UIS Regional Profile

Teacher supply and demand in Latin America and the Caribbean

This regional profile is based upon the report, Teachers and Educational Quality: Monitoring Global Needs for 2015, produced by the UNESCO Institute for Statistics.

To download the report, see www.uis.unesco.org/publications/teachers2006

While other regions in the world must hire new teachers to achieve universal primary education by 2015, Latin America and the Caribbean can actually reduce the teaching force due to a steady decline in the school-age population, according to the UIS report. This offers a rare opportunity to improve education quality by investing more resources per pupil and teacher. In particular, special attention might be paid to reducing grade repetition, which reduces the chances that a pupil will complete his or her education and puts considerable strain on teachers. This is a common problem in the region.

There are, however, three countries – the Bahamas, Guatemala and Paraguay – which will need to slightly expand their teacher stocks to achieve universal primary education by 2004 and 2015.

It is important to note the difference between teacher stocks and flows. The projected stock refers to the total number of teachers needed in classrooms by 2015 for UPE. However, that stock is based upon flows in and out of the profession (e.g. retiring teaching versus new recruits). The data presented here are based upon a medium scenario, in which 6.5% of teachers leave the profession each year for diverse reasons (referred to as attrition).

For example, Brazilian schools will need 146,000 less teachers by 2015, assuming that the relatively high rate of repetition among pupils is reduced from about 20% (in 2002) to 10%. But between now and then, a sizeable portion of the teaching force will retire. So even though the projected teaching stock will fall for 2015, Brazil will still need to hire 396,000 new teachers over the next decade.

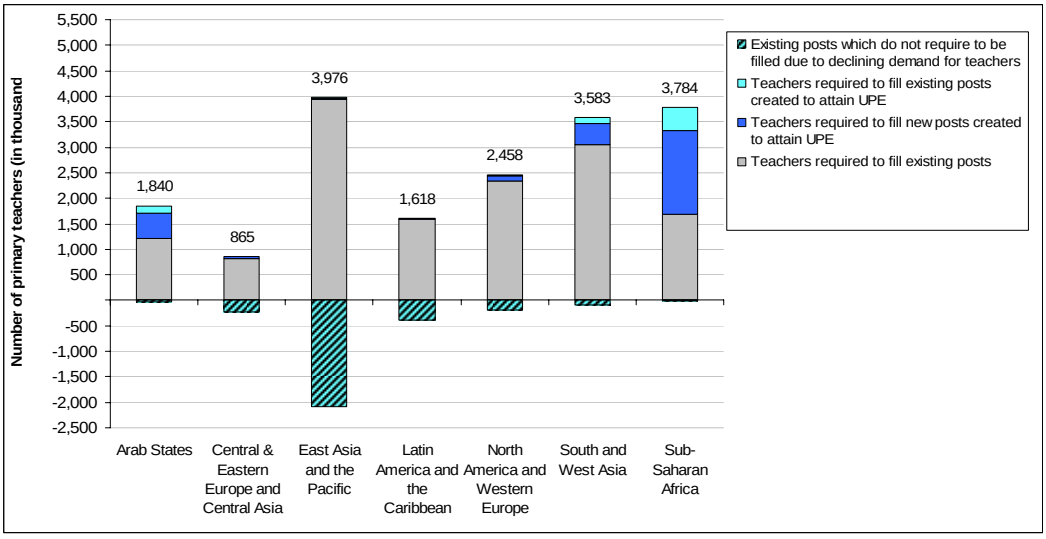
Figure 1 Primary teacher stocks, flows and additional teachers needed to reach UPE by 2015 (in thousands)

Country or territory	Primary teacher stocks			Primary teacher flows, 2004-2015	
	2004	2015	Difference	Teachers to fill vacancies due to attrition (6.5%)	Total number of teachers needed for UPE and attrition
Argentina	283	242	-41.6	151.4	151.4
Bahamas	2	2	.1	1.3	1.4
Barbados	1 **	1	-.2	.7	.7
Belize	2 **	2	-.3	1.1	1.1
Bolivia	65 **	61	-3.4	41.6	41.6
Brazil	806 ** [-2]	660	-146.1	396.3	396.3
Chile	50 [-1]	44	-6.2	28.1	28.1
Colombia	188	170	-17.9	110.6	110.6
Costa Rica	25	22	-2.8	14.1	14.1
Cuba	88	76	-12.6	46.5	46.5
Dominican Republic	60	58	-2.1	40.2	40.2
Ecuador	86	75	-11.4	46.3	46.3
Guatemala	74	85	10.7	56.2	66.9
Guyana	4 **	3	-1.2	1.3	1.3
Honduras	38	37	-.9	26.1	26.1
Jamaica	11 [-1]	10	-.9	6.7	6.7
Mexico	557 [-1]	473	-84.7	290.2	290.2
Nicaragua	27	26	-.6	18.4	18.4
Panama	18	18	-.2	12.5	12.5
Paraguay	36	39	3.7	26.9	30.6
Peru	171	149	-21.8	95.2	95.2
Saint Lucia	1	1	-.1	.6	.6
Saint Vincent and the Grenadines	1 **	1	-.1	.6	.6
Trinidad and Tobago	8 *	7	-.5	5.0	5.0
Uruguay	17	16	-.9	11.2	11.2

Notes: The projected teacher stock for 2015 is based upon the estimated primary school-age population in 2015 plus 10% or half the current rate of repetition all together divided by a pupil-teacher ratio (PTR) of 40:1 (or the current PTR if it is below the benchmark). [-1] Data refer to 2003; [-2] Data refer to 2002; * National estimates; ** UIS estimates.
Source: UNESCO Institute for Statistics.

Figure 2 presents a regional breakdown of the flows needed to ensure that there are enough teachers in classrooms by 2015 by region. More than 1.6 million teachers will be needed between 2004 and 2015 in Latin American and the Caribbean.

Figure 2 Regional flows of teachers to maintain stock and achieve UPE by 2015.



Source: UNESCO Institute for Statistics estimates.

How many children will need teachers in 2015?

Figure 3 presents the projected change in school-age population and the primary net enrolment rate, which is the percentage of primary school-age children currently enrolled.

In general, the school-age population is declining across the region and net enrolment rates are high. For example, the size of this age group should fall by 9% over the next decade in Mexico, which is close to achieving universal primary education with a primary net enrolment rate of 98%. With about a million less children, the country might be able to achieve this goal and improve the quality of education by investing more resources per pupil and student. A number of countries will have this opportunity, including Barbados, Cuba, Guyana and Saint Lucia.

There are, however, some exceptions such as Guatemala, where the school-age population is expected to grow by 19% over the next decade.

Figure 3 Current enrolment and expected primary school-age population by 2015

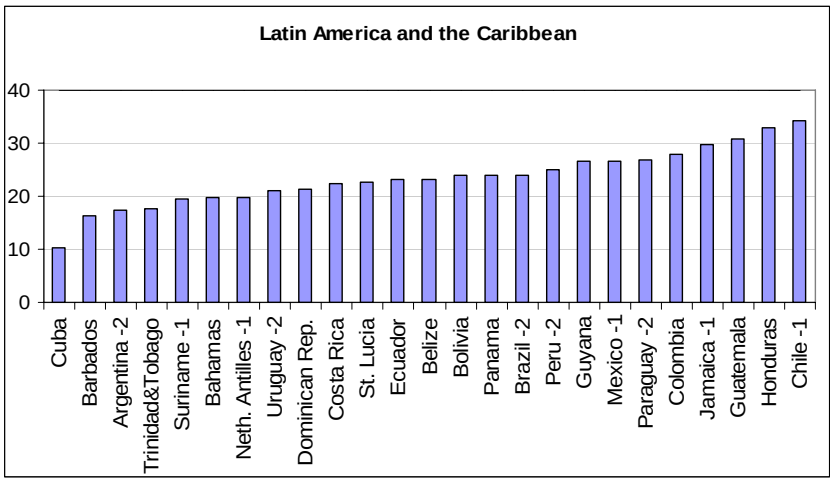
Country or territory	Primary net enrolment rate (2004)	Projected primary school-age population		
		2005 (in thousands)	2015 (in thousands)	Percentage change
Anguilla	88	2	…	…
Antigua and Barbuda	...	...	…	…
Argentina	99	4,140	4,073	-2
Aruba	97	9	…	…
Bahamas	84	37	36	-1
Barbados	97	21	19	-10
Belize	95	40	40	1
Bermuda	...	...	…	…
Bolivia	95	1,374	1,452	6
Brazil	93	13,613	14,384	6
British Virgin Islands	95	3	…	…
Cayman Islands	87	...	…	…
Chile	86	1,659	1,489	-10
Colombia	83	4,729	4,657	-2
Costa Rica	92	495	478	-3
Cuba	96	879	775	-12
Dominica	88	...	…	…
Dominican Republic	86	1,144	1,194	4
Ecuador	98	1,711	1,709	0
El Salvador	92	924	953	3
Grenada	84	17	…	…
Guatemala	93	2,060	2,450	19
Guyana	95	88	78	-12
Haiti	81	1,229	1,343	9
Honduras	91	1,112	1,178	6
Jamaica	91	345	294	-15
Mexico	98	13,459	12,284	-9
Montserrat	94	...	…	…
Netherlands Antilles	...	17	15	-13
Nicaragua	88	845	875	3
Panama	98	387	413	7
Paraguay	88	…	1,024	…
Peru	97	…	3,559	…
Saint Kitts and Nevis	94	6	…	…
Saint Lucia	98	22	21	-5
Saint Vincent and the Gren	94	16	16	-2
Suriname	92	55	51	-6
Trinidad and Tobago	92	129	126	-3
Turks and Caicos Islands	81	...	…	…
Uruguay	90	337	332	-2
Venezuela	92	…	3,458	…

Source: UNESCO Institute for Statistics.

Can schools accommodate more pupils?

As shown in **Figure 4**, all of the region's countries have less than 40 pupils per teacher, which is considered the maximum to provide quality education. Cuba has one of the world's lowest ratios of 10:1.

Figure 4 Current pupil-teacher ratios, 2004



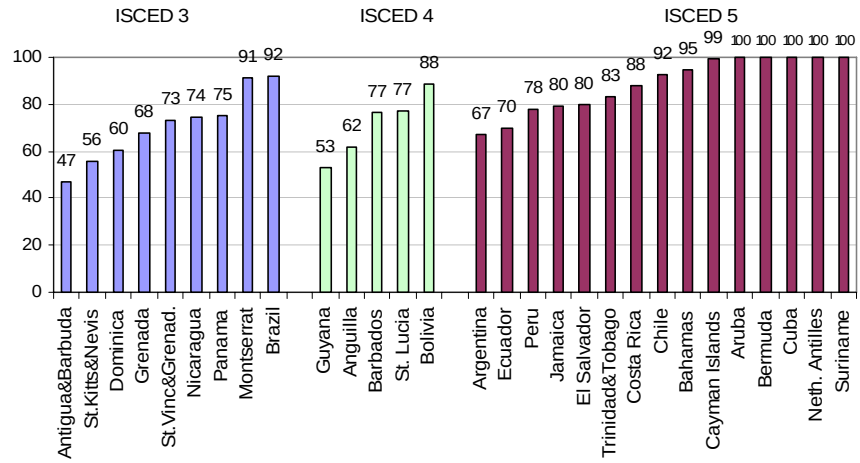
Notes: [-1] Data refer to 2003. [-2] Data refer to 2002.
Source: UNESCO Institute for Statistics.

The demand for education is also shaped by the quality of instruction. Are qualified teachers in classrooms?

Figure 5 presents the proportion of primary teachers who meet the minimum qualification (ISCED level) to enter the profession. In general, standards are quite high in the region. Slightly more than half of the countries require a tertiary degree (ISCED 5) and the proportions of teachers actually meeting this qualification are also high (95% or more in seven countries).

There is greater variation in countries with lower standards. For example, less than half of the teachers in Antigua and Barbuda have an upper secondary education (ISCED 3). In Guyana, 53% do not have the required post-secondary non-tertiary degree programme, which usually involves one to two years of study after upper secondary education (ISCED 4).

Figure 5 Proportion of primary teachers meeting the minimum qualifications for teaching



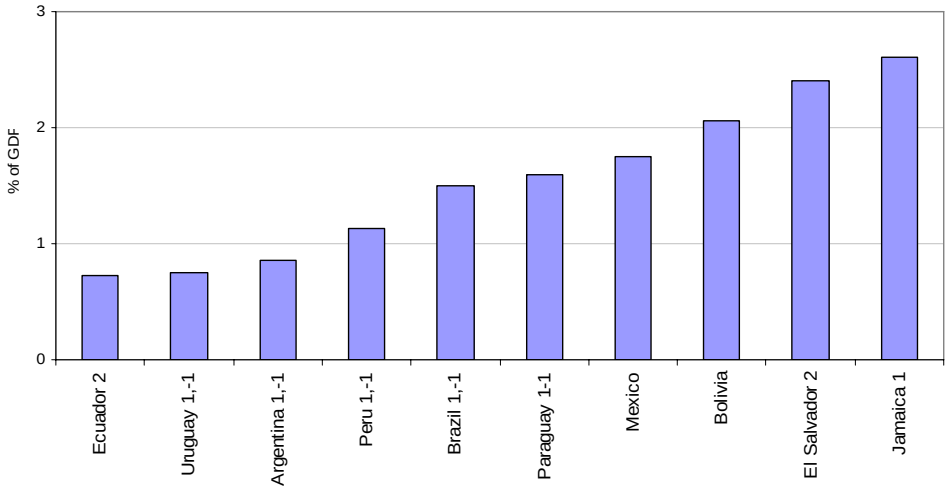
Source: UNESCO Institute for Statistics.

In most countries, staff costs account for the single largest education expenditure. How do teacher salaries compare across the region?

By benchmarking primary teachers' salaries as a percentage of national GDP per capita, it is possible to compare levels across countries by reducing differences due to labour markets and price structures. According to data presented in **Figure 6,** entry level salaries for primary teachers are highest in the countries needing to expand their teaching forces.

Based on a study of high-performing countries in terms of UPE, the World Bank has suggested that the average primary teacher's salary should not exceed 3.5% of national GDP per capita. But it should be remembered that in the lowest income countries, relative measures such as the share of GDP per capita, hide the fact that these salaries in absolute terms are still very small, as is the pool of secondary school graduates who may pursue competing employment options.

Figure 6 Statutory teacher salaries relative to GDP per capita, 2003



Notes: The data correspond to starting salaries for teachers with minimum qualifications.
[1] Public institutions only; [2] GDP for 2005; [-1] Data refer to 2002.
Source: UNESCO Institute for Statistics.