

1st Human Capital Conference

Learning Inequality in the Balkans: From Evidence to Policy Action

The Policy Problem

Across Europe, family background is strongly associated how much a child learns — and in the Balkans, this trend is accelerating.



93

PISA math points

Average SES-based score gap across OECD countries in 2022 — roughly 2.3 years of schooling



These gaps are not only persistent but **widening**, especially in Balkan countries — a trend sharper than in Western Europe.



Lower educational attainment and weaker labor market outcomes reinforce **long-term cycles of inequality**.

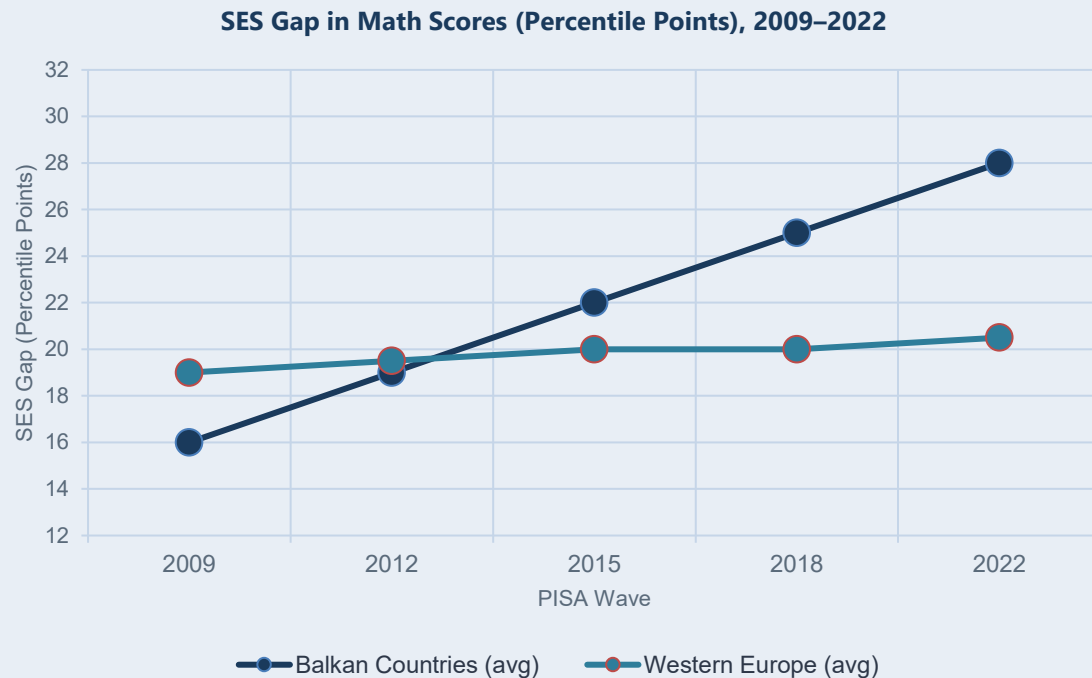
Socioeconomic disparities in learning are often associated with other types of disparities – e.g. urban vs rural, that are extremely concerning for policy-makers in the Balkans.



This analysis draws on **5 PISA waves (2009–2022)** across 30 European countries, including 6 Balkan countries: **Bulgaria, Croatia, Montenegro, Romania, Serbia, and Slovenia**.

The SES Gap Has Widened in the Balkans

Between 2009 and 2022, most Balkan countries shifted from moderate to strong SES-based learning gaps — a trend sharper than in Western Europe.



Source: Avitabile, Ciro, et al. "Socioeconomic Status Gaps in Student Achievement in Balkan Countries: The Role of Parents and School Inputs." Education Working Paper No. 22. *World Bank* (2025).

- SES gaps measure score differences between students whose mothers completed upper secondary education or higher vs. those who did not
- The Balkan upward trend is mainly driven by **Bulgaria, Montenegro, and Romania**; Western countries such as France and Spain show flat trajectories
- Upward mobility (performance of low-SES students) has **declined** in Slovenia and Serbia over the same period, has **increased** in Croatia

Two Questions with “Second Best” answers in the Balkans

I Descriptive Analysis

How have SES gaps in student achievement and parental investment evolved in Balkan countries between 2009 and 2022?

 PISA waves 2009–2022 · 30 European countries · 6 Balkan countries



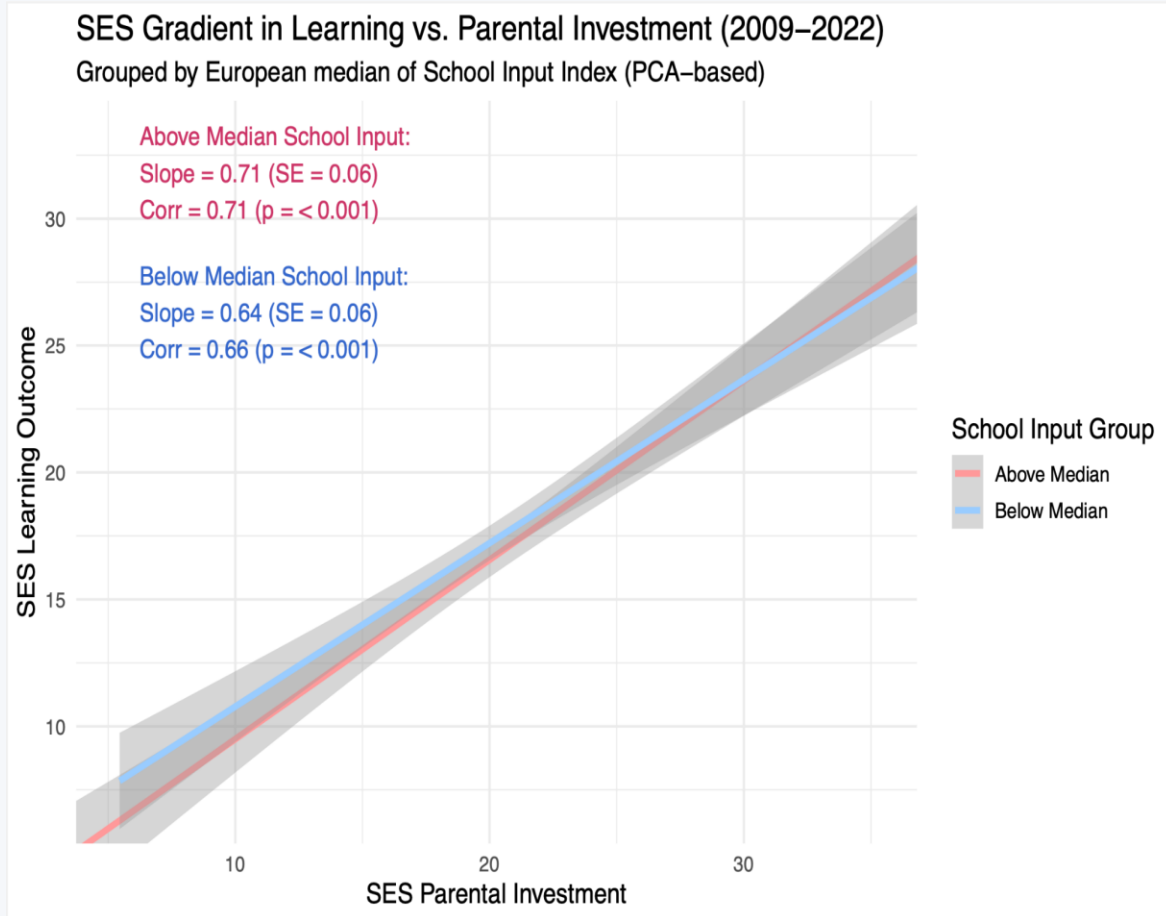
II Policy Relevance

Can school-related factors mitigate these SES disparities?

 School inputs · Parental investment index · Panel regression with fixed effects

 These questions connect descriptive analysis to policy intervention design — including Whole Day School (WDS) reforms in Croatia and Serbia, supported by the World Bank.

SES Gap in Math Learning: High- vs. Low-Resource Schools



Source: Avitabile et al. 2025

More School Resources Do Not Close the Gap

Providing more school inputs — extracurricular activities, better facilities, remedial programs — is not positively associated with a reduction in SES-based learning disparities.

- A **School Input Index** (PCA of extracurricular activities, physical environment, and remedial programs) was used to classify schools above and below the median [1]
- The SES gap in learning remains **equally strong** in both high- and low-resource school environments
- A **selection effect**: wealthier parents may be more likely to enroll children in schools with better inputs, further widening inequality
- More rigorous studies (Biasi et al. 2024) find large differences in impacts on learning across categories of education spending and across targeted populations



Increasing the quantity of school inputs alone is not sufficient to offset the role of family background on learning outcomes.

From Analysis to World Bank Project Design

This type of analytical work contributes to the design of World Bank support to Balkan countries — shifting the focus from building schools to building learning.



Policy Lever 01

Invest in Parental Engagement Programs

Support family-focused initiatives throughout the full education cycle — from early years through adolescence.

Examples: World Bank's Read@Home Initiative; WHO & UNICEF Global Initiative to Support Parents



Policy Lever 02

Invest in Quality AND Quantity in Schools

Whole Day School pilots must go beyond infrastructure — pair expanded hours with targeted support for disadvantaged students, teacher training, and structured program delivery.



Policy Lever 03

Conduct Rigorous Evaluations

Use quasi-experimental designs, RCTs and process evaluations to determine what works, for whom, and under what conditions — essential for scaling successful interventions.

The Whole Day School (WDS) Opportunity in Croatia and Serbia

Croatia and Serbia's WDS pilots are a live policy experiment — and the World Bank has a role in ensuring they are designed to generate evidence, not just resources.



Croatia

Active Pilot

Among the most ambitious education reform initiatives in the country — piloting whole-day school model in 62 disadvantaged schools with phased national rollout plans.



Design Requirement

WDS models will close learning disparities only if they invest in **both quantity and quality** of school resources — not infrastructure expansion alone

- Increased focus on foundational skills
- Broader set of pedagogical practices
- Targeted support for disadvantaged students
- Special attention on mental health and socioemotional skills



Serbia

Planned Pilot

Structured WDS model in planning phase with 136 schools that will gradually join the pilot — opportunity to embed quality and evaluation frameworks from the outset.



Building Evidence

Support rigorous monitoring and impact evaluation frameworks (not without drawbacks) alongside project implementation — generating learning, not only service delivery.



Structural Challenges

- Low quality of school management, largely driven by school principals' selection rules
- Cultural resistance to targeted instruction
- Weak data systems

Takeaway: Shifting Attention from Quantity to Quality

Closing the learning gap in the Balkans requires moving beyond building infrastructure to investing in what happens inside schools — and at home.



Widening gradient: The socioeconomic gap in learning has widened sharply across Balkan countries between 2009 and 2022.



Parental investment dominates: Home resources are the strongest driver of learning disparities — and the investment gap between families is growing.



Resources alone are not enough: More school inputs do not meaningfully close the SES-based learning gap; quality and targeting are essential.



WDS as a test case: Croatia and Serbia's pilots offer a live opportunity to combine quantity with quality — and to generate the evidence base the region lacks.

Translate evidence into project design that embeds quality standards, supports families, and rigorously evaluates what works.