

For Latin America and Other Regional Science,

# Greater Visibility



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In recent years, Latin America has gained a larger profile on the world scientific stage. This progress has been noted in the online citation index the Web of Science™, as well as in the various analytic tools based on Web of Science data. Brazil, in particular, has been the subject of past Global Research Reports based on the nation’s research profile, both by itself and, more recently, as part of the “BRICK” group containing the world’s notably fast-growing economies (Adams & King, 2009; Adams, et al., 2013). Along with Brazil, of course, the entire group of Latin American nations merits attention. For a quick impression of the nations’ various research strengths and capacities as reflected in publication and citation data, we turn to InCites, a benchmarking tool based on the Web of Science.

The accompanying table examines Latin American countries according to three of the metrics available in InCites. The first measure is output, based on the number of Web of Science-indexed items that list at least one author affiliation in the given country. (For this analysis, published items are confined to articles, notes, proceedings papers, and reviews.) The second metric is Normalized Citation Impact, an overall measure of influence that controls for varying citation patterns in different fields and different years of publication (in this case, covering only those Latin American countries whose authors contributed to at least 1000 papers during the 10-year period). Last, the table shows the percent of each country’s papers that include at least one international coauthor—a measure of collaboration and connection with the wider research community. All three of these metrics cover papers indexed and cited between 2006 and 2015.

As might be expected, Brazil’s output stands alone, more than three times greater than that of the next-highest nation, Mexico. By the next measure, Normalized Citation Impact, which indicates overall consistency of impact, smaller players come to the fore, led by Panama and Bolivia. Significantly, both these nations are among the five that rank highly by the third measure, their percentage of papers listing international coauthors. All the high-impact nations, in fact, show a high rate of international coauthorship. In the case of Panama, this international participation was unmistakably beneficial to the nation’s performance, given the contribution of Panama-based authors to highly cited *Lancet* reports on the Global Burden of Disease Study of 2010, and other

## Science in Latin America: Three Views

### Prolific Nations (Ranked by papers indexed in Web of Science, 2006 to 2015)

Country	Web of Science Documents	Normalized Citation Impact	% with International Coauthors
Brazil	372,179	0.73	26.59
Mexico	122,561	0.77	37.97
Argentina	82,432	0.89	42.17
Chile	60,603	0.98	54.36
Colombia	31,598	0.90	53.40

### High-Impact Nations (Ranked by Normalized Citation Impact, $\geq 1,000$ papers)

Panama	3,211	1.81	85.46
Bolivia	2,129	1.50	83.84
Peru	7,817	1.38	77.84
Guatemala	1,159	1.25	81.79
Costa Rica	4,692	1.09	73.38

### Collaborative Nations (Ranked by percent of papers with international coauthors)

Haiti	458	1.33	90.17
Honduras	491	1.18	86.76
Panama	3,211	1.81	85.46
Bolivia	2,129	1.50	83.84
Nicaragua	686	1.16	83.82

Source: InCites, Web of Science

high-profile, high-impact research. The same was true for Haiti, whose international participation exceeded 90 percent. The nation's small output included high-impact, multi-national studies of HIV, cholera, and other conditions.

In all, the increasing prominence of research from Latin American and other regions was a key element in the expansion of the Web of Science between 2005 and 2010, as coverage of journals based in Latin America was substantially increased. Brazil, in particular, saw a large rise in its number of Web of Science-indexed journals, with more than 100 titles added (Test, 2011). As of 2014, as the graph shows, the combined annual output of Latin America exceeded 85,000 papers, nearly doubling the total in 2006.

In 2011, the Web of Science undertook further expansion in order to broaden its coverage of impactful scholarly activity, with the launch of the Book Citation Index. With its coverage aimed at scholarly books that present fully referenced articles of original research, or reviews of the literature, the Book Citation Index includes both series and non-series titles.

The Book Citation Index provides official recognition and dissemination of important research that does not always employ the journal literature as its primary means of communication. This is particularly true of fields with the social sciences as well as the arts and

humanities. The index now covers more than 60000 books, with 10000 titles added annually. A survey of the database indicated that, for the period 2005 to 2012, Brazil ranked in the top 15 in terms of publishers, by nation, represented in the Book Citation Index (Torres-Salinas, 2013).

Whether in books or journal articles, the output from Latin America, and the region's presence and influence in international research, are certain to rise.

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