

# **Estimating the Financial Incentive for Caribbean Teachers to Migrate: An Analysis of Salary Differentials using Purchasing Power Parity (PPP)**

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## **Abstract**

The teaching stock within the Caribbean region has been eroded by migration to developed countries. Higher potential earnings are one of the motivating factors to move abroad, but little is known about the extent of the income disparity between countries in the Caribbean and popular destination countries. Teacher salary comparisons are undertaken between selected countries in the Caribbean; Suriname, Trinidad and Tobago, St. Lucia, and Jamaica and popular destination countries, namely; United Kingdom, United States, and Canada using a purchasing power parity (PPP) exchange rate. Results show that newly qualified teachers can earn substantially more abroad, with Canada paying over twice the PPP adjusted salary compared to that offered in Jamaica (133.1%) and Suriname (110.6%). The United States offers the highest earning increases for mid- and late career teachers at over three times that offered in Jamaica (214.5%) and Suriname (223.4%). Canada is a close second across all Caribbean countries, whilst the United Kingdom offers the smallest salary differentials at 153.6% for Jamaica and 64.8% for St. Lucia. The study further reveals that there are salary disparities within the Caribbean, which may be a motivating factor for intra-regional migration.

*Keywords:* wage differentials, migration, purchasing power parity, caribbean

## **Introduction**

Global migration of highly skilled workers continues, with the greatest flow occurring from low to high income countries (McAuliffe & Khadri, 2019). Teachers form a sub-set of this highly skilled migratory population, with the decision to migrate driven by a number of factors, including economic considerations (income differentials), employment opportunities, and socioeconomic and political conditions in countries of origin (Alex & Chappell, 2010).

Teacher migration impacts beyond simply compromising the quality of education in sending countries, as teachers and schools play a crucial key role in the social and cultural infrastructure of all societies (Abel et al., 2018; Sives et al., 2004). Developing countries are disproportionately affected by teacher migration (Thompson, 2017), with some developing countries witnessing a diminished return on their investment in education through the migration of teachers and the resultant depletion of the source country's human capital assets, potentially destabilising the affected country's education system (UNESCO International Bureau of Education, 2019).

## **Migration from the Caribbean**

The Caribbean has one of the highest net migration rates worldwide (United Nations, 2019), with remittances from Jamaicans constituting over 15% of Gross Domestic Product (GDP) in 2015 (Beaton et al., 2017; Wenner, 2016). Inter-American Development Bank (IDB) data on small Caribbean States, indicate that 7 out of 10 highly skilled individuals with tertiary education migrate to Organisation for Economic Co-operation and Development (OECD) countries, mainly due to the socioeconomic conditions of their countries and limited employment opportunities for highly skilled individuals.

In 2007, the Caribbean region exported labour to foreign lands at a rate four times higher than Latin America. Migrants from the Caribbean continue to gravitate toward high-income countries, with Latin America

and the Caribbean region contributing 10 of the top 20 countries with the highest proportion of their nationals living abroad (International Organization for Migration [IOM], 2020). Based on the percentage of population, 2013 figures show that Guyana has a high emigration rate of 58.2%, Suriname at 49.2%, Jamaica at 39.6%, and Trinidad and Tobago at 28.0% (IOM, 2017). Other than the United States, Canada is attracting increasing numbers from the English-speaking parts of the Caribbean region, and in 2017 hosted 143,000 Jamaicans, 101,000 Guyanese, and 76,000 Trinidadians (IOM, 2017). In 2014, using only official transfer data, Haiti had the highest dependency on remittances as a share of GDP (21.1%), with Jamaica being second (15%) (IOM, 2017).

Caribbean migration has adversely affected two key sectors—health and education (Beaton et al., 2017), with the focus of this paper being on the latter. The region is particularly affected by the migration of skilled teachers (UNESCO International Bureau of Education, 2019). Whilst migration impacts the absolute numbers of available teachers, it also results in the depletion of the more experienced teachers who are more sought after abroad (Sives et al., 2006). Literature suggests that there are several factors fuelling teachers to migration. These include the search for better salaries, working conditions, reduced student-teacher ratios, increased opportunities for development, better behaved and motivated students, and opportunities to work abroad (Sives et al., 2006).

Salaries are cited as both a push and pull factor for teachers looking to migrate (Bond, 2017). This study sets out to examine the exact nature of the salary disparities between selected countries in the Caribbean (Suriname, Trinidad & Tobago, Jamaica, and St. Lucia) in relation to teacher salaries offered in popular destination countries (United States, United Kingdom, and Canada). The analysis provides a backdrop to how these differentials across destination countries may potentially influence Caribbean teachers' decisions to migrate.

Salary comparisons based on exchange rate calculations can often overestimate the financial incentive to migrate, as they do not account for the typically high living costs encountered in the destination countries. The study uses a purchasing power parity (PPP) exchange

rate to equalise the international price of buying a representative basket of commonly bought goods. The PPP index renders apparent the real differences in salaries that are directly comparable for different levels of work experience across the countries.

Salaries expressed through PPP ratios will test the theory that salaries in destination countries are higher and therefore more enticing compared to teacher salaries in selected Caribbean countries, after accounting for cost of living adjustments (Gibson & McKenzie, 2012). This work builds on previous salary analysis undertaken on certain health worker cadres in selected Caribbean sending and popular destination countries (George et al., 2019).

## **Methods**

The method follows that used by George et al. (2019) to examine apparent salary differentials in the Caribbean region for health workers. As in that paper, recent purchasing power parity (PPP) exchange rate estimates from the International Monetary Fund (IMF) (IMF, 2019) were applied to country salary data. The concept of applying purchasing power parity exchange rates is well known and can generally be used to help illustrate why market exchange rates fluctuate due to differing inflation rates between countries (Dornbusch & Fischer, 1994). A PPP exchange rate effectively equalises the cost of living between two countries. A representative basket of hundreds of commonly bought goods (including food, entertainment, fuel, and utilities), selected by the International Comparison Program (ICP) generates the PPP rate (International Comparison Program [ICP], 2018; Silver, 2010).

As also described in George et al. (2019), the “basket” of these goods and services has been constructed by the World Bank and from that, the Economic Commission for Latin America and the Caribbean (ECLAC) generated a regionally representative list, based upon regional purchasing decisions (ECLAC, 2015). Some technical difficulties arise

from the fact that not all the same products are available in all countries and in the case of the Caribbean region, the ICP uses 570 different goods and services (ECLAC, 2015; George et al., 2019).

## **Data**

The data reflects the salaries of teachers who work in high schools (secondary schools). The salaries are tracked and compared across 3 levels: entry level or a newly qualified graduate teacher, a mid-level career salary point (at 5–10 years of experience) and a later career point (10–20 years). Table 1 reports annual basic salaries in the domestic national currency unit (NCU), the US dollar equivalent using market exchange rates, and the PPP adjusted salary (also in US dollars). To complete the results, all percentage gaps between country PPP salaries, using the selected Caribbean country figures as a base, are presented as a convenient comparator.

Following the method in George et al. (2019), the basic salaries shown in the results do not include any location weightings, allowances, or benefits and to avoid unnecessary clutter, any lower and upper bound estimates were reduced to a single point average. Whilst performance benefits are potentially awarded, they vary considerably across countries pertinent to particular teachers under certain conditions, but estimating these are beyond the scope of this study. The results are also examined at the gross salary level to which the dollar market exchange rates and corresponding PPP ratios are then applied. Net salary comparisons (with and without PPP applications) did not change the rankings or patterns established in the results.

The qualifications and salary structure of each country examined are briefly outlined below. For the destination countries this has already been described in George et al., (2019) and so will only be presented here in summary.

## **Suriname**

To teach at the Voortgezet Onderwijs voor Senioren (VOS) (Senior Secondary Education) level, a teacher must have at least an MO-A diploma and would fall in the 2e graad A scale. VOS teachers who have at least an MO-B (Masters level qualification) fall into 1e graad (Grade 1). It is the former that is used in the results. A teacher at a primary school with a Bachelor diploma receives the same salary as a teacher at a secondary school with equivalent qualifications (Ministerie Van Onderwijs, 2017). In 2015, the salary scale was changed from 16 increment periods to 6. This particular scale took effect from 2017, with each period representing 6 years of teaching experience (Ministerie Van Onderwijs, 2017).

## **Trinidad and Tobago**

Applicants to teach at secondary schools must have at minimum, the required O'Level qualifications and a Bachelor's degree from an accredited university or higher education institution (Ministry of Education [Trinidad and Tobago], 2020). Public sector teachers are currently receiving remuneration based on the Teaching Service Classification and Compensation Plan of 2018 (Ministry of Finance [Trinidad and Tobago], 2018).

Where a secondary school teacher begins on the scale depends on their qualifications (International School of Port of Spain, 2018). Our results use the salary for a typical high school teacher with a degree in a chosen subject area (Grade 4). Staff promotion depends largely on additional training and number of qualified persons applying for available posts (TTConnect, 2019).

## **Jamaica**

Regulation, registration, and licensing of secondary school teachers falls under the purview of the Jamaica Teaching Council (JTC)

(Ministry of Education [Jamaica], 2014). All teachers are required to register with the JTC as part of the application for employment process. Teachers are paid based on qualifications and experience (Jamaica Teaching Council, 2019; Ministry of Education [Jamaica], 2012). The salaries reported in the results are those offered to trained graduates with a Bachelor's degree.

### **St. Lucia**

In St. Lucia, teachers are paid based on their qualifications and not the level at which they teach, whether it be primary or secondary (World Bank/OECS Secretariat, 2012). However, the minimum requirement to teach at the secondary level is one or more Advanced Level passes (UNESCO, 2010). Secondary school teachers' salaries range from Grade 5 (Teacher IIa) to Grade 13 (Graduate Teacher III). Grades 14 and upwards are non-teaching posts and include principals and supervisors. Teachers are currently being paid based on the 2019-2022 arrangements, under which there are very small increases in salaries (around 1% or 2%), similar to the previous period (2016-2019) (Government of St. Lucia, 2019). For teachers to be promoted or qualify for higher salaries, they must gain additional qualifications (UNESCO, 2010).

### **United Kingdom**

The United Kingdom requires all secondary school teachers to have an undergraduate degree (that includes a subject to be taught) as well as a certified Post Graduate Certificate in Education (PGCE) teaching qualification or a Postgraduate Diploma in Education (PGDE). Graduates with a Bachelor of Education (B.Ed) degree are also accepted (George et al., 2019; Universities and Colleges Admissions Service, 2018).

As reported by George et al. (2019), London-based teachers always attract the greatest salaries—where £40,371 is possible for the M6 point and £48,243 per annum for the very top point on the

upper pay scale (George et al., 2019; TES, 2018). We report average salaries across England and Wales (including London salaries), but it is acknowledged that higher salaries could be an important factor affecting Caribbean migrants.

Generally, new graduate teachers start their career on the lowest salary point (pay scale point M1), with annual notch increments if performance meets the expected norms of school policy. A teacher can potentially earn at the highest point (M6) after 5 years and continue to move up the pay scale with increasing experience and achievement of other performance-based goals (TES, 2018).

## **United States and Canada**

Accepting some differences across North America and Canada, high school teachers must have obtained a Bachelor's degree (choosing at least two subjects of specialisation) and completed a teacher training (internship) program, or graduated with a B.Ed degree (Academic Invest, 2019; Eilers, 2021).

Canadian-based teachers must have a baccalaureate degree and are subsequently raised to the category 5 salary scale (Teaching Qualification Service, 2019). Moving up to a higher level on the scale is achieved by increasing experience and qualifications. These include, inter alia, two undergraduate degrees or a single master's degree (Teaching Qualification Service, 2019; *The Globe and Mail*, 2017).

Comparing salaries across the US and Canada (as described by George et al., 2019); California, Massachusetts, New York, Alaska, Connecticut, and Illinois offer the better salaries in contrast to the lower offers given by schools in North Dakota, Montana, and Wisconsin (Bureau of Labor Statistics, 2018; Eilers, 2021; George et al., 2019). Northwest Territories command the higher salaries in Canada, with Quebec being among the lowest (British Columbia Teachers' Federation [BCTF], 2018).

The U.S. State Licensing Board requires potential immigrant teachers to submit their qualifications and foreign-held degrees for

verification before they are allowed into a school, although this is not done at the federal but rather state level (U.S. Department of Education, 2019). Immigrant teachers coming into Canada face the same regulations as those required of a Canadian citizen, as described earlier. Each province has its own certification board that reviews and verifies all qualifications and degrees, as well as possible additional requirements such as language proficiency and permit requirements (Robynn , 2020).

## **Results**

Data indicates that secondary school teachers, independent of experience, enjoy increased spending power in destination countries. Trained teachers from the Caribbean can expect greater spending power if they move to any of the selected migrant countries, especially teachers at the mid- to late career point. The financial motivators to work abroad significantly improve, based on the PPP estimates, with experience.

Table 1 illustrates that Jamaica and Suriname are the two lowest paying countries, whilst St. Lucia and Trinidad and Tobago pay their teachers around 50% more. This gap widens with increasing experience. The latter two countries are wealthier and command higher GDP (PPP based) per capita; Jamaica has the lowest (\$10,400), with Suriname at (\$13,549) followed by St. Lucia (\$15,322) and Trinidad and Tobago (\$24,676) (IMF, 2019).

**Table 1**  
*Secondary school teacher salaries of selected Caribbean countries at US dollar market rates and PPP equivalent for three levels of career experience.*

	Jamaica <sup>4</sup>	Trinidad <sup>5</sup>	St Lucia <sup>6</sup>	Suriname <sup>7</sup>	UK <sup>8</sup>	US <sup>9</sup>	Canada <sup>10</sup>
<b>Early</b>							
NCU <sup>1</sup>	1,237,462	146,628	54,163	63,360	23,270	35,870	53,819
US (\$)²	9,173	21,658	20,060	8,505	30,926	35,870	40,163
PPP (\$)³	18,149	21,456	32,163	20,095	33,693	35,870	42,311
% PPP (\$) gap by each country	85.6(JAM)	97.6(JAM)	133.1(JAM)				
	57.0(TRI)	67.2(TRI)	97.2(TRI)				
	4.8(SLU)	11.5(SLU)	31.6(SLU)				
	67.7(SUR)	78.5(SUR)	110.6(SUR)				
<b>Mid</b>							
NCU	1,350,005	164,184	55,676	64,800	35,008	59,150	68,000
US (\$)	10,007	24,252	20,621	8,698	45,643	59,150	50,746
PPP (\$)	19,800	24,025	33,062	20,552	49,727	59,150	53,459
% PPP (\$) gap by each country	151.1(JAM)	198.7(JAM)	170.0(JAM)				
	107.0(TRI)	146.2(TRI)	122.5(TRI)				
	50.4(SLU)	78.9(SLU)	61.7(SLU)				
	142.0(SUR)	187.8(SUR)	160.0(SUR)				
<b>Late</b>							
NCU	1,505,185	199,308	57,188	67,680	39,406	69,425	81,468
US (\$)	11,158	29,440	21,181	9,085	51,377	69,425	60,797
PPP (\$)	22,076	29,164	33,960	21,465	55,974	69,425	64,074
% PPP (\$) gap by each country	153.6(JAM)	214.5(JAM)	190.2(JAM)				
	91.9(TRI)	138.1(TRI)	119.7(TRI)				
	64.8(SLU)	104.4(SLU)	88.7(SLU)				
	160.8(SUR)	223.4(SUR)	198.5(SUR)				

<sup>1</sup>salary in own national currency unit (NCU). <sup>2</sup>Author calculations. US dollars using average 2018 market rate (X-Rates.com 2019). <sup>3</sup>Author calculations. International dollar (purchasing power parity, PPP) (International Monetary Fund 2019). <sup>4</sup>Jamaica Information Service, 2018; Payscale.com, 2019). <sup>5</sup>(International School of Port of Spain, 2018). <sup>6</sup>Trinidad and Tobago. <sup>7</sup>(The Department of Finance, 2019) – St Lucia. <sup>8</sup>(Ministerie Van Onderwijs, 2017) – Suriname. <sup>9</sup>(NASUWT, 2018). <sup>10</sup>(Eilers, 2021) (Bureau of Labor Statistics, 2018). <sup>11</sup>(BCTF, 2019)

For a newly qualified teacher, the greatest earning potential (highest % PPP gap measured in US dollars) for a migrant teacher can generally be found in Canada when compared to Jamaica (133.1% more), Suriname (110.6% more), and Trinidad and Tobago (97.2% more). Similar results are found for the United States compared to the same Caribbean countries. Whilst in general, all three selected destination countries offer superior spending power for Caribbean teachers, the smallest gap is shown when comparing newly qualified teacher salaries in St. Lucia with the UK (4.8%). This gap grows when comparing St. Lucia with the United States (11.5%) and Canada (31.6%). Whilst these smaller gaps may not encourage large scale migration for newly qualified teachers, the gap widens for more experienced teachers.

Making the same country comparisons as above, the United States now offers over three times the PPP adjusted salary (slightly more than Canada) with the greatest gaps appearing again for Jamaica (214.5%) and Suriname (223.4%) at the late career point. A very similar pattern is evident at the mid-career point. Again, the best performer of the migrant countries is St. Lucia, but these gaps widen considerably at the two later career points, compared to the newly qualified results. This now amounts to 78.9% more for the mid- and 104.4% more for the late career point when compared to the United States, the highest payer.

## **Discussion**

This is the first study calculating the salary disparities between selected countries in the Caribbean and those of popular destination countries. The analysis reveals the extent to which teacher salaries in the United States, United Kingdom, and Canada are superior to the salaries paid to teachers in the four Caribbean countries included in this study. The magnitude of the salary disparities vary by country and by level of experience. Canada pays the highest to early career teachers with salaries more than double when compared to Suriname and Jamaica. The United States is the highest payer amongst the study countries with respect to mid-level and experienced teachers, three times more than the salaries available to the same level of teachers in Suriname and Jamaica.

This study further reveals that salaries vary between Caribbean countries, with St. Lucia and Trinidad and Tobago the highest payers, compared to Jamaica and Suriname, consistent across the levels of career experience. This could potentially influence the migration dynamic because whilst movement from the region is significant (United Nations, 2019), certain countries offering relatively higher salaries may experience lower rates of out-bound migration. Additionally, certain countries within the Caribbean could appeal to educators seeking higher salaries but reluctant to move outside of the region. These salary disparities could fuel the intra-Caribbean migration of teachers.

Although the promise of higher salaries abroad may appear appealing, it is recognized that this is not the sole factor contributing to teachers migrating from the Caribbean. A number of push and pull factors have been identified that play a role in the employment considerations of teachers (Thompson, 2017). These factors need to be examined in their entirety to ensure that efforts aimed at minimizing teacher attrition are effective. Of concern, and in response to the high levels of migration, policies aimed at improving working conditions, wage rates, and incentives to reduce migration have had limited success, with globally uneven development, problems of national economic development, or intensified recruitment often effectively countering these initiatives (Connell, 2010).

Notwithstanding, whilst employment abroad offers higher salaries and the prospect of better working conditions, migration is hampered by several challenges. A major aspect of this is that the qualifications and work experience gained in the home countries are often not recognized by potential employers and accreditation bodies (Caravatti et al., 2014). This results in teachers having to navigate a complicated bureaucratic process and once employed, often feeling dissatisfied and encountering unjust treatment (Washington Miller, 2008). To address this issue the Commonwealth Secretariat commissioned a Working Group on Teacher Qualifications, and developed “a teacher-qualifications table to provide the basis for pathways for the recognition of qualifications of teachers when they move across borders” (Keevy & Jansen, 2010). Both Jamaica and Trinidad and Tobago were participating countries in this effort, which also provided recruiters with the information necessary to facilitate foreign teachers receiving country-specific qualification recognition.

Despite the noted challenges, there remains a steady outflow of skilled labour from the Caribbean. In an earlier response, Ministers of Education from Antigua and Barbuda, Barbados, Cayman Islands, Grenada, Guyana, Jamaica, St. Lucia, and Trinidad and Tobago met in 2002 to discuss the issue of the recruitment of teachers from the Caribbean (Penson & Yonemura, 2012). This led to the signing of the Savannah Accord<sup>1</sup>, which required that research be conducted in Caribbean Community (CARICOM) countries to measure the impact of teacher migration on the education sector. The overall view of the Ministers was that while teachers could not be prevented from migrating, countries should negotiate packages with receiving countries as some form of compensation for losing teachers through recruitment. They also agreed that countries could provide additional incentives as a strategy to retain teachers.

Thomas-Hope (2002) warned against attempting to manage migration by limiting peoples' ability to move too drastically. These sentiments were echoed in the Savannah Accord<sup>1</sup>, the CTRP (2004), and by Robinson & Clark, (2008). The International Organization for Migration recommended that in the case of Suriname, given the labour shortages, the government should themselves consider employing immigrant teachers (Heemskerk & Duijves, 2015).

There remains a positive association with migration within the Caribbean, and a strong association of outward movement with freedom and opportunity. The guiding principle should not be to inhibit migration from lower income countries, but rather to find ways to support lower income countries in strengthening and increasing their education workforce, and to promote ethical recruitment by higher income countries (Robinson & Clark, 2008). Studies have suggested that countries explore the possibility of instituting incentive schemes to retain teachers and entice them back after a period abroad (Appleton et al., 2006).

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<sup>1</sup>The Savannah Accord was the culmination of a meeting of the small Commonwealth Caribbean countries to agree on strategies to stop the "brain drain" of educators to the UK and USA.

## Conclusion

This study adds to a limited body of literature on the economic factors contributing to teacher migration from the Caribbean. The data can be used to guide the formulation of both policy and strategies aimed at addressing teacher migration in the region.

Given the distinct variations in salaries, it is important to note that countries within the Caribbean should not be viewed as homogeneous. Consequently, some countries are rather more susceptible to teacher migration than others. Since such salary disparities within the region may potentially fuel intra-Caribbean migration, it becomes even more important for the region to adopt “whole-of-government” approaches to more fully develop and implement effective migration governance practices (Aragón & El-Assar, 2018). We trust that this study will play a useful role in facilitating such efforts.

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