REPORT

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# CREATING A COMPETITIVE AND INNOVATIVE EDUCATION AND TRAINING SYSTEM IN CARICOM

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*This paper discusses whether the education and training system in CARICOM is meeting the social and economic needs of the region, and whether students are being prepared for 21st century society and the economy. It focuses on three key themes: the structure and content of modern education and training systems, and the relationship between education and training with employment in the 21st century.*

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## Key acronyms

| | |
|---|---|
| ADP | Adolescent Development Programme |
| CANTA | Caribbean Association of National Training Authorities/Agencies |
| CARICOM | Caribbean Community |
| CCYD | CARICOM Commission on Youth Development |
| CCSLC | Caribbean Certificate of Secondary Level Competence |
| CDB | Caribbean Development Bank |
| C-EFE | CARICOM-Education for Employment |
| CSEC | Caribbean Secondary Education Certificate |
| CSME | Caribbean Single Market Economy |
| CVQ | Caribbean Vocational Qualification |
| CXC | Caribbean Examinations Council |
| DFATD | Department of Foreign Affairs and Trade Development (Canada) |
| EFA | Education For All |
| EU | European Union |
| GCTVET | Grenada Council for Technical and Vocational Education and Training |
| GDP | Gross Domestic Product |
| ILO | International Labour Organization |
| LMI | Labour Market Information |
| NER | Net Enrolment Ratio |
| NTA | National Training Agency |
| NGOs | Non-governmental organisations |
| NSDC | National Skills Development Centre |
| NVQ | National Vocational Qualification |
| OECD | Organisation for Economic Cooperation and Development |
| OECS | Organisation of Eastern Caribbean States |
| SERVOL | Service Volunteered for All |
| TVET | Technical Vocational and Education Training |
| USAID | United States Agency for International Development |
| YTEPP | Youth Training and Employment Partnership Programme |
| UWI | University of the West Indies |
| WEF | World Economic Forum |

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## Executive Summary

Improving education is the cornerstone for improving lifelong opportunities for individuals, and an important policy instrument used to increase innovation and competitiveness. In modern economies, governments and industry need an education and training system that produces graduates with the skills needed to grow the local economy and to compete around the world.

This paper discusses whether the education and training systems in CARICOM is meeting the social and economic needs of the region, and whether students are being prepared for 21st century society and the economy. It looks in detail at three themes: the structure and content of modern education and training systems, and the relationship between education and training with employment in the 21st century.

While CARICOM has made good progress in ensuring that the objectives and characteristics of its education and training system align with 21st century practices, considerable work is needed to improve the structural elements of the systems as they relate to creative financing, modern governance and accountability, quality instructors/teachers, modern learning/training facilities, and functional labour markets. In fact, the region urgently needs to make improvements to its labour laws and regulations, and labour market policies and practices to facilitate the creation of sufficient and decent jobs that pay competitive wages.

Related to the content of the system, most Member States, with the exception of Dominica, Monserrat, and Suriname, have education- or training-specific policies and strategies that articulate a reasonably well thought out policy direction for their education sectors. Despite these policies, however, there has been slow progress in improving outcomes consistently across the region. Recognising that it can take decades to see concrete changes, the challenges faced by the region seem to lie with disciplined implementation steps and action plans rather than the existence of policies and strategies themselves.

One of the main policy and implementation challenges facing the region is the impact that the globalisation of education is having on migration out of the region. While brain drain is a natural by-product of globalisation, the phenomenon has challenged CARICOM's ability to see real improvements in regional development. A regional strategy to mitigate the effects of brain drain would make it more attractive for its students to access quality skills training and tertiary education at home, and for its graduates to access good paying local jobs.

Modern education and training systems need mechanisms and interventions that align education with employment. The region has been actively working to put in place the mechanisms and programmes to help graduates access viable employment opportunities. However, the effectiveness of these mechanisms varies considerably across the region. With the exception of the availability of internships and apprenticeship opportunities, further reforms are needed to curriculum design, labour market information, career and guidance counselling, and entrepreneurship to improve their effectiveness and help education and training be more aligned with 21st century practices.

Further, most Member States have several programmes, other than mainstream education, that provide opportunities for learners to access skills training. These programmes are making an important contribution to the ecosystem because they are providing an opportunity for learners who may not otherwise have access to education to develop employable skills. However, within each country, programmes tend to have overlapping training objectives, and some of the training offered is still too supply-driven rather than market-driven. Further, despite considerable work to promote TVET careers, there continues to be a stigmatisation of the TVET stream in some countries.

The paper concludes with a brief overview of some emerging sectors and jobs of the future for the region in renewable energy, construction and maintenance/repairs, tourism, and agriculture and food processing. These emerging sectors suggest that there is an opportunity to build on the rich tradition of education in the region and create a modern education and training system that aligns with these sectors.

The challenges associated with education and training reform are not stand-alone issues. The complexity of the issues is reflected in the interaction of this sector with the social development, employment, and economic development sectors. Changes or stagnation in one sector will inevitably have an impact on the others. The CARICOM's Human Resources Development Strategy for 2030 is an opportunity for Member States to work across the broader ecosystem and with partners to effect real and sustainable change that will carve out a competitive advantage for the region and serve it well into the 21st century.

# A. Introduction

Societies and economies need educated and skilled people to prosper in a global world. There is growing interest among policy makers to understand better the strategies and interventions governments, businesses and individuals need to develop 21st century skills for an increasingly globalised world. There is a need for "more relevant education and training to prepare young people for the world of work" (World Bank, Skills Challenges in the Caribbean, 2007).

This paper discusses whether the education and training system in CARICOM is meeting the social and economic needs of the region, and whether students are being prepared for 21st century society and the digital economy. It is one of four discussion papers commissioned by the CARICOM Secretariat to inform the research, analysis, formulation of recommendations, and drafting of a Human Capital Strategy for the region. The themes of the other papers are:

- Equity, access and relevance (Author, Dr. Glenford Howe)
- Quality assurance, standards, and certification (Author, Dr. Paula Daley-Morris)
- Financing education and training (Author, Claudette Russell)

The purpose of this paper is to put forward issues associated with creating a modern and competitive education and training system in CARICOM and to stimulate debate that will contribute to the development of a CARICOM Human Resources Strategy. It takes into consideration recent policies, strategies, and interventions, in the region and globally, that are being used to develop modern education and training systems, and puts them in the context of the economic future of CARICOM Member States.

The paper was informed by regional documents, literature, and online material authored by Caribbean experts and researchers as well as international experts and organisations. Many of these documents were prepared using interviews, engagement, consultations, surveys, evaluations and programme reviews. The types of documents reviewed include strategic plans, policy and research papers, and online content. It presents relevant international and national examples to guide policymakers in their deliberations for creating a modern and competitive education and training system.

The paper is organised in four sections. After this brief introduction, Section B: Background and Context outlines the social, economic, and political factors influencing education and training in the region, and provides a brief overview of its education and training ecosystem. It also provides a snapshot of the performance of the system from the perspective of access and outcomes. Section C: Analysis and Main Findings is the main body of the report that frames the scope of the research around three key themes: the structure of modern education and training systems, the content of the system including key interventions being implemented, and the relationship between education/training with employment in the 21st century. It proposes four emerging sectors and jobs of the future from a CARICOM perspective. Section D: Recommendations for Moving Forward summarises some lessons learned as well as four recommendations for the consideration of policy makers.

**Limitations and assumptions**

Throughout the paper, education and training focuses primarily on the elements of the system that contribute directly to skills or professional development, leading to employment. It recognises that while early childhood and primary education are part of the broader ecosystem, they will not be the focus of this paper.

The preparation of the paper was faced with several limitations and challenges. While much research has been done in the region on education and training, the reports and documents found often had outdated or incomplete data; the countries of the Organisation for the Eastern Caribbean States (OECS) are the exceptions. This made it difficult to substantiate some of the findings from the literature review. To address this challenge the author often had to mix and match data sources to find the fullest, most accurate picture of the performance of the system for all CARICOM Member States. An additional limitation was the lack of evaluations of programmes to determine and highlight promising practices.

Time and budget constraints also made it difficult to conduct interviews to corroborate the findings in discussion paper. This limitation was mitigated by ensuring that key findings in the paper were sourced by quality research produced using consultations with relevant stakeholders, and authored by renowned experts in the field.

## B. Background

Improving education is the cornerstone for improving lifelong opportunities for individuals, and an important policy instrument used to increase the competitiveness of Caribbean countries (The Economist, 2015). Higher levels of education and skills mean higher earnings, better health, more stable employment, and higher community and individual well-being.

In modern economies, businesses compete to attract skilled workers at home and abroad and to ensure their products and services are continually innovative. Governments and industry need an education and training system that produces graduates with the skills needed to grow the local economy and to compete around the world. When businesses cannot find the workers with the skills they need, their ability to grow, innovate, and stay competitive is limited. Further, every person deserves an opportunity to receive the education and training needed to reach their full potential and enjoy the full benefits of participating in society.

According to the World Bank, “many Caribbean countries already possess a number of the ingredients necessary to adapt to the challenges of the 21st century” (World Bank, Time to Choose, 2007). However, the ability of the region’s governments and industry to create competitive education and training systems is being affected by various external and internal factors.

### *B.1. Factors influencing education and training systems*

Several socio-economic factors affect education and training systems by playing an important role in influencing the context within which the system must function. Four such factors are highlighted in detail in this section, while a fuller set of factors is listed for reference.

**Social, economic, and political factors influencing the education and training system in CARICOM**

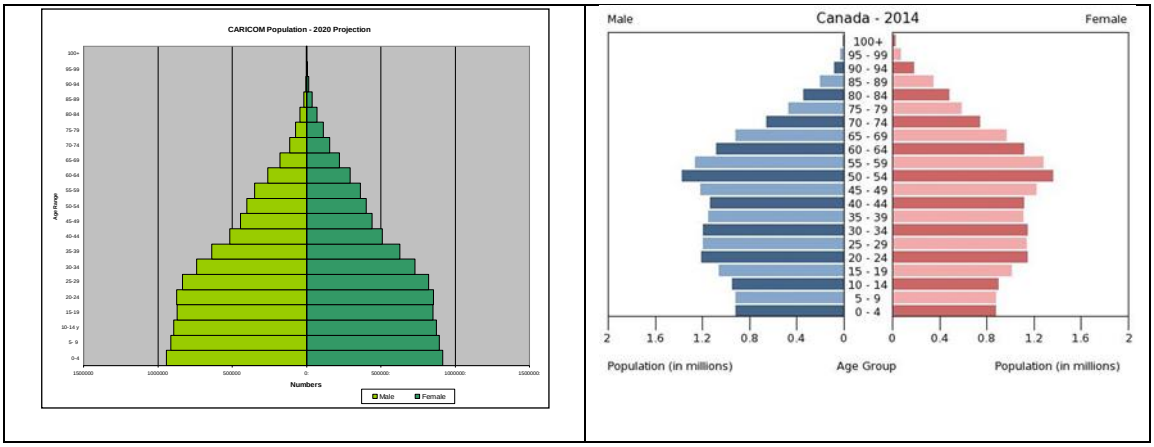
- Technological revolution
- Demographic profile
- Undiversified economies
- Geo-political environment
- Gender disparity
- Poverty
- Urbanisation

**Technological revolution**: We are at the beginning of a "Fourth Industrial Revolution" (World Economic Forum, 2016). Technological trends are bringing about an unprecedented rate of change in society and economies. In the Fourth Industrial Revolution (following steam, electricity and wired computers), jobs are evolving as technologies blur the lines between physical, digital and biological spheres, transforming entire systems of production, management and governance. The technological revolution has implications for what individuals learn, how they learn, and the jobs that will be part of the future. Further, developing nations have a better chance of catching up with more advanced economies when they have a stock of labour with the necessary education and skills to develop new technologies themselves or to adopt and use foreign technology (World Bank, Economic Returns to Investment in Education).

**Demographic profile:** The age of a population and workforce has wide-ranging and important effects on the economy and labour market. First, young populations have a direct impact on the supply side of the labour market. Secondly, young populations put pressure on public sector budgets, not only where schools and education are concerned, but also with regard to general supports to families as a whole. Thirdly, the dichotomy between young and growing populations of the developing world and the ageing populations of much of the developed world (Canada, the U.S., Japan, China, and Eastern Europe) puts pressure on the availability of skilled workers for local markets in the Caribbean (See Figure 1). "When new skilled labour is lacking in western societies, it creates a gap which is filled by immigration [and] creates a brain drain in lesser developed countries" (North, 2007).

However, it should be noted that the age structure of the Caribbean population will change considerably over the next 20 years. The number of people of working age (15-59) is expected to peak in the early 2020s before falling. And, "school rolls are already falling across the Caribbean due to population ageing" (Economic Commission for Latin America and the Caribbean, 2015).

**Figure 1: CARICOM Member States population distribution compared with Canada's population**




**Undiversified economies:** Most CARICOM Member States face formidable challenges associated with small developing states as they deal with the impact of globalisation. According to the Global Competitiveness Report produced by the World Economic Forum (WEF), countries in the region typically score poorly relative to other small economies and the rest of the world. The region generally lacks significant dynamic sectors that can compete internationally. And, it is home to large informal labour markets, mainly in low-level services. And, in Suriname's mining industry there is a large number of illegal miners. Undiversified economies result in limited employment opportunities unless economic and labour market policies are developed to mitigate those limitations. Also, the economies in these small developing states find it difficult to take advantage of economies of scale so the cost of delivering programmes tends to be high. This has implications for modernising education and training systems which must be made flexible enough to adapt to shifting economies, yet use opportunities for regional collaboration to leverage economies of scale.

**Geo-political environment**: There are strong traditions of democratic participation and political stability for most countries in the Caribbean, and a significant degree of regional integration at the geo-political level. Barbados, Dominica, St. Lucia, St. Vincent and the Grenadines, and St. Kitts and Nevis have the highest degree of electoral freedom rating in the Caribbean because of their strong democratic traditions.[1] Political stability is important because it contributes to a stable economic environment in which the public and private sector can create jobs, grow and be competitive. This is one area where CARICOM Member States have an advantage compared to other developing countries.

### *B.2. Brief overview of CARICOM's education and training ecosystem*

In the past, education was mostly used to prepare workers for the local economy. Today, not only are economies globally connected, but education itself is global. Students study outside their home countries, or workers seek employment opportunities outside their home economies thereby requiring

[1] Freedom House. https://freedomhouse.org/report/freedom-world/freedom-world-2016

global competencies. To understand the ability of CARICOM's education ecosystem to be competitive in a global world, it will be important to understand the structure and performance of the system.

Similar to other modern education systems, in CARICOM, education and skills training occur as school/institution-based learning, industry-based learning, dual school-industry learning, and informally. And, learning is provided by various levels of public and private/not-for-profit institutions, starting at early childhood centres, primary and secondary schools, vocational schools and, institutions, polytechnics, colleges, and universities. Regional differences lie in the relative distribution, type, and public-private involvement in education and training, which differ considerably from country to country within the region.

The ecosystem also includes several national and regional organisations that work as administrative, management, and oversight bodies; they include school boards, teachers' associations, parent-teacher associations and councils, examination councils, accreditation boards, national training agencies (NTAs) or TVET councils. These organisations generally provide a role for the key partners (state, industry, civil society, parents and students) in the design and structure of the ecosystem. For example, for most programmes in the region there is some involvement of the private sector to provide educational services, as well as on-the-job training, internships, or apprenticeships. The involvement of all partners in the design and functioning of education and training is a promising feature of modern education and training systems.

Also, international partners are an important element of the system. Indeed, "for more than three decades, the international donor community has supported Caribbean development" by playing a role in increasing enrolment in primary and secondary education (World Bank, Time to Choose, 2007).

The various roles of the region's education and training partners will be discussed further in Section C below in the context of how to modernise and improve the competitiveness of the system.

***Performance of students***

CARICOM Member States have a rich history of placing considerable importance on education. For example, in a 2013 survey in Jamaica, the majority of young students (58%) indicated that "university/tertiary level education was the highest level that they expected to complete, with another 22% expected to complete post-graduate studies, and 12% expected to complete some level of TVET" (ILO, 2013).

The education and training system of CARICOM has made significant progress in raising the per capita income of many citizens. A brief review of two key education indicators, net enrolment ratio (NER)[2] and CXC completion rates, demonstrates some of the progress and challenges the region faces to increase access and graduation rates.

All CARICOM Member States, with the exception of Haiti, have achieved, according to the UNICEF definition, universal access to primary education, and many are close to achieving universal access to

[2] NER is defined as enrolment of the official age group for a given level of education expressed as a percentage of the corresponding population from Census data.

secondary education (see Table 1). For example, available UNICEF data shows that in Suriname only 52% of male students and 63% of female students accessed secondary education from 2008-12, while Barbados had the highest NER in secondary school at 96%. Access to education has an impact on the competitiveness of the system because it reflects its ability to ensure that all citizens, regardless of socio-economic status, have the ability to contribute to economic growth. Access is discussed in more detail in Dr. Glenford Howe's discussion paper on 'equity, access and relevance'.

**Table 1: Enrolment and net enrolment ratio in public schools by level of education**

| Member State | Primary Enrolment | Primary NER | Secondary Enrolment | Secondary NER |
|---|---|---|---|---|
| Anguilla | 1,622 (2011/12) | n/a | 1,046 (2011/12) | n/a |
| Antigua and Barbuda | 10,059 (2013/14) | 86 (2008-11) | 7,752 (2013/14) | 85 (2008-11) |
| Bahamas | n/a | n/a | n/a | n/a |
| Barbados | 20,572 (2013/14) | 95 (2013/4) | 20,603 (2013/14) | 96 (2013/2014) |
| Belize | approx. 63,000 (2010) | 97 (2008-11) | approx. 15,000 (2010) | n/a |
| British Virgin Islands | 3,277 (2013/14) | 73 (2013-14) | 1,987 (2013/14) | 82 (2013-14) |
| Dominica | 7,695 (2013/14) | 98 (2008-11) | 5,658 (2013/14) | 80(m)/89(f) (2008-12) |
| Grenada | 12,981 (2013/14) | 88 (2013/4) | 9,707 (2013/14) | 96 (2013/14) |
| Guyana | 99,542 (2002) | 83 (2008-12) | 55,821 (2002) | 71(m)/81(f) (2008-12) |
| Jamaica | n/a | 95 (2001) 82 (2008-12) | n/a | 80(m)/87(f) (2008-12) |
| Montserrat | 439 (2013/14) | n/a | 343 (2013/14) | n/a |
| St. Kitts and Nevis | 5,426 (2013/14) | 87 (2008-11) | 4,370 (2013/14) | 84(m)/88(f) (2008-12) |
| St. Lucia | 16,268 (2014/15) | 94 (2013/4) | 13,081(2014/15) | 92 (2014/15) |
| St Vincent and the Grenadines | 13,427 (2013/14) | 97 (2013/4) | 10,342 (2013/14) | 90 (2013/14) |
| Suriname | n/a | 93 (2008-12) | n/a | 52(m)/63(f) (2008-12) |
| Trinidad and Tobago | 133,692 (2007) | 97 (2008-12) | 114,403 (2004) | n/a |

Sources: UNICEF webpage http://www.unicef.org/statistics/index_countrystats.html
OECS Education Statistical Digest, 2013/14
St. Lucia: Education Statistical Digest, 2014/15
Barbados, Education Statistics, 2013/14
UNESCO World Data on Education http://www.ibe.unesco.org/en/document/world-data-education-seventh-edition-2010-11

Also, a brief review of completion rates, where available, shows that of those students taking the CSEC exams, between 23 and 43% completed the exams with the required five subjects in 2013-14 (see Table 2), and girls are generally more successful at achieving this CXC standard.[3] This indicator is important because it reflects the best and the brightest students that the education system defines as being successful. This is not to suggest that those not acquiring this standard cannot access employment or

[3] Note however that, according to CXC, only 20% of people within the CSEC age cohort have access to these exams.

higher education. But, the system as it is currently designed enables less than half of its students to be recognised as having achieved full success. Further, this narrow definition of success is generally limited to those within a narrow socio-economic status (Downes, 2006; World Bank, 2012; ILO, 2013).

***Key finding:*** A competitive education system should cast a broader net to provide multiple pathways to success and opportunities for all students to move on to higher levels of education and training. It should be noted that only OECS data was available to do this analysis. There is no reason to believe that other countries in the region are producing significantly different results.

**Table 2: Percent of secondary students in the OECS completing school with the five required CSEC subjects (including English and Mathematics)**

| Member State | Secondary Enrolment | Secondary Enrolment males | Secondary Enrolment females | % males completing CSEC with 5 subjects | % females completing CSEC with 5 subjects | % completing CSEC with 5 subjects |
|---|---|---|---|---|---|---|
| Anguilla | 1,046 (2011/12) | 527 | 513 | n/a | n/a | n/a |
| Antigua and Barbuda | 7,752 (2013/14) | 3,863 | 3,889 | 33 | 35 | 34 |
| British Virgin Islands | 1,987 (2013/14) | 955 | 1,032 | n/a | n/a | n/a |
| Dominica | 5,658 (2013/14) | 2,885 | 2,773 | 36 | 49 | 43 |
| Grenada | 9,707 (2013/14) | 4,954 | 4,753 | 22 | 26 | 24 |
| Montserrat | 343 (2013/14) | 177 | 166 | 26 | 28 | 27 |
| St. Kitts and Nevis | 4,370 (2013/14) | 2,155 | 2,215 | 24 | 23 | 23 |
| St. Lucia | 13,081 (2014/15) | 6,807 | 6,759 | 37 | 44 | 40 |
| St Vincent and the Grenadines | 10,342 (2013/14) | 5,307 | 5,035 | 25 | 33 | 29 |

Sources: OECS Statistical Digest, 2013/14
St. Lucia Education Statistical Digest, 2014/15

Generally, individuals in the Caribbean who have had access to and have completed some level of postsecondary education benefit with stable employment and higher earnings. Unfortunately, socio-economic stratification has resulted in too many Caribbean youth and adults being marginalised by the lack of access to higher education. Indeed, enrolment in tertiary education is underperforming in most Caribbean countries. Regionally, 27% of secondary school graduates go on to postsecondary education compared with the global average of 32%. Only Grenada and Barbados have tertiary enrolment rates above the average, at 53% and 61% respectively (The Economist, 2015).

Many researchers have written about the state of education in the region with general consensus that the system continues to hold onto elements of its colonial past by being too exam-driven and with too many students failing to achieve the standards set by these exams.

***Key finding:*** There needs to be a more concerted effort to move the education system into the 21st century to give children even in the early years the best possible chance to stay in school and complete their education. This must include deeper reforms to the curriculum to ensure its relevance to social and economic needs, greater parental involvement, and equitable access to students from all socio-economic backgrounds.

# C. Analysis and Main Findings

This systematic review of existing research sets out to stimulate discussion on the workings of the education and training ecosystem as they relate to three main questions:

> *Is the education and training system meeting the social and economic needs of the region? Is the system preparing young people for the 21st century economy and society? Is the system producing the human capital that contributes to the region's global economic competitiveness?*

As the paper attempts to answer these questions, the author recognises that the questions posed above are complex theoretical issues that cannot be fully addressed in a single paper. Therefore, three themes are used to narrow the scope of the research and to frame discussions around this complex topic: the structure and content of education and training systems, and relationship between education and training with employment in the 21st century. Eight research questions form the basis for the analysis against the three themes. The research matrix in Annex A illustrates how each of the eight questions aligns with the three themes. The analysis concludes with an assessment of four emerging sectors that could provide a competitive advantage to CARICOM's labour market into the 21st century.

## *C.1. Structure of modern, competitive education and training systems*

### *C.1.1 Objectives of 21st century systems*

Some common themes have surfaced in the literature on the overall objectives that should guide modern education and training systems. Broadly speaking, the system should aim to achieve three outcomes simultaneously: employment, social cohesion and individual development.

**Improving employment outcomes:** There can be little doubt that a meaningful job must be objectives of any education and training system. In fact, employment is a recognised human right. The United Nations Universal Declaration of Human Rights recognises "that many of the other economic and social entitlements proclaimed to be human rights cannot be secured without jobs that pay" (Ernst, 2009). Internationally, education and employment ministers have spoken extensively about the need to improve employment outcomes, especially for youth who are neither in employment, nor in education or training (NEET)[4] and face unique barriers to employment.

**Promoting social cohesion**: Most countries want an education and training system that equips young people with the skills required to become strong contributors to society. Increasingly they are linking education and training policy to social objectives that promote equality, social cohesion and active citizenship. It will be important that a modern education and training system for CARICOM provides the foundations needed to address social cohesion.

[4] The term 'not in employment nor in education or training' was first officially used in 1999 as a way to classify the many youth unable to find work or withdrawing from the labour market entirely and becoming "inactive". It is now used by a number of multi-national organisations (OECD, ILO, World Bank, etc.) to define the magnitude of the youth unemployment issue.

**Promoting individual development:** The aim of an education of system should also be to help individuals increase their personal well-being, promote mobility and reduce their potential dependence on public services. Education and training systems should aim to ensure that all learners, including those from disadvantaged backgrounds and those with special needs, complete an education that will provide them with the tools to reach their full potential. Also, it is well understood today that unemployed youth "represent not just a gigantic pool of untapped talent; it is also a source of social unrest and individual despair" (McKinsey, Education to Employment, 2014). Education and training are a means of fighting poverty and social marginalisation that can lead to delinquent behaviour.

### *C.1.2. Characteristics of 21st century systems*

Eight essential characteristics are associated with modern and competitive education and training systems. They are discussed for their relevance and potential benefits to CARICOM and presented in no particular order, because no one characteristic is more important than another. When they are looked at collectively, they provide a type of checklist for assessing the potential effectiveness of education and training policies, strategies and initiatives. It is worth noting that many of these eight characteristics are well reflected in recently developed policy papers and strategic plans in the region.

Characteristics of a modern education and learning ecosystem

- Lifelong learning
- Learner-centred
- Technology-focused
- Duality of education and vocational training
- Market-driven
- Regional collaboration
- Flexibility

**Lifelong learning:** Much of the literature reviewed speaks about people increasingly undergoing multiple transitions in employment throughout their lives. In the 21st century, education is seen as a process of lifelong learning rather than a single event in human development. Therefore, modern education and training systems must enable people to access opportunities for lifelong learning in formal and informal contexts to enable learning throughout life's transitions.

**Learner-centred:** High-performing education and training systems ensure that every learner is able to reach his/her full potential. They address the distinct learning needs, interests, aspirations, and/or cultural backgrounds of individual students or groups of students. They put in place tools to intervene at the level of the individual learner because they use engaging, motivational, and collaborative teaching styles. Learners are provided with opportunities to learn independently and from one another. Learner-centred approaches can more easily compensate for the socio-economic background of the learner and mitigate any disadvantages resulting from that background. In the context of lifelong learning, learner-centred approaches meet the needs of all learners, including those who have not participated in secondary school as well as those who are already in the labour market and require retraining, up-skilling and certification. They also consider the distinct needs of male and female learners.

**Technology-focused:** Information and communications technology (ICT) has become ubiquitous in society and economies. It is hard to find employment in a modern economy that does not rely on some technological knowledge or skill sets (Hannon, 2010). Today, advancements in innovation and creativity in education and training depend on embracing technology to harness the power of digital communications and the speed at which technological innovation is taking place.

Further, technology is not only transforming what people learn, but also how they learn. Online and distance learning that use technology as a delivery medium are often used to increase access to education for hard to reach cohorts. It will be important to assess how new technologies might be used to imagine a new education and training medium compatible with online learning and the jobs of the future. The use of open educational resources (OERs) and massive open online courses (MOOCs) is very important to support and reduce the cost of new educational opportunities.

**Duality of education and vocational training:** Education and training systems of the 21st century ensure that learners have access to both academic learning and competency-based training to fill a range of labour market needs. This duality offers a balance without stigmatisation. But, it has been a challenge to encourage the widespread adoption of TVET as it is often associated with being a second-choice education (Zimmerman, 2012). Recognition of the duality of academic and skills training is a better way to find balance between the needs and interests of the individual learner and those of the labour market. Modern education and training systems give equal support to academics and occupational-specific skills.

**Market-driven:** Education and skills training need to be responsive to the labour market so that graduates have the best possible chance to transition smoothly to work. When training is not reflective of the needs of the labour market it not only contributes to high unemployment rates, but it can build false hopes which have the effect of discouraging trainees from pursuing future training opportunities. Market-driven training is best achieved with competency-based curricula developed with industry input, and responsive to rapidly changing economies.

**Regional collaboration:** The phenomenon of globalisation has resulted in a number of strategic alliances among countries that share common interests. These alliances take many different forms, but at the core they allow for economies of scale achieved by being part of a larger community with shared common interests in developing the labour market to promote mobility of goods, services and people. Regional collaboration should be a feature of education and training systems of the future to enable countries to achieve economies of scale, to share and apply best practices, and to develop or maintain a competitive advantage in a global world. The CARICOM Human Resource Strategy is an example of how the region is strengthening regional collaboration in education and training.

**Flexibility:** Paradoxically, while regional collaboration is important, the literature also points to the importance of flexible interventions to respond to local needs and market conditions. The CARICOM-Education for Employment (C-EFE) programme provides a positive example of a regional model with national modifications, and notes that interventions "must be modularized so that [they] can be flexibly delivered to the many varied clients of TVET."[5]

[5] Through C-EFE, colleges in the Caribbean identify relevant courses linked to national labour markets needs where TVET can be promoted, in partnerships with Canadian colleges. The potential for C-EFE to make a difference to the implementation of TVET in the region is significant.

**Policy coherence:** Within government, responsibility for the labour market is often shared among education, labour, and industry ministries or departments. Therefore, no one area in government has a view of the whole process of moving learners from education and training to employment. The efficiency and effectiveness of education and training require efficiencies within and across the public sector by working collaboratively using a whole-of-government approach to ensure that all sectors are moving in the same policy direction, coherently and in a coordinated manner across sectors. Policy coherence is one area where CARICOM Member States can focus on making improvements.

### *C.1.3. Key structural elements*

The structure of an education and training system is an important prerequisite for innovation and creativity in local economies. The literature points to a number of basic structural elements that are often used to achieve reform of the system. Five structural elements are noted below because they are most relevant to promoting innovation and creativity.

**Creative financing**: All education and training systems require a financing framework that ensures adequate, predictable, stable, and sustainable funding to deliver quality programmes and services. The model used to finance the system is a critical structural element because shifts in funding and expenditures are often used to influence policy directions. For example, USAID's support of US$4.2 million for the CXC Second Chance Programme sent a strong message to partners about the importance of strengthening programming for out-of-school youth. The issues related to how to finance the system are addressed in detail in the discussion paper on 'Financing the Education and Training System'.

**Modern governance and accountability:** Much has been written about the governance structures needed to increase the effectiveness of education and training systems. Partners start by setting clear goals for the system. As each partner works collaboratively to achieve those goals, the right systems, processes, and data must be in place to measure progress towards continuous improvement.

However, one of the main challenges to implementing a market-oriented system involves developing a system of coordinated governance whereby all partners (government, industry, NGOs, learners, and other stakeholders) have a voice (Zimmerman, 2010). The use of public private partnerships (PPP) to govern education and training can help to spur creativity and innovation and serve as a more effective way to finance the system. The use of PPPs will be discussed in more detail in the context of financing, although the author recognises that the issues associated with PPPs are broader than financing. There are several examples of collaboration among regional partners which are setting the stage for deeper coordinated governance among the partners.

**Quality instructors and teachers:** The available evidence suggests that the main driver in the variation in learning is the quality of the teachers and instructors (McKinsey, How the World's Best-Performing School Systems Come Out on Top, 2009). In the Caribbean, regional and national oversight bodies such as NTAs or TVET Councils have responsibility for training, evaluating, and certifying educators, instructors and assessors in TVET. However, the professionalisation of teaching in elementary and secondary education requires more consideration. The issues related to teacher/instructor quality,

certification, and training will be addressed in the discussion paper on 'quality assurance, standards and certification' by Dr. Paula Daley-Morris.

**Modern learning/training facilities:** A logical complement to quality instructors and teachers is the availability of quality training facilities to ensure that learners have access to modern structures from which to learn and develop skills. Learning/training facilities are used at all levels of the system from early learning centres to tertiary level institutions. Unfortunately, inadequate or out-of-date facilities are a reality across much of the region. In fact, many of organisations and institutions report difficulties in making the investments needed to upgrade their training facilities and teaching/training resources.

At the tertiary level worldwide, most institutions are exploring opportunities to use online and distance education to deliver education and training, moving away from the bricks and mortar approach. For example, UWI Open Campus has a developing online platform which in addition to other digital-based initiatives is being supported by C@ribNET[6]. Further, the Commonwealth of Learning is working to develop online and distance learning policies and training material to help expand these technology-based approaches in the region.

While it is true that online education offers opportunities to increase access and create efficiencies in modern systems, it may not be an effective medium for all types and levels of education, especially TVET. Also, expanding online education offerings in CARICOM is likely to be limited, since there are a number of well-established and well-funded online platforms from prominent institutions outside of the region, such as Penn State World Campus, rated the top online university for obtaining a bachelor's degree by U.S. News, and Coursera, the world's largest online education platform based in California. It partners with universities and organisations around the world to offer MOOCs free of charge. Coursera is now developing courses between universities and employers, recognising that many college degrees are disconnected from the needs of business. There may be an opportunity for tertiary level institutions in the region to market and deliver courses in partnership with Coursera. This is the global nature of education in the 21st century.

**Functional labour market:** If local labour markets are not adequately supporting employment and entrepreneurship opportunities for graduates, then poor results will remain a feature of education and training systems resulting in slow economic growth, and barriers to innovation and creativity. Governments need to adopt policies that lead to the creation of diversified, dynamic, and competitive labour markets capable of absorbing a more educated labour force. A functional labour market is one that uses labour laws and regulations or labour market policies and practices to create sufficient and decent jobs, pay competitive wages, and provide workers with opportunities to upskill in the public and private sectors. Functional labour markets also foster and support an entrepreneurial spirit to build small and medium enterprises.

[6] C@ribNET is a high capacity broadband fiber optic network that connects all CARICOM Member States to the global digital infrastructure. It is managed by the Caribbean Knowledge and Learning Network Agency (CKLNA), an inter-governmental agency of CARICOM that is also a regional research and education network organisation.

***Key finding:*** While CARICOM has made good progress in aligning the objectives and characteristics of its education and training system with 21st century practices, considerable work is needed to address structural deficiencies in the system. Opportunities for accessing relevant and effective education and skills for the 21st century are being limited by financing constraints, inadequate governance structures, and the inability to attract quality educators and instructors, and maintain state-of-the-art facilities that are responsive to labour market needs.

## *C.2. Content of modern and competitive education and training systems*

Along with structural elements, education and training systems are defined by the policies, strategies and interventions put in place to help learners. As governments work to move their education and training systems into the 21st century, they often start by developing policy papers, strategic plans, and initiatives to define their reform agenda.

CARICOM has effectively used this approach over the past several decades to guide changes to its education and training system. This section provides an overview of some of the region's key policies, strategies, and interventions. And, it outlines one area which has proven to be a challenge for the region to be competitive into the 21st century – that is, the issue of brain drain in the region, one of the most important barriers to the region's competitive advantage.

***Key policies and strategies in CARICOM:*** In 2006, Andrew Downes wrote about the challenges facing labour markets policies in the Caribbean. One of the recommendations he put forward at the time was the need for reforms to the education system. He noted that "the issue of educational reform has been prominent in the region over the past decade" (Downes, 2006).

Beyond improvements to accessing primary and secondary education, to respond to EFA goals, there have, in fact, been only minor reforms to the region's education system. Indeed, CARICOM and many individual Members States as well as the OECS have developed education strategic plans and policies to drive education reforms; however, some of the more fundamental reforms to education policy are yet to be implemented –such as those outlined in Section C above (e.g. curriculum reform and moving away from an exam-driven system).

The reality is that most countries recognise that they do not have the luxury of waiting for reforms in the current education system as a response to today's training challenges. "Many Caribbean countries already possess a number of the ingredients necessary to adapt to the challenges of the 21st century" (World Bank, Time to Choose, forward). The last decade has seen the development of some significant labour market policies to respond to pressures facing modern training systems. Several such policies are outlined below at the regional (the Caribbean Single Market and Economy), sub-regional (the creation of the Organisation of Eastern Caribbean States), and state-level.

**Caribbean Single Market and Economy (CSME):** Arguably, the most significant strategic intervention in CARICOM in recent years has been the introduction of the CSME. This umbrella strategy to promote inter-country labour market mobility makes provisions for the free movement of capital and labour to enhance the region's global competitiveness. "The CSME is the deepest form of regional integration, intended to counter the challenges posed by globalisation and trade liberalization" (CCYD Report, 2010).

CSME is supported by a number of policies and measures such as removal of the requirement for work permits for certain categories of workers, hassle-free travel throughout the region, and the Caribbean Vocational Qualification (CVQ) certification. The CVQs were established with the intention of having a standardised certification system that would promote the free movement of skilled and qualified workers across the Caribbean. In 2006 Downes noted that "the certification of the work force in various technical and vocational areas ....would be critical to the enhancement of the international competitiveness of Caribbean" (Downes, 2006).

Once the strategy is fully implemented, member countries will share a common trade policy. However, regional integration has not occurred as quickly as expected. And, only a few inter-country industrial clusters exist in the region, reflecting slow efforts at cooperation and weak economic links between nations (The Economist, 2015).

A logical next step for CSME will be the implementation of CARICOM's Regional TVET Strategy for Workforce Development and Economic Competitiveness and building on the outcomes of the C-EFE. At this critical stage it will be important for all Member States to buy into the CSME strategy fully and contribute to its development.

**Organisation of Eastern Caribbean States (OECS):** At the sub-regional level, the OECS has also been making significant advancements to improve sub-regional cooperation and to promote unity and solidarity among its Members while pursuing a coordinated approach to national and regional development. The field of education has been identified as an area of priority for OECS Members that are developing joint actions and policy statements to harmonise their education systems. The overarching OECS Education Sector Plan (2012-2021) and Education Statistical Digest are models of collaboration among the ministries of education in the OECS. The benefits of this coordinated approach will help to harmonise efforts and strengthen regional and national education and training systems.

**Selected recent state-level policy initiatives:** The education and training systems in CARICOM benefit greatly from the guidance of legal or policy frameworks that articulate a vision for education in the region. All Member States have developed white papers, sector plans or policy documents, and programmes related to education, TVET, or human resources development. The list that follows is not exhaustive, but is used to illustrate the extensive effort under way by each of the Member States to use policy to guide changes in their education and training systems:

- Anguilla - TVET Policy 2013 (First Draft) and the formation of a TVET Council;
- Antigua and Barbuda's National Youth Policy with eight strategic objectives, one of which speaks to education and training of youth;

- Bahamas - Ministry of Education 10 Year Education Plan, 2009 which comprises four priority areas related to curriculum and instruction, human, material and financial resources, administration and management, and partnerships;
- Barbados - multi-sector Human Resource Development Strategy that involved consultations with different ministries, private and public entities to improve its human and social capital;
- Belize - Education Sector Strategy 2011-2016 that contains three policy objectives to increase equitable access, improve quality and relevance, and strengthen governance throughout the education (and training) sector;
- Grenada - Council for Technical and Vocational Education and Training (GCTVET) that was created along with the National Training Agency as the operating arm of GCTVET in 2009;
- Jamaica - National Education Strategic Plan, 2011-2020 organises the education and training demands of the country under eight strategic objectives;
- Guyana - Secondary School Reform Project has the objective of improving the quality, equity, relevance, and efficiency of secondary education;
- St. Kitts and Nevis - White Paper on Education Development and Policy is the definitive document providing guidance for education activities from 2009 to 2019;
- St. Lucia - Education Sector Development Plan, 2015-2020 uses 21 broad strategic objectives to provide impetus and direction for the education sector;
- St. Vincent and the Grenadines - Education Sector Development Plan, 2012-2017 focusing on six areas of education; and
- Trinidad and Tobago - Education Sector Strategic Plan 2012-2015 (note that the plan has not yet been updated since a new government took office in 2015).

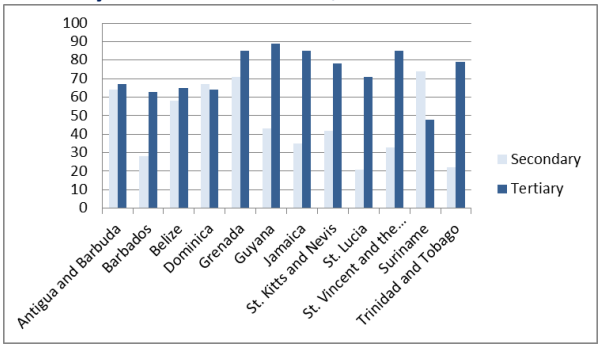
***Key finding:*** In addition to the CSME, most Member States, with the exception of Dominica, Monserrat, and Suriname, have education- or training-specific policies and strategies that articulate a policy direction for their education sectors. Therefore, generally speaking, the region is not lacking an education and training policy framework. Despite these policies, however, there has been slow progress in improving outcomes consistently across the region. Recognising that it can take decades to see concrete changes, the challenges faced by the region seem to lie in concrete implementation steps rather than the existence of the policies and strategies themselves.

**Global perspectives on the graduates of CARICOM's education and training system:** In a more global world, citizens are exposed to global opportunities. Eighty-five per cent of Caribbean youth between the ages of 15 and 29 would migrate to more developed countries, if they had the choice and the necessary resources (CCYD, 2010). Indeed, migration out of the region is a natural by-product of participation in a global world.

This phenomenon suggests that as CARICOM Member States invest more in skills training there is a risk that its graduates will be more attractive to others and, therefore, more likely to migrate. A large outflow of graduates reduces, at least temporarily, the economic benefits to the region "implying that the sending countries are subsidising the human capital formation of the advanced countries" (World Bank, Time to Choose, 2007).

Brain drain has always been a feature of the Caribbean labour market. "Guyana, Grenada, Jamaica, and Suriname have among the highest rates of migration of skilled labour to the Organisation for Economic Development (OECD) countries," with migration being more prevalent for tertiary level education (Downes, 2006). For example, almost 90% of Guyanese tertiary level graduates migrated to OECD countries between 1965 and 2000. Even in Suriname which has the lowest tertiary level migration rate (49%), the rate for secondary education graduates is among the highest in the region at 72%. This suggests that the region produces human resources that are quite successful in adapting to and competing in developed countries across the globe.

**Figure 2: Percent of labour force migrating to the OECD by level of education, 1965-2000**




Source: Mishra, P. *Emigration and Brain Drain: Evidence from the Caribbean, IMF Working Paper*, January 2005.

One reason why these rates are so high is that a number of developed countries have introduced immigration and labour market policies to address growing skills deficits resulting from an ageing workforce. Some of the international education policies that developed countries have used include:

- Streamlined visa processes for recently graduated international students;
- Processes to recognise foreign credentials and prior learning of immigrants; and
- Partnering with overseas colleges and universities to attract foreign students.

***Key finding:*** For decades CARICOM has embraced the global trend that has seen an increased trade in educational services that is enabling its learners to access opportunities to study and work abroad. To mitigate aggressive efforts by developed countries to attract its graduates, the region needs to continue to make it more attractive for its students to access comparable quality skills training and tertiary education at home while addressing the dearth of good paying local job opportunities. Among the strategies that could help to mitigate the continuing brain drain from the region are:

- continue to encourage partnerships with accredited international learning institutions to increase opportunities for learners to study at home;
- maintain regular contact with members of Caribbean diaspora that are interested in playing a role in the region's development; and
- focus on developing a functional labour market that would provide the best possible environment for graduates to find employment at home after their studies.

### *C.3. Moving from education to employment*

The globalisation of today's economies means that policy makers need to understand better how to prepare their populations for employment. It is not only important to understand the mechanisms needed to educate populations; all modern economies need to understand the skills that would take them into the 21st century and enable them to compete in new and emerging industries.

There are three critical stages in the transition from education to employment:

- enrolment stage;
- skills building stage; and
- finding employment stage (McKinsey, Education to Employment, 2010).

The '*enrolment stage'* includes all efforts to provide access to education and training for all who seek it. Issues related to enrolment are covered in the discussion paper on 'equity, access, and relevance'. At the '*skills building stage'*, at a minimum, training providers need to help learners acquire the skills to meet the requirements of the labour market. And, at the '*finding employment stage*,' graduates need tools to find and keep well-paid jobs.

#### *C.3.1. Building skills for 21st century employment*

Much has been written about employment in the 21st century and the skills and attitudes needed from the products of an education and training system. A World Bank blog classifies worker's skills requirements into three components: cognitive skills, social or behavioural skills, and job- or occupation-specific technical skills. Examples of these three categories of skills are provided in Exhibit 3.

*Cognitive skills* "facilitate the acquisition of knowledge" throughout life's transitions. Most experts argue that the time to build these skills starts early in life. Youth and adults with poor cognitive skills (such as low literacy and numeracy levels) have difficulty learning and updating the technical skills needed to compete in the modern job market.[7]

*Social and behavioural skills* "permit a person to perform effectively in a range of job settings." They should be taught throughout the education and training system. They make workers more resilient in response to technology-driven labour market shocks. The premise is that in the 21st century social and behavioural skills will be in higher demand across industries than narrower occupational skills. In most training programmes in the region these skills are often incorporated in the life skills or soft skills component of the curriculum. CANTA and some state NTAs have made some progress in developing occupational standards for life skills training. And Jamaica, for example, is infusing these skills into the traditional education curricula. These are promising practices in curriculum development.

[7] Education for Global Development –A blog about the power of investing in people, 2016 http://blogs.worldbank.org/education/preparing-robots-which-skills-21st-century-jobs

*Technical skills* are typically acquired from secondary school and higher (although, there are recent examples of some technical skills in science, technology, engineering, and math being introduced in grades 4 to 6). They depreciate at an increasingly fast rate with technological change, and require constant upgrading through lifelong learning. Entrepreneurship skills are included in this category.

**Figure 3: Types of skills required for 21st century employment**

| Cognitive skills | Social and behavioural skills | Technical skills |
|---|---|---|
| - Literacy<br>- Numeracy<br>- Digital/ICT literacy<br>- Critical thinking<br>- Problem-solving | - Work ethics<br>- Emotional intelligence<br>- Teamwork<br>- Pro-activeness | - Job- or occupational-specific |

In the McKinsey report on Education to Employment "employers cite work ethics and teamwork as the most important skills in almost every country" surveyed for the report (McKinsey, 2014). In 21st century systems, these skills are as or more important than core skills taught in the traditional system.

Further, the pressure of the 21st century demand not only basic literacy skills, but a new range of literacies. One new literacy growing in prominence in a global world, and an area where CARICOM could have a unique advantage is "cross-cultural competency" which is defined as the ability to move across cultures comfortably and fluently (Yong Zhao, 2002).

In the Caribbean, the issue of 21st century skills has been extensively researched by international organisations and regional experts who all have noted that the skills acquired in education systems in the region are primarily preparing youth for the acquisition of academics rather than the labour market (Downes, 2014; The Economist, 2015; OECD, 2013; World Bank, 2007, 2009, 2013, 2014).

***Key finding:*** With regard to ICT skills training, most CARICOM ministries of education have drafted or adopted ICT policies in education; however, these policies have had limited impact (World Bank, Survey of ICT and Education in the Caribbean). The results from the 2007 CSEC IT exams suggest that even students completing IT curricula and sitting for IT exams do not demonstrate mastery of workplace-level computer skills and knowledge. While student performance has improved, the skills gained do not match up with skills required by the workplace (World Bank, Survey of ICT and Education in the Caribbean, 2009). ICTs are among the most demanded technical skills by modern businesses.

### *C.3.2. Finding Employment – Mechanisms that connect education and employment*

Aligning education and training with employment and entrepreneurship in the 21st century requires creative and innovative tools to enable graduates to transition smoothly to jobs. Five practical tools are noted below, many of which are already features of CARICOM's education and training system.

**Career guidance and counselling/employment offices:** Students need career guidance and job search techniques to facilitate smooth school-to-work transition. Similarly, employment centres help to strengthen the functioning of the labour market especially when the centres use labour market information/intelligence (LMI) to align education with employment. In CARICOM, there is little career guidance being provided within the formal school system. And some of its skills training programmes may not base their job placement techniques on up-to-date labour market intelligence.

**Labour market information (LMI):** One of the barriers to employment is the lack of accurate or timely LMI. Experts have noted that many Caribbean youth are unaware of the skills needed to pursue their career choice and to meet employers' demand (Downes, 2006; World Bank, 2007). Moreover, there is little or no systematic guidance on how to make the transition effectively from secondary school to work or tertiary education. LMI would improve the efficiency of labour markets by helping to match supply with demand.

Also, labour market surveys and employer surveys are not the norm in most CARICOM Member States. When the information stemming from these surveys does exist, students and graduates are not aware of it, or it is in a "coded language" of economists and policy makers, which needs to be simplified and communicated through user-friendly media to those who need it. For example, the websites of some Member States (e.g. Jamaica and Trinidad and Tobago) contain a lot of LMI, but the information is not communicated in a practical manner.

Progress is being made sub-regionally (namely, St. Lucia, Grenada, and Barbados) to collect and use LMI. For example, the introduction of the Caribbean Labour Market Information System (CLMIS) is an initiative of the ILO and the United States Department of Labor that is intended to provide technical and financial assistance for the production and use of LMI in the English-speaking Caribbean and Suriname. While the system has not yet rolled out across the Caribbean, nor reached full maturity, job seekers and career planners will be among the potential end users. Further, with labour market and employment trends career planners will be individual who should be able to provide better advice on.

**Curriculum:** In many developing countries, the secondary education curriculum remains abstract and disconnected from the social and economic needs of the 21$^{st}$ economy. Sometimes the curriculum is too narrowly focused on subject-specific content and competencies and improvements are needed to increase literacy and numeracy outcomes at the secondary and TVET levels. In CARICOM, the occupational standards developed for training programmes have made some progress in this area; however, still more work is needed to strengthen the relevance and effectiveness of curriculum. There is plenty of experience in this area to demonstrate that when employers have a strong voice in curriculum development there is a significant impact on the employment chances of graduates (Middleton, 2011). Examples of how this is being used as a promising practice in the region are provided below.

**Internships and apprenticeships:** As noted above, the transition from education to employment is most effective when trainees have an opportunity to put their skills to work and experience the world of work before graduation. The most successful programmes provide stimulating workplace-based environments for learning. Examples of these opportunities include internships and apprenticeships which "have

proven to be a good proxy for workers to identify firms and sectors with future potential for employment opportunities" (World Bank, Skills Challenges in the Caribbean, 2007). Apprenticeship training consists of handing down initial skills from the experienced to the semi-skilled labourer. Apprenticeships are often divided between on-the-job training and classroom instruction. Internships are an opportunity for potential employees to work for a fixed period of time.

**Entrepreneurial supports:** Across the Caribbean there are a number of projects providing entrepreneurial services to young people. Some are part of CXC's CVQ certification process, while others work specifically to provide entrepreneurial services, such as access to loans and grants, business plan development, financial planning, and working with a mentor. Entrepreneurship can play an important role in helping young people acquire the skills they need to embrace self-employment as a viable career option. Barbados, Belize, Dominica, Jamaica, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago are among the countries where organisations and financial institutions are actively providing entrepreneurial support services. The number of people accessing these services is still relatively small so more work is needed to build awareness of entrepreneurship as an option for those so inclined. However, entrepreneurship is not likely to address the full extent of the unemployment situation in the region given some of the weaknesses observed in the private sector (e.g. difficulty accessing financing, regulatory and bureaucratic hurdles, and high electricity costs). And even if one identifies a niche area, small businesses worldwide have a high failure rate in the first year of operations; therefore mentorship needs to be available to young entrepreneurs when they start out.

***Key finding:*** While the mechanisms that help graduates transition from education and training to employment exist, their effectiveness varies considerably across the region. With the exception of internships and apprenticeships, there needs to be further reforms to curriculum design, career and guidance counselling, LMI, and entrepreneurial skills programmes to help the education and training system be more aligned with 21st century practices.

### *C.3.3. Finding Employment – Interventions, promising practices, what doesn't work*

In addition to the mainstream education, most of the countries in the region have put in place programmes, using the mechanisms noted above, to respond to their education and skills challenges. The vast majority of the programmes serve young people who have not completed secondary school, are at risk of being early school leavers, or are unemployed or underemployed. There are also several programmes in the region that serve the broader adult population. Public and private schools and institutions involving NGOs and churches are all involved in delivering such programmes.

A selection of these interventions (or the organisations providing them) is listed below at the secondary, vocational level for each Member State. See Annex C for a brief description of what they do. The list is not meant to be an exhaustive but rather illustrative of the extensive work under way across the region to move people from education and training to employment. They were selected based on their relative prominence in their respective countries or for the region:

- Caribbean Inclusive Growth Programme (sub-regional)
- Youth Entrepreneurship Program for the Eastern Caribbean (sub-regional)
- Anguilla – Job Link-Up Programme
- Antigua and Barbuda – Gilbert Agricultural and Rural Development Center
- Bahamas Technical and Vocational Institute
- Barbados – Samuel Jackman Prescod Polytechnic
- Belize – Alternative, Collaborative, Community Education Support Services Program
- British Virgin Island – Alternative Secondary Education Programme
- Dominica – Centre Where Adolescents Learn to Love and Serve
- Grenada – New Imani Programme
- Guyana - Board of Industrial Training
- Jamaica - Youth Upliftment Through Employment
- St. Kitts and Nevis – Advanced Vocational Education Centre
- St. Lucia – National Skills Development Centre
- St. Vincent and the Grenadines – Adult and Continuing Education
- Suriname – Programme on Lower Vocational Education
- Trinidad and Tobago – Youth Training Employment Partnership Programme

***Key finding:*** As a general observation, most countries (except British Virgin Islands, Monserrat, and Suriname) appear to have several programmes and/or institutions that provide opportunities for learners to access training for employment. These interventions are making a contribution to their education and training systems because they are providing an opportunity for learners who may not otherwise succeed or may not be interested in the strict academic side of education and training to develop employable skills. However, within each country, programmes and institutions tend to have objectives based on re-entering the system rather than focusing on keeping students in the system. And, some of the training offered appears to be supply-driven with few sustainable employment opportunities. Further, the programmes are frequently not linked, leading to potential duplication of training and a waste of limited resources. Finally, while the C-EFE is making progress to promote TVET careers positively, there continues to be a stigmatisation associated with some of the programmes, especially those that continue to be disconnected from the formal education system or seen as a sub-par option.

**Some promising practices:** A disappointing reality of many education and training systems is that we don't know what works (and what does not) to move young people from education/training to employment. Most systems have poor data collection practices, and information gaps make it difficult to understand what practices are most promising. In CARCOM in particular, the practice of doing evaluations is only now taking hold, so that monitoring and evaluation becomes the norm rather than the exception.

There is a troubling occurrence of programmes that had poor employment outcomes, where participants were unaware of the long-term employment prospects. For example, over the four years of the GARDC's participation in Caribbean Youth Empowerment Program, 326 youth were trained with only 41% acquiring employment. Also, one youth development programme in Trinidad and Tobago has

dropout rates as high as 50%. Other examples of poor results are observed not only from evaluations, but also from anecdotal experiences and case studies.

However, decision-makers should not despair about how to implement successful education and training interventions. Innovative and effective programmes around the world have elements in common and appear to adopt a similar set of interventions. This is not to suggest that context is not important, but it appears to be secondary to getting the fundamentals right (McKinsey, How the World's Most Improved School Systems Keep Getting Better, 2007).

First, education/training institutions and employers "step into one another's worlds." For example, employers are actively involved in the education and training process, or institutions provide opportunities for learners to spend time on a job site. Secondly, in the best interventions, employers and education providers work with their students early and intensely. McKinsey notes that "the education-to-employment journey is treated as a continuum in which employers commit to hire youth before they are enrolled in a program to build their skills" (McKinsey, Education to Employment, 2014).

Three promising practices are highlighted below from a global and state perspective to showcase the features noted by McKinsey.

**University Co-Op Programmes in Canada (Global example):** University co-op programs continue to thrive and grow at Canadian universities and colleges. The programs follow a national accreditation system which serves as a measure of quality control for students and employers. Students taking co-op programmes alternate between study and work terms, are paid, and receive regular feedback from employers. Work terms need to be closely related to students' academic studies and comprise at least 30% of an academic programme.

**Industry involvement in curriculum design:** Most training providers now recognise that engaging employers in the design of curriculum improves the relevance of education and training programmes and increases employment opportunities for graduates. There are several examples of this practice underway across the region that is generally provided through PPPs that provides a forum for partners to reflect their interests in the curriculum. One example of how PPPs have led to the involvement of employers in curriculum development is the St. Lucia Chamber of Commerce which has been involved in the administration of the Junior Achievement programme and the St. Lucia Youth Business Trust, two organisations that provide entrepreneurship services to young entrepreneurs. The partnership is helping to include practical industry-based perspectives to the programmes and services provided to young entrepreneurs, in the mainstream education system and the wider community.

**Service Volunteered for All (SERVOL) (Trinidad and Tobago):** SERVOL, a CXC-designated Second Chance Institution, is a non-governmental organisation that has 11 adolescent development centres (ADP), all of which offer skills training to at-risk youth. After ADP training, trainees move into basic skills training where they spend up to one year learning a specific skill. They spend four months in on-the-job training with a company or institution that specialises in the skill they are seeking to acquire. In addition to basic skills training, SERVOL also provides high-tech and advanced skills training. The SERVOL model has been

so successful that it has been replicated in Grenada (New Life Organization-NEWLO), St. Lucia (Centre for Adolescent Renewal and Education-CARE), Dominica (Centre Where Adolescents Love to Learn and Serve-CALLS), and around the world. It has some of the strongest evaluation results of similar programmes in the region.

***Key findings* - What doesn't work:** The lack of data and monitoring and evaluation practices also make it difficult to assess which programmes are not working. However, the literature points to the types of reforms that have proven over the years to be ineffective.

First, some policy makers warn against looking for single "silver bullets" especially those focusing on just one aspect of the education and training system. They tend to result in fragmented interventions that do not address the holistic needs of the system. The fragmented accountability reforms done in the U.S. education system are often cited as examples of what not to do.

Secondly, experts note that funding alone does not guarantee improvements in outcomes. There has been considerable debate about the need to increase investments in education and training systems, especially in regions where the demographic profile is primarily a young and growing population. Finding efficiencies in the system and exploring partnerships are more often noted as ways to fund reforms in the system when increases in public sector budgets are not an option. See the discussion paper on Financing the Education and Training System for more information.

Thirdly, some policy makers warn against relying solely on 'free' education and training at the postsecondary level as a way to boost outcomes. This approach is used in selected areas in the Caribbean, such as free tertiary level education in Trinidad and Tobago, and issuing stipends for those participating in skills training programmes in Grenada, Jamaica, and Trinidad and Tobago. While this approach may help to raise participation rates or to improve the supply side of the labour market equation, it is not an effective way to promote ownership of training or to improve completion rates and labour market attachment.

Finally, separating vocational education from academic education does not recognise the duality of the education and training system. While the majority of training programmes in the region are delivered outside of the mainstream education system, too many of them still do not recognise the need to have some linkages to the formal education system to allow for the movement between the two so that vocational training is not stigmatised and seen as inferior.

### *C.4. Emerging sectors - Jobs of the future*

The jobs of the future require education and skills that can adapt to new and changing patterns of trade and consumption, and take into account how we relate to each other as we prepare for the technological revolution that is upon us. In the Caribbean it will be especially important for policy makers to know how to use these skills to expand the private sector so that well-paid domestic employment opportunities can be created to mitigate high migration rates.

International organisations, such as the WEF, and several leading economic forecasters agree that the world of work is undergoing a dramatic change that will have an impact on jobs in both developed and developing nations. The Forum advises that countries can close their skills gap by developing a solid understanding of an industry's skills base today and changing skills requirements in the future.

In a recent regional overview, The Economist concluded that stimulating sustainable growth led by the private sector "must be a priority in the Caribbean. The challenge for Caribbean economies is to create domestic industries that generate jobs and boost economic growth -- and to rely less on government as a source of employment and growth." Based on Private Sector Assessment Reports (PSARs) done by Compete Caribbean with its partners, several large and emerging sectors have the potential to increase economic growth.

Also, the Strategic Plan for the Caribbean Community 2015-2019, Repositioning CARICOM 2015, and the CARICOM Commission on the Economy have identified opportunities in energy, tourism, ICT, infrastructure, agriculture, agro-industry, and international business and financial services as sectors to generate economic growth and employment. Four sectors are highlighted below to illustrate the opportunities for jobs and entrepreneurship opportunities now and into the future.

**Renewable energy:** Worldwide, renewable energy is a fast growing sector that has the potential to generate tens of thousands of jobs and long-term job security. In the Caribbean there is an expanding interest by many countries to replace the high cost of electricity fueled by diesel. They include:

- Barbados, a leader in solar energy, has committed to generate 29% of its electricity by renewable sources by 2029, thanks to supportive government policies, access to financing, and training initiatives. For example, through a partnership with Sault College in Canada, Samuel Jackman Prescod Polytechnic offers solar installer training.
- In Antigua and Barbuda, a four-megawatt wind and solar project will provide energy to desalinate water and increase climate resilience, avoiding approximately 8,275 tonnes of CO2 per year. Funds are being provided by the International Renewable Energy Agency, in partnership with the Abu Dhabi Fund for Development.
- Aruba, the Bahamas, the British Virgin Islands, the Colombian islands of San Andrés and Providencia, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and Turks and Caicos are advancing renewable energy projects under the Carbon War Room's "Ten Island Challenge". The Carbon War Room is an independent non-profit organisation, with financing from the Caribbean Development Bank, the U.S. government and others. The NGO is working with the Caribbean Electric Utility and CARICOM to speed up the adoption of business solutions that reduce carbon emissions at giga-tonne scale and advance the low-carbon economy.
- Jamaica has a nationwide goal of 20% renewable energy (including solar and wind technology) use by 2030. For example, the US$60 million solar energy power plan titled, the Content Solar Project, is under construction and will be connected to the grid by June 2016. It will be the largest and most sophisticated electricity facility in the Caribbean.

Jobs now and in the future in the renewable energy sector require workers with different technical skills in many different disciplines at various development phases of a project, from planners and developers to mechanical, civil and electrical engineers, construction workers, and human resources and legal support.

**Construction and repairs/maintenance:** The increasing number of renewable energy projects, as well as demands for infrastructure maintenance and repair in the wake of natural disasters, and ongoing road repairs, improvements, upgrades and additions to transportation systems provides a range of jobs in the construction sector.

Infrastructure projects planned and underway include:

- Trinidad and Tobago's single largest public works project, the US$1.16 billion Solomon Hochoy Highway extension is 45% complete;
- Two large-scale water supply redevelopment projects launched in late 2015 in St. Lucia;
- A US$240 million investment in the Plasma Gasification Waste-to-Energy Plant in Barbados;
- A geothermal plant in Dominica that will make it the first Caribbean country to be powered entirely by renewable energy sources; and
- the expansion of boutique resorts in Jamaica over the next 10 years by Karisma Hotels and Resorts of Florida, a US$900 million investment.

As of June 2015, 44 hotels with 9,382 rooms were under contract, and 14 hotels with 4,240 rooms were under construction, including a five-star luxury hotel in St. Kitts and Nevis that opened in 2016 (RLB/Ryder Levett Bucknall, 2016).

**Tourism:** Tourism has long been a major source of income and jobs in the Caribbean, with economic benefits in the construction, creative and other sectors. However, the tourism service sector also contains many low skilled occupations that are important for absorbing surplus labour, but do not typically drive economic growth. (Ernst, 2009)

Future growth depends on a solid world economy, and broadening tourism products to appeal to a more diverse visitor. Niche products and services include: eco-adventure experiences, such as hiking, river rafting, diving, sports, yachting, culinary arts, health and wellness, agro-tourism, natural and heritage attractions, and creative products and events.

Creative industries, which are closely allied with the tourism sector, includes activities that bring together the arts, culture, business and technology. In the Caribbean context, the sector centres on activities such as music, art and craft, theatre, film, and fashion and publishing, but also includes software, new media and copyright collective management organisations. Cultural and creative industries are among the fastest-growing aspects of the global economy—they represent up to seven percent of the world's GDP, with growth forecast at 10% per annum, driven in part by the convergence of media and the digital economy. Jamaica has garnered worldwide acclaim for its culture (particularly music) and sporting prowess, particularly in athletics. Besides drawing tourists – and replacing foreign

tourist trinkets with locally-made artisan products – creative industries provide an avenue for economic diversification and export growth for the Caribbean.

Creative industries can act as an important pillar of economic diversification and structural change by leveraging new technologies and skills to produce innovative products and services. Creative industries also provide an opportunity to produce differentiated goods and services that allow the emergence of distinctive Caribbean brands which promote innovation and entrepreneurship opportunities.

**Agriculture and Food Processing:** According to the Food and Agriculture Organisation of the United Nations (FAO) Director-General José Graziano da Silva, agriculture, particularly family farming, is crucial for Caribbean countries to achieve food security as they face climate change and other challenges, and can also spur their economic development by creating jobs, especially for youth. While agriculture has declined in many countries with the loss of preferential markets in the EU, agriculture-based industry is seen as a sector with potential for growth.[8]

In Jamaica, where the food-processing sector is a major producer of manufactured commodities of animal feeds, flour, sugar and poultry meats, the World Bank highlights food-processing, specifically the sauces and spices subsector, as an area of growth with potential for extensive export growth. Also, in Jamaica there is interest in the development of cannabis-related products given its growing medical marijuana industry and the loosening of laws and regulations in some countries (e.g. Canada and parts of the U.S.) The potential for the industry is still in its infancy, but some Member States could benefit from further developments of the plant in a broad range of areas such as medical marijuana and spin-off products such as lotions, cosmetic products, and cannabis-related tourism for medical purposes and other health-related services.

In St. Vincent and the Grenadines, agro-processors are rapidly increasing and now has a development organisation called VincyKlus Inc., a cluster of agribusinesses that works to reduce costs and coordinate standards. A number of small agro-processors have successfully sustained their businesses via links to the tourism sector. Some of the value-added products include chocolate (from cocoa) and meat.

In Suriname, agriculture remains an important sector because it is a major source of employment in rural areas, provides around 5% of the country's foreign exchange, and is responsible for the production of the population's main staple food, rice.

- In Guyana, the only Caribbean country that is a net food exporter, agriculture accounts for a larger share of total production than in other countries in the region. The sector is now using technology to modernise and increase capital and labour productivity, and is exploring the use of agricultural products in fashion and health (including cosmetics and medicine), and for the construction of furniture and crafts. Expansion and diversification would result in increased exports and have a positive impact on employment and social benefits for the rural population.

[8] FAO Director-General speaks at 26th Caribbean Community summit, February 2015
http://www.fao.org/news/story/en/item/278903/icode/

## D. Recommendations for Moving Forward

Several lessons can be drawn from the findings and analysis noted above to help advance efforts to modernise the region's education and training system. Some of these lessons can be drawn from the experiences of other countries around the world that have successfully travelled paths to reform, such as Singapore, Finland, Ontario (Canada), and Chile.

**Provide opportunities for as many learners as possible to succeed** – Modern education and training systems cast the broadest possible net to provide opportunities for all students to succeed. This means ensuring that classrooms are centred on the needs of the learners and providing multiple pathways to success in both the academic and TVET streams. The current exam process is not learner-centred because it is not designed to assess whether students can apply their knowledge to real-life situations, the true measure of a successful education system.

**Improving education and training outcomes is a long term endeavour** – It can take at least two decades to register sustained improvements to education and training outcomes. Policies and strategies must be followed through with concrete action plans, and, a commitment to monitoring and evaluation to help drive continuous improvement.

**A well-functioning local labour market is crucial** – The demand for education in the Caribbean is likely to remain intense. Therefore, the region needs more effective labour laws and regulations, and labour market policies and practices to create sufficient and decent jobs that pay competitive wages, use LMI, and provide workers with opportunities to upskill or pursue entrepreneurship.

**One area where further research is needed** is to understand how globalisation of education is affecting the region's ability to compete on a global stage. Currently, the actual numbers of students leaving the region, where they are migrating to, and what they are studying abroad are not well documented. Research in this area could entail selecting a sample of graduates, conducting exit interviews of recent graduates, tracking their progress, what courses they have studied, and what type of employment they have acquired. This research would help the region to make improvements to its own education and training system to better align it with the needs of students, graduates, and the economy.

***Key Recommendations***

The review of the literature for issues facing the competitiveness of education and training in CARICOM, and analysis of related data and information are the basis for four practical recommendations on ways to improve the performance of the system.

**Recommendation 1: Coherent regional strategy to mitigate the effects of brain drain**

CARICOM needs a regional strategy to help its own graduates access comparable quality skills training and tertiary education at home, develop good paying local jobs, and stay connected to those graduates who do decide to seek opportunities abroad. The strategy should facilitate opportunities for the diaspora to be involved in the development of the region, even from abroad.

**Recommendation 2: Each Member State needs an education data management system.**

CARICOM needs to enhance its data management capacity as well as its capacity to measure, monitor, and evaluate education and training programmes. This would allow for a level of planning and evaluation that is part of modern high-performing systems. It could be modelled on the work started by the OECS Skills for Inclusive Growth in St. Lucia and Grenada as well as systems under development in pockets throughout the region. It should incorporate education data from the mainstream system as well as from TVET, and involve TVET councils and NTAs in the design and management of the system. The evaluation of programmes needs to become the norm rather than the exception to ensure continuous learning and improvement.

**Recommendation 3: Revisit how second chance education is delivered in the region**

Modern education and training systems ensure access to quality education for all students. CARICOM needs a better way to identify potential at-risk youth and put in place preventive measures within the mainstream school system to encourage students to stay in school. This would include a more effective approach to providing education and skills training to those who are at-risk of not succeeding in the traditional streams of education. Early identification of at-risk learners will help to mitigate the need, over time, for second chance education and would help to remove some of the stigmatisation associated with alternative pathways.

**Recommendation 4: Develop a regional portal and coordinated approach to TVET**

The C-EFE is a comprehensive programme that is helping colleges in the Caribbean to identify courses, in collaboration with Canadian universities and colleges, to promote TVET. The potential for C-EFE to make a difference in the Caribbean is significant. The region must ensure that this new C-EFE leads to an effective implementation of TVET programming. A key element of the implementation strategy should be based on a regional approach to guidance counseling and employment centres that are linked to labour market information and intelligence.

***Conclusion***

Globalisation is playing an important role in creating better jobs, increasing wages in both rich and poor countries, and improving working conditions. But these potential benefits do not accrue automatically. As the world moves into the Fourth Industrial Revolution, the education and training system for CARICOM must continue to adapt to globalisation and technological changes, recognising the complex social, economic, and political environment of the region.

There are plenty of examples of other developing countries that have travelled down similar paths and gone through the challenging steps to improve their education and training system. The challenges the region faces are not insurmountable or impossible. But it will take time and commitment.

The Human Resource Development and Education Strategy 2030 is going to be an important document for the region. But the strategy alone won't be enough. It must be followed through with a committed action plan to carve out its competitive advantage and take advantage of its rich history of placing considerable importance on education. Building on the gains made thus far, the region is well-positioned to advance its interests in developing a 21st century education and training system.

## Annex 1: Research Matrix

The following table highlights the research questions that were addressed in the paper. The questions are organised by three themes which are taken from the Terms of Reference. The sub-questions are based partly discussions with the CARICOM Secretariat and Education Specialist. The responses to these questions make up much of the analytical section of the paper.

| Discussion Themes | Key sub-questions | Where to find it in the discussion paper |
|---|---|---|
| 1. Analysis of education and training systems in terms of **structure*** | What should be the objectives of a modern and competitive education and training ecosystem? What are the characteristics of ecosystem? | Sections C.1.1 and C.1.2 |
| | What structures of a modern and competitive education and training education system are needed to promote innovation and creativity in the region? | C.1.3 |
| | What are the roles and responsibilities of the partners? What coordinating mechanisms are needed to ensure effective partnerships? | Section B and C |
| 2. Analysis of education and training systems in terms of **content*** | What are the main policies/strategies being used regionally, by state, and globally to create a modern and competitive education and training system? | Section C.2 |
| | What interventions are under way, regionally, by state, and globally to move young people from education and training to employment? Which ones are promising practices? Which practices are not working? | Section C.3.4. |
| 3. Analysis of education and training systems in terms of **alignment*** with employment, entrepreneurship, and regional/global needs | Do young people in the region have the information they need to make the right decisions of what subjects to enrol in for employment in the 21st century? | Section C.3.2 |
| | What skills are required for employment in the 21st century? Do the products of the education and training system [in the region] have the necessary skills and attitudes for work? * ("readiness to work") | Sections C.3.1 |
| | What are the mechanisms that connect education to employment? | Section C.3.3 |
| | What are the jobs of the future? Are we preparing our children/youth to take advantage of new job opportunities in the 21st century, particularly those associated with globalisation and new technologies? * | Section C.4 |

* Taken directly from the Terms of Reference.

## Annex 2: Brief description of selected education and training interventions across CARICOM Member States

**Caribbean Inclusive Growth Programme (sub-regional)**

The Caribbean Inclusive Growth Programme is an OECS initiative that took place in Grenada and St. Lucia and was designed to work with the private sector to address skills shortages and establish a policy and institutional framework to deliver skills to disadvantaged unemployed youth. This included basic literacy and numeracy, life skills and vocational training in a classroom and on-the-job internships. Certification was to be provided based on industry approved occupational standards competency-based standards. According to the World Bank, with its support "Saint Lucia and Grenada trained and certified more than 2,000 unemployed youth with regionally and internationally recognised certification, established a policy and institutional framework for delivering quality skills training, introduced industry-vetted regionally recognised occupational standards and a quality assurance system." The project report does not indicate what proportion of these trainees was employed after the completion of their internship.

**Youth Entrepreneurship Program for the Eastern Caribbean (sub-regional)**

The Youth Entrepreneurship Program for the Eastern Caribbean (YEPEC) is a NGO-based initiative that aims to grow business start-ups in five countries in the Caribbean. YEPEC was implemented in April 2012 and completed in December 2015. Generally, the services are provided by youth business trusts and include life skills, business development training, business plan development, mentoring as well as access to loans or grants to youth from 18 to 35-year olds.

**Job Link Up Programme (Anguilla)**

Job Link-Up is a state-run programme that targets young people from the ages of 15 and 24 who are considered at-risk of being unemployed because of socio-economic factors. It assists youth in developing an action plan that plots their entry into the workforce. The action plan includes individual counselling, group counselling, job shadowing, mentorship, job placement, academic and skills training. The concept behind Job Link-Up is that by completion, participants are fully integrated into the job market.

**Gilbert Agricultural and Rural Development Center (GARDC) (Antigua and Barbuda)**

GARDC is a grassroots NGO that is a training facility providing employment opportunities for young men and women. It specialises in vocational skills training in agriculture for vulnerable youth who have dropped out of school, but it also offers Mathematics and English courses towards CXC certification. It is bringing attention to gender stereotyping in the vocational choices of women. The Center helps its graduates access internships, job placements, and business development services such as financing, business plan development, and mentorship towards setting up new businesses.

**Bahamas Technical and Vocational Institute (BTVI)**

BVTI is a semi-autonomous body affiliated with the Ministry of Education delivering occupational training to a diverse student population consisting of young high school graduates, non-completers, mature students and persons with varied academic backgrounds, training requirements and interests.

**Samuel Jackman Prescod Polytechnic (Barbados)**
SJPP is a public technical/vocational institute whose "mission is to meet the needs of its students through the provision of rich and diversified curricula which emphasise career education and training." It provides a full range of skills training for secondary school students, industrial workers, and teachers.

**Alternative, Collaborative, Community Education Support Services (ACCESS) Program (Belize)**
The goal of ACCESS is to improve the socio-economic opportunities of youth and young. Learners acquire basic literacy and numeracy skills, become aware of available occupational trades and standards, learn the importance of life and employability skills, practice employability and communication skills in the workplace, and become aware of the technical language and mathematical concepts used in the various occupations.

**Centre Where Adolescents Love to Learn and Serve (CALLS) (Dominica)**
CALLS is a secondary vocational school that offers various training and education programming for at-risk youth. It is an NGO with programming modeled after an organisation from Trinidad and Tobago, Service Volunteered for All (SERVOL) that provides community-based education and training opportunities.

**New Imani Programme (Grenada)**
New Imani is a CXC designated Second Chance Institution that is a state-run training programme for young people 18 to 35 years old. All trainees are provided with personal development through life skills classes, literacy and numeracy classes, as well as skills training and apprenticeships. New Imani also allows for scholarship referrals to universities, small business training, and access to funding for youth enterprise development.

**Youth Upliftment Through Employment (YUTE) (Jamaica)**
The YUTE programme is designed as a private sector intervention to address the urgent needs of at-risk, inner-city youth between the ages of 16 - 29. The programme builds technical and social skills and provides long and short term economic and entrepreneurship opportunities. It has three holistic goals: to improve employability, to increase life skills, and to provide opportunities for gainful employment.

**Advanced Vocational Education Centre (AVEC) (St. Kitts and Nevis)**
AVEC, a CXC-designated Second Chance Institution, is a post-secondary institution of learning that focuses on technical and vocational education and training. In 2000, the format of the programme changed to a training programme offered in a competency-based format that consists of 70% of practical training and 30% theory.

**National Skills Development Centre (NSDC) (St. Lucia)**

NSDC, a CXC-designated Second Chance Institution[9], was officially launched in February 2001 as a quasi-non-profit statutory body. It offers a range of TVET for unemployed and disadvantaged youth to become self-reliant and realise their career potential. NSDC's training programmes are designed to be demand-driven to meet the labour market needs of St. Lucia. The full set of services offered at the centres include soft skills, career counselling, computer labs and learning resources as well as technical and vocational skills training, job attachment/placement, and small business training.

**Programme on Lower Vocational Education[10] (Suriname)**

In 2012, Suriname started to reform its lower vocational education, the first years of secondary vocational education. The Programme on Lower Vocational Education is aimed at implementing an important part of changes to the TVET process. The programme includes secondary technical and vocational education, teacher development, school leadership, and strategic support. The programme is funded by the Flemish and Belgian governments.

**Youth Training Employment Partnership Programme (YTEPP) (Trinidad and Tobago)**

YTEPP is a Limited Liability Company that was introduced as a national response to the growing problem of unemployed and unemployable youth. There are three programmes streams which all use a three-pronged approach to providing training, including life skills and career enhancement; vocational skills; and small business or micro-entrepreneurship. CSEC subjects and eight specialised education and vocational skills are offered.

[9] In April 2013, CXC announced the Strengthening Second Chance Programme that included US$4.2 million in funding from USAID. The programme targeted at-risk youth between the ages of 16 and 35 and is available across eight countries, including Antigua and Barbuda, Barbados, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago. It is designed to develop life skills, training/ retraining for the world of work, portable certification, and a continuing education platform for future development. The Programme is taught at 13 learning institutions designated by CXC to offer CVQ Levels 1 and 2, and CCSCL.

[10] See the following web link for more information http://www.vvob.be/vvob/en/programmes/suriname

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Ms. Russell is an M.A. candidate in International Development (anticipated completion 2019) and has an educational background in Statistics, Mathematics and Economics. She has worked consistently on social policy research using statistical analysis and methods in various disciplines.

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