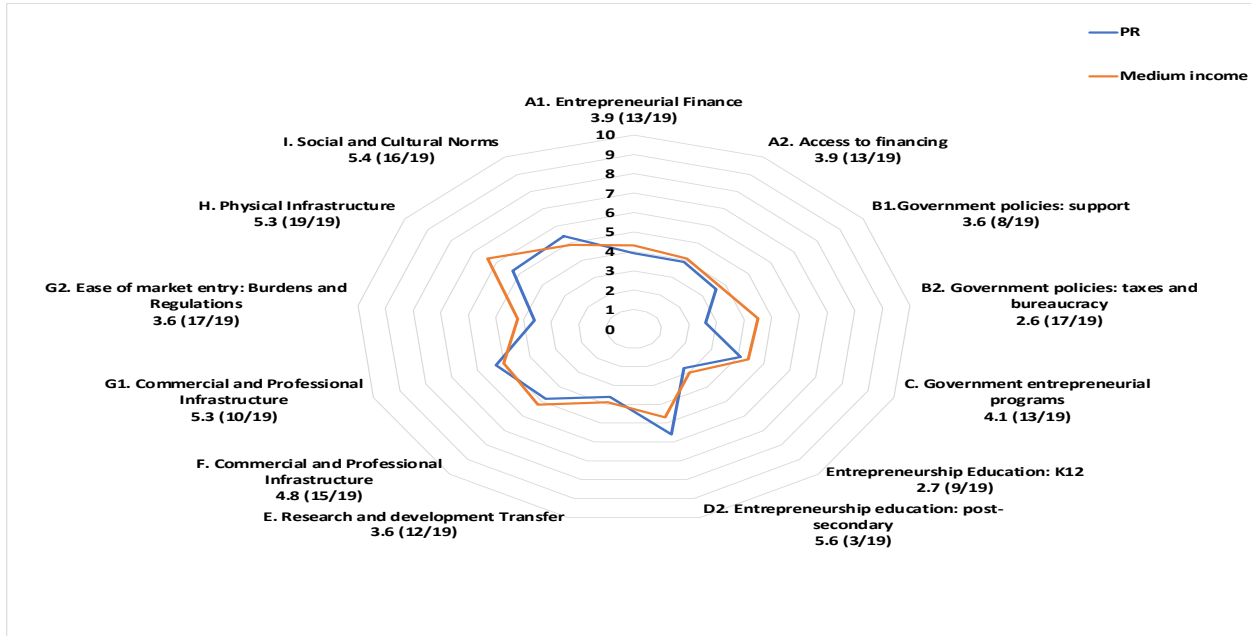
Meanwhile, when compared solely with fellow medium income countries Puerto Rico is better in post-secondary entrepreneurship education (3/49) while its worst score is in physical infrastructure (19/49). Finally, the comparison between Puerto Rico scores with the other participating Latin American economies, shows that the Puerto Rican ecosystem is stronger in Availability of financing (1/10), Access to financing (2/10), Government policies: priority and support (2/10), and Entrepreneurship education: post-secondary (2/10); and weaker in Physical infrastructure (10/10) and Ease of entry into markets: dynamic (9/10). These analyses are also presented graphically in Figures 19 to 21.

Figure 19. Expert Ratings of the Entrepreneurial Framework Conditions – All participating economics



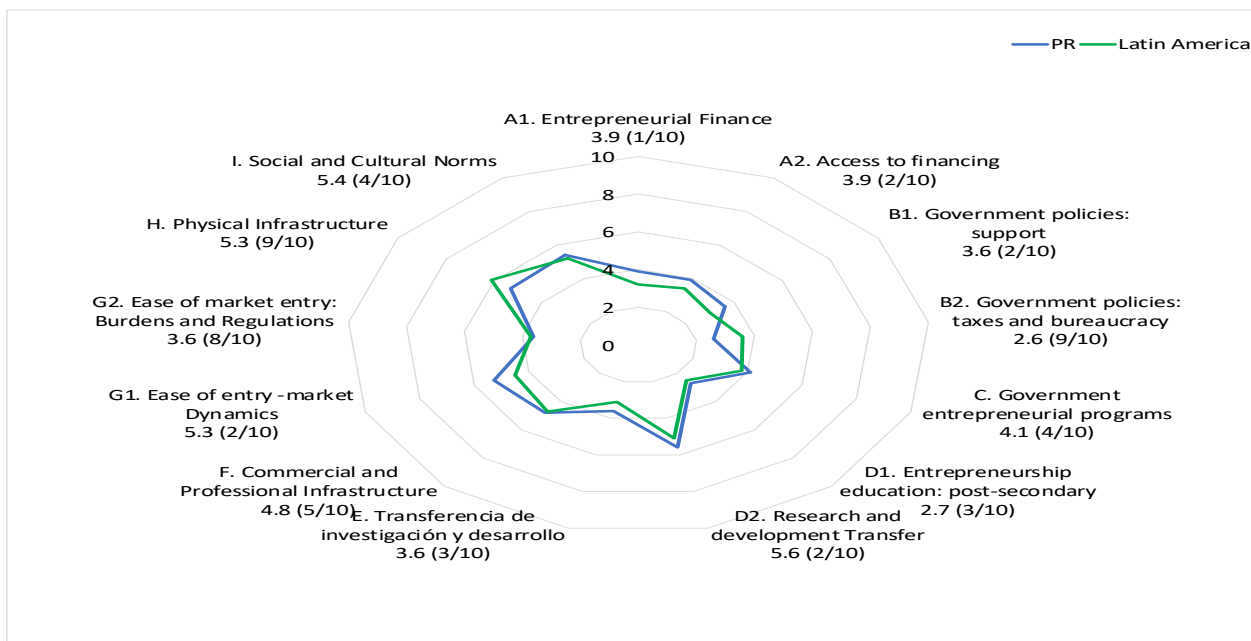
Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Figure 20. Expert Ratings of the Entrepreneurial Framework Conditions – PR vs Middle Income countries



Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Figure 21. Expert Ratings of the Entrepreneurial Framework Conditions – PR vs Latin America



Source: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and Codes]. Retrieved from <https://gem.uprrp.edu/>.

Regarding the evolution of the business context over the past ten years, Table 35 shows the average assessment given by experts to the environment conditioning factors for the years 2013-2020 and 2022-2023.

Table 35. 2013-2023 Expert Ratings of the Entrepreneurial Framework Conditions (EFCs)**

EFCs *	2013	2014	2015	2016	2017	2018	2019	2020	2022	2023	Average	Difference (2023-2022)
A1. Entrepreneurial Finance	3.8	4.0	4.0	4.4	4.4	3.8	4.6	4.8	3.6	3.9	4.1	0.3
B1. Government policies: support	4.6	4.8	5.0	4.6	4.6	3.6	3.8	3.6	2.5	3.6	4.1	1.1
B2. Government policies: taxes and bureaucracy	3.0	3.6	3.0	3.6	2.8	3.2	2.8	3.0	2.6	2.6	3.0	0
C. Government entrepreneurial programs	5.0	5.2	4.2	4.4	3.8	4.4	4.0	4.4	4.1	4.1	4.4	0
D1. Entrepreneurship Education: K12	3.2	3.4	2.8	3.6	2.8	3.0	3.0	3.0	2.2	2.7	3.0	0.5
D2. Entrepreneurship education: post-secondary	6.0	6.2	5.0	5.8	5.8	6.0	5.0	5.4	4.8	5.6	5.7	0.8
E. Research and development Transfer	4.2	4.6	3.6	4.2	3.6	4.0	4.4	4.6	3.5	3.6	4.0	0.1
F. Commercial and Professional infrastructure	5.8	5.8	5.6	5.6	5.6	5.2	4.8	5.6	4.9	4.8	5.4	-0.1
G1. Ease of entry -market Dynamics	6.0	5.2	5.2	5.2	5.8	5.4	6.0	5.8	4.9	5.3	5.5	0.4
G2. Ease of market entry: Burdens and Regulations	4.4	4.6	4.4	4.0	4.0	4.4	4.0	4.8	3.6	3.6	4.2	0
H. Physical Infrastructure	6.8	6.6	6.6	6.2	6.0	5.8	5.6	5.8	5.1	5.3	6.0	0.2
I. Social and Cultural Norms	5.0	5.6	4.6	5.0	5.2	5.6	4.8	6.2	4.6	5.4	5.2	0.8

*A Likert scale from 0 to 10 was used, where 0 = highly insufficient and 10 = highly sufficient.

**For 2021, Puerto Rico did not participate in the GEM.

Sources: GEM Puerto Rico. 2023-2013. GEM Puerto Rico Adult Population Survey 2023-2013 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

This analysis shows that, on average, as for 2023, the factors indicated as sufficient for those years are entrepreneurship education at the postsecondary level (5.6), ease of entry into markets: dynamics (5.3), physical infrastructure (5.3), and social and cultural norms (5.4). However, the ten-year average for the commercial and professional infrastructure classified this factor as sufficient. As stated before, the commercial and professional infrastructure factor has gone from sufficient to insufficient in recent years to the extent in which the population does not perceive they have access to affordable quality commercial properties and professional services. Inflation, speculation and other market dynamics have resulted in a significant increase in the valuation of commercial properties.

5.2 National Business Context Index (NECI)

The experts' scores for the Entrepreneurial Framework Conditions are also used to calculate the National Entrepreneurship Context Index (NECI). It has a maximum value of 10; the higher the value, the more favorable the environment is for entrepreneurial creation. The NECI allows the participating countries to be ranked and compared regarding their support and encouragement for entrepreneurship. This is useful for entrepreneurs as it indicates the best places to start a new business and is beneficial for guiding the development of public policy aimed at promoting entrepreneurship. Table 36 shows the NECI scores for the years 2019, 2020, 2022, and 2023. As can be observed, for each passing year, the NECI shows a slightly more favorable context for entrepreneurs in Puerto Rico, especially in 2023 not only the score is highest but also it is its best showing when compared to the other GEM participating economies.

Table 36. National Entrepreneurship Context Index (NECI)*.

	2019**	2020**	2022	2023
Puerto Rico	3.2	3.6	3.8	4.2
Position among participating economies	53/54	42/44	42/51	36/49
Geographic region:				
Latin America and the Caribbean	4.0	4.2	4.0	4.0
USA	5.3	5.2	5.2	4.8
Income level:				
Low income	4.6	4.1	4.3	4.2
Medium income	4.3	4.4	4.4	4.5
High income	4.8	4.9	5.2	5.3

* For 2021, Puerto Rico did not participate in the GEM.

**PR was classified as a high-income country for these years, but the criteria for the classification changed in 2021, PZR is now classified as a middle-income country.

Sources: GEM Puerto Rico. (2023). GEM Puerto Rico Adult Population Survey 2023 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

GEM Puerto Rico. (2020). GEM Puerto Rico Adult Population Survey 2020 [Databases and codes]. Retrieved from <https://gem.uprrp.edu/>.

5.3 Factors that are driving entrepreneurial activity in Puerto Rico according to the experts (NES):

The experts surveyed for the NES 2023 point to multiple factors as drivers of formal and informal entrepreneurial activity in Puerto Rico. Table 37 summarizes the opinions of the experts classified by EFC. Among these opinions, it stands out that although still valued as insufficient, a change in perception of entrepreneurship education at the K12 level is taking shape. Along the same lines, there is also greater recognition of the contributions of the public sector as a driver of entrepreneurship by contributing to government policies and programs aimed at providing financing and training to SMEs and attracting venture capital investment to Puerto Rico while making efforts to help entrepreneurs identify and enter new international markets.

In addition, experts perceive that the fear of failure is now lower. Indeed, the APS results support the perception that fear of failure is reducing.

They also perceive that, culturally, entrepreneurship is being seen as a country project that promotes multisectoral alliances to develop the sector. Public and private schools, universities, for-profit and non-profit organizations, and entrepreneurs have come together to diversify the talent, connections, and resources available to advance the entrepreneurial ecosystem.

Table 37. Expert opinions on environmental factors that drive entrepreneurial activity classified by EFC

Entrepreneurial Framework Conditions (EFCs) *	FACTORS THAT DRIVE ENTREPRENEURIAL ACTIVITY
A1. Entrepreneurial Finance	Federal grants have resulted in the creation of various incubation and acceleration programs. Government direct aid to the population to compensate loss of income during the pandemic was invested in entrepreneurship.
B1. Government policies: support	Emphasis on attracting venture capital investment from the United States and Latin America who seek to expand their horizons by exploring new opportunities to generate returns in a jurisdiction with a legal framework and protections like those of mainland United States.
C. Government entrepreneurial programs	Better access to information on entrepreneurship support programs.
D1. Entrepreneurship Education: K12	Increase in education aimed at fostering an entrepreneurial mindset: Critical mass of public and private teachers and school principals trained to develop entrepreneurship and innovation skills and use experiential education through entrepreneurship-related projects.
D2. Entrepreneurship education: post-secondary	Increased educational efforts aimed at recognizing entrepreneurial opportunities and taking the risk of starting a business with an unproven idea. Greater access to business education through training programs.
E. Research and development transfer	Programs to encourage the use of technology in companies, particularly manufacturing automation.
G1. Ease of entry -market Dynamics	Promotion of the development of economic sectors related to the visitor's economy and medical cannabis.
G2. Ease of market entry: Burdens and Regulations	The Internet and social networks as effective distribution channels together with the ease of buying inventory and supplies outside of Puerto Rico reduce the risk of entrepreneurship.
I. Social and Cultural Norms	Self-employment - A generation of young people who are not interested in being employed either because the economy does not generate job opportunities or because they do not consider the low wages offered to them fair. Reduction of fear of failure due to the existence of models: Influencers whose business model is based on encouraging entrepreneurship by sharing content about it on social media and offering online courses/workshops for those interested in starting a business. Entrepreneurship seen as a country project that has brought together schools, universities, for-profit and non-profit organizations and entrepreneurs who diversify the talent, connections, and resources available for advancing the entrepreneurial ecosystem.

Source: GEM Puerto Rico. (2023). National Expert Survey (NES) Puerto Rico 2023 [Unpublished databases and codes].

5.4 Expert recommendations for improving the entrepreneurial ecosystem

Table 38. Expert’s recommendations to drive entrepreneurial activity classified by EFC

Entrepreneurial Framework Conditions (EFCs) *	RECOMMENDATIONS TO DRIVE ENTREPRENEURIAL ACTIVITY
A1. Entrepreneurial Finance	Provide risk capital for the early stages of development and launch of new ventures, including the development of prototypes.
B1. Government policies: support	Apply to local businesses and investors the same incentives to create jobs as those given to non-local businesses and investors so that they have the same opportunities to grow. Stable business climate – Avoid legislating as a mechanism to provide small solutions to problems that are complex and game-changing without consideration of the need for stability or the effects that some legislations sometimes have.
B2. Government policies: taxes and bureaucracy	Simplify the registration process for new companies by reducing the required paperwork. Improve the permits management process, including the centralization of all processes (one-stop-window). Eliminate the \$500 tax for LLCs for the first 3 years of operation. Encourage all new ventures (startups) without age preferences.
C. Government entrepreneurial programs	Implement the preference law for SMEs in agencies purchases of goods and services. Apply these preferences also to large companies that are established in PR. Foster cooperation alliances that include the government, academia and the private sector to promote entrepreneurship. Create a seed capital program for innovative technology companies with the potential to scale and attract private capital. Be more strategic and punctual in terms of communicating available support and incentive programs for entrepreneurs. Create dissemination mechanisms (materials, websites) that explain step by step the processes for registering a business and obtain permits so that entrepreneurs do not have to paid for those services. Training programs on the initial stages of establishing a business (laws/certifications, necessary permits and processes to obtain them).
D1. Entrepreneurship Education: K12	Strengthen the education in entrepreneurship since the first grades to develop an entrepreneurial mindset. Include topics such as trade and the process for identifying opportunities in the market. Strengthen STEM education.
D2. Entrepreneurship education: post-secondary	Strengthen STEM education. Greater access to business education through professional training.
Research and development Transfer	Prioritize the development of spaces to facilitate entrepreneurship (makerspaces, epicenters, fab labs or innovation studios).
G2. Ease of market entry: Burdens and Regulations	Implement the law of preference for SMEs in the purchases of goods and services from agencies. Apply these preferences also to large companies that are established in PR.
H. Physical infrastructure	Reduce the cost of commercial energy and other services such as high-speed internet.

Source: GEM Puerto Rico. (2023). National Expert Survey (NES) Puerto Rico 2023 [Unpublished databases and codes].

From the perspective of the NES panel of experts, there must be a change in the role of the government so that it becomes a facilitator of the development of entrepreneurial activity. Efforts should focus on several key aspects necessary to boost entrepreneurial activity in Puerto Rico, such as agility in obtaining permits, tax benefits for exporting, continuous development of the workforce, business education at all levels, improving government administration, and reducing corruption in the public sector.

CHAPTER 6. CONCLUSIONS

6.1 Adult Population Survey (APS)

GEM Puerto Rico 2023 reflects an improvement in all key aspects of the entrepreneurial process, including an increase in early-stage entrepreneurial activity (TEA) and in established business ownership (EBO). The results show that, compare to 2022, the self-perceptions that positively favor entrepreneurial activity have improved. Specifically, knowing someone that have started a business increase by 1.8%; recognition of good opportunities to start a business increased by 1.0%; having the knowledge, skills and experiences to start a business increased by 2.5%, fear of failure decreased by 2.9%, and intention to start a business in the next three years increased by 9.8%. Together, these factors could explain the rise in the TEA. Compared to 2022, nascent entrepreneurial activity increased by 1.8% while, to a lesser extent, there was also a 0.5% increase in new ventures. According to these results, in 2023 for every 100 adults in Puerto Rico, 17 were involved in activities leading to the creation of a new venture, while 6 were operating a new venture (businesses that have been in operation for less than 3.5 years).

However, consistently, the composition of the TEA in Puerto Rico is characterized by being dominated by the rate of nascent entrepreneurial activity with a much low percentage of ventures that move on to the next stage of the entrepreneurial cycle, new entrepreneurial activity. In 2023, 74.8% of early entrepreneurial activity (TEA) is explained by the increase in nascent entrepreneurial activity. However, this result is historically lower than for previous years, being this, perhaps, an indicator that the entrepreneurial ecosystem is more favorable now, allowing a greater number of nascent ventures to evolve into new businesses.

On the other hand, the survey reflected that by 2023 6.0% of the adult population was an established business owner (EBO). This figure is the highest recorded since 2013 and represents a significant increase considering that in 2019 only 1.3% of the surveyed adult population indicated owning or operating an established enterprise.

Demographically, new entrepreneurs differ significantly from the established ones. Entrepreneurs under 35 years of age represent a little more than half (51.9%) of early entrepreneurial activity. Compared to 2022, this segment increased its participation by 9.7%, resuming the levels of participation it had in 2017. Note that in 2019, Law 60-2019 was approved, this law provides grants incentives for three years to young entrepreneurs between 16 and 35 years old. With our data we cannot measure if there is a relationship between the increase in entrepreneurial activity among people under 35 years and the enactment of Law, but it is an area to explore given the fast post-pandemic recovery of this demographic. However, the story is different when it comes to established businesses where most of the entrepreneurial activity in the over 35 age brackets.

With respect to gender participation, the sample reflects that early entrepreneurial activity is dominated by men (24.8% men vs 20.0% female), who also widely dominate the category of established ventures (8.5% men vs 3.8% female). From the point of view of public policy, there is an opportunity to create laws and programs specifically targeted to encourage female entrepreneurship. Another important demographic aspect is the level of education, in early entrepreneurial activities those with a graduate degree dominate (24.7% graduates vs. 15.1% non-graduates) and the same occurs in the segment of established businesses, graduates represent 6.5% versus non-graduates 2.9%. This difference in education should be considered when it comes to the development of incubator and accelerator programs and the dissemination of educational material, lower education groups require different development and communication strategies. Non graduate might need more training and in areas that differ from those with a post-secondary degree.

In terms of sectoral distribution, in 2023 the most important sector within the TEA is consumer-oriented services with a 59.5% share, followed by business-oriented services with 20.9%, for a total of 80.4% of ventures in the TEA concentrated in the service sector. Likewise, among established businesses the dominating sector is services to individuals and businesses (73.3%). However, among IBOs there is a greater participation of the transformative sector (25.0% in EBO vs 18.7% in TEA). In general, entrepreneurship in Puerto Rico is characterized few jobs, being the rate of solo entrepreneurship high. Hence government incentives should also be designed to promote business development in sectors with a greater capacity to generate jobs.

In the same line, another topic of great relevance in this study is the businesses planning to use technologies to sell their products or services. The analysis shows that most of the new entrepreneurs (78.35%) plan or are using new technologies or processes to be competitive while for the established business owners the percentage is 56.2%. More needs to be done to encourage established business owners to use technologies or new processed to advance their businesses.

Regarding the closure of businesses, 3.1% of the adult population surveyed reported having closed a business. This figure represents an increase of 0.6% compared to 2022, but a decrease of 1.2% compared to 2020. In 2023, the main reasons for the closure or discontinuation were the opportunity to sell, retirement, another opportunity, planned (27.5%), which means that many of these ventures either continue to exist in the hands of another entrepreneur or were replaced by other ventures. The mention of Covid-19 as a reason for exiting (22.1%) is waning down from his high in 2020 an in relation to 2022. Another highlight from the exit data is that government bureaucracy and taxes increased as a reason to finish a venture to practically the same level as it had in 2018 (10%). In the Survey of National Experts (NES), this reason is the most frequently cited as an obstacle to entrepreneurship in Puerto Rico. The government has not found a way to reduce the impact of this barrier that contributes to the non-formalization and low growth of businesses.

6.2 National Experts Survey (NES)

The scores assigned by the experts reflect for 2023 a better perception of the entrepreneurial framework conditions (EFC). However, of the thirteen categories analyzed in the NES, it was found that the experts only rated as sufficient (5 or more on a 11-point Likert scale) the following EFCs: entrepreneurial education – post-school (5.6), social and cultural norms (5.4), Physical infrastructure (5.3), and ease of entry to markets (5.3). Factors such as commercial and professional infrastructure (4.8 points) and government entrepreneurial programs (4.1 points) were rated as insufficient. The next two best-rated factors were entrepreneurial finance (3.9 points), access to finance (3.9 points). R&D transfer (3.6 points), timeliness and support from government policies (3.6 points) and ease of market entry (3.6 points) were poorly assessed by experts.

The categories that scored the lowest are two pillars of the entrepreneurial ecosystem: entrepreneurship education in primary and secondary school (2.7 points) and government policy taxes and bureaucracy (2.6 points). Strengthen STEM education at K12 as well at the post-school education has been identify as an important step to address the current and future ecosystem needs for producing scalable businesses. Also, as always, there is the clamor for the government to fix the permit process bureaucracy once and for all.

The experts' responses highlight the contrast in the perception of the government as a promoter of entrepreneurship and as an obstacle to entrepreneurial endeavors. As promoter, the experts acknowledge the government policies and programs aimed at providing financing and training to SMEs, attracting venture capital investors, and the programs to help entrepreneurs identify and enter new international markets as drivers of growth. As an obstacle, according to experts, the government must pay urgent attention to: (1) the revision of government policies to reduce bureaucracy, permits, and taxes, (2) ease of market entry, particularly the reduction of barriers and regulation; and (3) the review of government policies to promote entrepreneurship and offer greater support to entrepreneurs.

Overall, when adding the perceptions of the experts, the National Business Context Index (NECI) place Puerto Rico in the 36th position out of 49. Nevertheless, although low, the NECI Score for 2023 (4.2 out of 10) is the best performance for Puerto Rico since GEM started measuring this metric in 2018. The index improvement is an indicator that little by little the entrepreneurial ecosystem is improving.

REFERENCES

GEM (Global Entrepreneurship Monitor) (2023). Global Entrepreneurship Monitor 2023/2024 Global Report: 25 years and growing. London: GEM.

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GLOSSARY

Key variables definitions:

APS– Acronym for Adult Population Survey. A random representative sample of at least 2,000 adults between 18-64 years old whose objective is to obtain entrepreneurial activity indicators.

Entrepreneurial Employee Activity – (EEA)- percentage of the adult population between the ages of 18 and 64 who, as an employee, have participated in entrepreneurial activities such as the development or launch of new products or services, the creation of a new business unit, or a new establishment or subsidiary.

Entrepreneurial Framework Conditions (EFCs) – It is the framework for the NES. They are the 13 business environment conditions that favor or not the entrepreneurial activities:

A1. Entrepreneurial Finance	There are sufficient funds for new startups.
A2. Ease of access Entrepreneurial Finance	Level of accessibility to funds to finance ventures.
B1. Government Policy — Support and Relevance:	Policies promote and support startups
B2. Government Policy — Taxes and Bureaucracy:	Startups are not over-burdened.
C. Government Entrepreneurial Programs:	Quality support programs are widely available.
D1. Entrepreneurial Education at School - K12:	Schools introduce entrepreneurial ideas.
D2. Entrepreneurial Education – Post-School (vocational and university):	Colleges offer courses on how to start a business.
E. Research and Development Transfers	Research is easily transferred into new businesses.
F. Commercial and Professional Infrastructure:	Quality services are available and affordable.
G1. Ease of entry — Market Dynamics:	Markets are free, open, and growing.
G2. Ease of entry — Burdens and Regulations:	Regulations encourages not restrict entry.
H. Physical infrastructure:	Good quality, available, and affordable.
I. Social and Cultural Norms:	Encourage and celebrate entrepreneurship.

Entrepreneurial intention- percentage of the adult’s population between the ages of 18 and 64 (excluding individuals involved in any stage of entrepreneurial activity) who intend

to start a business within the next three years.

Fear of failure- percentage of the adult's population between the ages of 18 and 64 who perceive good opportunities but indicate that fear of failure would prevent them from establishing a business.

NES- Acronym for National Expert Survey. This is an opinion panel of at least 36 national experts aim to obtain opinions regarding the Entrepreneurial Framework Conditions (EFCs) that impact the type and level of entrepreneurial activities in the country under study. The experts' sample is selected by convenience, but require that at least 25% participation from small, medium, or large entrepreneurs.

National Entrepreneurship Context Index (NECI)- It is a composite index for the assessment of the favorability of the entrepreneurial environment calculated based on the scores obtained from the NES for the 13 Entrepreneurial Framework Conditions (EFCs). It is measured in a 1 to 10 scale, the higher the value the more favorable the business environment

Perception of opportunities- percentage of the adult population between the ages of 18 and 64 who see good opportunities to start a business in the area where they live.

Perception of the ease of starting a business- percentage of the adult population between the ages of 18 and 64 who consider it easy to start a business.

Perception of capabilities- percentage of the adult population between the ages of 18 and 64 who consider they have the skills and knowledge required to start a business.

Rate of discontinuity or closure- percentage of the adult population between the ages of 18 and 64 (who are nascent entrepreneurs or owners of a new venture) who, in the past 12 months, have discontinued a venture, either by selling, closing, or otherwise discontinuing an owner/manager relationship with the venture.

Rate of established ventures (Established Business Owners - EBO) - percentage of the adult population between the ages of 18 and 64 who are currently entrepreneurs-managers and an established enterprise. It refers to those persons who own and manage a going concern that has paid salaries, or any other payment to the owners for more than 42 months.

Rate of nascent entrepreneurs- percentage of the adult population between the ages of 18 and 64 who have made some kind of effort to start a business venture but who have not yet paid wages or benefits to the entrepreneur for at least three months.

Rate of new businesses- percentage of the adult population between the ages of 18 and 64 who are currently entrepreneurs-managers of a new venture. This refers to those people who own and manage an ongoing venture that has been generating wages or benefits for the entrepreneur for at least three months and was started 42 months ago or less.

Total Early-stage Entrepreneurial Activity – (TEA) - percentage of the adult population between the ages of 18 and 64 who are in the process of starting a business (nascent entrepreneur) or are the owner/manager of a new business that is less than 42 months old.

Source: GEM (Global Entrepreneurship Monitor) (2023). Global Entrepreneurship Monitor 2023/2024 Global Report: 25 years and growing. London: GEM.