Working papers economy - Fiscal Impact of Demographic Change on Education in Colombia

Download (only in Spanish) Keep in mind
The series Working Papers on Economics is published by the Office for Economic Studies at the *Banco de la República* (Central Bank of *Colombia*). It contributes to the dissemination and promotion of the work by researchers from the institution. This series is indexed at Research Papers in Economics (RePEc).

On multiple occasions, these works have been the result of collaborative work with individuals from other national or international institutions. The works published are provisional, and their authors are fully responsible for the opinions expressed in them, as well as for possible mistakes. The opinions expressed herein are those of the authors and do not necessarily reflect the views of Banco de la República or its Board of Directors.

AUTHORS AND/OR EDITORS Acosta-Navarro, Olga Lucía Chitán-Caes, Andrés Felipe Iregui-Bohórquez, Ana María Melo-Becerra, Ligia Alba Ramírez-Giraldo, María Teresa Rodríguez-Arenas, Jorge Leonardo
Demographic change represents not only a challenge but also an opportunity to rethink the financing structure and target investment toward key areas such as expanding early?childhood and upper?secondary education coverage, enhancing equity, strengthening teacher training, improving the student?teacher ratio, and continuing the implementation of full?day schooling.

Publication Date: Wednesday, 18 of February 2026 **Approach**
In recent decades, Colombia has experienced a marked decline in its fertility rate, a trend that deepened after the COVID?19 pandemic. By 2024, the total fertility rate reached 1.1 children per woman, below the replacement level. This demographic shift has resulted in a sustained reduction in enrollment across all education levels, despite the increase in students of Venezuelan origin. Projections indicate that enrollment will continue to fall—and at an accelerated pace—in the coming years, with important differences across territories. This dynamic presents significant challenges for allocating public resources to education.

This paper assesses the fiscal impact of this demographic transformation on the financing of public education in Colombia and examines how the savings derived from lower enrollment could help strengthen coverage, especially in early childhood and upper?secondary education, and improve quality through investments in the teaching workforce and the reduction of the student?teacher ratio.

Contribution
This article evaluates the fiscal impact of demographic change on Colombia’s education system by providing enrollment projections through 2050 by education level, sector (public and private), and area (urban and rural), under alternative population?growth scenarios. It also analyzes the implications of these trends for public education financing based on three possible growth trajectories of the Sistema General de Participaciones (SGP) and their effects on education spending—both on a per?student basis and in aggregate terms relative to GDP.

Furthermore, it examines how the savings associated with the projected decline in enrollment could be used to strengthen coverage—particularly in early childhood and upper?secondary education—and to improve service quality through investments in the teaching workforce, reductions in the student?teacher ratio, and other measures.

Results

Demographic change will significantly reduce the school?age population in the coming decades, reaching approximately 6.3 million students by 2050—3.1 million fewer than in 2024. Even under a scenario of 100% coverage, the projected total would reach only 7.4 million students. This trend creates an opportunity to expand coverage in preschool and upper?secondary education and to promote improvements in educational quality through teacher training, pedagogical innovation, and smaller class sizes.

However, realizing these benefits requires institutional transformations that allow for the gradual adjustment of the teaching workforce, improved territorial equity in resource allocation, and the avoidance of additional pressures on the Central Government’s finances. The results reveal fiscal and managerial challenges but also opportunities to redirect education spending toward a more equitable provision with greater impact on learning outcomes.

Fuente: https://d1b4gd4m8561gs.cloudfront.net/en/publications-research/working-papers-economics/fiscal-impact-demographic-change