

Chapter 4: The Causes and Consequences of COVID-Induced School Closures in Brazil
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Abstract: This chapter examines the causes and consequences of the lengthy school closures induced by the COVID-19 pandemic in Brazil. Even under a president that denied the dangers of the rapidly spreading virus and rushed to reopen businesses, the country featured the second longest school closures in the continent (only after Mexico), averaging 266 days without in-person classes between 2020 and 2021. Why did that happen? We argue that the reason was four-fold: first, the long delays to acquire or develop a vaccine and the lack of federal guidelines for how to safely reopen schools under Bolsonaro's denialism; second, strong teacher unions relative to most of its Latin American neighbors, which challenged governments' efforts to resume classes before a vaccine was available; third, lack of strong will by parents, as evidenced by public opinion surveys showing that, globally, keeping schools open amidst the pandemic was amongst the lowest-ranked priorities relative to other civil liberties; and fourth, over-optimism about the extent to which Brazilians enjoy quality connectivity and devices to study at home. By the time schools were finally allowed to resume in-person classes, mobility levels were already back to pre-pandemic levels; as such, reopening schools did not contribute to COVID-19 cases or mortality rates. Meanwhile, remote learning led to severe learning losses and heightened dropout risks, disproportionately affecting girls, non-white students, and low-income families. Differences in family engagement and access to technologies also played a crucial role in shaping students' remote learning outcomes. The excessive focus on curricular adaptation during remote learning magnified learning losses as students' socioemotional skills were overlooked. The lack of broad adoption of best practices and evidence-based remedial policies in the aftermath of the pandemic made learning recovery slow. The rise of chronic absenteeism risks making pandemic-induced learning losses permanent. The chapter concludes with open questions that remain at the forefront for Brazilian educators and policymakers five years after the pandemic.

This chapter examines the causes and consequences of the lengthy school closures induced by the COVID-19 pandemic in Brazil. In the years preceding the COVID-19 pandemic, Brazil had made strides in improving primary and secondary school enrollment and high-school graduation rates, with small increases in math and language proficiency levels but noteworthy decreases in regional disparities. The onset of the pandemic reversed much of this progress and magnified many of the country's deep-seated educational inequalities, chiefly because of COVID-induced school closures (Lichand et al., 2022a).

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The Causes of COVID-19 Induced School Closures

Federal Government's (Lack of) Response

The federal government's response to the crisis, under President Jair Bolsonaro, played a central role in prolonging school closures and amplifying educational disparities.

First, Bolsonaro's denial of the virus's severity set the tone for the government's broader approach. Dismissing the pandemic as "hysteria" and labeling it a "little flu," Bolsonaro downplayed the gravity of the crisis and resisted implementing basic public health measures, such as mask mandates or lockdowns. In addition, his endorsement of unproven treatments like hydroxychloroquine spurred uncertainty and confusion. These early decisions not only delayed necessary interventions, but also empowered those who shared his skepticism, hindering Brazil's ability to effectively control the virus and protect its population (Barberia and Gomes, 2020).

Such an environment was not conducive to rapid school reopenings amidst skyrocketing cases and deaths, especially with scarce scientific evidence about the effects of the virus on children.

Second, while Bolsonaro repeatedly argued that school closures and workplace shutdowns would lead to widespread chaos, it was rather his administration's handling of school reopenings that lacked organization and consistency. Rather than issuing clear and cohesive federal guidelines, the president deferred responsibility to State and municipal authorities, which led to a patchwork of policies that exacerbated regional inequalities, despite attempts of legislative actors, education collectives, and non-governmental organizations to fill in the federal leadership gaps. Brazil featured five different Ministries of Education under Bolsonaro, none of whom with expertise in the field, immersed in controversies irrelevant to the contextual challenges (such as the use of pronouns or military presence in schools) and haunted by multiple corruption scandals. As a result, most of the country's public schools (which serve 80% of its student population) experienced prolonged closures, further deepening socioeconomic gaps – since, in Brazil, high-income families typically enroll their children in private schools, which reopened much more quickly.

Third, the delays in vaccine procurement and distribution further hampered efforts to safely resume in-person schooling. While other nations moved quickly to acquire vaccines, Brazil's federal government hesitated, questioning vaccine efficacy and failing to create a clear distribution plan. These delays created significant uncertainty for students, parents, and educators, forcing local and state governments to make reopening decisions without the reassurance of widespread vaccine coverage. The absence of a centralized, unified leadership during the crisis contributed to fragmented responses across the country, with significant regional variation in the timing of school reopenings and the implementation of safety protocols.

Ultimately, this lack of coherent strategy led to the extension of school closures, deepening the educational and social divide between regions and amplifying existing inequalities.

Teacher Unions' Opposition to In-person Classes

Brazil's extended school closures were heavily influenced by the actions of its strong teacher unions, which opposed government efforts to resume in-person classes before vaccines were widely available. These unions, considered among the most powerful in Latin America, resisted reopening plans they viewed as unsafe, pointing to inadequate safety protocols and insufficient consultation processes (Berger, 2020). Their strong stance reflected a global trend where unions acted as crucial agents in determining the pace and conditions of school reopenings.

This tension between teacher unions and the government in Brazil exposed deeper, long-standing issues within the country's education system. Union leaders not only focused on the immediate risks of reopening schools during a pandemic but also highlighted systemic challenges such as underfunded schools and inadequate infrastructure, which they argued posed persistent threats to educators and students alike. These problems fueled resistance to government plans and amplified broader demands for better labor rights and education policies (Berger, 2020). Notably, research suggests that the bargaining power of teacher unions and municipal governments in Brazil plays a more critical role in shaping education outcomes, including teacher wages than the availability of financial resources alone (Cruz, 2015).

In many ways, Brazil's unions mirrored counterparts in countries like South Africa, where similar disputes arose over reopening schools. In South Africa, the South African Democratic Teachers Union (Sadt) leveraged its alliance with the ruling African National Congress to influence decisions, a strategy echoed by Brazilian unions that used their significant organizational power to delay reopening efforts (Schneider, 2024). Such resistance underscored

the unions' role as critical gatekeepers of public education policy but also revealed the complexity of their actions. While their firm stance likely reduced the risk of viral transmission among educators and students before vaccines became available, the prolonged closures deepened existing inequities in education, disproportionately impacting low-income students who struggled with barriers to remote learning (Berger, 2020). Brazil's unions operated in an environment marked by contentious relationships with the government, contrasting sharply with nations like Denmark, where collaborative frameworks between unions and policymakers facilitated smoother school reopenings (Berger, 2020).

Moreover, the unions' influence was not isolated to pandemic-related issues but reflected broader patterns in Brazilian education politics. Historical examples illustrate how teacher unions in Brazil have resisted attempts to depoliticize the education system. For instance, during Wilson Risolia's tenure as Secretary of Education in Rio de Janeiro, his reforms to introduce meritocratic processes in hiring and reduce clientelism were met with significant opposition from unions and clientelist politicians. Despite initial successes that boosted the State's education rankings, subsequent political turmoil and economic crises led to the reversal of these reforms, underscoring the entrenched power of unions and political networks (Schneider, 2024). This history demonstrates how Brazilian teacher unions have consistently acted as a formidable force, shaping education policy across decades.

Research further suggests that, in Latin America, only Mexico features stronger teacher unions than Brazil (Schneider, 2024), consistent with the ranking of school closures in the continent – corroborating the claim that unions played an important role for the lengthy COVID-induced school closures in both countries.

Lack of Parental Pressure to Reopen Schools

Parents' attitudes during the pandemic also played a crucial role in shaping the debate around school closures in Brazil and elsewhere. Evidence from global public opinion surveys suggests that keeping schools open was among the lowest priorities; the civil liberty respondents were most readily willing to give up to save lives during the pandemic (Alsan et al., 2023). A study by Alsan et al. (2023), which analyzed data from over 550,000 responses across 15 countries, found that individuals were generally more willing to sacrifice access to schools than other freedoms, such as movement or employment, when faced with heightened health insecurity. This sentiment was widely shared globally, which likely contributed to the lack of strong parental advocacy for reopening schools. In Brazil, amid widespread fear of infection, many parents prioritized the health and safety of their children over in-person education, particularly given the absence of clear federal guidelines to ensure safe school operations. This hesitancy and widely shared view by parents added a layer of challenge to policymakers and educational institutions who advocated for school reopening.

Overestimation of Remote Learning Infrastructure

Another key factor that contributed to school closures in Brazil was the federal government's overestimation of the country's ability to support effective remote learning. A study by Macana et al., (2024) revealed that access to resources such as computers and stable internet connectivity was strongly correlated with the time students spent on remote learning activities. Students with reliable access to these resources were far more likely to engage in extended study sessions, underscoring the importance of technological infrastructure in sustaining educational engagement during school closures. However, rural areas and low-income families, already disadvantaged by structural inequalities, faced significant barriers to accessing these tools. The

assumption that most students could seamlessly transition to online education, relying on widespread internet connectivity and access to digital devices, overlooked the deep digital divide in Brazil, leaving many students unable to participate fully in remote learning (Barberia et al., 2021).

Moreover, the success of remote learning was heavily influenced by family engagement and school-family partnerships. According to Macana et al. (2024), students whose parents or guardians received guidance from schools on how to support remote learning activities were 36% more likely to dedicate additional hours to studying. Furthermore, when parents actively assisted students with their schoolwork, the odds of longer study hours increased by a striking 144% (Macana et al., 2024). However, these findings highlight that while some families had the capacity to support their children, others, especially those socioeconomically disadvantaged, lacked the resources to provide meaningful support.

These findings suggest that reliance on remote learning without addressing structural barriers faced by millions of students in the country revealed a critical flaw in the government's approach. Even if some State Education Secretariats transitioned classes to zero-rating platforms that allowed students to watch classes online, space to study at home and devices often had to be shared with siblings or with parents. In a few cases, classes were broadcasted on television, but the typical student dedicated an hour a day to school activities during remote learning (Barberia et al., 2021). All in all, by relying on the premise that the education systems could function effectively remotely, policymakers underestimated the scale of resource inequities and the limitations of digital infrastructure and, more broadly, of the conditions to study at home. As a result, the transition to remote learning deepened educational inequalities, leaving many students,

particularly those in low-income households and in rural areas, with limited opportunities for meaningful engagement and academic progress.

The Consequences of COVID-19 Induced School Closures

Public Health Impacts

Contrary to public belief, school closures and COVID-19 cases or deaths were not systematically correlated. Lichand et al. (2022a) provides evidence that, when schools in São Paulo State were allowed to resume in-person classes, they did not significantly contribute to COVID-19 cases or mortality rates. The researchers conducted a comprehensive analysis of 643 municipalities in São Paulo, comparing those that reopened schools already by October and November 2020, to those that did not, before and after schools were authorized to resume in-person activities. The findings revealed no statistically significant association between the reopening of schools and increased COVID-19 incidence or mortality (Lichand et al., 2022a).

Using Google data, the study further documents that, by the time schools were allowed to reopen, local mobility levels had already returned to pre-pandemic levels, undermining the idea that reopening schools was a major driver of the virus's spread. As a result, the incremental contribution of reopening schools to the overall spread of COVID-19 was negligible. These results suggest that, when appropriate safety protocols were in place and mobility levels were high, keeping schools closed did not contribute to alleviating the severity of the pandemic.

Learning Losses and Dropout Risk

In turn, studies show that the lengthy school closures during the pandemic resulted in substantial learning losses and a sharp rise in dropout risk, particularly among girls, non-white students, and children from low-income families. Lichand et al. (2022b) estimates the magnitude of these

setbacks, finding that, under remote learning, secondary school students experienced a 0.32 standard deviation decline in test scores, equivalent to learning only 27.5% of what they were expected to learn in a typical year under in-person classes. The transition to remote learning left many students struggling to adapt, with vulnerable and marginalized groups disproportionately affected due to limited access to resources and support (Lichand et al., 2022b).

The same study also revealed an alarming 365% increase in dropout risk among secondary school students during the remote learning period (Lichand et al., 2022b). Extrapolated to typical dropout rates, this suggests that dropout rates may have risen from 10% to as high as 35% throughout that period (Lichand et al., 2022b). Girls and non-white students were particularly affected, with many facing additional challenges such as greater household responsibilities and systemic inequalities that hindered their ability to engage fully with remote education. Schools in low-income neighborhoods and those with limited prior experience in online learning environments also saw more severe impacts, further entrenching educational disparities. Such educational impacts threaten Brazil's long-term development. Rising dropout rates among secondary students have the potential to undermine decades of progress toward universal education and could negatively affect the country's workforce and economic growth.

The study further underscores the critical importance of in-person instruction, documenting that partially resuming in-person classes by the end of 2020 increased test scores by 20% among high-school students (Lichand et al., 2022b).

Socioeconomic Disparities

The success of remote learning during school closures in Brazil varied significantly based on students' socioeconomic backgrounds, highlighting the profound impact of technological and familial disparities. Families with greater resources were better equipped to support their

children's education, particularly when it came to access to technology and the ability to engage with remote learning. These families were more likely to have stable internet connections and digital devices, allowing their children to participate fully in online lessons. In contrast, students from low-income households, particularly those in rural areas, faced severe limitations in their access to the technology required for effective learning.

Barberia et al. (2021) emphasizes how Brazil's remote education programs faced significant delays and systemic challenges, particularly in the decentralization of educational resources. On average, there was a month-long delay between the closure of schools and the introduction of remote learning programs, leaving many students without adequate educational support for extended periods (Barberia et al., 2021). The variation in program quality across different states and municipalities, exacerbated by pre-existing socioeconomic disparities, meant that wealthier regions were better equipped to deliver effective remote education. Students from low-income households faced considerable barriers, including limited access to technology and insufficient supervision, which hindered their engagement and academic progress (Barberia et al., 2021). Another challenge for many students was the absence of school meals and rising hunger, which hindered their ability to focus and engage with remote learning (Barberia et al., 2022). Lichand et al. (2022b) documents that girls, non-white students, and lower-income students suffered the largest learning losses during the pandemic.

Overemphasis on Curricular Content

During the shift to remote learning, all efforts focused on adapting the curriculum such that it could be delivered under remote instruction. While practical, such emphasis on modifying instructional content and delivery for digital platforms ended up neglecting the critical role of socioemotional skills, such as motivation, grit and emotion regulation, in fostering academic

engagement and success (Lichand et al., 2024a). Research suggests that such neglect ended up exacerbating the learning challenges caused by school closures.

A cluster-randomized control trial conducted in Goiás, Brazil, revealed that students' average proficiency backtracked by 2.84 years in math and 2.25 years in Portuguese during the pandemic (Lichand et al., 2024a). In that context, interventions targeting socioemotional skills during this period demonstrated promising results. Behavioral nudges sent via text messages to high school students or their caregivers, aimed at enhancing socio emotional competencies, significantly mitigated learning losses. These nudges prevented 24% of learning losses in Portuguese and 7.5% in math, showcasing the profound impact of even low-cost, targeted interventions on academic outcomes (Lichand et al., 2024a). The study also highlighted that the effectiveness of such interventions was most pronounced in higher-performing students and schools with prior online learning experience, emphasizing the complementary relationship between socioemotional skills and curriculum-based learning (Lichand et al., 2024a).

In contrast, the lack of socioemotional support during remote learning increased dropout risks, particularly among vulnerable students. A related study showed that behavioral nudges were most effective in reducing dropout rates among students with below-median academic achievement, suggesting that targeted socioemotional support could counteract disengagement during challenging times (Lichand et al., 2023). By contrast, the widespread absence of these measures in Brazil's pandemic response left many students unsupported. A nationally representative survey revealed that 60% of schools in the country lacked resources for psychological support, leaving a significant gap in addressing students' emotional well-being (Lichand et al., 2024a).

Together, these studies suggest that educational setbacks during the pandemic were at least partially attributed to the lack of socioemotional support in remote learning environments. While curricular modifications are essential in responding to crises, neglecting the emotional and psychological dimensions of learning risks alienating students and amplifying learning disparities.

Post-Pandemic Challenges and Responses

Slow Learning Recovery

As in-person classes resumed, learning losses during remote education persisted and, in many cases, even widened over time. Lichand and Doria (2024b) demonstrates that merely reopening schools was insufficient to mitigate the adverse effects of prolonged remote learning. Their findings indicate that students who spent longer periods under remote education experienced greater learning setbacks, which did not disappear with the return to in-person instruction (Lichand and Doria, 2024b). In turn, the study showcases that remedial policies – from tutoring to school management interventions to socioemotional support – spurred learning recovery in both math and language, but remain far from universal in the country. Brazil’s failure in making such evidence-based remedial policies universal – even more recently, under President Lula – slowed down learning recovery in the aftermath of the pandemic.

Chronic Absenteeism

Brazil experienced a sharp rise in chronic absenteeism, particularly among low-income students, as a result of the pandemic. Chronic absenteeism, defined as the share of students who miss 10% or more school days, nearly doubled between 2018-19 and 2022-23, when it affected 23.3% of low-income students in the country (Lichand et al., 2024b). The study showcases that this trend

is not a temporary phenomenon; rather, it continues to escalate even after the return to in-person classes, suggesting that the educational impacts of the pandemic may become permanent through its sustained effects on student absenteeism.

The factors driving chronic absenteeism in Brazil differ from those observed in other countries, particularly the United States. Unlike the U.S., Brazilian municipalities that reopened schools earlier saw a more pronounced rise in chronic absenteeism, challenging the assumption that disruptions to attendance norms are its primary driver (Lichand et al., 2024b). Instead, the main contributors to absenteeism in Brazil were recurring health issues and lack of student motivation, particularly in face of persistent learning losses due to remote learning. Many students, disheartened by their academic setbacks, struggled to reengage with school, while ongoing health concerns, possibly related to lingering COVID-19 effects, compounded their difficulties (Lichand et al., 2024a). All in all, chronic absenteeism is not solely a result of disrupted routines but reflects deeper socio-emotional challenges faced by students as they attempt to recover from the pandemic's impact. Further analysis reveals that gender and school type play crucial roles behind absenteeism patterns. Girls were more likely to report health problems, lack of motivation, and learning challenges as reasons for their absences (Lichand et al., 2024a). Public school students, who are disproportionately affected by socio-economic hardships, cited household responsibilities, transportation issues, food insecurity, and violence as additional barriers to attendance (Lichand et al., 2024a).

These disparities reveal the need for policies that consider the unique challenges faced by different student groups, particularly those from vulnerable backgrounds. Public schools, serving a higher proportion of low-income students, must be equipped with additional support mechanisms to address these barriers, including transportation assistance, nutritional support,

and mental health services. The increase in chronic absenteeism also points to potential gaps in the design of social safety net programs like Bolsa Família, Brazil's flagship conditional cash transfer program. The pandemic led to a softening of the attendance requirements for beneficiaries of Bolsa Família, and this non-binding conditionality continued even after the return to in-person classes. This shift may have inadvertently contributed to the rise in absenteeism, as students, especially in vulnerable households, were less incentivized to maintain regular school attendance (Lichand et al., 2024a). To tackle this issue, policy reforms are necessary to strike a balance between ensuring educational continuity and providing adequate support for students facing significant socio-economic challenges.

Addressing chronic absenteeism in Brazil requires a multifaceted approach that goes beyond academic interventions. Policies must focus on improving student health, socio-emotional well-being, and academic support. Given that many students report health issues and a lack of motivation as the main reasons for absenteeism, it is essential to integrate health services into schools, provide targeted mental health support, and ensure that students have the resources they need to stay engaged with their studies. Furthermore, ensuring that students are not burdened with additional responsibilities, such as household chores or economic pressures, will be critical for fostering consistent attendance. Only through these comprehensive measures can Brazil hope to mitigate the long-term effects of pandemic-induced absenteeism and prevent the erosion of learning gains in the coming years.

Open Questions

By November 2024, we conducted a survey with a convenience sample of Brazilian teachers and policymakers to elicit their biggest questions and concerns about the impact of COVID-related school closures, nearly five years after the pandemic. The responses brought up some recurring themes that highlight just how complex it is to tackle the long-term educational impacts of the pandemic, both inside the classroom and as a policymaker.

At the top of the list was the challenge of making the curriculum both relevant and flexible in face of learning heterogeneity – larger than ever before, since the pandemic. Respondents worried about how to adjust what students are learning to meet the different extent to which they experience losses during remote learning. They wondered how to prioritize content for those most affected while still meeting the demands of standardized tests. In particular, they worried about older students still struggling with basic literacy skills, especially those who were already behind before the pandemic started.

Another major concern was getting students re-engaged and adequately supported. Teachers and policymakers alike talked about how hard it has been to reach students who became disengaged or disinterested during remote learning. They wondered if building peer networks and fostering a sense of belonging could help.

The survey also documented that teacher burnout and absenteeism remained major challenges. Many educators did not feel fully prepared to deal with classrooms where students are at vastly different levels. Policymakers emphasized the challenge of re-energizing teachers and giving them the in-service training and support they need to handle this new reality, especially when it comes to differentiated instruction.

Respondents also shared a conflicted relationship with technology. While boosting access to devices and connectivity to bridge the digital divide was seen as more crucial than ever, they were also concerned about the impact of too much screen time on students' literacy and socioemotional development. Teachers and policymakers were interested in evidence about how to use technology in ways that promote equity and how to weave socioemotional learning into curriculum changes.

The survey also prompted respondents to reveal their key open questions by asking them what they would like to know if they could glimpse into the future: *If someone arrived in a time machine from 2034 and could share with you the answer about what worked best to deal with the educational challenges that Brazil still faces, what would be ONE question you would ask this time traveler?*

Their questions reflect a mix of the struggles of dealing with persistent challenges since the pandemic and the aspirations for a brighter educational future for Brazilian students. Respondents expressed a deep curiosity about strategies that could effectively engage students with genuine interest in learning, highlighting the importance of methodologies that not only reached the most vulnerable but also resonated with all learners. Questions about teacher training also stood out, with a focus on how universities might develop and disseminate curricula tailored to practical, classroom-focused preparation. They wondered how policies that mitigate learning losses could be scaled across the country and how Education Secretariats could secure financial and technical resources to support teachers and to ensure no child was left behind. Brazilian teachers and policymakers sought insights into how those challenges were addressed, but also asked about what challenges remained unaddressed, e.g.,: *What was missing in the past to make 2034 better?*

Their reflections underscore a collective desire for innovative solutions, systemic support, and adaptive strategies that meet the demands of a rapidly changing educational landscape. These forward-looking questions emphasize the importance of continuing to explore, experiment, and invest in policies that not only recover from the pandemic's setbacks but also pave the way for a more equitable and resilient education system.

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