



Bridging the Technical and Vocational Skills Gap in the Bahamas: The Role of Gender Diversity in the Trades

Robert W. Robertson

INTRODUCTION

The Bahamas has an economy that is based primarily on tourism and financial services. The Government of the Bahamas has identified technology and vocational training to assist in the development of the national economy.

As a part of this initiative to diversify the economy using technology, there has been a skills gap identified that represents a fundamental challenge to achieving the overall economic development goal. Increasingly, technology is viewed as a key to driving new economic opportunities for jurisdictions globally. For a viable economy, there is a requirement for a workforce that has the new skills to be globally competitive. Currently, data from recent surveys suggest that there is a skills gap with respect to the economy in the Bahamas.

R. W. Robertson (✉)
The Bahamas Technical and Vocational Institute, Nassau, Bahamas

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This chapter will identify the initiatives of the Bahamas to diversify the workforce. In particular, this presentation will outline the specific, innovative steps being undertaken by the Bahamas Technical and Vocational Institute (BTVI) to understand the existing and future needs of firms. These steps include the use of surveys to capture accurate and timely information on the needs of businesses, using stackable credentials to improve employee skills, using industry certifications and global accreditation standards combined with academic credits, developing dual enrollment cohorts with high schools, engaging business partners through program advisory committees, and using online and blended courses to meet the demands of geographically distributed students.

THE GLOBAL SKILLS GAP

The literature globally suggests that there is a skills gap being faced by many businesses. Based on current trends in population, education, and labor demand, one report projects that by 2020 the global economy could face the following hurdles:

“38 million to 40 million fewer workers with tertiary education (college or postgraduate degrees) than employers will need, or 13 percent of the demand for such workers;

45 million too few workers with secondary education in developing economies, or 15 percent of the demand for such workers;

90 million to 95 million more low-skill workers (those without college training in advanced economies or without even secondary education in developing economies) than employers will need, or 11 percent undersupply of such workers” (Dobbs et al. 2012).

In addition, a recent survey in the UK suggests that “many university degrees offered neither the technical nor vocational knowledge that businesses wanted and that more than half of UK graduates were working in non-graduate roles” (Hays, 2016). The skills gap has worsened by 8% over the past five years, it found. “What was previously a skills gap is fast becoming a skills chasm,” said Alistair Cox, chief executive of Hays, the recruitment company that produced the report with consultancy Oxford Economics (Hays, 2016).

The Inter-American Development Bank notes that human capital must be the focus of investment, including specific programs in the areas of technical and vocational apprenticeships to bridge the skills gap, in the Caribbean region (Alaimo, Bosch, Kaplan, Pages, & Ripani, 2016). Similarly, a report in Canada notes that “the displacement of workers in traditional jobs is a major concern; Canada must equally focus on preparing its workforce to take advantage of new opportunities that will be created in emerging sectors. This focus means strengthening our K-12 and post-secondary education systems to teach both specialized and soft skills, thus building a strong platform for further skills development” (Advisory Council on Economic Growth, 2017). In Ireland, KPMG (2017) notes that “numerous reports have predicted the continued growth of job opportunities in Ireland in the area of ICT, and the need for suitably qualified staff to fill these positions... we have a skills gap and we need to enhance the levels of female participation.” In developing countries, such as Vietnam, similar concerns exist. In Vietnam, a “World Bank survey of employers in 2014 identified gaps in job-related technical skills, as well as in cognitive skills such as problem solving and critical thinking, and core skills such as teamwork and communication. There are skills gaps and mismatches that exist between the classroom and the workplace” (*Thanh Nien News*, 2015).

The Organization for Economic Co-operation and Development observes that a significant lack of skilled workers means many employment vacancies remain unfilled. Indeed, the OECD suggests that at the height of the global financial crisis, there were still “...more than 40% of employers in Australia, Japan, Mexico and the United States that were unable to find people with the right skills” (The Council on Industry, 2012). Clearly, there are numerous concerns globally related to the skills required in a technological and globally competitive economy. These concerns span geographic boundaries and impact different types of national economies.

When considering the full range of concerns related to skills, firms (and countries) are responding to forces such as trade liberalization, globalization, and an ever-improving technology all within a more competitive economic environment. Firms are reacting by looking for solutions to manage these changes. Some of the solutions include finding support to match employee skills to evolving job requirements and encouraging educational attainment in specific job fields, both geographically and in terms of specific industries.

Cisco (n.d.) identifies seven key trends impacting technical and vocational training, including:

- “Students are entering vocational training at an earlier age and later in life;
- The international TVET market is moving “in country”;
- Student retention is the new battleground;
- Delivery is now multi-model, multi-channel and immersive;
- New funding models and cost-shifting approaches are emerging to meet infrastructure demands;
- New partnerships are driving broader, deeper, and more tailored training;
- Movement between sectors is bringing old issues to a boiling point.”

An observation and shared theme related to the global skills gap is the increasing relevance of women in resolving the growing skills gap. For example, the Tulsa Welding Schools notes that “as technical program educators and manufacturing employers discuss ways to appeal to more high school students, some are turning their attention to women as a potential source of new job candidates. For years, women have been slowly but surely entering the field of skilled labor. The same reasons that draw men into the field (for instance, hands-on training and assignments, rewarding work, a sense of making real accomplishments every day) are also compelling for women” (Tulsa Welding School, n.d.). Cobb (2018) suggests that trained and skilled women are the key to a thriving knowledge-based economy. Similarly, Robertson (2018) notes that there are opportunities in Tampa, Florida (USA) area to respond to the skills gap using a more diverse workforce. In the UK, there is also a critical demand for additional construction employees, and training women to take these construction jobs represents a comparative advantage on a national level (Ranstad, 2019).

In summary, many countries are facing key challenges in providing the skills required for twenty-first-century business.

WOMEN IN THE TRADES: A GLOBAL PERSPECTIVE

As a result of the global skills gap, many countries and cities are increasingly recognizing the importance of understanding diversity opportunities within the existing workforce. By directly addressing the skills gap, these

jurisdictions are looking to improve their comparative advantage in contrast to other communities. Indeed, the International Labour Organization (2010) suggests that countries need to develop strategic approaches to recognize the critical opportunities associated with a more diverse workforce, including expanding the role of women in the economy.

Specifically, many jurisdictions are encouraging the use of more female workers in non-traditional fields such as trades. Indeed, Explore the Trades (n.d.) notes that “the plumbing, HVAC, and the electric industries’ urgent need for skilled workers creates opportunities for women to enter and advance in these fields. Increasing the overall number of women working in the trades will also help to fill the imminent gap in the labor force that will be created with record-levels of upcoming retirements of skilled tradespeople. Jobs in the trades further offer women the chance for meaningful work with high wages” (Explore the Trades, n.d.). For example, “Oregon Tradeswomen promotes success for women in the trades through education, leadership, and mentorship. We were founded in 1989 on the principles that women deserve and can attain economic self-sufficiency by pursuing careers in the construction, manufacturing, mechanical, and utility trades while helping and encouraging the trades industry to build a diverse workforce” (Oregon Tradeswomen, n.d.). Also, *Tradeswomen, Inc.* is a “California organization focused on encouraging and supporting women. Founded in 1979 as a grassroots support organization, our mission is outreach, recruitment, retention, and leadership development for women in blue-collar skilled craft jobs” (Tradeswomen Inc., n.d.).

Primarily, many jurisdictions are seeing the benefits of a more diversified workforce, particularly with expanded roles and opportunities for women.

THE ECONOMY OF THE BAHAMAS: AN OVERVIEW

The Bahamas has a population of approximately 400,000 people, and it is the wealthiest country in the West Indies and the third wealthiest country in the Americas. It is a stable, developing nation with an economy heavily dependent on tourism and offshore banking. Steady growth in tourism receipts and a boom in construction of new hotels, resorts, and residences had led to substantial GDP growth for many years, but the slowdown in the US economy and the attacks of September 11, 2001 held back growth

in these sectors in 2001–2003. Financial services constitute the second-most important sector of the Bahamian economy, accounting for about 15% of GDP.

However, since December 2000—when the government enacted new regulations in the financial sector—many international businesses left the Bahamas. Manufacturing and agriculture together contribute approximately 10% of GDP and show little growth despite government incentives. Overall growth prospects in the short run rest heavily on the fortunes of the tourism sector, which depends on economic growth in the USA, the basis for more than 80% of the visitors to the Bahamas. In addition to tourism and banking, the government supports the development of a “3rd-pillar,” e-commerce (Alaimo et al., 2016).

A recent policy report of the Inter-American Development Bank identified several critical challenges facing the Bahamas. Specifically, the report notes that “for the past half-decade, unemployment levels have remained between 14 and 16%, with youth levels at almost twice the national rate, measured as high as 30% over the same period. According to the Labor Force Survey, female unemployment was higher than that for males in 2016 (14.5 and 11%, respectively). The overall unemployment rate declined to 9.9% in May 2017 from 11.6% in November 2016” (Wright, 2018).

BTVI (BAHAMAS TECHNICAL AND VOCATIONAL INSTITUTE) FAST FACTS

BTVI is the premier tertiary technical and vocational education institution in the Bahamas. It has a long history of providing high-quality skilled employees throughout the Bahamas. Initially established in 1949 as The National Technical School, BTVI currently serves more than 5000 students in Nassau, Freeport, Marsh Harbour, Nichols Town, and online (Fig. 8.1).

Additionally, BTVI provides a series of short non-credit courses serving approximately 1000 students. Further, BTVI has developed a dual enrollment program with high schools that allows students to take college-level credits while in high school and gain a perspective on possible future technical career opportunities. Finally, BTVI has increasingly worked side by side with business and industry to create and deliver quality training courses, many of which include external industry certifications.

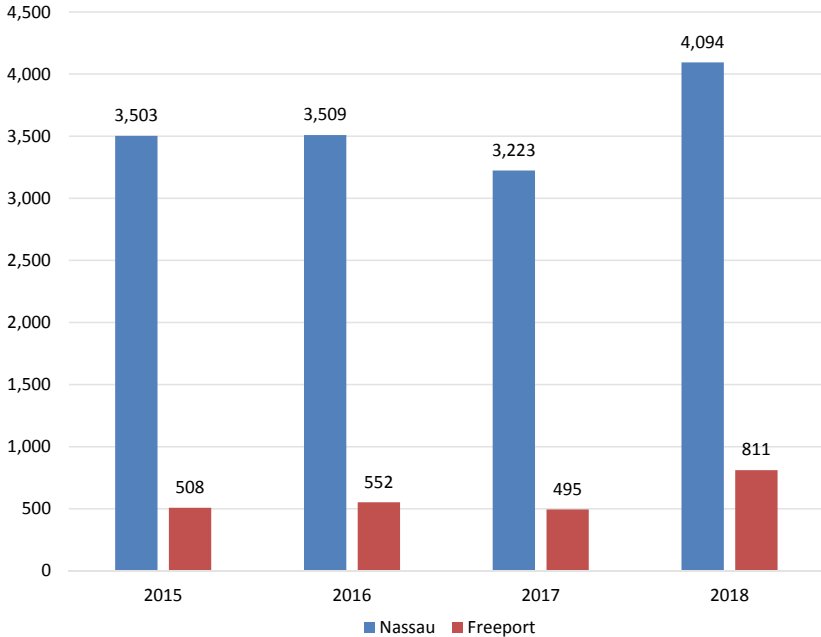


Fig. 8.1 Student enrollments by campus (*Source* BTVI Annual Report, 2019)

An example of the importance of these industry linkages is the use of industry-led program advisory councils that inform BTVI of the curriculum and specific skills required by the business sector. In that regard, BTVI recently received status as a City and Guilds Centre; BTVI was named a Cisco Academy in 2018, and BTVI has received awards for its use of CompTIA (n.d.) certifications. All of these achievements are examples of an enhanced, strategic drive to improve academic quality and links to business.

The details of the current program offerings and enrollment by program are illustrated in Figs. 8.1 and 8.2.

In addition to these courses, BTVI has developed and implemented a number of external programs including a Citizen Justice and Security training project for more than 300 inmates; an Information Communication and Technology (ICT) multi-year program training 500 high school students in technology; Ministry of Tourism Bonefish certified

Programs	2016	Percentage	2017	Percentage
Applied Associate Degree	937	23%	757	20%
Diploma	197	5%	163	4%
Certificate	1805	44%	1526	41%
Tech Prep.	380	9%	465	13%
Preparatory	255	6%	88	2%
Special Interest Courses	139	3%	163	4%
Dual Enrollment	57	1%	104	3%

Fig. 8.2 Enrollment by programs (*Source* BTVI Annual Report, 2019)

guide training; Public Service 52 Week Skills program; and numerous corporate training programs designed to meet the specific needs of businesses, including Commonwealth Brewery; Grand Bahama ShipYard; and, the Freeport Container Port. These custom programs are designed with the input and approval of the industry partner to align academic quality with the practical skills required by the particular client.

BTVI regularly graduates approximately 300 students (Fig. 8.3) with certificates, diplomas, and associate degrees. The high attrition rate reflects, in part, the opportunities that many students have once they take a portion of a particular course or program. As the trades are not generally licensed in the Bahamas, many students simply drop out early to accept a job.

As illustrated in Fig. 8.3, almost 67% of all graduates are female. Yet the percentage of female graduates in the trades remains very low. For example, there are no female graduates in plumbing, welding, carpentry, electrical and heating and ventilation, although these are key skill areas in high demand within the Bahamian economy. Fundamentally, this low level of female participation in the trade disciplines represents an opportunity to improve the economy of the country.

To assist in developing gender equality and to improve the skills in the workforce generally in technical and vocational skills, BTVI has initiated several proactive efforts designed to introduce the opportunities. These initiatives include:

Elementary School Visits to the Campus

BTVI has initiated a proactive project to visit elementary and high schools in many parts of the country to provide students with details on the types

Programme	2016				2017			
	Graduates	%	M	F	Graduates	%	M	F
Office Administration A.A.S.	43	17%	5	38	39	20%	2	37
Business Office Technology A.A.S.	10	4%	1	9	11	6%	1	10
Construction Technology A.A.S.	6	2%	6		4	2%	4	
Electronics Engineering Installers & Repairers A.A.S.	1	1%		1	2	1%	2	
Information Technology Management A.A.S.	12	5%	5	7	12	6%	6	6
Information Technology Security Server A.A.S.	3	1%	3					
Cosmetology	8	3%		8	15	7%		15
Fashion & Design Production 2	1	1%		1	4	2%		4
Auto Collision	1	1%	1		1	1%	2	
Auto Mechanics	5	2%	5		5	3%	3	2
Barbering	8	3%	5	3	13	7%	13	
Carpentry			2		5	2%	5	
Electronics & Cable Installation	1	1%			1	1%	1	
Electrical Installation	11	4%	21	3	12	6%	13	
Esthetics	18	7%		18	11	6%		11
Heating Vent & ACR	5	2%	6		4	2%	4	
Fashion & Design Production 1	1	1%			3	1%		3
Information Technology Entry 1	4	2%	3	1	3	1%	3	1
Information Technology Support Specialist	5	2%	5		2	1%	2	
Natural Hair Styling	13	5%		13				
Nail Technology	4	2%		4	6	3%		6
Office Assistant	57	23%	4	58	29	15%	3	26
Painting & Decorating								
Plumbing	5	2%	5	1	3	1%	3	
Message Therapy	13	5%	1	12	10	5%		10
Tile Laying								
Welding	10	4%	9	1	1	1%	1	
Totals:	256	100%	87	179	196	100%	68	131

Fig. 8.3 BTVI graduation statistics: graduates by programmes and gender (Source BTVI Annual Report, 2019)

of career options open to them. In particular, these visits are important in noting that there are many emerging opportunities in the trades for employment including self-employment.

Guidance Counselor Workshops

A key to reaching students is to ensure that the guidance counselors are aware of the opportunities that are available—and will be available—for their students. Annually, BTVI hosts workshops that identify the courses and timelines to complete programs of study. In addition, these sessions speak to the job opportunities that are available with trade and vocational training and certification.

Dual Enrollment for High School Students

Many high school students are now seeing value in taking trade courses for college credit while in high school. This can accelerate their progress to a college credential—and a better job. Also, the dual enrollment experience affords them an opportunity to actually attain practical workforce training. In many cases, students can complete a high school diploma and a college certificate at the same time. BTVI actively recruits dual enrollment students and it has developed a blended dual enrollment program that will allow high school students on the out islands to participate in this program.

More Flexible (Blended) Course Offerings

As a geographically diverse country, the Bahamas has challenges in delivering quality training across the 700+ islands. BTVI has developed and delivered blended courses to more than 600 students. In particular, a national ICT dual enrollment program has been initiated with the support of the government. This program includes a series of five courses each summer for a period of three years. Of the fifteen courses, ten carry industry certifications from, for example, Cisco and CompTIA. One element of this program has been the participation by female students in a Cisco initiative GIRLS POWER TECH. This daylong session was designed to inform students about the existing and career options available to females in technology.

Community Organizations

The Zonta Club of New Providence (Nassau) has worked with BTVI for more than ten years on developing and delivering a workforce readiness

summer program to more than 200 young Bahamian women. Essentially, Zonta International is a "...worldwide service organization of executives in business and the professions working together to advance the status of women. Zonta has been working around the world to improve the lives of women through our global service and advocacy efforts designed to prevent violence against women, increase access to education and health-care, and expand economic self-sufficiency" (Zonta, n.d.). Essentially, the BTVI program is designed to build key technical and soft skills as well as confidence related skills required in the workplace. Many of the participants in this short training program have gone on to more formal educational opportunities.

CONCLUSION

There is a clearly identified skills gap impacting the global economy, which is also evident in the Bahamas. In the Bahamas, there is a particular need for a workforce trained in the trades. The training required is a necessity for both males and females. However, one specific method that can be used to address the skills gap is to ensure equity of access and opportunities for women to be trained and prepared for technical and vocational careers. In that regard, diversity will continue to drive economic development opportunities; and a skilled workforce is increasingly important.

The Bahamas Technical and Vocational Institute is the national technical tertiary academic organization providing innovative workforce-ready programs in the Bahamas. Many of these academic courses provide industry certifications in addition to academic credit. BTVI is cognizant of the vital role that women play in the economy and the roles that will be available in the future.

The overall objective at BTVI is to systematically build the Bahamian workforce to compete in a global technological world. Increasingly, this workforce will be required to mirror the diversity of the population and use that diversity to develop a competitive advantage as a country.

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