

Briefing Memo: Post-pandemic Educational Outcomes in Nuevo León, Mexico

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Introduction: Learning Loss in Mexico and the State of Nuevo León

Extended pandemic-related school closures had a profound effect on academic outcomes throughout Mexico. Learning loss in Mexico is estimated at 0.34–0.45 standard deviations in reading and 0.62–0.82 standard deviations in mathematics (Hevia et al., 2021).

It is difficult to gauge learning loss in the northern state of Nuevo León, given a lack of comparable assessment data from before and after the pandemic. Until 2019, the national standardized assessment PLANEA measured learning outcomes for students throughout Mexico. However, this assessment was suspended before the pandemic for political reasons, leaving a dearth of recent data regarding learning outcomes in Mexico (Cardenas, personal communication, Oct. 29th, 2021).

Nuevo León's Secretariat of Education has recently implemented a new assessment to fill information gaps. The *Medición Independiente de Aprendizaje*, or Independent Measurement of Learning (MIA) is an oral examination of basic math and literacy skills. MIA is very cost-effective at only 0.72 Mexican pesos (0.36 USD) per student (Secretaria de Educacion de Nuevo León, 2021a). Of the nearly 290,000 students in 2nd, 3rd, and 4th grades, nearly 240,000 (83%) participated in the assessment delivered by classroom teachers in the state (Secretaria de Educacion de Nuevo León, 2021a). Although it is unfortunately not comparable with previous PLANEA results, this data is valuable in providing a snapshot of the current state of primary education in the state of Nuevo León, which will be critical for determining how best to support students now that they have returned to schools in person.

MIA Data

MIA data includes student-level scores for 2nd, 3rd, and 4th graders from public and private schools in the state of Nuevo León. The data includes information about each child's gender, identification of special needs, school, and municipality. There is also survey data with each student's answer as to whether school is important and useful (yes/no). Unfortunately, the data does not include indicators of socio-economic status, race, or ethnicity. Another potential limitation of the data is that it is delivered orally and scored by teachers. Although teachers have a common set of scoring standards, it is possible that this methodology leaves room for subjectivity and inconsistency.

The charts below show scoring classifications. Overall ratings for each student are based on the *highest* level task the student successfully completes in literacy and math.

Literacy

Beginning	Developing	Basic Proficiency
None Read a syllable Read a word	Read a sentence Read a story/text	Comprehend a story/text

Math

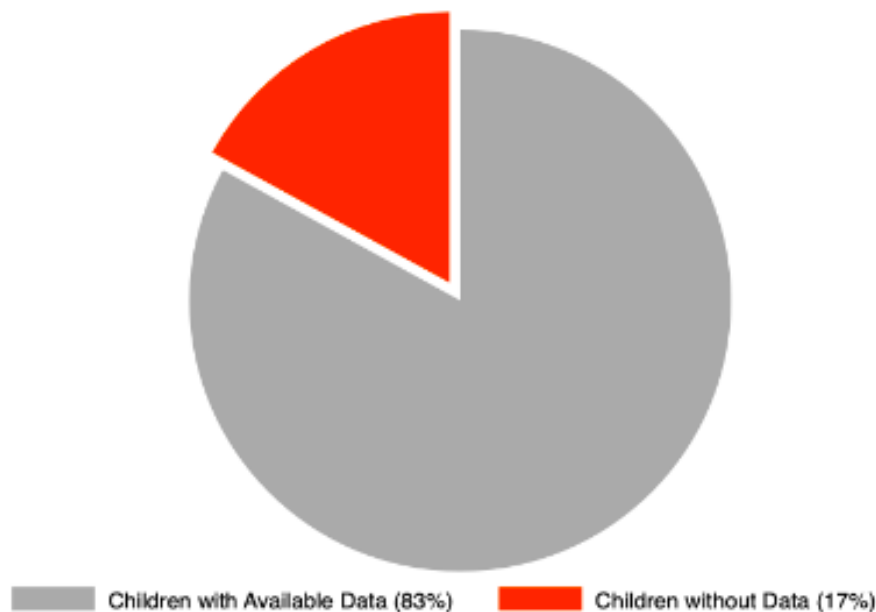
Beginning	Developing	Basic Proficiency
None Identify a number Perform addition	Perform subtraction	Perform division Solve a word problem Solve a problem with fractions

MIA data points to significant gaps in basic skills, with two thirds of evaluated 2nd through 4th grade students unable to read and understand a simple text. Assessment results also highlight a high level of inequality in learning outcomes by municipality. For example, nearly 70% of students assessed in the municipality of Lampazos de Naranjo cannot read a statement with fluency, while in the municipality of General Trevino only about 13% of those assessed could not read a statement fluently (Secretaria de Educacion de Nuevo León, 2021a).

The Missing 17%

MIA assessment results are available for 83% of all 2nd, 3rd, and 4th grade students from public and private schools in the state of Nuevo León (Secretaria de Educacion de Nuevo León, 2021a). According to Nuevo Leon's State Secretary of Education officials, the 17% of children that are not represented in this data are likely among the most vulnerable and socioeconomically disadvantaged (Sanchez, personal communication, Dec. 10th, 2021). The students missing from our data are those who had the least contact with the school system while MIA assessments were taking place; they were neither in schools nor reachable to take the assessment remotely. It is critical that these students be reintegrated into the school system and assessed so that schools can better understand and meet their needs.

Figure 1. *The 17% of Children Missing from this Data are Likely Among the Most Disadvantaged*



The Public-Private Achievement Gap

A comparison of MIA scores between public and private schools shows that private schools outperform public schools in both math and reading (Secretaria de Educacion de Nuevo León, 2021a). This disparity could potentially relate to differences in instructional time, school quality and resources, and/or differences in family household resources. We recognize the need for further research into differences in per-pupil spending in public and private schools and other possible factors driving differences in achievement. With only 11% of assessed students attending private schools, it is imperative that the other 89% of students are supported in catching up to their private school peers in literacy and math proficiency (Secretaria de Educacion de Nuevo León, 2021b).

Figures 2 & 3. Private School Students are more likely to be Proficient in Math and Reading

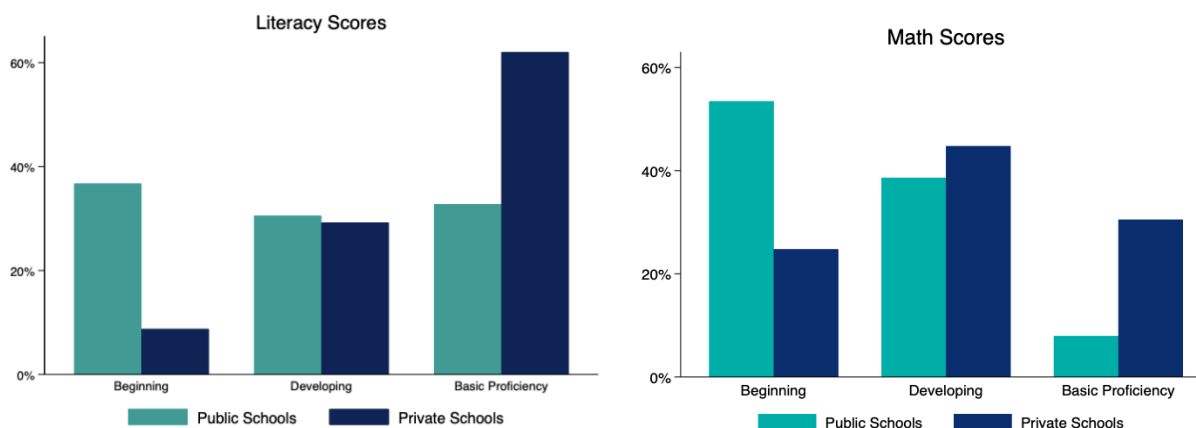
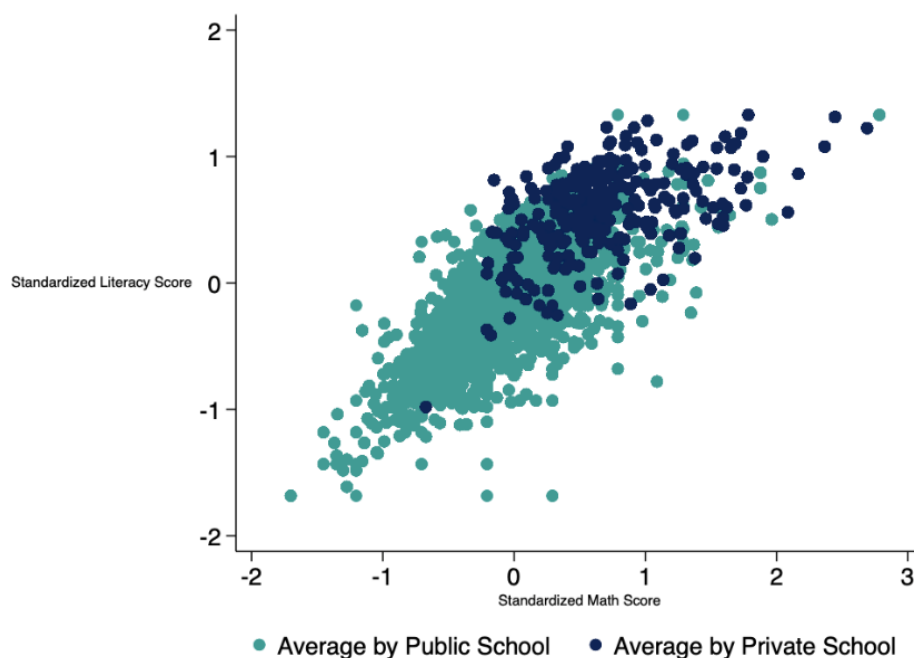


Figure 4. School-level Average Standardized Scores Tend to be Higher for Private Schools



Implications and Learning Poverty

During the survey portion of the MIA assessment, 97% of Nuevo León students reported that school is important and useful; to prove these students correct, we must ensure that, at the very least, every child gains foundational literacy skills by the end of primary school (Secretaría de Educación de Nuevo León, 2021b). The World Bank defines Learning Poverty as the percentage of 10-year-olds unable to read and comprehend a text. This is a key indicator because “when children cannot read, it’s usually a clear indication that school systems aren’t well organized to help children learn in other areas... And although it is possible to learn later in life with enough effort, children who don’t read by age 10... usually fail to master reading later” (World Bank, 2019).

MIA results indicate that one in six 4th graders in the state were unable to read and understand a simple text (Secretaría de Educación de Nuevo León, 2021b). Given that 4th grade students are typically 10 years old or within a year of turning 10, policymakers and educators must act quickly to ensure these students gain the literacy proficiency that will allow them to find success throughout their schooling and lives.

***Figure 5.** One in Six Nuevo León 4th Graders Risk Joining “Learning Poverty” Category*



Conclusion and Areas for Further Research

The MIA data provides a useful initial snapshot of post-pandemic educational outcomes for 2nd through 4th graders in Nuevo León. The data shows that students in the state have major gaps in basic academic skills and many risk falling into “learning poverty” (World Bank, 2019). Additionally, inequality at the school and municipality level points to the urgent need to support the most marginalized students. Limitations in this data highlight a number of key areas in which further research and data would be beneficial, including:

- Demographic and socio-economic indicators at the student, school, and municipal levels
- Assessment of the remaining 17% of 2nd, 3rd, and 4th graders
- Assessment of children below 2nd grade and above 4th grade
- Variation in per-pupil spending and analysis of correlations between spending and academic outcomes
- Indicators of school and teacher quality, including teacher qualifications and experience, student-teacher ratio, instructional time, etc.
- Analysis of home environments and opportunities for family engagement
- Qualitative data regarding the perceptions and needs of teachers, families, and students

This additional information could support state, municipal, and school-level officials in determining the root cause of and potential solutions to learning loss in Nuevo León. For example, data on teacher quality and perceptions would help determine whether there is a need for investments in teacher training and professional development in areas such as working with students with learning disabilities, differentiation, and/or socio-emotional learning.

Finally, it will be important for the state to invest in advocacy campaigns to communicate these results to parents, schools, and municipal officials to ensure an understanding of the severity of learning loss and the need for action. Results should also be shared with civil society organizations and private sector businesses to garner support for allocating government resources and leveraging private sector resources to address inequalities and learning loss, particularly for the most marginalized student groups and geographic areas.

References

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