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EDUCATING THE FUTURE WORKFORCE



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ABOUT ECLAC and the CDCC

The Economic Commission for Latin America and the Caribbean (ECLAC) is one of five regional commissions of the United Nations Economic and Social Council (ECOSOC). It was established in 1948 to support Latin American governments in the economic and social development of that region. Subsequently, in 1966, the Commission (ECLA, at that time) established the subregional headquarters for the Caribbean in Port of Spain to serve all countries of the insular Caribbean, as well as Belize, Guyana and Suriname, making it the largest United Nations body in the subregion.

At its sixteenth session in 1975, the Commission agreed to create the Caribbean Development and Cooperation Committee (CDCC) as a permanent subsidiary body, which would function within the ECLA structure to promote development cooperation among Caribbean countries. Secretariat services to the CDCC would be provided by the subregional headquarters for the Caribbean. Nine years later, the Commission's widened role was officially acknowledged when the Economic Commission for Latin America (ECLA) modified its title to the Economic Commission for Latin America and the Caribbean (ECLAC).

Key Areas of Activity

The ECLAC subregional headquarters for the Caribbean (ECLAC/CDCC secretariat) functions as a subregional think-tank and facilitates increased contact and cooperation among its membership. Complementing the ECLAC/CDCC work programme framework, are the broader directives issued by the United Nations General Assembly when in session, which constitute the Organisation's mandate. At present, the overarching articulation of this mandate is the United Nations Sustainable Development Goals.

Towards meeting these objectives, the Secretariat conducts research; provides technical advice to governments upon request; organizes intergovernmental and expert group meetings; helps to formulate and articulate a regional perspective within global forums; and introduces global concerns at the regional and subregional levels.

Areas of specialization include trade, statistics, social development, science and technology, and sustainable development, while actual operational activities extend to economic and development planning, demography, economic surveys, assessment of the socio-economic impacts of natural disasters, climate change, data collection and analysis, training, and assistance with the management of national economies.

The ECLAC subregional headquarters for the Caribbean also functions as the Secretariat for coordinating the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. The scope of ECLAC/CDCC activities is documented in the wide range of publications produced by the subregional headquarters in Port of Spain.

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EDUCATING THE FUTURE WORKFORCE

Education is a cornerstone for sustainable development and achieving quality education and lifelong learning (SDG 4). Quality education directly contributes to economic growth (SDG 8), as a well-educated workforce with the requisite skills to effectively contribute to the economy is crucial for driving productivity. In the Caribbean, this relationship is especially vital. Given the smallness of Caribbean economies and their heavy reliance on the global market, the sustainable economic development of the subregion hinges on equipping its citizens with the knowledge and skills needed to thrive in a competitive global market.

Unfortunately, the Caribbean faces significant human capital challenges that include high youth unemployment and a pervasive mismatch of skills demanded in the world of work and those possessed by job seekers. This situation results in low economic returns to private and public investment in education as graduates and school leavers remain largely unemployed or underemployed, making many young people unable to contribute optimally to economic growth.

Addressing these gaps through targeted education reforms can significantly enhance labour productivity and economic resilience. Emphasizing the attainment of functional skills as a learning outcome is imperative for a modern educational curriculum. Greater access also needs to be provided to technical and vocational training (TVET). TVET programs provide students with practical skills directly applicable to various industries.

By aligning educational outcomes with market needs, education policy can reduce unemployment and ensure graduates are job-ready and capable of driving innovation within their fields. Furthermore, enhancing digital literacy across all levels of education is essential. As the global economy becomes increasingly digital, proficiency in information and communication technologies (ICT) is vital for competitiveness. Integrating digital skills training into curricula and ensuring teachers are well-equipped to deliver these lessons can prepare the Caribbean workforce for future challenges and opportunities.

Moreover, education promotes gender equality (SDG 5) by providing equal social and economic opportunities for both men and women. In many Caribbean countries, women enrol in higher secondary and tertiary education in greater proportion than men. However, translating this educational achievement into

economic participation remains a challenge due to persistent gender biases and occupational stereotypes. Educational policies that focus on empowering women and dismantling these barriers are crucial. Initiatives such as encouraging women to pursue careers in STEM (Science, Technology, Engineering, and Mathematics) and leadership roles can foster gender parity in the workforce.

In this edition of the FOCUS Magazine, we emphasize the many challenges faced by the education systems of the Caribbean and point to possible ways to make education a catalyst for advancing the SDG agenda in the subregion. The first article highlights how deficiencies in the education system, such as poor educational attainment—despite relatively high schooling rates—and skills mismatches, adversely impact labour productivity in the Caribbean. Deficiencies in education result in low-quality output and reduced human capital in the subregion,



impacting labour productivity and the achievement of several SDGs. From 2015 to 2020, 11 of 14 Caribbean countries saw stagnant or decreased labour productivity levels.

Improving education quality and aligning skills with market demands are crucial for enhancing labour productivity and reversing brain drain trends that further diminish human capital in the Caribbean.

The second article delves into the factors generating deficiencies in education across the Caribbean, such as a shortage of qualified teachers, underinvestment in education, and cultural norms affecting learning. Exacerbated by migration, teacher shortages lead to larger classes and less individualized attention. Inadequate funding results in poor infrastructure, outdated resources, and a lack of modern technology, further hindering student performance. Cultural norms, particularly gender stereotypes, limit students' academic and career

aspirations. These challenges collectively lower education quality and threaten the achievement of SDG 4, which aims for inclusive, equitable, and quality education for all. Addressing these issues requires comprehensive policy interventions and targeted investments.

The third article expands on the critical discussion of gender disparities in education and employment in the Caribbean. Women and girls have greater participation in secondary and tertiary education and excel academically but face higher unemployment. Policies must address these gender imbalances to ensure sustainable growth and workforce productivity. These imbalances contribute to high youth unemployment and skill mismatches. Quality education and gender equality, intended to empower women and girls and improve education access, is therefore central to the SDG agenda.

The fourth article makes a case for three key aspects of education reform in the Caribbean to bridge gaps in the skills of the workforce and those in demand in the labour market. These reforms include updating outdated curricula to align with industry needs, expanding TVET programmes and internship opportunities, and integrating digital competencies essential for the modern economy in educational learning outcomes.

Additionally, efforts to ensure gender-responsive policies and strategies are crucial to avoid reinforcing traditional gender roles in education that put women and girls at a disadvantage in their career. By adopting competency-based education, enhancing industry engagement, and mainstreaming digital literacy, the Caribbean can improve educational outcomes, aligning them with contemporary economic demands for sustainable and inclusive economic growth.



I trust that you will enjoy reading these articles and that you will find them informative. We count on you as education stakeholders to support the reform of the education sector to build productive human capital, achieve meaningful gender parity, and ready the workforce for the demands of the modern economy— nationally, sub-regionally, and globally.

Yours in focus,

Dinne Quarless



DEFICIENCIES IN EDUCATION HINDER LABOUR PRODUCTIVITY IN THE CARIBBEAN

Daniel Leon*

Labour productivity is an important cornerstone of the modern economy. Increasing labour productivity is essential for countries to maintain economic growth, a crucial factor for achieving several sustainable development goals (SDGs), including eliminating poverty and hunger and promoting decent work (SDGs 1, 2, and 8). Unfortunately, available data show that labour productivity has recently declined or stagnated in most Caribbean countries.

Arguably, deficiencies in the education system are a factor in the poor labour productivity of the subregion. These deficiencies, such as poor educational attainment and skills mismatch, resulting in poor quality of output, even as the number of school leavers and graduates increases, ultimately resulting in relatively low human capital, which hinders labour productivity in the Caribbean.

Table 1 shows the labour productivity levels of 14 Caribbean countries from 2015 to 2020. These countries account for about 95 per cent of the Caribbean population, and the figures show that labour productivity levels stagnated or decreased in 11 of 14 Caribbean countries. Only the Dominican Republic, Guyana, and Saint Vincent and the Grenadines buck the subregional trend. Labour productivity levels also declined in most of these countries from 2019 to 2020, but this one-year change was due to the negative economic effects of COVID-19-related restrictions.

Nevertheless, the Caribbean trend of stagnating or declining labour productivity is evident, and the causes go beyond the global COVID-19 pandemic. For instance, the subregion has not recovered from the 2009 global financial crisis. Interannual credit growth to the private sector, which was in the double digits during the 2000s, dropped to zero in 2009 and stayed at an average of under five per cent in the years since (ECLAC, 2022). Relatively lower credit available to the private

Table 1 Labour productivity level from 2015 to 2020
(GDP per hour of employment, constant 2015 US\$)

Country	2015	2016	2017	2018	2019	2020
Bahamas	1560	1540	1507	1518	1529	1360
Barbados	966	947	966	963	979	942
Belize	356	341	326	331	348	328
Cuba	422	423	429	440	440	438
Dominican Republic	423	440	450	468	484	553
Guyana	418	434	450	456	453	729
Haiti	92	92	92	92	89	92
Jamaica	280	271	265	264	257	258
Saint Lucia	567	571	576	580	559	463
Saint Vincent and the Grenadines	458	478	487	502	505	526
Suriname	580	543	543	562	562	515
Trinidad and Tobago	1000	948	902	879	873	906

Source: ECLAC based on ILO (ILO, 2023) and World Bank (2023) data.
Note: Labour productivity level was computed by dividing total GDP at constant 2015 USD by the total weekly hours worked annually of employed persons.

sector can reduce labour productivity as the lack of credit to private firms reduces their ability to invest in expanding their businesses. An expanding private sector creates jobs and encourages firms to offer improved wages to attract and keep talented workers, thus promoting labour productivity (Franklin, Rostom, and Thwaites, 2019). However, the quality of the workforce is, perhaps, the most crucial factor accounting for long-term labour productivity. The role of education in boosting labour productivity assumes particularly elevated importance given the Caribbean's attempt to position itself in the capital-intensive knowledge economy.

Evidence suggests that educational attainment in the Caribbean is not translating to human capital at a competitive level when compared to other world regions. Table 2 provides

the World Bank's Human Capital Index (HCI)¹ for 11 Caribbean countries in 2020. The Caribbean subregional average of the HCI (0.55) is just below the global average of 0.56. The Caribbean average is comparable to the regional averages of Latin America and the Caribbean (0.56) and the East Asian and Pacific (0.58), another region with multiple Small Island Developing States (SIDS). However, in the Caribbean, the high-income countries (Antigua and Barbuda, Saint Kitts and Nevis, and Trinidad and Tobago) show an average HCI of 0.60, much lower than the global average of 0.71 for high-income countries. A deeper examination of selected components of the HCI reveals that human capital deficits do not come from insufficient years of schooling.

The Caribbean's average expected years of schooling in 2020 were about 12.3

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¹ The World Bank's Human Capital Index is a parameter comprising a diverse range of data on years of schooling, harmonized test scores of schoolchildren, plus demographic and socioeconomic indicators to compare human capital formation among countries.

years, one year above the global average (11.3) and on par or ahead of East Asia and the Pacific (11.9), Latin America and the Caribbean (12.1), and the upper-middle-income group of countries (11.8). On the contrary, the subregional average of 391 for the harmonized test scores was lower than the global average of 423. Only Trinidad and Tobago, with a score of 458, showed harmonized test scores higher than the global average, evidencing that the subregion is generally underperforming in its human capital formation (see table 2).

The Caribbean has substantially reduced gender disparities in education, particularly in secondary and tertiary level enrolment. For example, since 2017, twice as many women as men have enrolled in the regional university, the University of West Indies (Abdulkadri and others, 2022). However, the human capital that generates a skilled workforce that productively contributes to the emerging knowledge economy in the Caribbean involves more than just school attendance. The average years of education citizens receive only boosts a country's labour productivity when learning translates into marketable and productive skills.

Furthermore, Caribbean business executives have reported deficiencies in the subregion's human capital formation. Their perception of the competitiveness of Caribbean businesses relative to other countries placed the subregion's industries around the median global competitiveness score. Mediocre competitiveness perceptions by business executives help showcase the mismatches between workforce skills and industry demands (ECLAC, 2020). Moreover, about 40 per cent of the subregion's business executives reported that their enterprises had fallen behind in attracting or training workers with an adequate set of ICT skills for the digital era, which also speaks to the skills mismatch between the workforce and industry (PwC, 2021).

Meanwhile, Caribbean men and women with marketable skills continue to seek work opportunities abroad in the high-wage countries of the Global North. In 2020, Caribbean people living outside

their home country equalled about 21 per cent of the total subregional population. About 80 per cent of Caribbeans living abroad resided in North America and Europe, with women more likely to be migrants than men (Leon and Abdulkadri, 2024). The emigration of skilled workers benefits Global North countries at the further expense of Caribbean labour productivity since it leads to brain drain. The fact that Caribbean women are more likely to migrate to the Global North than men further produces brain drain, as women from the subregion are more likely to attend tertiary education than men (Abdulkadri and others, 2022).

Improving the quality of output from Caribbean educational institutions and particularly addressing skill mismatches will be key to producing human capital that positively contributes to the labour productivity of the Caribbean.

Skill mismatches are prevalent in Caribbean labour markets, hampering labour productivity and economic growth. The outcome of depressed economic growth further encourages skilled Caribbean men and women to seek economic opportunities abroad, thus making the negative relationship between labour productivity and brain drain a vicious cycle. Addressing the challenge of increasing the quality of education and matching the skills acquired in schools and universities relevant to the Caribbean labour markets will be crucial to boosting labour productivity in the subregion. ■

Table 2
World Bank's Human Capital Index (HCI) 2020 and selected indicators for the Caribbean
(Constant 2018 prices in dollars and percentages)

Country	Income Group	Expected Years of School	Harmonized Test Scores	HCI 2020
Antigua and Barbuda	High income	13.0	407	0.60
Dominica	Upper middle income	12.4	404	0.54
Dominican Republic	Upper middle income	11.9	345	0.50
Grenada	Upper middle income	13.1	395	0.57
Guyana	Upper middle income	12.2	346	0.50
Haiti	Low income	11.4	338	0.45
Jamaica	Upper middle income	11.4	387	0.53
Saint Kitts & Nevis	High income	13.0	409	0.59
Saint Lucia	Upper middle income	12.7	418	0.60
Saint Vincent & the Grenadines	Upper middle income	12.3	391	0.53
Trinidad & Tobago	High income	12.4	458	0.60

Source: ECLAC based on World Bank (2022).

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ASSESSING THE MAIN BARRIERS TO STUDENT SUCCESS IN THE CARIBBEAN

Nicholas A. Wright*

Education plays an important role in facilitating economic development, social mobility, and individual empowerment. In the Caribbean, providing high-quality education for all students remains a top priority for policymakers and educators. However, despite efforts to improve educational outcomes at the secondary level, students continue to face numerous challenges that impact their academic performance and hinder their ability to reach their full potential.

These factors can be broadly grouped into three categories: (i) a shortage of qualified teachers, (ii) underinvestment in education, and (iii) cultural norms that create barriers to student learning. Together, these persistent challenges lower the quality of education and pose a serious threat to student success and outcomes later in life. They also constitute barriers to the achievement of Goal 4 of the Sustainable Development Goals (SDGs), which is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

The shortage of qualified teachers, particularly in science, technology, engineering, and mathematics (STEM) subjects, is a significant impediment to students' academic success in the Caribbean (Christopher, 2024; Francis, 2024). These shortages are primarily due to a steady migratory flow of educators from the Caribbean to developed countries pursuing higher wages, better working conditions, more institutional support, and greater access to career growth opportunities.¹ In this respect, the Caribbean has long been perceived as one of the preferred suppliers of teachers to the international market (Romero & Cegarra, 2023; IOM, 2023; UNESCO, 2024). An immediate implication of this brain drain is that many schools in the Caribbean struggle to hire enough trained teachers to satisfy their staffing needs adequately. As such, some schools are forced to adapt by hiring untrained teacher substitutes, pre-trained graduate

teachers, merging classes, using pre-recorded lessons, or removing some subjects from their Caribbean Secondary Education Certificate (CSEC) curriculum (UNESCO, 2024). The result is larger class sizes, less-than-ideal teacher-student ratios, and reduced individualized attention for each student. The COVID-19 pandemic has only exacerbated the teacher shortage in the subregion, pushing teacher attrition rates to an all-time high. The mass exodus of talented teachers not only exacerbates existing educational disparities but also undermines an ongoing effort by policymakers to foster a skilled workforce capable of driving economic growth and innovation in the subregion.

Another key challenge facing students in the Caribbean is the limited availability of educational resources. Many schools in the subregion grapple with inadequate funding, infrastructural deficiencies, outdated textbooks, and the lack of essential equipment. Students attending schools with limited resources may lack access to modern technology, science laboratories, field trips, and extra lessons. This hampers their ability to engage in experiential learning and hands-on activities that foster critical thinking and problem-solving skills. In addition, the disparity in resource allocation between urban and rural schools exacerbates inequalities in educational opportunities. The Education 2030 Framework for Action, adopted by 184 UNESCO member states in 2015, establishes that the ideal benchmark

for education spending is about 4 to 6 percent of GDP or 15 to 20 percent of total public expenditure (UNESCO, 2024). However, World Bank data show that in the Caribbean, education spending is at the lower end or below these ideal benchmarks, with average education spending of about 4.1% of GDP and 8.6% of total public expenditure. In addition, over 60% of Caribbean countries missed at least one of these spending benchmarks. This inadequate government investment in education creates a vacuum and students are the ones who ultimately bear this burden.

However, considering the significant presence of low-income households across the Caribbean and insufficient private investment in education, public investment plays a crucial role in assisting individuals to attain the socially optimal level of education.

Lastly, cultural norms and societal expectations can create barriers that influence students' educational aspirations and opportunities (Wright, 2024). For instance, gender norms may shape students' perceptions of their capabilities and career options, leading to disparities in educational attainment. Boys, for example, may be discouraged from pursuing careers in fields that are traditionally associated with women, which limits their academic and professional options. In addition, since boys who achieve academic success are perceived as less masculine in some Caribbean

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¹ High attrition rates are concerning because it is the most experienced and highly trained teachers who are most likely to secure opportunities abroad.



countries, this may pressure young men to devote less time to their academic pursuits to avoid the negative stereotypes associated with academic success (Cobbett & Younger, 2012). Similarly, girls may face barriers to pursuing certain STEM subjects or non-traditional career paths due to cultural stereotypes and biases. Using data on Jamaican students who sat CSEC exams between 2009-16, Wright (2024) documents the gaps in student performance across gender. This information is summarized by subject type in Table 3 below. The table shows that (i) female test-takers outperformed their male counterparts across all subject

categories, except for mathematics, where there was gender parity in exam performance, and (ii) female students were more likely to write the examination for each subject type by about a two to one margin, except for engineering and technology where male students held the advantage. Wright (2024) shows that these trends significantly impact students' later life outcomes, such as the likelihood of enrolling in college. As such, addressing these cultural barriers and promoting inclusivity in education is essential for ensuring equitable opportunities for all students in the Caribbean.

IMPACT ON STUDENT PERFORMANCE

The challenges outlined above have significantly diminished the quality of education in the Caribbean, directly impacting student performance.

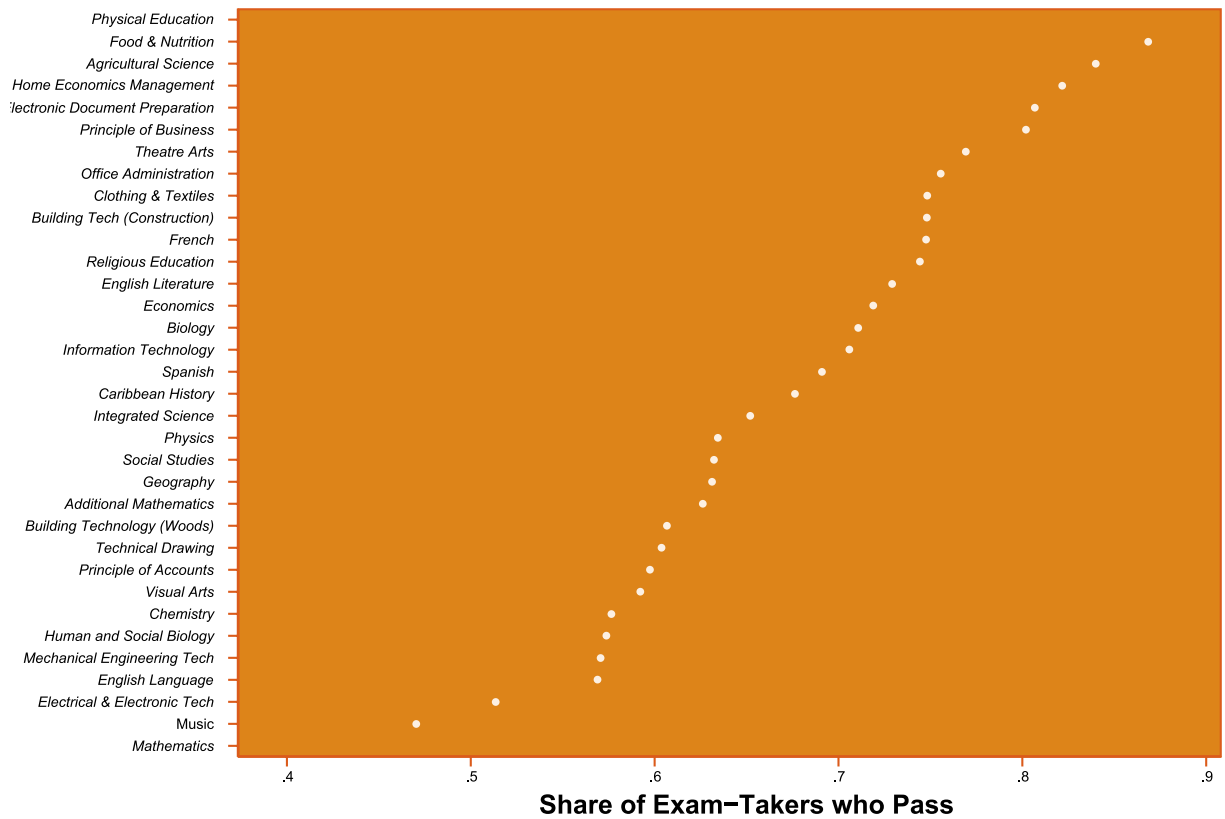
The underinvestment in education, compounded by teacher shortages, cultural gender norms, and large class sizes, have resulted in students falling short of their true academic potential. This stark reality is evidenced by Figure 1, which illustrates that in about one-half of the CSEC subjects for

Table 3
Gender Gap in CSEC Performance among Jamaican Students (2009-2016)

CSEC Subjects	Examination Pass Rate			Female Share of Exam Takers
	Male	Female	Female Advantage	
Science	59.2%	63.7%	+4.5%	60.1%
Math	38.74%	38.3%	-0.4%	60.1%
Engineering and Technology	62.2%	72.7%	+10.5%	36.8%
Nutrition and Sports	75.2%	83.6%	+8.4%	69.1%
Business	69.8%	75.3%	+5.5%	65.9%
Arts	59.5%	70.7%	+11.2%	64.3%
Languages	49.9%	63.9%	+14%	60.4%

Source: Wright (2024).

Figure 1
Pass Rate by CSEC Subject for Jamaican Exam-Takers (2009-2016)



Source: Wright (2024).

² This could include student loan forgiveness, like the incentives offered to some public sector workers in the US.

which data were available, less than two-thirds of exam takers passed the exam. Moreover, core subjects such as Mathematics and English Language had pass rates of approximately 38.2% and 56.9%, respectively. These statistics underscore the urgent need for a concerted effort to address the systemic issues plaguing education in the subregion.

FINDING A SOLUTION

A comprehensive approach that includes more empirical research, policy interventions, and targeted investments is needed to improve education in the Caribbean.

Firstly, addressing teacher shortages entails implementing strategies to improve teacher retention through competitive salaries, supportive working environments, and professional development opportunities. Governments should also implement measures to stem the outflow of talent, such as offering incentives for teachers to remain in the subregion.² Furthermore, to improve educational resources, it is essential for policymakers to allocate adequate funding while emphasizing the modernization of school infrastructure and technology, updating textbooks, and supplying essential materials to all schools, regardless of their geographical location. A great starting point is for each Caribbean country to meet or

exceed UNESCO's recommended spending benchmarks for education to ensure sufficient resources are available for schools. Lastly, tackling cultural barriers requires promoting inclusivity and diversity in education, challenging gender stereotypes, and fostering an environment where all students feel empowered to pursue their academic and career aspirations through their life cycle without facing discrimination. A collaborative approach is needed between policymakers, educational institutions, civil society organizations, and international partners to implement these recommendations effectively. ■

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ANALYZING GENDER DISPARITIES IN EDUCATION: A NECESSARY STEP FOR ACHIEVING SUSTAINABLE DEVELOPMENT IN THE CARIBBEAN

Candice Gonzales and Iskuhi Mkrtchya*

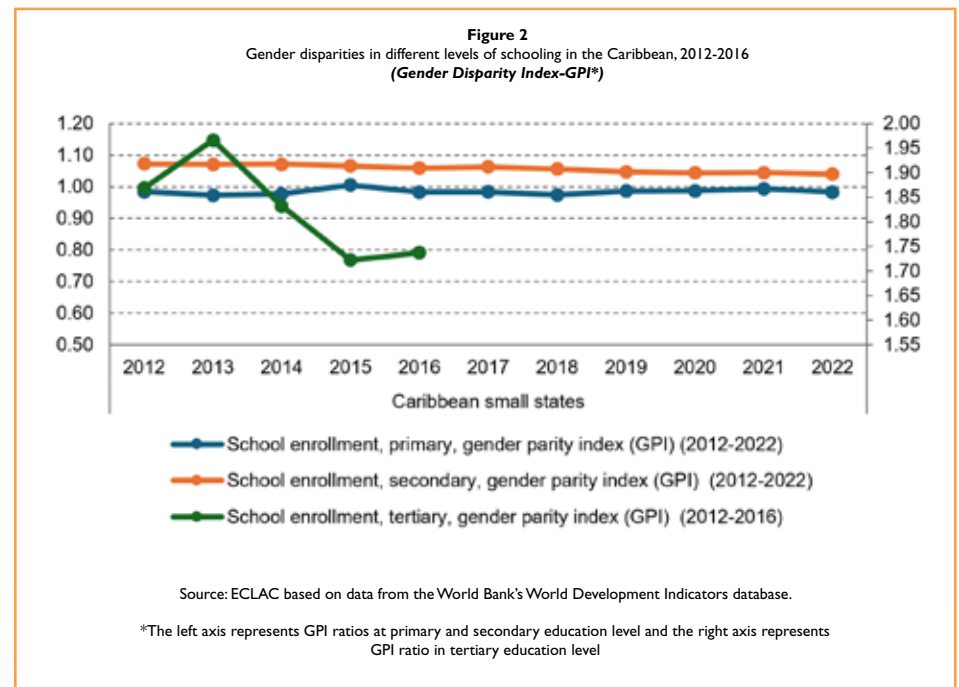
The Caribbean has always placed importance on quality education as evidenced by the significant output of tertiary-level professionals such as teachers and medical experts that occupy in-demand jobs in the subregion and Canada, the United Kingdom and the United States of America.

However, in more recent times, the educational system has come under increased scrutiny, as Caribbean economies have recorded sluggish economic growth and diminished competitiveness, attributed to a perceived mismatch between labour supply and demand and insufficient skill levels. Moreover, unemployment remains high among youth, with a clear gender disparity that disadvantages girls and young women.

THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

The 2030 Agenda for Sustainable Development addresses both quality education and gender equality which suggests that realizing gender equality and empowering women and girls will make a crucial contribution to progress across all the goals and targets.¹

SDG 4 seeks to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. At the same time, SDG 5 speaks directly to gender equality and underpins the notion that gender equality is not only a fundamental human right but a necessary foundation for a peaceful, prosperous and sustainable world. Target 4.3 of the SDGs: “By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university;” Target 4.4: “By 2030, substantially increase the



number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship;” and Target 5.5: “Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life;” all recognize that gender equality is inextricably linked to efforts to promote the right to education and ensure that girls and boys, women and men are equally empowered in and through education.

However, reality has shown that gender disparities in access to quality education, educational achievements, and opportunities for decent employment exist in the Caribbean. In these circumstances, girls and boys will not realize their full potential, and the empowerment of women and girls will likely suffer a setback.

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¹ 2030 Agenda in Latin America and the Caribbean Regional knowledge management platform. See: <https://agenda2030lac.org/en>

ANALYZING THE CARIBBEAN GENDER DISPARITIES IN EDUCATION ENROLMENT AND ACADEMIC PERFORMANCE

In a recent study², ECLAC examined trends in gender disparity in both education and employment and advanced two main premises. The disproportionately high level of unemployment among young women despite their higher participation and attainment rates in tertiary education suggested that their educational participation and attainment have not translated into increased labour force participation.

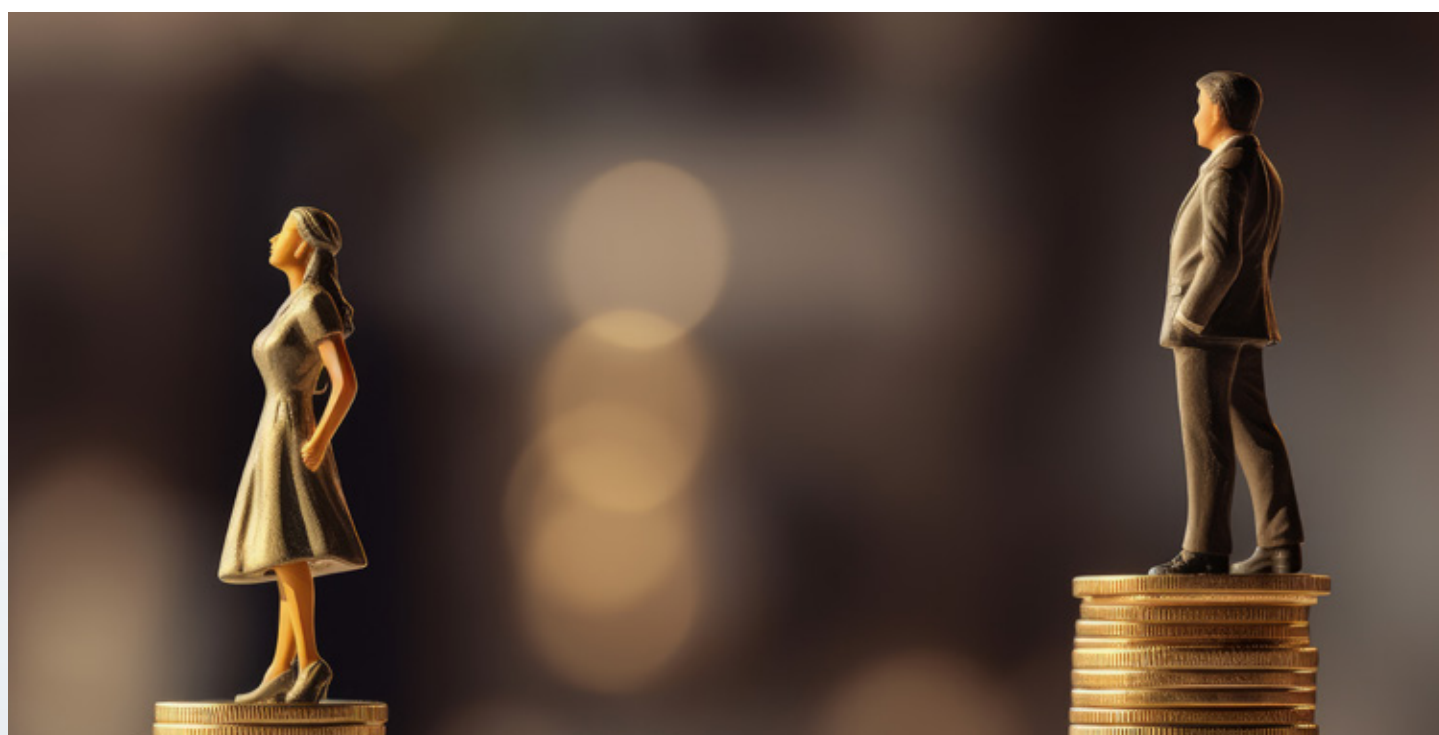
Conversely, the underperformance of boys in the education system, especially at the primary and secondary school levels, has had implications for their participation in tertiary education.

Data on enrolment rates across the Caribbean for the period 2012-2022,³ showed that there were similarly high enrolment levels for both female and male students at the primary education level with no significant gender disparity. In contrast, secondary education enrolment was higher among girls than boys over the same period. Further analysis of secondary school enrolment data revealed general gender parity at the lower secondary level but disparity in favour of girls at the upper secondary level (see Figure 1). Girls attended upper secondary education at a relatively higher level than boys by 20 per cent in 2010, although this disparity narrowed to 14 per cent by 2019 (ECLAC, 2022). These results suggested that girls stayed longer in school or returned to school for remedial studies at a higher rate than boys.

Men's enrollment in tertiary level education was noticeably lower than

that of women. In 2016, about 30 per cent of women, compared to almost 17 per cent of men in the Caribbean were enrolled in tertiary-level education (see Figure 2). On average, close to twice as many women compared to men enrolled at The University of the West Indies (UWI) across all three campuses (Cave Hill, Mona, and St. Augustine).

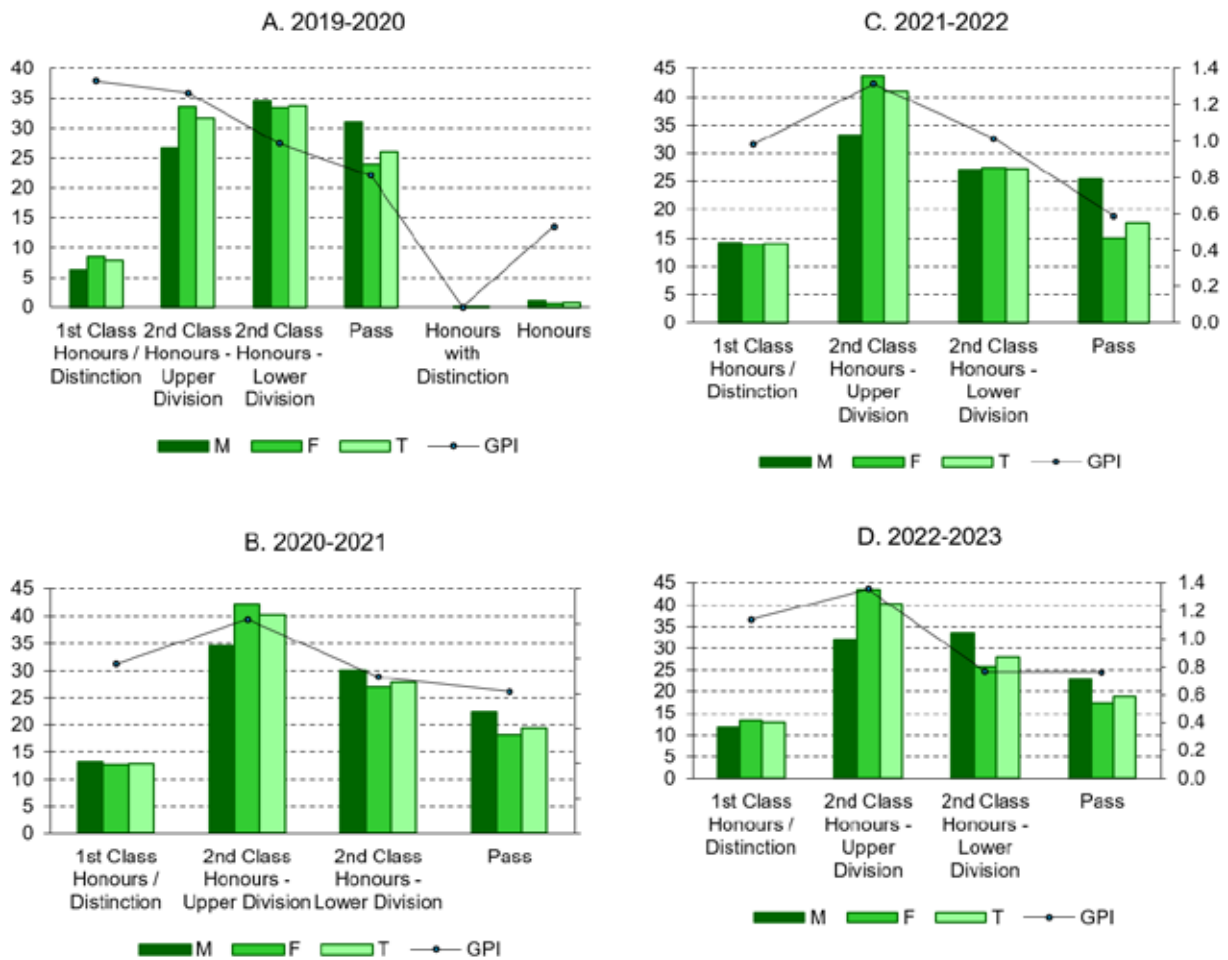
During the period 2010-2012, the Gender Parity Index (GPI) in tertiary education enrolment was approximately 2, indicating that in relative terms, women attended tertiary institutions at a rate that was twice that of men. By 2016, the GPI improved to about 1.75. Furthermore, while enrolment was lower for males across campuses, the gender parity indices revealed male biases towards STEM-related fields like science and technology, engineering and sports (ECLAC 2022).



² A. Abdulkadri and others, "Addressing gender disparities in education and employment: a necessary step for achieving sustainable development in the Caribbean", Studies and Perspectives series-ECLAC Subregional Headquarters for the Caribbean, No. 109 (LC/TS.2022/114, LC/CAR/TS.2022/3), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2022.

³ This article presents an update to the data used in the ECLAC study where available

Figure 3
Gender disparities in academic performance at the Mona Campus, University of the West Indies
(Percentages and Gender Parity Index-GPI)



Source: Annual reports on Student Statistics published by The Office of Planning and Institutional Research, UWI Mona.
Note: The left axis represents enrolment in percentage and the right axis represents GPI in ratio.

In terms of academic performance in secondary education, data from the Caribbean Examination Council (CXC), the Caribbean Secondary Education Certificate (CSEC) and the Caribbean Advanced Proficiency Examination (CAPE) from 2012 to 2019 showed that boys performed better than girls in CSEC Mathematics, while girls outperformed boys in CSEC English Language and CAPE Pure Mathematics, and Literature in English Unit 1. Across the Caribbean, the general trends showed that girls dominated secondary education and outperformed boys in

science, technology and engineering subjects, as well as social sciences and humanities subjects. CAPE Chemistry was the only subject in which boys performed better than girls.

Indicators of academic performance in tertiary education from 2020 to 2023 at the Mona Campus of The University of the West Indies showed that women dominated men in receiving First and Second-Class Honours (Upper Division) degrees (see Figure 3). Proportionally, women received more First and Second-Class Honours (Upper Division) degrees than men across the Law, Medical

Sciences, Social Sciences and Science and Technology faculties. Engineering was the only faculty where more men, in relative terms, gained degrees in the Second-Class Honours category than women.

CARIBBEAN GENDER DISPARITIES IN THE LABOUR MARKET

While Caribbean countries continued to perform well in providing girls and boys equal access to primary and secondary education, the data showed that girls were accessing upper

secondary education at much higher rates than boys, and men were still lagging in attaining tertiary education. However, despite these educational disparities, young men tend to fare better in the labour market than their female counterparts.

The unemployment rate of young women is particularly high although they have dominated the student population across the university campuses throughout the Caribbean and have been outperforming young men. Subregional data showed that in 2016, one-third of females aged 15-24 who were actively seeking employment remained unemployed, compared to only one-fifth of their male counterparts in the same age group (ECLAC, 2018). These data indicate a significant gap between educational attainment, economic opportunities, and decent work for girls and women. While this situation has traditionally been attributed to the choice of academic discipline that girls pursue, the data from the ECLAC study revealed that not only were girls studying and excelling in subjects like additional mathematics, agricultural science, and physics- deemed to be traditionally “boys’ turf,” they were also studying and excelling in newer subjects such as information technology; courses that drive innovation and competition in the modern economy.

On the other hand, the education system is either failing the boys or not incentivizing them enough. Either way, boys are increasingly being left behind in attaining quality education that is essential for decent work and livelihood in a world that is rapidly becoming knowledge-based. In several member States, this issue has become a concern for national development. For example, in the National Economic and Social Development Plan 2013–2025 of Saint Vincent and the Grenadines, gender issues were highlighted as impediments to national development

and flagged as a challenge based on the unequal performances of boys and girls in the English language and mathematics examinations at the CSEC level. Similarly, Antigua and Barbuda placed particular emphasis in its Medium-Term Development Strategy on the underperformance of males within society, academically and in the workplace.

CONCLUSION

Policies are urgently needed to address the existing labor market imbalance through legislation and enforcement. Furthermore, measures must be implemented to ensure the full and effective participation of women and girls in all aspects of life through measures that enable women to pursue and thrive in their chosen careers without having to choose between family and work. Moreover, equal attention should be given to the promotion of “leaving no boy behind,” as fewer boys are pursuing education beyond the lower secondary education level, and when they do, they are academically underperforming. This situation holds significant implications for future labour productivity and the sustainable growth and competitiveness of Caribbean economies.

Without equitable employment opportunities for qualified women and girls, despite their larger representation in the potential workforce, and if boys continue to drop out of school early and maintain mediocre performance during their education, the skills gap within the Caribbean workforce will inevitably widen. This skills gap, in turn, will impede labour productivity and hinder overall economic progress, presenting a formidable obstacle to achieving the goals outlined in the 2030 Agenda for Sustainable Development. Urgent and intentional measures are necessary to empower women and girls to reach their maximum potential and ensure that boys are not left behind during this critical

Decade of Action. ■

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POLICY IMPERATIVES FOR EDUCATION REFORMS IN THE CARIBBEAN

Daniel Leon



The Caribbean records a higher level of educational participation than the global average. The average years of schooling in the Caribbean was 12.3 years in 2020 compared to the global average of 11.3 years in the same year (World Bank, 2022).

If the quality of education offered in Caribbean schools and training institutions were at least on par with the global average, then products of Caribbean educational system must have better skills than an average worker. However, a survey of over 1800 Caribbean business managers in 2016 found that about one-third cited insufficient technical skills and competencies of the local labour force as a substantial or severe obstacle to business productivity (Dohnert, Crespi, and Maffioli, 2017).

The skills mismatch between Caribbean students and those demanded by local industries is particularly substantial regarding science, technology, engineering, and mathematics (STEM) skills, such as information and communications technology (ICT). Local industries require a workforce with these skills to stay competitive in the modern global economy. In the early 2000s, CARICOM (2005) identified that educational institutions were not equipping workforces to the changing nature of employability and the decline of low-skilled jobs in favour of higher-skilled ones, calling for education reform to meet the demands of the modern economy. Since then, international cooperation and subnational stakeholder engagement have characterized education reform strategies in the subregion that were aimed at adapting the workforce to the rapidly changing business realities (Jules and Williams, 2015).

Education reform in the Caribbean

must be predicated on critical policy imperatives. Caribbean educational institutions must undertake curricula review to ensure that students gain relevant and useful knowledge that equip them with functional skills that are in demanded in the labour market. Reducing skills mismatches in the subregion also requires mainstreaming TVET and internships in educational programmes, thus providing students and learners with the opportunity to integrate classroom learning with on-the-job learning whilst still in school. Given the global advancement in digital technology, mainstreaming digital competencies in school learning outcomes becomes a must in any education reform effort.

The skills mismatch between the competencies that graduates and school leavers possess and those that industries demand can be linked to outdated curricula and pedagogies that favour memorization and reproduction as opposed to impacting knowledge and its application. Caribbean policymakers have also highlighted the lack of technical and vocational training in educational curricula as a cause for the skills mismatch (Dohnert, Crespi, and Maffioli, 2017). It is noteworthy that the CARICOM (2017) Human Resource Development 2030 Strategy aims to create a seamless and holistic human capital development model from early childhood education to tertiary education to modernize school curricula. Central to this strategy is introducing competency-based education and training (CBET) where educational organizations gear learning

and examinations to standardized educational outcomes. This approach uses the CARICOM Qualifications Framework (CQF) to standardize these educational outcomes. Moreover, the CBET approach promotes academic education and technical and vocational skills training, thus systematizing a lifelong learning synergy from the school to the workplace (ECLAC, 2018). However, stakeholder engagement is critical to define and periodically update the competencies taught by educational institutions, particularly at the secondary and tertiary level, so that the skills of the graduates match industry demands.

Furthermore, experimenting with alternative and disruptive forms of learning can complement curricula modernization and advance CBET strategies, such as open schooling and distance learning models (ECLAC, 2018). Open schooling integrates students' creativity and innovation by exploring different subjects and learning approaches. Crucially, these approaches can be economically efficient, as they require less intensive involvement of teaching staff and can be operated with minimal physical infrastructure.

A way to address the skills mismatch between secondary school leavers and graduates of tertiary level institutions in the Caribbean is for educational institutions to instil the skills in demand by the labour market through technical and vocational education and training (TVET) and internship programmes. Countries in the Caribbean are mainstreaming these programmes in

their education reform strategies. For example, Jamaica aims to integrate TVET programmes at the secondary and tertiary levels to equip students with in-demand skills, allowing the future workforce to contribute to the development of the country directly (OPM, 2021). Central to this strategy is the aggressive marketing of TVET programmes promoting them as viable career paths for students. The revitalization of TVET at all education levels is also central to the education reform policy of Trinidad and Tobago (GoRTI, 2023). This policy, which covers the period 2023-2027, aims to make TVET the main education choice for students and learners through effective quality assurance frameworks, promoting a workforce with the skills needed for the modern economy. Similarly, the white paper on education reform in Saint Kitts and Nevis (GoSKN, 2009) established TVET as central for post-secondary education.

However, a major gap in the Caribbean strategies for integrating TVET into education reform is the lack of gender-sensitivity. Although the Jamaican strategy on education transformation acknowledges the gender disparity in tertiary education enrolment as 69% of Jamaican students in 2021 were women (OPM, 2021), the education reform strategies of Jamaica, Trinidad and Tobago, and Saint Kitts and Nevis highlighted in this article did not elaborate a plan to incentivize girls and women to consider enrolling in TVET programmes and in careers that are in high demand but traditionally thought of as male-centric. The lack of gender-responsiveness in education reform strategies risks reproducing traditional career stereotypes of boys and men choosing more technical career paths, which happen to be in greater demand and commanding higher remuneration, potentially putting girls and women at greater disadvantage in the labour market in terms of access to decent work and liveable wages.

Public-private partnerships are central to the success of TVET programmes and in nurturing functional skills in students

of traditional educational institutions, especially through the promotion of internships that provide students and learners with practical work experience. The education reform strategies of Jamaica, Trinidad and Tobago, and Saint Kitts and Nevis envision internship programmes so students can gain valuable work experience in local industries that complement their vocational and technical training. Public-private partnerships are critical for creating sufficient internship opportunities and enriching learning experience for students. These partnerships also serve as a means of continuously updating educational institutions on the skills demanded by employers through the feedback received from students returning from internships, thus reducing skill mismatches between the workforce and industries in the subregion.

Equipping students and learners with the skills in demand because of the global digital transformation is an imperative for education reform in the Caribbean. ICT skills and digital literacy are central competencies for the CBET approach, aiming to increase the match of student skills and industry demands. Jamaica has developed plans to mainstream digital transformation in education, highlighting the digital playground and digital literacy as central pedagogical tools at all levels (OPM, 2021). Of particular importance is the need to incorporate contract teachers for science, technology, engineering, and mathematics (STEM) at the secondary and tertiary levels to tackle shortages of qualified teachers, particularly for these technical subjects that prepare students to find employment in the modern economic landscape. Trinidad and Tobago is mainstreaming the digital transformation in its education reform strategy by increasing digital inclusion and literacy in society and promoting online education and lifelong learning of digital technologies. Digitalizing the provision of educational services and human resource procedures in educational institutions and reforming school curricula to mainstream digital education are also key pillars of its

education policy.

Overall, while the Caribbean boasts relatively high schooling rates, high unemployment reveals a stark skills mismatch between graduates and industry demands. Addressing this skills mismatch requires comprehensive education reform focused on modernizing curricula, integrating technical and vocational education, and mainstreaming competencies needed for the modern digital economy. Successful strategies include adopting competency-based education and training, fostering public-private partnerships, and ensuring gender parity in educational programs. By aligning educational outcomes with the demands of local industries and the global digital economy, Caribbean nations can enhance workforce readiness and drive sustainable and inclusive economic growth. ■

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