

# Panama

Region: Latin America and the Caribbean  
Income Group: Upper Middle Income

Source for region and income groupings: World Bank 2018

## National Education Profile 2018 Update



### OVERVIEW

In Panama, the academic year begins in March and ends in December, and the official primary school entrance age is 6. The system is structured so that the primary school cycle lasts 6 years, lower secondary lasts 3 years, and upper secondary lasts 3 years. Panama has a total of 754,000 pupils enrolled in primary and secondary education. Of these pupils, about 409,000 (54%) are enrolled in primary education.

FIG 1. EDUCATION SYSTEM

**School Entrance Age:**

Primary school - Age 6

**Duration and Official Ages for School Cycle:**

Primary : 6 years - Ages 6 - 11

Lower secondary : 3 years - Ages 12 - 14

Upper secondary : 3 years - Ages 15 - 17

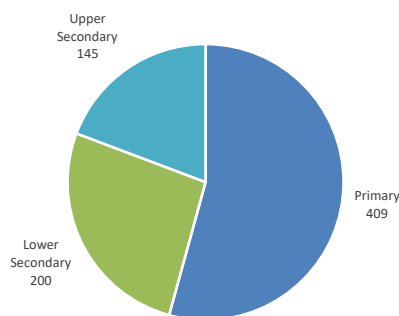
**Academic Calendar:**

Starting month : March

Ending month : December

Data source: UNESCO Institute for Statistics

FIG 2. NUMBER OF PUPILS BY SCHOOL LEVEL  
(IN 1000S)



Data Source: UNESCO Institute for Statistics 2016

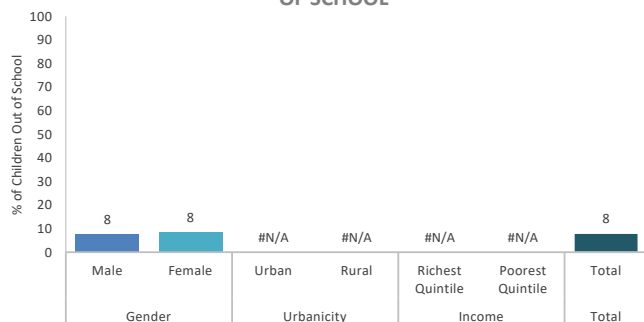
FIG 3. EDUCATIONAL ATTAINMENT, YOUTH  
AGES 15-24

no data

### SCHOOL PARTICIPATION AND EFFICIENCY

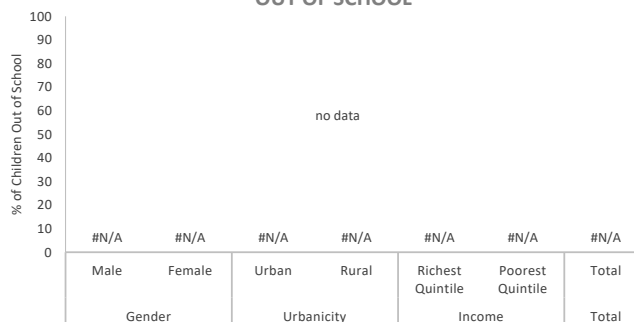
The percentage of out of school children in a country shows what proportion of children are not currently participating in the education system and who are, therefore, missing out on the benefits of school. In Panama, 8% of children of official primary school ages are out of school as shown in Figure 4, which also considers the proportion of children out of school by different characteristics wherever data is available. For example, Figure 4 shows that approximately 8% of boys of primary school age are out of school compared to 8% of girls of the same age.

FIG 4. PERCENTAGE OF CHILDREN OF PRIMARY SCHOOL AGE OUT OF SCHOOL



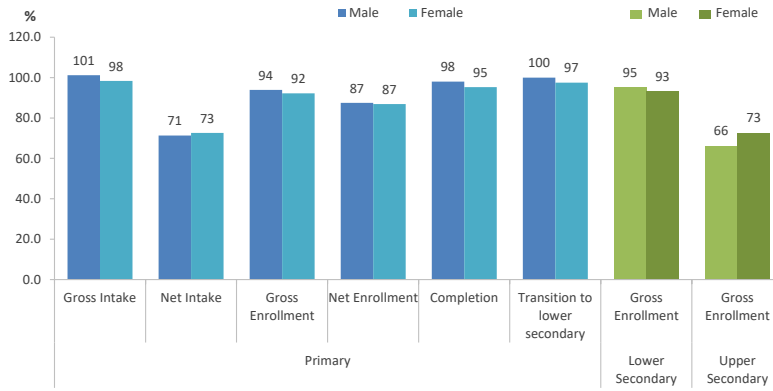
Data source: UNESCO Institute for Statistics (UIS) 2012

FIG 5. PERCENTAGE OF CHILDREN OF SECONDARY SCHOOL AGE OUT OF SCHOOL



Figures 6 and 7 look at indicators of participation, completion, and progression in the education system. Figure 6 displays gross indicators (which include under- and over-age students) and net indicators (which include only on-time students of official school age) for student intake, participation, and flows. In Panama, the gross enrollment rate in primary education is 93% for both girls and boys combined. This increases to 94% in lower secondary, with a student transition rate to secondary school of 99%. In Panama, the primary net enrollment rate is 87% and the primary completion rate is 97%. Both of these indicators provide a sense of the progress a country is making towards universal primary education -- a key UN Millenium Development Goal -- and, for Panama, suggest that the country has yet to achieve universal primary education. Figure 7 displays the repetition rate in primary education, showing the specific grades in which students are more likely to repeat. It suggests that of the first 5 grades of primary in Panama, students are more likely to repeat grade 1. The repetition rate in grade 1 is 4.1% (for both males and females), which is 1.5 points higher than the average repetition rate across primary grades of 2.5%.

FIG 6. STUDENT INTAKE AND FLOW FROM PRIMARY TO SECONDARY SCHOOLS



Data sources: UNESCO Institute for Statistics (UIS), EPDC calculation based on UIS data (see Data Table for year)

FIG 7. STUDENT REPETITION BY GRADE AND LEVEL IN PRIMARY SCHOOL

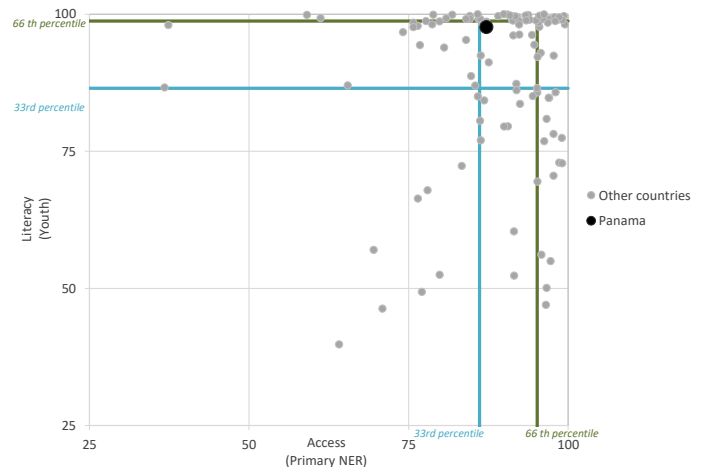


Data source: EPDC calculation based on UIS data (see Data Table for year)

## LEARNING

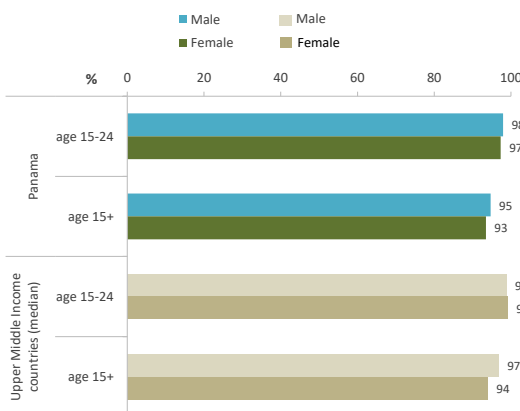
This section provides information on indicators of learning, which lend insight into the quality of educational provision. In this profile, learning is measured through literacy rates, which are important because literacy is a foundational skill needed to attain higher levels of learning, and national performance on learning assessments. Figure 8 demonstrates where Panama stands in comparison to other low and middle income countries in access to education, measured as the primary school net enrollment rate, and youth literacy. Compared to other countries, Panama ranks at the 39 percentile in access and at the 53 percentile in learning. Figure 9 compares youth and adult literacy rates and shows that, in Panama, the literacy rate is 98% among the youth population; this is lower than the average youth literacy rate in other upper middle income countries. Figure 10 looks at the most recent TERCE reading and TERCE math assessment results for Panama in Grade 6, administered in 2014. It displays the percentage of test takers that have fallen below the lowest performance levels and the percentage of test takers that have exceeded the highest performance levels in these assessments. Nearly 5% of test takers in Panama performed below the lowest performance benchmark in reading, compared to an average of 3% for other countries that took the same assessment. To learn about assessment data and what competencies correspond with performance benchmarks, see [www.epdc.org/data-about-epdc-data/about-epdc-learning-outcomes-data](http://www.epdc.org/data-about-epdc-data/about-epdc-learning-outcomes-data).

FIG 8. COMPARISON OF ACCESS AND LITERACY



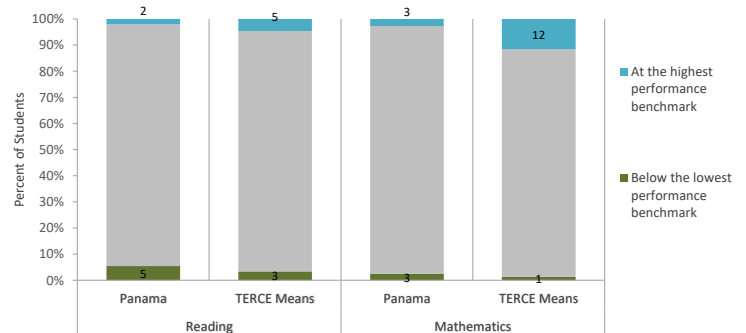
Data source: UNESCO Institute for Statistics (UIS) (see Data Table for year)

FIG 9. LITERACY RATE AMONG YOUTH AND ADULT POPULATION



Data source: UNESCO Institute for Statistics (UIS) (see Data Table for year)

FIG 10. PERFORMANCE ON LEARNING ASSESSMENTS

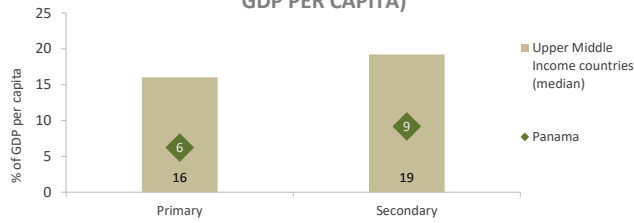


Data source: EPDC extraction of TERCE microdata 2014

## EDUCATION EXPENDITURE

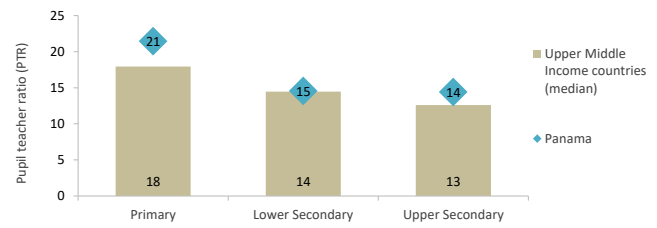
Figures 11 and 12 compare Panama's per pupil expenditure (PPE) and pupil teacher ratio (PTR), where data is available, to those of other upper middle income countries. PPE indicates a country's commitment to education at each school level. In Panama, PPE in primary education as a percentage of GDP per capita is 6%, lower than the median PPE in primary for upper middle income countries, which is 16%. In Panama, the PPE in primary is lower than the PPE in secondary. PTR is a proxy learning quality and resource availability indicator. In Panama, the PTR in primary education is 21.4, meaning that on average there is one teacher for every 21.4 primary school students. This is higher than the median PTR in primary for upper middle income countries, which is 18. In Panama, the PTR in primary is higher than the PTR in secondary.

FIG 11. PER PUPIL EXPENDITURE (PPE) BY SCHOOL LEVEL (% OF GDP PER CAPITA)



Data source: UNESCO Institute for Statistics (UIS) (see Data Table for year)

FIG 12. PUPIL TEACHER RATIO (PTR) BY SCHOOL LEVEL



Data source: UNESCO Institute for Statistics (UIS) (see Data Table for year)

## DATA TABLE

In this table, the values of different education indicators for Panama are compared to all countries, to Latin America & Caribbean, and to low and middle income countries. The percentile rank that is given indicates Panama's standing relative to these country groups. A higher percentile rank indicates better relative performance than a lower percentile rank. Percentile rankings above 66% are considered high and colored in green, rankings between 33% and 66% are considered average and colored in yellow, and rankings below 33% are considered low and colored in red. For example, the gross enrollment rate for females in primary education in Panama is 92%. For this indicator, Panama ranks in the 15 percentile relative to all countries, meaning that 15% of countries have lower gross enrollment rates than Panama. As another example, the survival rate to grade 5 of primary school for males in Panama is 87%, and Panama ranks in the 39 percentile relative to all countries, in the 34 percentile relative to Latin America & Caribbean, and in the 50 percentile relative to low and middle income countries for this indicator.

### KEY

← needs improvement → can improve further →

below 33% between 33th and 66th percentile above 66%

### PERCENTILE RANK RELATIVE TO...

INDICATOR	VALUE	YEAR	PERCENTILE RANK			DATA SOURCE
			All Countries	Latin America & Caribbean	Low and Middle Income†	
Literacy rate, 15+, Female	93	2010	59%	57%	67%	UNESCO Institute for Statistics (UIS)
Literacy rate, 15+, Male	95	2010	53%	47%	62%	UNESCO Institute for Statistics (UIS)
Literacy rate, 15-24, Female	97	2010	44%	28%	53%	UNESCO Institute for Statistics (UIS)
Literacy rate, 15-24, Male	98	2010	48%	33%	56%	UNESCO Institute for Statistics (UIS)
Gross intake rate, Primary, Female	98	2015	33%	33%	33%	UNESCO Institute for Statistics (UIS)
Gross intake rate, Primary, Male	101	2015	45%	37%	38%	UNESCO Institute for Statistics (UIS)
Net intake rate, Primary, Female	73	2015	50%	66%	57%	UNESCO Institute for Statistics (UIS)
Net intake rate, Primary, Male	71	2015	48%	57%	53%	UNESCO Institute for Statistics (UIS)
Gross enrollment rate, Primary, Female	92	2016	15%	8%	18%	UNESCO Institute for Statistics (UIS)
Gross enrollment rate, Primary, Male	94	2016	12%	4%	13%	UNESCO Institute for Statistics (UIS)
Gross enrollment rate, Lower Secondary, Female	93	2016	39%	37%	54%	UNESCO Institute for Statistics (UIS)
Gross enrollment rate, Lower Secondary, Male	95	2016	46%	41%	62%	UNESCO Institute for Statistics (UIS)
Gross enrollment rate, Upper Secondary, Female	73	2016	38%	33%	54%	UNESCO Institute for Statistics (UIS)
Gross enrollment rate, Upper Secondary, Male	66	2016	40%	29%	54%	UNESCO Institute for Statistics (UIS)
Net enrollment rate, Primary, Female	87	2015	30%	25%	38%	UNESCO Institute for Statistics (UIS)
Net enrollment rate, Primary, Male	87	2015	27%	25%	35%	UNESCO Institute for Statistics (UIS)
Net enrollment rate, Secondary, Female	72	2015	39%	29%	56%	UNESCO Institute for Statistics (UIS)
Net enrollment rate, Secondary, Male	67	2015	40%	33%	58%	UNESCO Institute for Statistics (UIS)
Repetition rate, Primary, Female†	2	2013	52%	61%	60%	Education Policy and Data Center (EPDC)*
Repetition rate, Primary, Male†	3	2013	49%	61%	58%	Education Policy and Data Center (EPDC)*
Dropout rate, Primary, Female†	13	2013	39%	37%	49%	Education Policy and Data Center (EPDC)*
Dropout rate, Primary, Male†	15	2013	38%	37%	49%	Education Policy and Data Center (EPDC)*
Survival rate, to Prim G5, Female	90	2013	43%	39%	55%	Education Policy and Data Center (EPDC)*
Survival rate, to Prim G5, Male	87	2013	39%	34%	50%	Education Policy and Data Center (EPDC)*
Completion rate, Primary, Female	95	2014	50%	52%	60%	UNESCO Institute for Statistics (UIS)
Completion rate, Primary, Male	98	2014	65%	65%	70%	UNESCO Institute for Statistics (UIS)
Transition rate, to Secondary, Female	97	2011	52%	77%	64%	Education Policy and Data Center (EPDC)*
Transition rate, to Secondary, Male	100	2011	85%	90%	93%	Education Policy and Data Center (EPDC)*
Pupil teacher ratio, Primary†	21	2016	43%	44%	61%	UNESCO Institute for Statistics (UIS)
Pupil teacher ratio, Lower Secondary†	15	2016	54%	67%	71%	UNESCO Institute for Statistics (UIS)
Pupil teacher ratio, Upper Secondary†	14	2016	50%	53%	64%	UNESCO Institute for Statistics (UIS)
Public education expenditure per pupil (% of GDP per capita), Primary	6	2011	6%	0%	7%	UNESCO Institute for Statistics (UIS)
Public education expenditure per pupil (% of GDP per capita), Secondary	9	2011	9%	13%	14%	UNESCO Institute for Statistics (UIS)
Percentage of children out of school, Primary, Poorest Quintile†						
Percentage of children out of school, Secondary, Poorest Quintile†						
Percentage of children out of school, Primary, Richest Quintile†						
Percentage of children out of school, Secondary, Richest Quintile†						
Percentage of children out of school, Primary, Urban†						
Percentage of children out of school, Secondary, Urban†						
Percentage of children out of school, Primary, Rural†						
Percentage of children out of school, Secondary, Rural†						
Percentage of children out of school, Primary, Male†	8	2012	47%	18%	54%	UNESCO Institute for Statistics (UIS)
Percentage of children out of school, Secondary, Male†						
Percentage of children out of school, Primary, Female†	8	2012	46%	28%	57%	UNESCO Institute for Statistics (UIS)
Percentage of children out of school, Secondary, Female†						
Percentage of children out of school, Primary, Total†	8	2012	44%	18%	50%	UNESCO Institute for Statistics (UIS)
Percentage of children out of school, Secondary, Total†						

† Includes World Bank classified low and middle income countries

\* Lower data values indicate better performance on these indicators

\* EPDC calculation based on UIS data

## GLOSSARY

### INDICATORS AND DEFINITIONS

<b>Completion Rate</b>	The total number of students completing (or graduating from) the final year of primary or secondary education, regardless of age, expressed as a percentage of the population of the official primary or secondary graduation age.
<b>Dropout Rate</b>	Proportion of pupils from a cohort enrolled in a given grade at a given year who are no longer enrolled in the following school year.
<b>Educational Attainment</b>	The highest level of education an individual has achieved.
<b>Gross Enrollment Rate (GER)</b>	Total enrollment in a specific level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education in a given school-year. Often higher than 100% because of repetition and overage students.
<b>Gross Intake Ratio (GIR)</b>	Total number of new entrants in the first grade of primary education, regardless of age, expressed as a percentage of the population at the official primary school-entrance age.
<b>Literacy Rate</b>	The ability to read and write with understanding a simple statement related to one's daily life. Literacy often involves a continuum of reading and writing skills.
<b>Net Enrollment Rate (NER)</b>	Enrollment of the official age-group for a given level of education expressed as a percentage of the corresponding population.
<b>Net Intake Rate (NIR)</b>	New entrants in the first grade of primary education who are of the official primary school entrance age, expressed as a percentage of the population of the same age.
<b>Percentage of Children Out of School</b>	Proportion of children of a given age group who are not currently enrolled in any schooling.
<b>Public Education Expenditure per Pupil (PPE)</b>	Total number of pupils/Total education budget.
<b>Pupil Teacher Ratio (PTR)</b>	Average nationally of: Total number of pupils/Total number of teachers. Rates may vary significantly throughout the country.
<b>Repetition Rate</b>	Proportion of pupils from a cohort enrolled in a given grade at a given school-year who study in the same grade in the following school-year.
<b>Survival Rate</b>	Percentage of a cohort of pupils enrolled in the first grade level or cycle of education in a given school year who are expected to survive through a certain grade regardless of repetition.
<b>Transition Rate</b>	The number of pupils admitted to the first grade of a higher level of education in a given year, expressed as a percentage of the number of pupils enrolled in the last grade of the lower level of education in the previous year.
<b>Both</b>	Measures using "Both" in their title combine male and female rates.
<b>Poorest Quintile</b>	Proportion of pupils who belong to the bottom 20% of a country's population, based on household wealth measured by an index of household assets.
<b>Richest Quintile</b>	Proportion of pupils who belong to the top 20% of a country's population, based on household wealth measured by an index of household assets.

### DATA SOURCES AND LEARNING ASSESSMENTS

<b>Demographic and Health Survey (DHS)</b>	Nationally-representative household surveys that provide data for a wide range of indicators in the areas of population, health, and nutrition. They have large sample sizes (between 3,000 to 50,000 households) and are typically conducted about every 5 years in developing countries. It is funded by USAID and implemented by ICF International.
<b>Multiple Indicator Cluster Survey (MICS)</b>	Household surveys that produce internationally comparable estimates of a range of indicators in the areas of health, education, child protection and HIV/AIDS. It is developed by UNICEF to provide statistically rigorous data on the situation of children and women. Since the mid-1990s, there has been 4 rounds of the MICS survey, with the latest in 2009-2011.
<b>UNESCO Institute for Statistics (UIS)</b>	Statistical office of UNESCO and the primary UN depository for cross-nationally comparable statistics on education, science and technology, culture, and communication covering more than 200 countries and territories. It was established in 1999 and collects data directly from the national statistics agencies of its members.
<b>Analysis Programme of the CONFEMEN Education Systems (PASEC)*</b>	PASEC has been administered in 13 countries in Francophone West Africa. PASEC is designed to assess student abilities in mathematics and reading French. The program is managed by CONFEMEN (La Conférence des Ministres de l'Éducation des pays ayant le français en partage) and has been in place since 1993. It is typically administered to students in 2nd and 5th grades.
<b>Progress in International Reading Literacy Study (PIRLS)*</b>	The PIRLS reading assessment, which is carried out by the International Association for the Evaluation of Educational Achievement (IEA) is an assessment of reading comprehension skills. In most countries, PIRLS is administered in school to children in the 4th grade of formal school, every five years since 2001. In a small number of countries, it may be administered at a different grade.
<b>Trends in International Mathematics and Science Study (TIMSS)*</b>	The TIMSS math assessment, which is carried out by the International Association for the Evaluation of Educational Achievement (IEA), assesses pupils knowledge and understanding of mathematical concepts. TIMSS has been administered to children in the 4th and 8th grades of formal schools every four years since 1995. In a small number of countries, it may be administered at different grade levels.
<b>Second Regional Comparative and Explanatory Study (SERCE)*</b>	The SERCE assessment was administered in 16 countries in Latin America and the Caribbean by the Latin American Laboratory for Assessment of the Quality of Education (LLECE) in 2006. SERCE was administered to children in the 3rd and 6th grades of formal school. It measures student ability in the areas of reading, mathematics, and science.
<b>Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ)*</b>	The SACMEQ assessment is designed to assess student abilities in mathematics and reading English. SACMEQ reading and math assessments have been carried out in countries in Anglophone East Africa in 1995, 2000, and 2007. SACMEQ is administered in school to children in the 6th grade of formal school.
<b>Highest Performance Benchmark*</b>	The highest test-specific performance or learning levels of an assessment. These benchmarks are different for each assessment because each assessment uses different constructs, tools, and procedures. Additionally, assessments vary in the standards for each learning achievement benchmark, the number of benchmarks according to which test-takers can be evaluated, and the youth populations they test.
<b>Lowest Performance Benchmark*</b>	The lowest test-specific performance or learning levels of an assessment. These benchmarks are different for each assessment because each assessment uses different constructs, tools, and procedures. Additionally, assessments vary in the standards for each learning achievement benchmark, the number of benchmarks according to which test-takers can be evaluated, and the youth populations they test.

\* Learn more about assessment data and what competencies correspond with performance benchmarks at [www.epdc.org/data-about-epdc-data/about-epdc-learning-outcomes-data](http://www.epdc.org/data-about-epdc-data/about-epdc-learning-outcomes-data).