# Educational disparities among native and immigrant students in Italy: analysis from pre-pandemic to post-pandemic periods

Francesca Carimando (University of Bologna); Loris Vergolini (University of Bologna and FBK IRVAPP); Eleonora Vlach (Goethe University Frankfurt)

## Introduction

The COVID-19 pandemic has globally influenced educational systems, often intensifying existing disparities. Italy, with its significant immigrant student population, provides a compelling case for study. Foundational research by Azzolini et al. (2012) on educational disparities and Borgonovi & Ferrara (2023) on the pandemic's specific impacts in Italy, along with Engzell et al. (2021) on learning losses due to school closures, underscore the need for context-specific investigations. This research aims to deepen the understanding of the pandemic's long-term influences on educational equity in Italy, using data from the Italian National System for Student Performance (INVALSI) and insights from Triventi et al. (2022) on challenges faced by immigrant students. The study explores the educational performance gap between native and immigrant children, focusing on the pandemic's role in these disparities.

## Aim of the Research

Building on the introduction, this study examines the educational performance gap between native children and children of immigrants in Italy, covering the period before, during, and after the pandemic. Utilising INVALSI data, the research investigates the pandemic's influence on these disparities, considering control variables like socioeconomic status, gender, and language spoken at home. Focusing on the 2022/2023 academic year, it aims to investigate the educational system's recovery mechanisms, providing insights into how Italy is confronting and potentially mitigating the challenges and disparities unveiled by the pandemic.

## Data

The study utilised INVALSI population data on students from grades 2, 5, 8, 10, and 13, spanning the 2018/2019 to 2022/2023 academic years. Employing population data, rather than a sample, ensures a robust and representative analysis of educational outcomes. The study also integrated test outcome data with responses from student questionnaires, enriching the dataset and allowing a detailed examination of factors influencing academic achievement.

The study selected cohorts from the 2018/2019 to 2022/2023 academic years to trace the trajectory of academic performance through periods of stability, disruption, and recovery. INVALSI's anchoring process ensured comparability of test scores across these cohorts, facilitating the analysis of changes in the educational landscape.

### Analytical Strategy

The study focused on INVALSI assessments in reading and mathematics as the dependent variables, with the primary independent variable being students' migration background. This variable was categorised into four groups: Natives (students born in Italy with both parents born in Italy), Mixed (students with one parent born in Italy and the other abroad, regardless of the student's birthplace), Second-generation (students born in Italy with both parents born abroad), and First-generation (students and both parents born abroad). Control variables included gender, socioeconomic status (assessed through the ESCS index and, for second graders, through parental education and occupation), year of birth, early education attendance, and language spoken at home. Descriptive statistics outlined performance disparities across student groups. OLS linear regression models, adjusted for grade levels and control variables, isolated the influence of migration background on educational achievements, allowing for a nuanced investigation of factors influencing educational disparities.

### Results

Data from the pre-pandemic 2018/2019 academic year unveiled a significant educational achievement gap, with children of natives outperforming their immigrant counterparts across all grade levels and subjects. This pre-existing gap set the stage for understanding the pandemic's subsequent influence on educational outcomes. Students from mixed backgrounds exhibited marginally lower performance, closely trailing children of natives. Among students with a migration background, Second-generation students generally achieved higher academic success compared to First-generation students.

During the pandemic, initial resilience was observed, especially in early grades, but this was followed by performance declines among immigrant children as the pandemic persisted. Lower grades experienced more pronounced declines, while higher grades showed initial resilience but significant declines later, widening the achievement gap.

In the 2022/2023 post-pandemic period, signs of recovery began to emerge unevenly across student groups and grade levels. Lower grade, particularly First-generations students, continued to

underperform, highlighting the need for focused support. Higher grades exhibited signs of narrowing educational disparities, particularly among Second-generation students, suggesting a gradual recovery in educational outcomes post-pandemic.

#### Conclusion

This study aimed to dissect educational disparities in Italy through the COVID-19 timeline. It addressed critical gaps in understanding the pandemic's long-term influence and the unique challenges faced by native children and children of immigrant. By providing empirical evidence and insights into recovery efforts, the study contributes to a broader understanding of educational equity, urging comprehensive strategies to support all students in a post-pandemic era. The findings revealed both a deepening of pre-existing gaps and nuanced recovery patterns in

2022/2023. As Italy navigates the post-pandemic phase, the study underscores the importance of continuous, data-driven evaluation in shaping inclusive policies. Addressing the educational challenges unveiled by the pandemic requires a comprehensive approach, prioritising support for atrisk students through targeted interventions like enhanced language support and socio-emotional learning programs. Implementing such strategies offers Italy a pathway to not only mitigate the pandemic's immediate influence but also build a more resilient and equitable educational system. References

Azzolini, D., Schnell, P., & Palmer, J. R. (2012). Educational achievement gaps between immigrant and native students in two "new" immigration countries: Italy and Spain in comparison. The Annals of the American Academy of Political and Social Science, 643(1), 46-77.

Borgonovi, F., & Ferrara, A. (2023). COVID-19 and inequalities in educational achievement in Italy. Research in Social Stratification and Mobility, 83, 100760.

Engzell, P., Frey, A., & Verhagen, M. D. (2021). Learning loss due to school closures during the COVID-19 pandemic. Proceedings of the National Academy of Sciences, 118(17), e2022376118. Triventi, M., Vlach, E., & Pini, E. (2022). Understanding why immigrant children underperform: evidence from Italian compulsory education. Journal of Ethnic and Migration Studies, 48(10), 2324-2346.