

Extended Abstract

Evaluation of the Capes International Cooperation Programs: Do the Programs Achieve the Predetermined Objective?



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ABSTRACT: *The Brazilian Federal Agency for the Support and Evaluation of Graduate Education (CAPES) funds research projects in the framework of their international cooperation programs. It is the objective of the programs to improve the quality of Brazilian research by fostering international scientific exchange within funded joint projects between researchers from Brazil and abroad. The programs are led by the projects' principal investigators (PIs) who are as a rule tenured professors or experienced researchers. The programs' objective would have been reached if the funded PIs do research on a (significantly) higher quality level than a control group of Brazilian researchers who are not funded.*

This study is intended to carry out an evaluation of the CAPES programs by investigating whether the programs' objective has been really achieved (Bornmann, 2011).

As a first step, it was analyzed for the period from 2010 to 2022 whether the programs contributed to increase international collaborations of Brazilian PIs. Their co-authored papers were used as a proxy for collaborations, and an annual average growth rate (AAGR) was computed (to analyze developments over time). Two databases were matched for the empirical analyses: A dataset related to joint research projects funded by CAPES was crossed with OpenAlex data. OpenAlex is a free and open bibliometric database. The dataset from CAPES comprised information about 1,706 international collaborative research projects, corresponding to 30 cooperation programs and 17 partner countries. The PIs' ORCIDs were used to connect CAPES data to OpenAlex. The results of the empirical analyses showed that the PIs increased their international collaboration papers by 10.4%. The increase of international collaboration papers was largest for multinational programs.

As a second step, we analyzed whether this increase in collaborations is accompanied by a quality improvement of research. The quality improvement was measured by median Hazen percentiles (Hazen, 1914). We observed a slight decrease of median Hazen percentiles of funded PIs over the years. However, the median Hazen percentiles of all Brazilian papers decreased faster over the same time period. Taking into account the whole time period, the PI's papers were more impactful than average Brazilian papers. A two-level robust linear regression analysis controlling for the reputation of the publication outlet (top-quartile journal or not), number of authors, number of countries, and years since funding has confirmed the decreasing impact of the PI's papers around the point in time as funding started.

Keywords: OpenAlex, Bibliometrics, CAPES, Program Evaluation, International Cooperation

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