

Analyzing the Relationship Between GDP, Public Education Expenditure, and Illiteracy Rates, Education Level, and Economic Activity Participation in Brazil, Colombia and Peru (2002–2020)

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Introduction

How do GDP and public expenditure on education relate to selected educational outcomes in Brazil, Colombia and Peru from 2002 to 2020, specifically in terms of illiteracy rates, population with 13 years or more of education, and economic activity participation among the population with 13 years or more of education?

Used Data

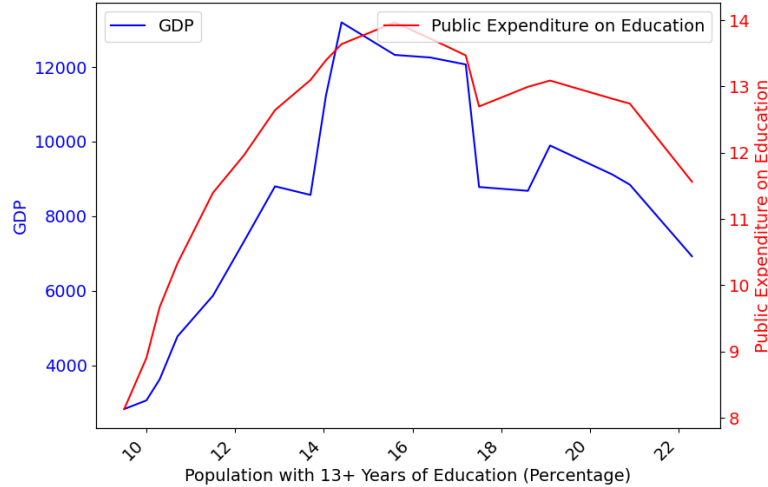
	Year	Brazil_GDP	Brazil_EconomicActivityParticipation	Brazil_IlliteracyRates	Brazil_PublicExpenditure	Brazil_YearsOfEducation	Colombia_GDP	Colombia_EconomicActivityParticipation	Colombia_IlliteracyRates
0	2002	2824.715413	11.6	11.8	8.133020	9.5	2421.162104	14.500000	7.6
1	2003	3056.649798	12.1	11.6	8.902625	10.0	2305.170507	15.400000	7.5
2	2004	3623.224462	12.3	11.4	9.672230	10.3	2811.459451	16.100000	7.0
3	2005	4773.268551	12.8	11.1	10.329730	10.7	3448.538323	16.900000	6.9
4	2006	5866.023414	13.8	10.5	11.395240	11.5	3782.603496	18.033333	6.8

	Colombia_PublicExpenditure	Colombia_YearsOfEducation	Peru_GDP	Peru_EconomicActivityParticipation	Peru_IlliteracyRates	Peru_PublicExpenditure	Peru_YearsOfEducation
	15.30206	11.700000	2003.971081	22.6	11.3	14.57806	21.1
	15.53950	12.600000	2126.137824	22.5	11.6	14.65831	21.5
	15.41742	13.100000	2393.665897	23.6	11.1	15.27385	22.3
	15.53145	13.600000	2702.237701	23.3	10.9	14.27852	22.2
	13.77132	14.433333	3123.320159	24.6	10.2	14.03530	23.6

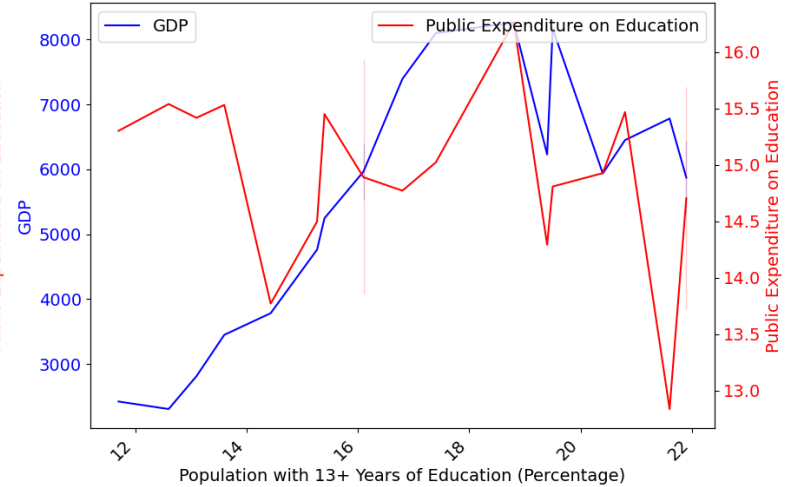
- Year
- Population 15 years of age and older participating in economic activity, by years of education
- GDP per capita (current US\$)
- Illiteracy rates
- Public expenditure on education
- Population 15 years of age and older, by years of education

Analysis

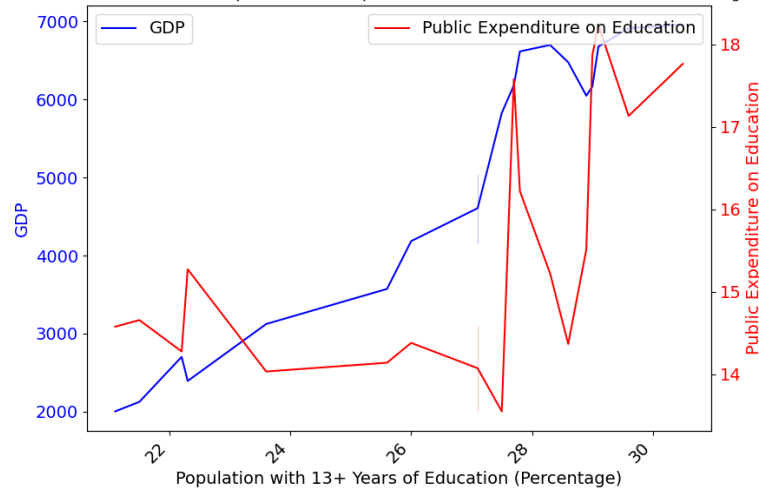
Brazil - GDP and Public Expenditure vs. Population with 13+ Years of Education (Percentage)

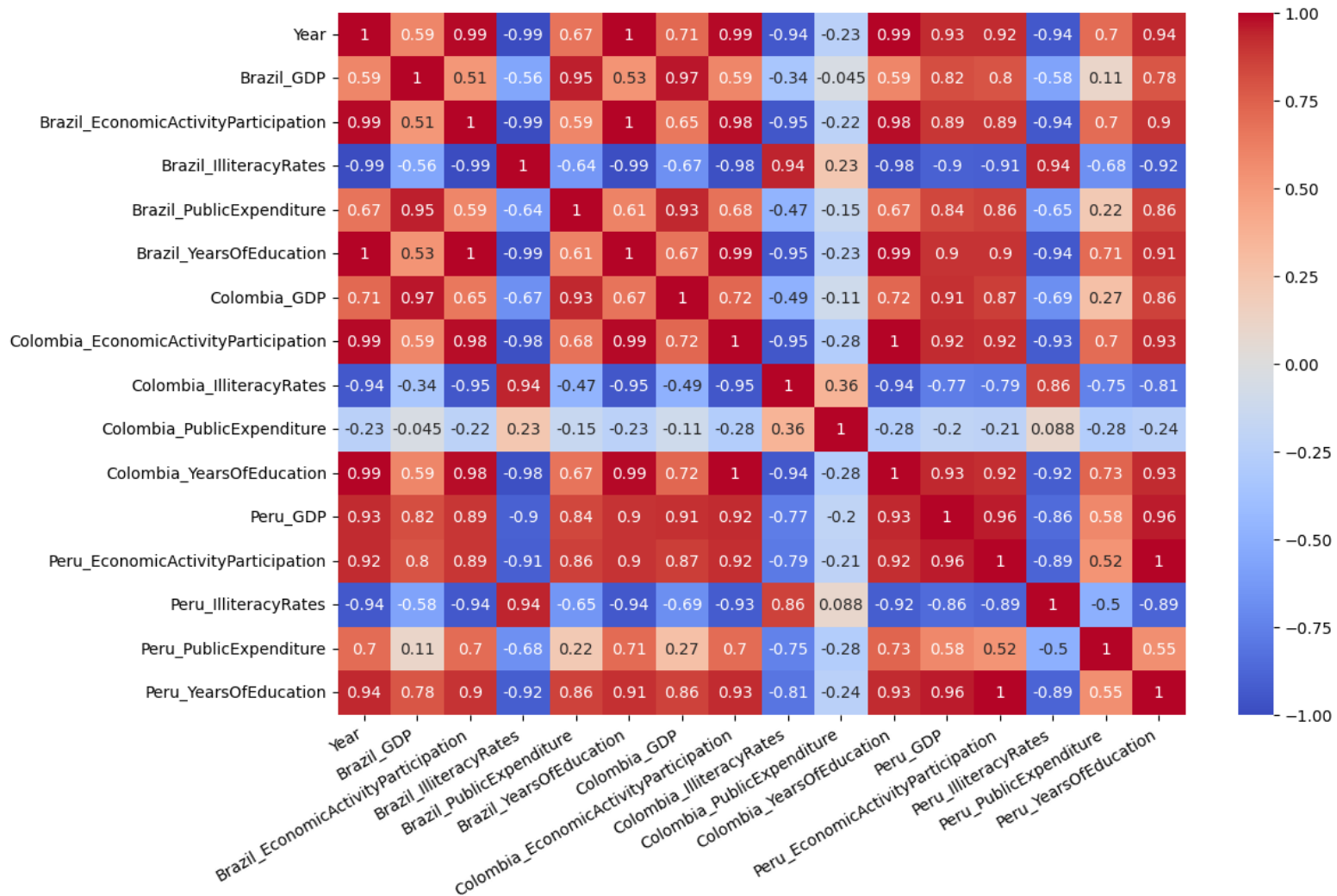


Colombia - GDP and Public Expenditure vs. Population with 13+ Years of Education (Percentage)



Peru - GDP and Public Expenditure vs. Population with 13+ Years of Education (Percentage)





Conclusion

- GDP plays an important role in educational progress, while improvement in education access is needed.
- Public expenditure on education appears to help reduce illiteracy and facilitate increased funding for education but in Colombia, there seems to be possible inefficiencies in education funding.
- A higher GDP does not always have a positive impact on education funding.
- While GDP and public expenditure on education positively correlate in Peru, Public Expenditure on Education shows fluctuations, suggesting that there may be challenges in sustaining education funding despite GDP growth.
- Population with higher levels of education is associated with higher rates of economic participation.

Thank you for your attention!