



Learning from Parents and Students to Improve Education In Brazil



The collaborators of this report are deeply grateful to the 120 families across Brazil who welcomed researchers into their homes for ethnographic interviews at the outset of this report. We further thank the nearly 600 parents and students who responded to surveys about their educational choices, helping us to quantify patterns in the decisions and attitudes of students and parents. Maurício de Almeida Prado, Mariel Deak, and Breno Barlach from Plano CDE were invaluable in designing and carrying out the field work, analyzing the findings, and drafting the report. Emily Feenstra, Rafa de la Guia, Eliza Erikson, Sonny Bardhan, and Rebecca Grubman of Omidyar Network were key to conceptualizing the research, as well as providing valuable input and substantive feedback on the report. In particular, Emily Feenstra made significant contributions to the analysis of the data and editing of the report. The following individuals also helped to review the survey data and analyze key insights in the first draft of the report: Haroldo Torres, Thiago Rached, Renato Kiyama. Ernesto Martins Faria also provided technical support. Leela Stake was invaluable in shepherding this report through the final stages of editing to publication, and Lisa Winter designed the layout and graphics of the report. We are deeply thankful to all of the other individuals who made contributions to help shape this effort. The images used in this study were kindly provided by the Lemann Foundation in the context of the study “Excelência com Equidade.”



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Plano CDE is a research and consulting firm that produces actionable, value-added insights about how to improve the quality of life for low income populations across Latin America. Plano CDE conducts market surveys and offers consultancy services to help organizations leverage their presence and social impact in these low income markets, contributing to the development of new solutions that will improve the lives of the middle and lower class families in the region.



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Supported by the Lemann Foundation

The Lemann Foundation is a nonprofit family foundation founded in 2002 by Jorge Paulo Lemann. The foundation works to ensure that all Brazilian children have access to quality public education and to create a network of talented people who dedicate themselves to solving the main social problems in Brazil. To achieve this goal, the Lemann Foundation develops programs that impact millions of students in public schools throughout Brazil and supports institutions that work for a more just and advanced country.

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Executive summary



Context for this report

We believe that by studying the choices and attitudes of parents and students, we can gain critical new insights to shape innovation in education. Existing research on education largely focuses on the supply of education (e.g., the number of schools, infrastructure of those schools, the quality of teachers), with a notable lack of public studies on the attitudes of parents and students. While Latin America has experienced promising developments in access to primary and secondary education over the past 25 years, educational outcomes continue to lag behind other regions of the world. In an effort to understand the “why” and “how” behind this phenomenon, this report examines how parents and students in Brazil make choices about educational offerings in school and outside of schools, and their satisfaction with the available offerings.

This study is focused on low- to moderate-income families in Brazil; however, this is just a starting point.

Low- to moderate-income (LMI) families represent two-thirds of the Brazilian population and an even greater share of the student population. Our incoming hypothesis to this investigation was that this segment is among the most underserved by current educational offerings and yet has increasing willingness and capacity to pay for educational products and services. Omidyar Network and Fundação Lemann seek to dramatically improve the learning outcomes of lower- and middle-income students—and thus we hope to better inform innovations that target these segments. We also strongly believe that research focused on the needs of LMI families is applicable globally, and yet it is implausible to write a “global” report on the topic. Thus, we start this investigation with Brazil as it is the largest market in Latin America. Brazil has shown significant capacity for improved learning outcomes and has a vibrant and committed community of education reformers and innovators in both the public and private sector. We invite similar parent- and student-centric education research on LMI families in other markets.

Low- to moderate-income (LMI) families represent two-thirds of the Brazilian population and an even greater share of the student population.

Key findings

A majority of LMI parents have some decision-making authority over which school their child attends; however, they have a limited ability to evaluate school quality. Parents routinely decide between public and private schools, and more than 60% report having some degree of choice within the public system. Parents state that the quality of teachers and degree of in-school safety are the most important factors when deciding between schools, although cost and logistics also play an important role in defining what schools parents even consider. Parents evaluate the quality of teachers and security of the school with anecdotal information from neighbors and friends, and proxies such as the amount of homework their child has or presence of graffiti on the outside of the school. However, these proxies are not always consistent with factors demonstrated to lead to high-quality teaching or learning. Despite the poor overall performance of Brazil's educational system, parents on average report being relatively satisfied with their children's schools. Additionally, individual parent's satisfaction ratings are not correlated with the quality of their child's school, as measured by IDEB scores or ENEM rankings.¹ These findings suggest that there is a significant opportunity to educate and empower LMI parents to seek out and demand higher-quality educational offerings. Leveraging low-cost technology-enabled tools to help parents evaluate schools, assess their child's learning, or even promote communication between schools and parents, particularly at the middle and high school level where communication drops off today, may be a place to start.

The vast majority of LMI parents think that out-of-school educational offerings are important, but relatively few participate today. We find that over 90% of LMI income parents believe that participating in extra tutoring courses and language courses is important. However, less than 20% of their children have participated in either type of course in the last 12 months. While much of this gap may be explained by financial and logistical barriers to access, we also believe there is potential to better align out-of-school offerings with parents' and students' demands.

Our study specifically highlighted the demand for more academic tutoring for elementary students and guidance for high school students to plan for and transition to post-secondary education or the workforce. Given the half-day school day in Brazil, there is a compelling opportunity to capitalize on out-of-school time and use at-home offerings to further advance educational achievement.

Education decisions, both regarding schools and out-of-school offerings, are significantly impacted by financial and logistical access barriers. While it is important to understand how parents are making decisions between a given set of schools or out-of-school activities, it is also critical to understand the factors that limit the options they even consider. Said in another way, while parents do not necessarily name the location of a school as its most highly valued characteristic, they will not choose a school they cannot safely and affordably get to.



¹ The Basic Education Development Index (IDEB) is the main indicator of the quality of Basic Education in Brazil. On a scale of 0 to 10, it synthesizes two important concepts: pass rates and performance on standardized assessments in Portuguese and Mathematics. The National Secondary Education Examination (ENEM) is a national test designed to assess student performance at the end of high school. It consists of a multiple-choice test and an essay. Its scale goes from 0 to 1000.

Families in all sub-segments of the LMI population spend between 8% and 14% of their monthly income on education, which in absolute terms means that the average spend on education roughly quadruples from vulnerable to middle-income families. Less than 10% of vulnerable families (i.e., the lowest of the four LMI income segments) enroll their children in private schools, compared to over 30% of upper-middle income families (i.e., the highest of the four LMI income segments). Interestingly, vulnerable families that participate in the formal labor market enroll in private schools at almost twice the rate of vulnerable families that work in the informal labor market, suggesting the decision to enroll in private school is also impacted by income volatility. Price is also the most frequently cited barrier to participation in out-of-school educational offerings, and only 7% of vulnerable students engage in paid extracurricular courses compared to 30% of upper-middle income students.

99% of high school students reported having access to the internet; 95% have mobile access and 46% desktop access

Financial access barriers to education are often compounded by logistical access barriers, limiting families to options that can be accessed conveniently and safely. Over 60% of LMI mothers recounted recent cases of violence near their homes; thus a vast majority feels uncomfortable with their children traveling alone to and from school or out-of-school activities. In this environment, parents and families incur significant monetary and opportunity costs in order to safely transport their children, and families that cannot bear these costs are excluded from participating. An exacerbating factor is that many LMI families report that extracurricular services are often not offered in their neighborhoods. As a result, upper-middle income students participate in free extracurricular activities at roughly five times the rate of vulnerable students, and low-income families disproportionately choose schools to minimize the financial and logistical burden associated with transport. We believe that hyper-local delivery models and increased access to safe and affordable transportation solutions could boost the educational opportunities available to LMI parents and students.

Despite the potential of technology to offer lower-cost solutions in safer places (e.g., at home), it is still largely untapped as an educational tool to serve LMI families. Our research confirms that the penetration rates of technology among LMI families is extremely high—99% of high school students reported having access to the internet; 95% have mobile access and 46% desktop access. However, 77% of public high school students report not using computers at all in their classrooms, roughly 75% report not being able to access specific educational websites outside of the classroom, 80% report not being able to access educational videos, and 95% report not being able to access online courses. Both at school and at home, the vast majority of students rely primarily on the internet as a search tool—they simply Google questions for quick answers, often from unreliable sources. As a result, students recognize that technology is of educational value but are exposed to offerings with very limited value propositions—it may help them answer questions, but often does not offer additional educational or pedagogical value (such as personalizing their learning experience). This suggests there is a significant opportunity to increase exposure to more structured and higher quality ed-tech products and solutions both directly to parents and students, as well as to teachers and schools. However, in order for technology to truly improve the learning outcomes of LMI students, we should create a culture of tech-enabled learning. This will require training teachers to encourage and promote student adoption and engagement, as well as cultivating trust and brand recognition with parents.

We believe there are opportunities for policymakers, philanthropists, and entrepreneurs to use these insights to shape their education reform agendas and efforts. Education reform efforts should not only depend on the “push” from reformers and experts, but also on the “pull” from parents and students eager to improve the quality of their own education. Together, let’s empower LMI parents and students with the educational products and services they demand.



Introduction



The need for a parent- and student-centric report on education in Latin America

Over the past 25 years, Latin America has seen certain promising developments in access to primary and secondary education. Between the early 1990s and the several decades following, enrollment in secondary school increased from roughly 45% to 59% and graduation rates rose from 32% to 46%.² However, despite these improvements, educational outcomes remain poor. Secondary school graduation rates are still far below developed country averages. More importantly, learning outcomes lag behind those of peer countries, and are particularly poor for low-income and rural students. Among the 65 countries that participated in the 2012 Programme for International Student Assessment (PISA) examination, the eight Latin American countries that participated were among the 14 lowest performers.³

Amid an underperforming educational system, parents and students can be powerful actors. They may become critical actors and reformers within the system, seek to supplement their children's education with out-of-school offerings, and/or exit the public education system in favor of non-state providers. We believe that understanding the choices and attitudes of parents and students is critical to the improvement of educational offerings. We hope that this report will contribute to a growing body of research on parent and student choice and preferences and thereby support the decision-making of governments, philanthropists, and entrepreneurs as they develop products and services that considerably improve educational outcomes in Latin America.

² <https://publications.iadb.org/bitstream/handle/11319/4671/1/s%20the%20Glass%20Half%20Empty%20or%20Half%20Full%3f%20School%20Enrollment%2c%20Graduation%2c%20and%20Dropout%20Rates%20in%20Latin%20America.pdf;jsessionid=9DE1CC70E64AC3D73AB331D5FBE1753?sequence=1>

³ PISA statistics by country are available on the OECD website.



Starting with Brazil

Brazil is the largest country in Latin America and exemplifies many of the overall trends we see in the region—high spending on education yet low performance relative to other developing countries, and a middle class that has grown significantly in the last two decades. We therefore started our investigation of educational choices in Brazil and hope it inspires similar research in other countries throughout the region and world.

Based on the 2014 household survey, Brazil had roughly 40 million students in the primary education system: 32 million in preschool and elementary school and 8 million in high school.^{4,5}

Brazil's performance on the 2012 PISA assessment was below the average of many other participating Latin American countries in all three evaluated areas: reading, mathematics, and science, albeit with modest performance gains since 2003.⁶ According to nationally administered exams, only 30% of 15-year-olds can read complex, age-appropriate texts and only 16% can solve age-appropriate mathematical problems.⁷

Meanwhile, Brazil's expenditure on education as a percentage of GDP tops that of most OECD countries.⁸ Todos Pela Educação, a foundation focused on education in Brazil, estimates that in 2013 Brazil spent approximately 4.4%

4 PNAD 2014. Note that there are many differing estimates of the total student population in Brazil. 40 million reflects the number of students between age 4 and 19 enrolled in "Basic Education," thus excluding older students still participating in the public education system or students taking part in alternative educational programs, such as technical courses.

5 Brazil's primary education system is divided in three phases: preschool (4-5 years old), elementary (6-14 years old), and high school (15-17 years old).

6 Only eight countries in Latin America participated in the 2012 PISA Assessment, including Brazil. The other countries that participated were Chile, Mexico, Uruguay, Costa Rica, Peru, Argentina, and Colombia. PISA statistics by country are available on the OECD website.

7 Todos pela Educação: <http://www.todospelaeducacao.org.br/biblioteca/conteudo-tpe/1515/anoario-brasileiro-da-educacao-basica-2015/>

8 Public spending on education in Brazil was reported as 4.6% of GDP in 2012, lower only than Norway, Denmark, and South Africa. However, public expenditure on a per-student basis is quite low, reported to be \$3,095 compared to the OECD average of \$8,247. OECD (2016), Public spending on education (indicator). doi: 10.1787/f99b45d0-en (Accessed on 26 May 2016). <https://data.oecd.org/eduresource/public-spending-on-education.htm>


of its GDP on Primary Education, which equates to roughly R\$243 billion.⁹ Alongside this public expenditure, there is roughly R\$53B of private expenditure on primary school tuition, in addition to out-of-school spending on education products and services.¹⁰

It is worth noting that the average school day in public schools in Brazil is roughly four hours, compared to between seven and eight hours in many Asian and European countries. Considering the normal breaks between classes, in-class instructional time drops to no more than three hours per day. While the length of the school day in Brazil is undoubtedly not the only factor contributing to poor educational outcomes, it is important context particularly when considering the role of out-of-school offerings and opportunities for innovation.

In this report we will particularly focus on the educational choices of low- to moderate-income (LMI)¹¹ urban families due to the sheer size and purchasing power of this segment, which is often underserved by existing educational services and offerings. LMI families represent two-thirds of the Brazilian population and an even greater share of the student population, though the macroeconomic crisis which began in 2013 has pushed many moderate-income families back into poverty.¹² Additionally 86% of Brazil’s population resides in urban areas, and it is estimated that the urban population is growing by 1.2% per annum.¹³

Brazil’s four-hour school day

Country	Typical public school schedule	School hours per day
Brazil	8am - 12pm	4h
China	7:30am - 5pm	7.5h
South Korea	8am - 4pm	7h
Russia	8:30am - 3pm	5.5h

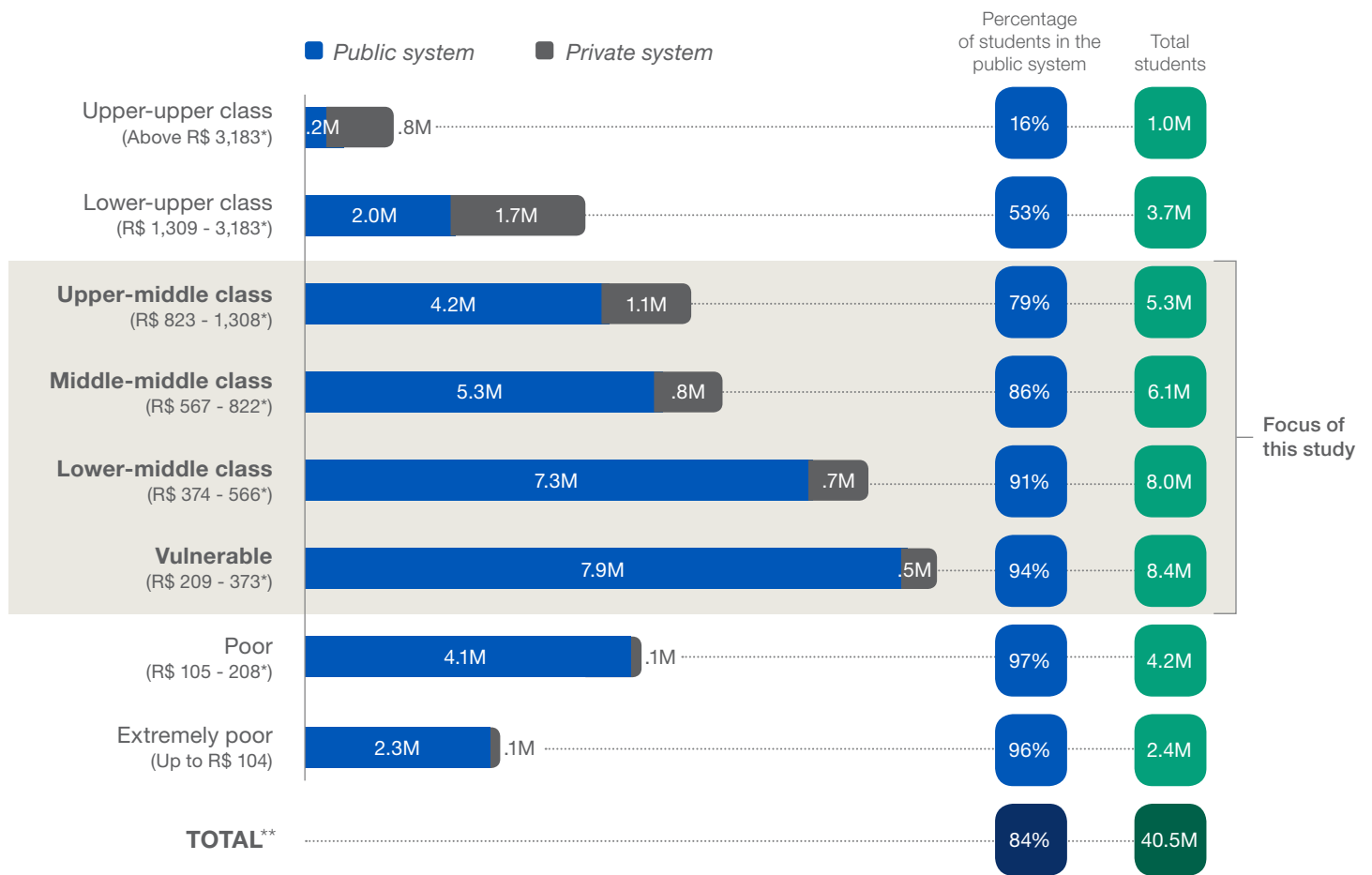


The average school day in public schools in Brazil is just four hours. Considering the normal breaks between classes, in-class instructional time drops to no more than three hours per day. Meanwhile, the length of the school day reaches seven to eight hours in many Asian and European countries, almost double that of Brazil. Lavy (2010) shows a strong correlation between the number of hours per day and students’ performance on the PISA assessment, when controlling for extraneous variables including socioeconomic status of students and the country’s relative level of development.

Source: Commentary based on <http://www.schwartzman.org.br/simon/agenda10.pdf>, Naercio Aquino Menezes Filho, Lavy (2010) references <http://www.bsg.ox.ac.uk/sites/www.bsg.ox.ac.uk/files/documents/10.%20Victor%20Lavy%20Instructional%20Time%20-%20paper.pdf>

9 Todos pela Educação: http://www.todospelaeducacao.org.br/indicadores-da-educacao/5-metas?task=indicador_educacao&id_indicador=144#filtros
 10 National private expenditure is estimated based on the private school enrollment rate and average tuition paid. According to PNAD 2014, 6.3M students in Brazil are enrolled in private schools. We assumed the average monthly tuition paid is R\$700. Of this, LMI students account for 3.4M enrollments and based on our sample, pay an average of R\$480 per month in tuition.
 11 It is important to note that throughout this report we will use the phrase “low to moderate income” or “LMI” to refer to the four middle-income brackets in Brazil’s eight-bracket income categorization, excluding families classified as poor and extremely poor.
 12 PNAD 2014
 13 <http://data.worldbank.org/indicator/SP.URB.GROW?locations=BR>, <http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=BR>

Distribution of students in Brazil, by income level and school type



*Per capita monthly income, segmentation based on SAE criterion

**Total includes 1.4M students not classified by income, of which 1.0M are in the public system and 0.4M are in the private system.

Source: PNAD 2014, Ages 4-19 only, Basic Education only, excluding tertiary and non-traditional secondary enrollments



What this report will cover

In conducting this research, our primary objective was to explore how parents and students make choices about educational offerings in school and outside of school, with a particular interest in the untapped potential of emerging education technology (ed-tech) products to improve student outcomes.

As we spoke with parents and students and documented their opinions toward the educational offerings they have access to, we also heard many stories about restricted access. In other words, students and parents weigh the relative characteristics they value in considering their options, but those options are fundamentally limited to products and services they can access safely and affordably. Ed-tech, which has the power to offer lower-cost solutions in safer places (e.g., at home)—is a promising way to address these access barriers. Despite the potential for ed-tech, it is still largely unexplored as an educational tool by LMI families.

This report is structured to reflect what we heard from LMI families:

- CHAPTER 1** → We highlight parent and student attitudes about **school offerings**.
- CHAPTER 2** → We examine parent and student attitudes about **out-of-school educational offerings**.
- CHAPTER 3** → We explore the cross-cutting **financial and physical access barriers**.
- CHAPTER 4** → We explore the role of **ed-tech solutions** to respond to the barriers that limit access to educational offerings.
- CHAPTER 5** → We conclude by highlighting **opportunities for innovation** in the future.





Methodology



The data and insights captured in this report come from a combination of desk research and primary field research focused on LMI, urban families in Brazil.¹⁴

Our field research began with 20 ethnographic observations and review of financial records for 15 families in São Paulo and Recife. Ethnographic research is a research technique adapted from anthropology and aims to examine behavior in the context of a subject's everyday life and community.

These three- to four-hour visits allowed researchers to discuss educational choices while observing family routines and habits. Family financial transactions were reviewed with a specific focus on education-related expenses.

Following this preliminary phase, we expanded our review to in-home interviews with and review of financial records from 120 families across four cities in Brazil—Rio de Janeiro, São Paulo, Salvador, and Recife. These interviews allowed us to further explore themes which emerged from the ethnographic observations.

In order to verify our hypotheses with a larger sample, we surveyed almost 600 individuals—including 458 mothers and 122 high school students across 10 cities. The quantitative survey was conducted in the homes of the respondents from a random sample of census tracts with higher prevalence of low- to moderate-income families.

Our samples were split roughly evenly across public and private school families. In our analysis, quantitative data is weighted based on income, geographical region, age, and public and private school enrollment to match the population distribution of Brazil's national household survey.

We surveyed almost 600 individuals—including 458 mothers and 122 high school students across 10 cities.

¹⁴ We rely on various external sources throughout this report, including but not limited to the National Household Sample Survey (PNAD) and Consumer Expenditure Survey (POF), as well as data published by the National Institute for Educational Studies and Research (INEP). Facts, figures, and conclusions that do not come directly from our field research are cited independently for clarity.



Chapter 1: Attitudes toward schools

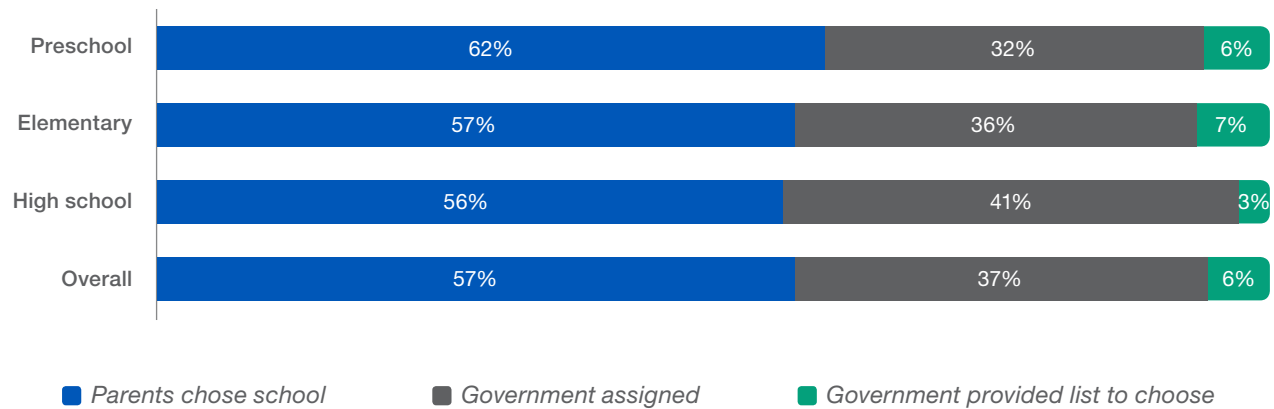


Characteristics of schools are important drivers of choice and satisfaction. This chapter will review current patterns of school choice for LMI families, examine what characteristics of schools parents confirm are the key drivers of their decisions, and then explore parental satisfaction and parent-identified opportunities for school improvement.

What choices do parents have when enrolling their children in school?

In Brazil's highly decentralized education system, local administrators decide whether families are assigned to a single school, are allowed to choose their schools, or have a choice in switching to a list of alternative schools. School choice within the public system varies among municipalities, with no clear pattern based on region or income level of population. That said, over 60% of parents surveyed report choosing their child's school, which indicates a high level of school choice compared to many public education systems in which families are assigned to a school based on where they live.

Reported school selection process, by stage of schooling



Source: Quantitative survey, public school parents only, n=231

Parents also may choose to enroll their children in private schools instead of public schools. According to Brazil's National Household Sample Survey (PNAD 2014), roughly 16% of students in Brazil attend private schools. This proportion is higher than it was a decade ago when only 14% of students attended private schools.¹⁵

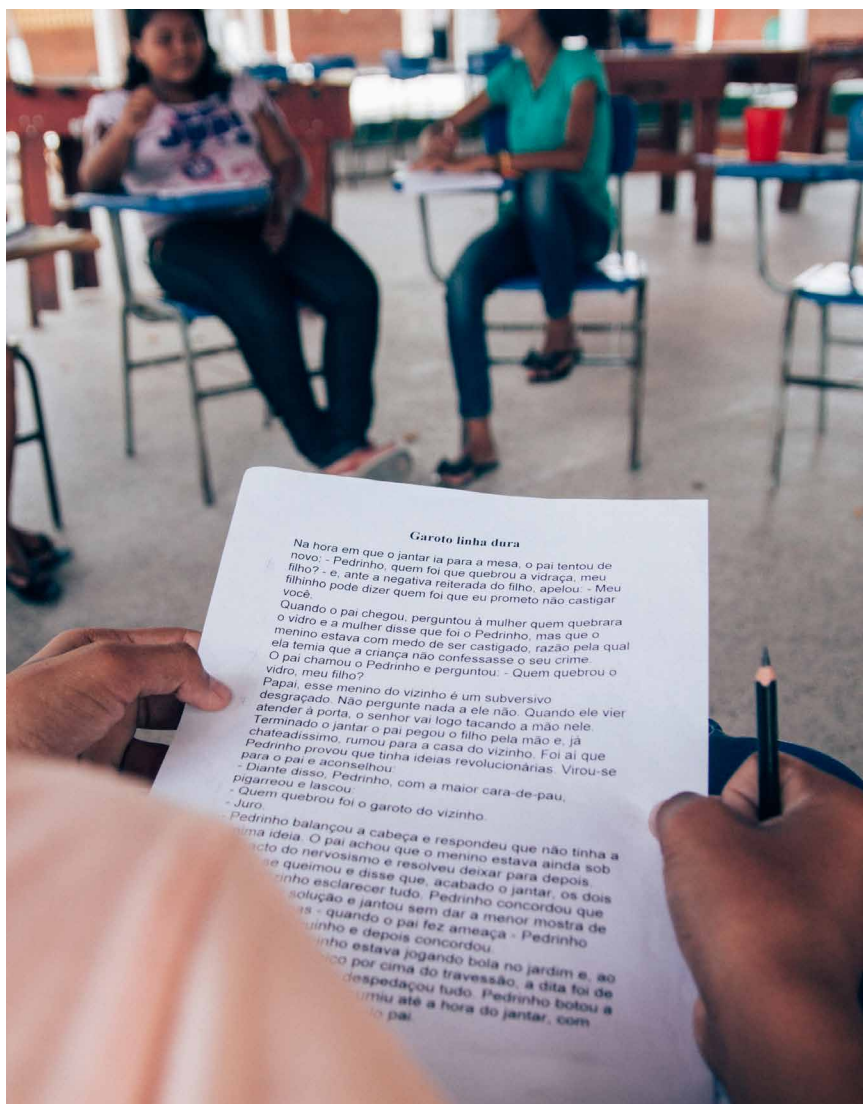
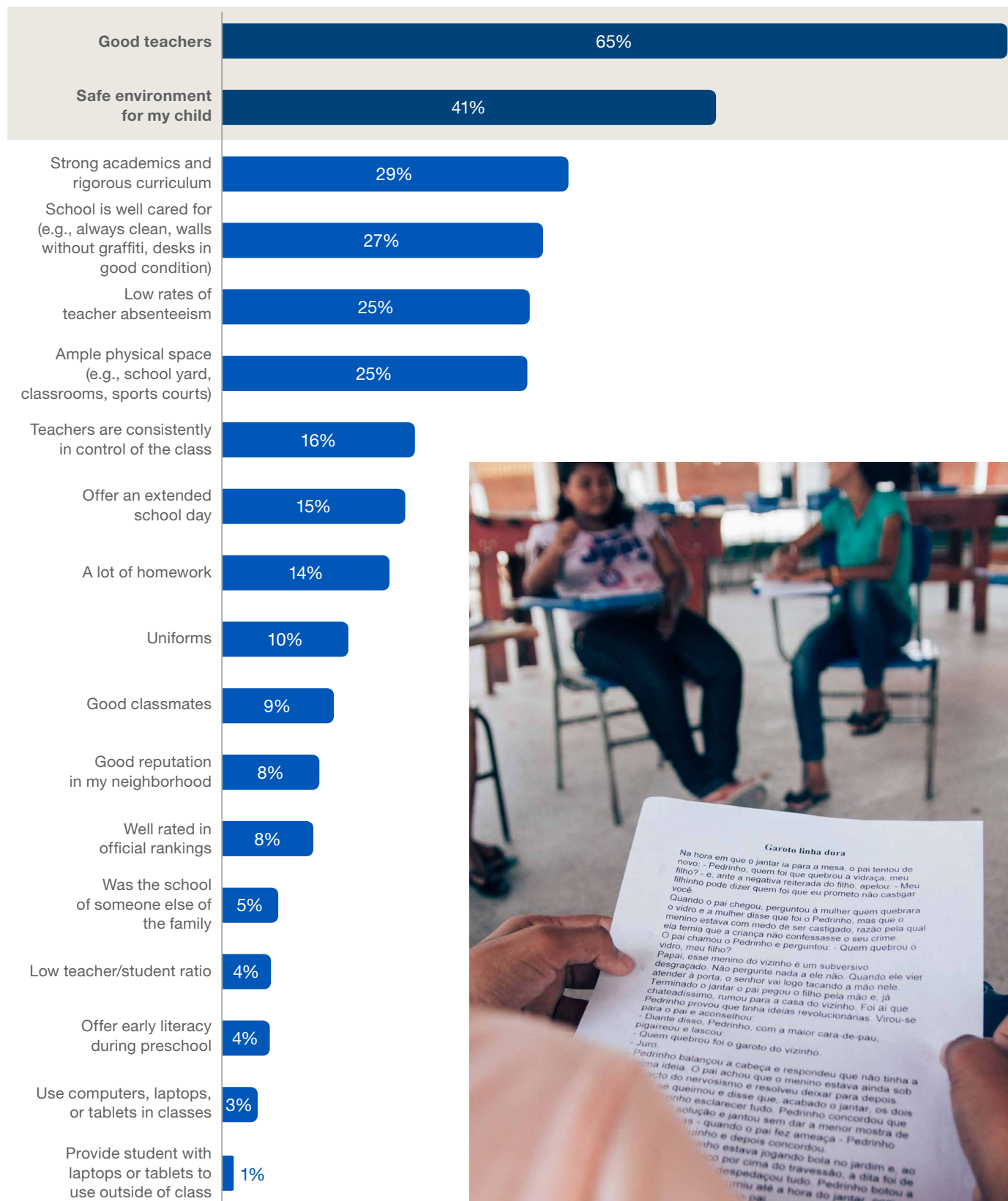
Given the significant decision-making power that parents have to choose their child's school, it is critical that we understand the key drivers of parents' decisions.

¹⁵ Recent reports from the National Federation of Private Schools (FENEP) indicate that private school enrollment declined slightly in 2015 due to the worsening economic crisis, though this decline is much smaller in magnitude and expected to be temporary. <http://www.cartacapital.com.br/revista/894/quem-paga-a-conta-pela-crise-economica>



What characteristics of schools are most highly valued by parents?

Percentage of parents who assign the factor to be one of the top three most important factors when choosing their child's school



Source: Quantitative survey, all mothers, n=458

What characteristics of schools are most highly valued by parents?

Parents report that the most important factors driving their choice of schools are the quality of teachers and security within the school.

Parents tend to see the quality of teachers as a proxy for the quality of the school more broadly, and as the largest determinant of their children's learning. When pushed to define precisely what a “good teacher” means, parents referenced teachers’ attendance, attentiveness, ability to answer student questions, the frequency with which they assign and correct student homework, and the amount of academic content taught by them (which is evidenced by the amount of lecture notes in children’s notebooks). Many parents referenced the importance of teachers being “mais puxadas” which roughly translates to academically pushy or demanding. Parents commonly do not report relying on external assessments or indicators of quality, such as IDEB or ENEM scores to evaluate the quality of schools.

When defining “a safe environment,” parents referenced a range of factors under the umbrella of in-school safety. For example, parents mentioned controlled entry and exit from the school, either under the watch of the principal or guard, as well as physical protections, including bars and walls. Parents also perceived vandalism and graffiti, both outside the school and on walls, desks, or chairs inside the school to be indicators of an unsafe environment. Organized lines of students, strict teachers, and mandatory uniforms were all perceived as signs of security, albeit more related to school administration. Finally, parents spoke at length about the importance of peer influences and particularly keeping their children away from other students who were not “good influences.” Students that bully, use drugs, use profanity, vandalize the school, or are frequently truant were considered inappropriate influences and evidence of an unsafe environment.

Notably, for both of these key decision factors, parents often referenced referrals or information passed on by friends or neighbors as trusted sources for information on school quality.

In our survey data, we found no significant differences between the characteristics valued by parents of children enrolled in private schools and those enrolled in public schools; good teachers and in-school security were the most important characteristics for both groups. This suggests that the choice to enroll in either a public or private school is more reflective of the family’s level of access, than a distinct set of values.

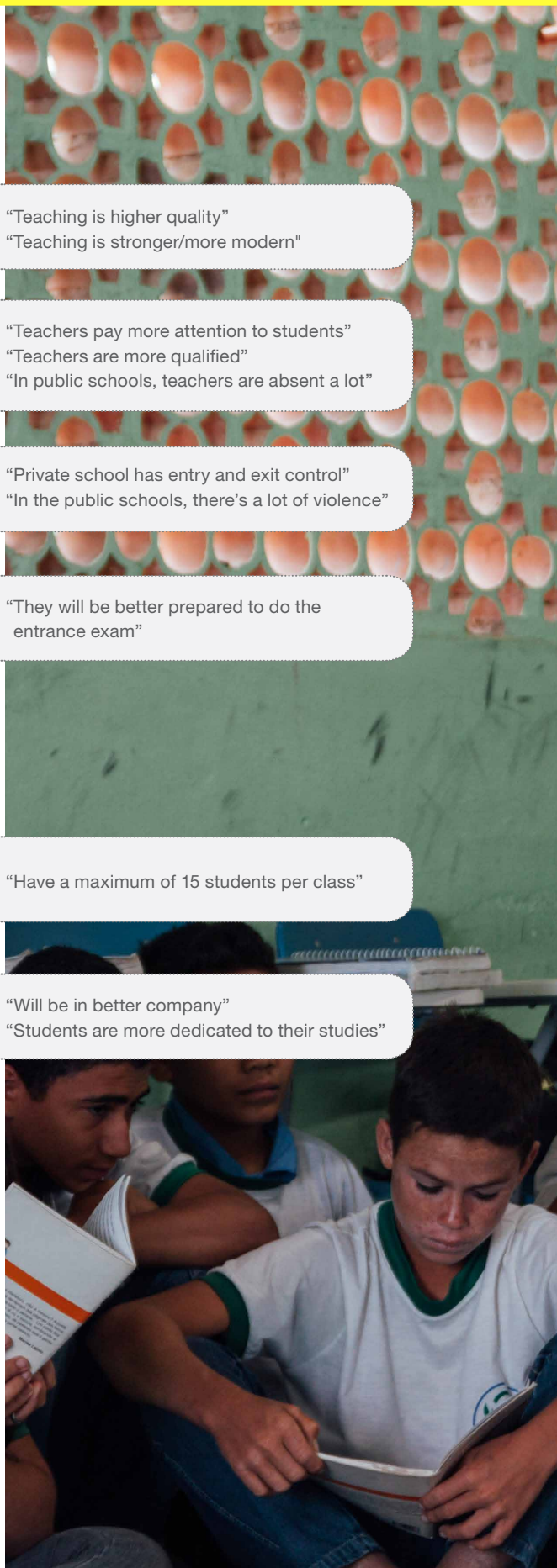
Maria studies in a public high school in Recife, Pernambuco. She attends a school far from her home, as she felt closer schools were inferior in quality. She mentioned that one of the schools available in her neighborhood was very unstructured and without discipline and shared a story in which the “lecturer arrived at a class and a group of students in the back continued to distract the class and threatened the lecturer.” Maria also said the school is known to be a meeting point for drug dealers.

The fact that some of her neighbors were also attending the school outside of their neighborhood was a very important driver in her decision to attend the school, as they were able to travel together on public transportation in order to feel safe.



Why parents choose the private system

Percentage of parents who referenced the stated factor when describing why they chose to enroll their child in a private school, instead of a public school



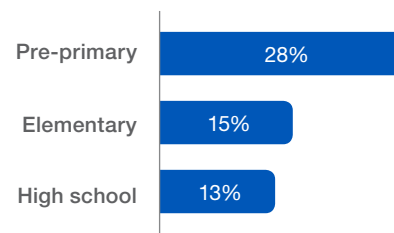
Source: Quantitative survey, only parents with children enrolled in private schools, n=227



Mario's son is enrolled in his third year of studies at a public high school. Mario mentioned that there were other public schools in the neighborhood, but his main concern was violence and bullying inside school. A friend recommended his son's current school, suggesting that it was more secure than the other one available. The location of the school was also very important, and the one recommended was close to his home. Mario mentioned that prior to the start of classes, he did not have any information on the school's academic offerings. In fact, at the start of the school year he felt the school was disorganized and realized that it did not offer what was most important to him: professional courses. However, the most important issue was to find a non-violent school. Mario did not search for a private school due to his inability to pay. "If I had to pay for my kids' education, we would not eat."

One interesting pattern is that private school enrollment rates are highest at the pre-primary level and gradually decline throughout the student lifecycle. While our parent survey data does not offer a clear explanation for this pattern, there are several hypotheses based on historical and institutional characteristics of the education system. First, universal access to public pre-primary school was mandated only in 2009,¹⁶ and particularly in smaller cities and rural areas there are still basic supply constraints in the public system. Private school tuition also typically increases between preschool, elementary school, and high school, which may push students back to the public system due to many families' limited ability to pay. Some also believe that quota systems of public universities¹⁷ incentivize public school enrollment during high school, though a valid counter-argument is that the high stakes college entrance assessment (ENEM) incentivizes families to make an additional investment in high school so their children perform well on the exam. Finally, parents of preschoolers today are on average more highly educated than parents of high school students and therefore may value education more, making them more likely to enroll their children in private schools that they perceive to be higher quality.

Private school enrollment rate, by stage of schooling



Source: Quantitative survey, all mothers, n=458



¹⁶ Constitutional Amendment No. 59, of November 11, 2009

¹⁷ According to a 2012 law, 50% of enrollments in Federal universities are reserved for students of public high schools.

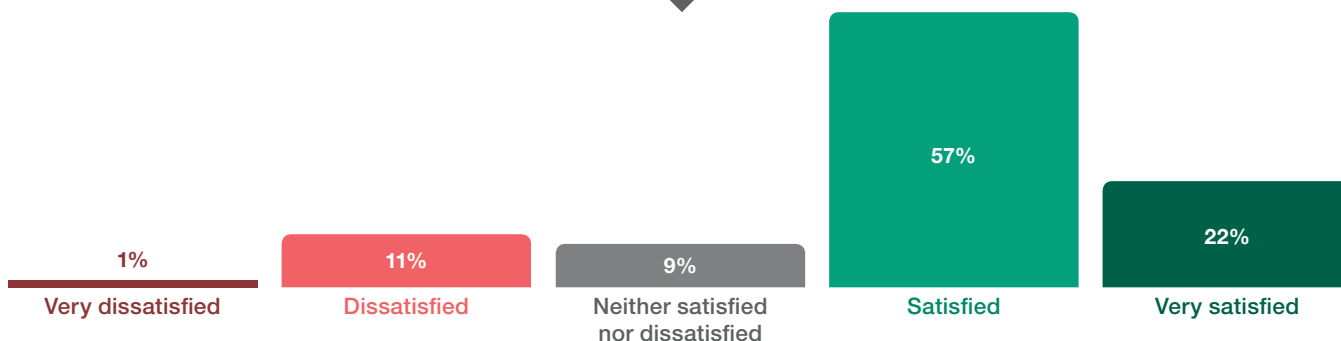


How satisfied are parents with their children's schools?

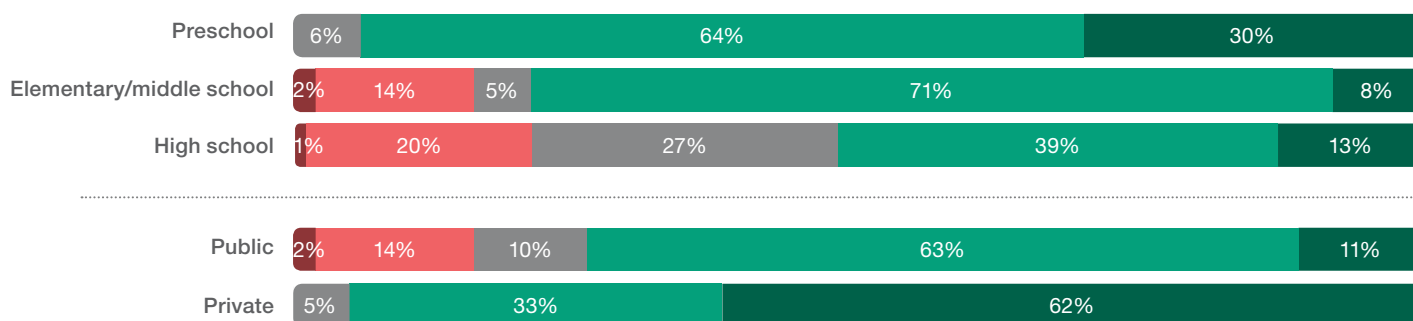
Generally, parents report being relatively satisfied with their children's schools—despite the poor quality. Of all the LMI parents surveyed, roughly 80% report that they are satisfied or very satisfied with their child's school. The proportion of parents who are very satisfied is significantly higher among private school parents, who also report that their children's schools satisfy the requirements of a "good school" at roughly double the rate of public school parents. Notably, parent satisfaction consistently drops throughout the student lifecycle. Finally, satisfaction is not highly correlated to school quality, as measured by IDEB scores for pre-primary and elementary schools and ENEM scores for high schools, or to income level, except for a minor uptick of satisfied parents in the upper-middle-income classification.

Why are parents generally satisfied despite poor educational outcomes? First, parents are generally happy their children are going to school, and recall a not so distant past in which not all LMI children attended school, particularly preschool and secondary school. Second, if they themselves did not attend school, parents may not know what to expect and thus how to evaluate their children's schools. And finally, we know that parents care deeply about their children and want to deliver the best they can for their children. Therefore, given that many parents choose their children's school, reporting that they are satisfied with that school affirms their own choice. Nevertheless, as we will discuss in the next section, parents do have ideas about how schools can be improved.

The majority of LMI parents are satisfied with their children's schools



Satisfaction levels do vary considerably by schooling level and school type

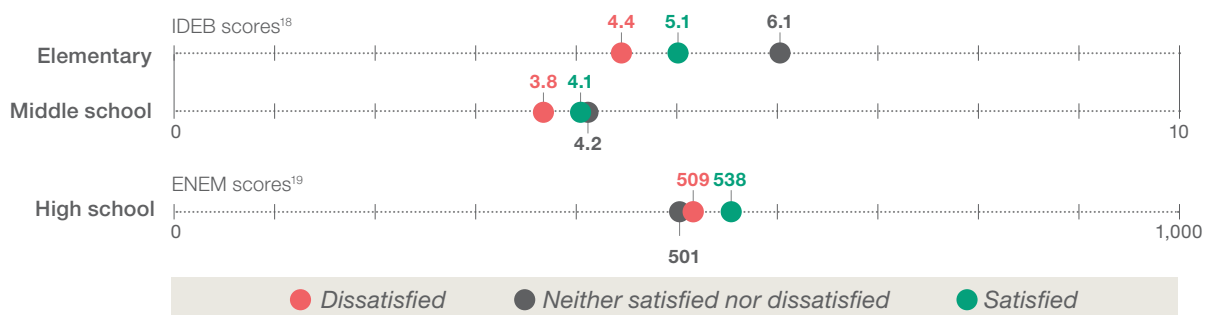


While satisfaction levels vary less based on household income



Source: Quantitative survey, all mothers, n=458

Finally, satisfied parents' schools are of a very similar quality to those of dissatisfied parents



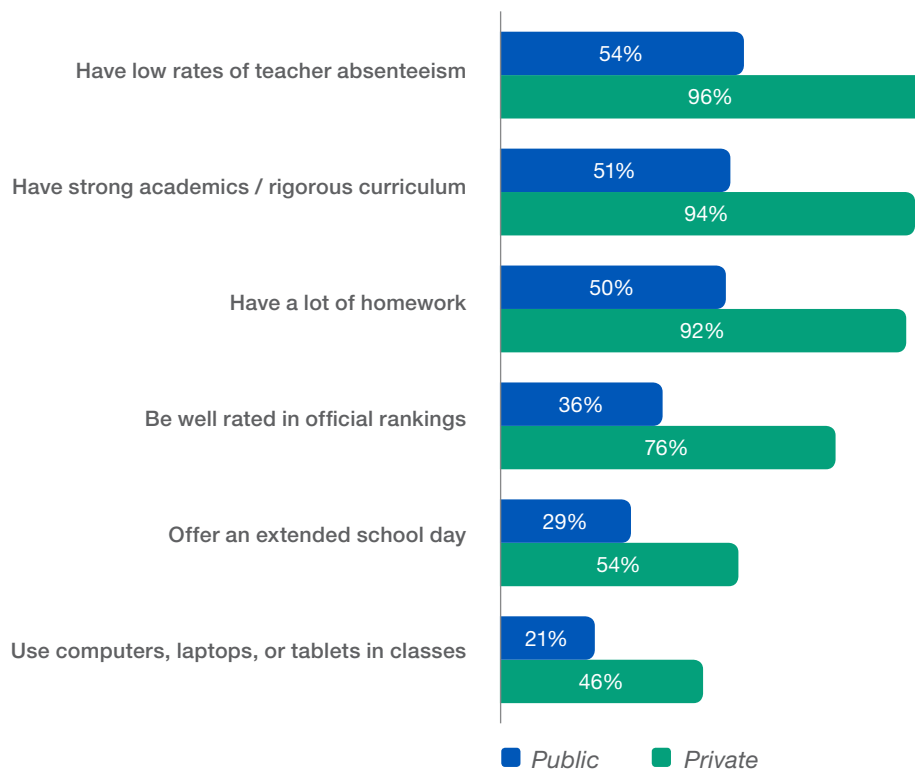
Source: Quantitative survey data combined with nationally reported IDEB and ENEM scores. n=458

18 The Basic Education Development Index (IDEB) is the main indicator of the quality of Basic Education in Brazil. On a scale of 0 to 10, it synthesizes two important concepts: pass rates and performance on standardized assessments in Portuguese and Mathematics.

19 The National Secondary Education Examination (ENEM) is a national test designed to assess student performance at the end of high school. It consists of a multiple-choice test and an essay. Its scale goes from 0 to 1000.

Do parents think their child's school meets the bar?

Percentage of parents who report that their child's school has the stated characteristic



Source: Quantitative survey, all mothers, n=458



What are the parent-identified areas for school improvement?

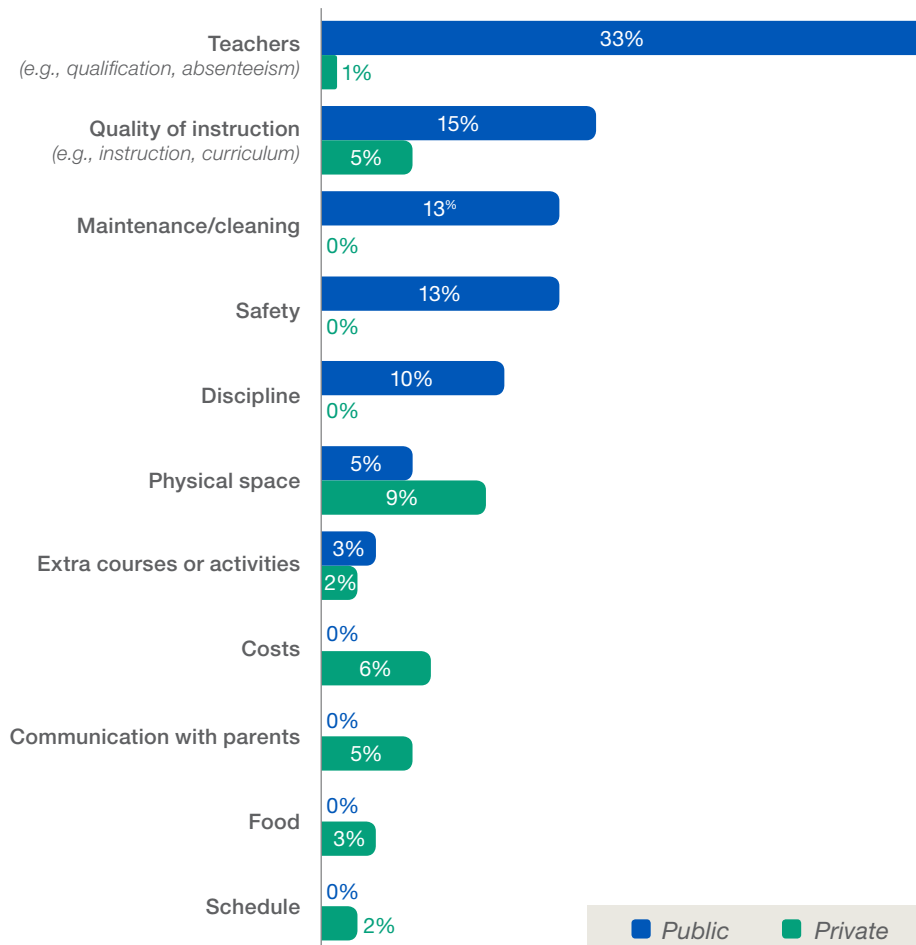
Over 80% of public school parents could identify at least one area for improvement in their child’s school, compared to 35% of private school parents. Public school parents most frequently identify areas for improvement closely aligned with the most valued characteristics discussed earlier (i.e., the quality of teachers and in-school security). Our analysis also highlighted several more age- and stage-specific demands, including the need for full-day preschool, full-day high school, and lower rates of teacher absenteeism particularly in high school.

As it related to improving teacher quality, parents specifically noted that teachers should be absent less frequently and be more capable, committed, and demanding. Some also noted that schools should have more teachers. Suggested changes to improve in-school security included infrastructure-related feedback, changes to security procedures (“should have police at the school gate”), and organizational culture and management practices (“teachers shouldn’t allow nonsense in the classroom”). Very few parents mentioned improvements other than those related to teachers and in-school security, suggesting that parents have limited knowledge of what to demand from schools or prioritize these more “basic” demands.

Private school parents did not highlight consistent areas for improvement in their children’s schools, suggesting that the demands of private school parents are well met by their current offerings, or similarly have limited knowledge of what to expect from schools.

How can schools improve?

Percentage of parents who mentioned the following as an area for improvement in their child’s school, by school type



Source: Qualitative survey, n=231 public school parents, n=227 private school parents

In comparing the importance of certain school characteristics with the reported availability, we identified several additional unmet demands from parents that differed depending on the age of their children.

For example, parents of preschoolers generally reported that full-day offerings were highly valued, but not widely available. Qualitative interviews highlighted that the half-day offering of public schools is a major logistical challenge for families with young children, particularly for parents employed in the formal sector. Private pre-primary schools almost always offer full-day care, which indicates a willingness to pay for this type of care.

Among parents of high school students in the public system, there is unmet demand for schools where teacher absenteeism is low. Roughly 25% of parents ranked this among the most valued characteristics of their child's school, yet over 50% respond that this criterion is not met. Notably, having teachers who consistently show up—alongside having a rigorous curriculum and a lot of homework—was one of the characteristics for which there was the largest gap between public and private school parents; while only 50% of public school parents report that their children's schools meet this criteria, 90% of private school parents say this criterion is being met. Parents of high school students also want more full-time school curriculum offerings, to ensure their children's preparedness for the work force. Full-day high school, which combines academic coursework and technical training, represents only 17% of nationwide high school enrollments.²⁰

In the next chapter we will shift our focus to out-of-school educational offerings and consider current trends in behavior as well as the attitudes of parents and students.

20 Todos pela Educação. Sinopse Estatística da Educação Básica: <http://portal.inep.gov.br/basica-censo-escolar-sinopse-sinopse>





Chapter 2: Attitudes toward out-of-school educational offerings

The previous chapter focused on parents' perceptions and expectations of schools. While schools are undoubtedly the core focus of most children's educations, there is ample opportunity to further educational objectives outside of the school day. This chapter will begin by providing a basic overview of behavior today as it relates to out-of-school educational offerings, and then discuss the attitudes of parents and students toward available offerings.

What choices do parents have and what choices are they making today?

Our data suggests that the vast majority of parents believe that extracurricular courses are important (upwards of 90% for certain types of courses); however, we see comparatively low rates of participation. Thirty five percent of LMI students participated in an extracurricular activity in the last 12 months. While qualitative interviews would have suggested that high school students were more likely to engage in extracurricular activities because they are less constrained by the logistics of their families and there is significant perceived urgency to prepare to enter the job market, our data suggests very similar participation rates between elementary and high school students. That said, high school students do participate in paid activities at a slightly higher rate and spend slightly more on those activities than elementary school students.

The types of activities that students engage in also vary based on a student's age, with elementary students participating more frequently in sports and tutoring, while high school students most commonly participate in foreign language courses, computer courses, and tutoring.

Qualitative interviews also suggested that extracurricular participation may be increasing. While data on extracurricular participation over the course of time is not available, the number of businesses in Brazil classified as "education and training" increased by 35% between 2008 and 2015, which presumably includes companies offering extracurricular programs and services, as well as adult education programs.²¹

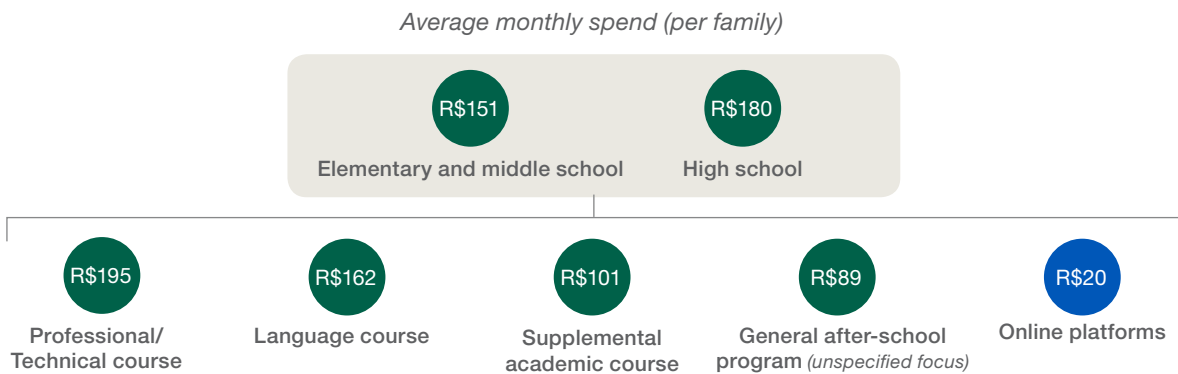
²¹ ABF Associação Brasileira de Franquias

The vast majority of parents believe that extracurricular courses are important, yet participation rates of their children are low



Source: Quantitative survey, parents of elementary school students, n=375, parents of high school students, n=118

Families who do participate in extracurricular courses typically spend between R\$100 and R\$200 per month, though online platforms are significantly cheaper



Source: Quantitative survey, all mothers, n=458
Source: Financial diaries, n=135

What explains the low level of LMI participation in extracurricular courses?

In the next chapter we will discuss the significant access barriers that limit extracurricular participation. However, endogenous to the offerings themselves, our research suggests there may be a mismatch between the types of extracurricular programs offered and those demanded, both at the elementary and high school levels. At the elementary level, we see significantly more demand for academically oriented extracurricular offerings, including languages and tutoring, than supply. At the high school level, both parents and students expressed moderate demand for courses that would assist in resume and interview preparation; however, no students had taken a course which covered either of those topics in the 12 months prior to the research. One hypothesis is that this inconsistency may be driven by a lack of offerings to match the demand.

Interviewers also noted that many students lacked guidance on how to manage the transition between high school and post-secondary education or the job market; for example, they did not know which colleges offered the courses they wanted. Nevertheless, students did not articulate an explicit demand for products or services offering this type of guidance. Given increasing rates of post-secondary attainment and the rapidly changing economy, many LMI parents may not be well equipped to advise their children on post-secondary education options and labor market opportunities. Demand in this area is very nascent which may impact willingness to pay for products and services in the near-term; however, given the complete absence of formal offerings in this space it may be an attractive area for innovation.

In the last two chapters we have discussed what parents and students value when making educational choices inside and outside of schools, and their opinions toward the available offerings. However, it is essential to consider that the set of options that LMI parents are deciding between is constrained. While parents do not necessarily name the location of a school as its most valuable characteristic, they will not choose a school they cannot safely and affordably get to. In the next chapter we will discuss two important aspects of access, physical and financial, and consider how they constrain the options of LMI families.

“At school, there could be more preparation for the labor market. It would be nice [if my child] could consider different careers more closely to determine if he is interested in them ... and see how an office works, how a company works ... to identify opportunities.”

Parent of high school student, Recife





Coca-Cola Foundation helps teenagers from 200 communities in Brazil to access the labor market. They are starting a “Life Plan” program that will help these teenagers better define their professional and academic objectives and plan the paths to achieve their goals.



Jovem Aprendiz is the official training program from the Ministry of Labor focused on 14- to 24-year-olds. The student is enrolled in a technical-professional course and hired through companies as an apprentice.



ProA Institute aims to create real opportunities for development and employment for high school students from low-income families in São Paulo. After a selection stage, more than 400 students receive vocational training, career guidance, and support in finding their first job. The Institute has served more than 2,800 teenagers. Of these, 70% are employed, 56% are in higher education, and one year after graduation incomes increased by 38%.



Chapter 3: Cross-cutting access barriers, physical and financial



In this chapter we will discuss how physical and financial access barriers impact the educational choices of LMI parents and children. We believe that these access barriers fundamentally restrict the set of options for LMI parents, thus while location and cost are not purported by parents to be the most valuable characteristics of schools and out-of-school programs, they have a significant impact on behavior.

Physical access: Violence and transportation as barriers to access

A recent study published by a think tank in Mexico claims that of the 50 most dangerous cities in the world, 20 are in Brazil.²² While the pervasiveness of violence in Brazil is well known and widely discussed, its significant impact on education is largely unexplored. Violence and the fear of violence cause LMI families to make educational decisions based on logistics. Put another way, LMI families consistently choose schools and extracurricular activities they can access safely, and therefore the set of “accessible” options is significantly smaller for students from poorer families who do not have access to private transportation and cannot afford public transportation.

A vast majority of LMI families are affected by the perception of violence, which significantly impacts transportation to and from school. Of the families we surveyed, 64% of mothers recounted recent cases of violence near their homes. In this environment, very few mothers feel comfortable sending their children to school alone; thus, a high proportion of students are escorted to school, including middle and high school students. Even when not formally escorted to school by a parent, students may deliberately travel to school with neighbors or classmates. The practice

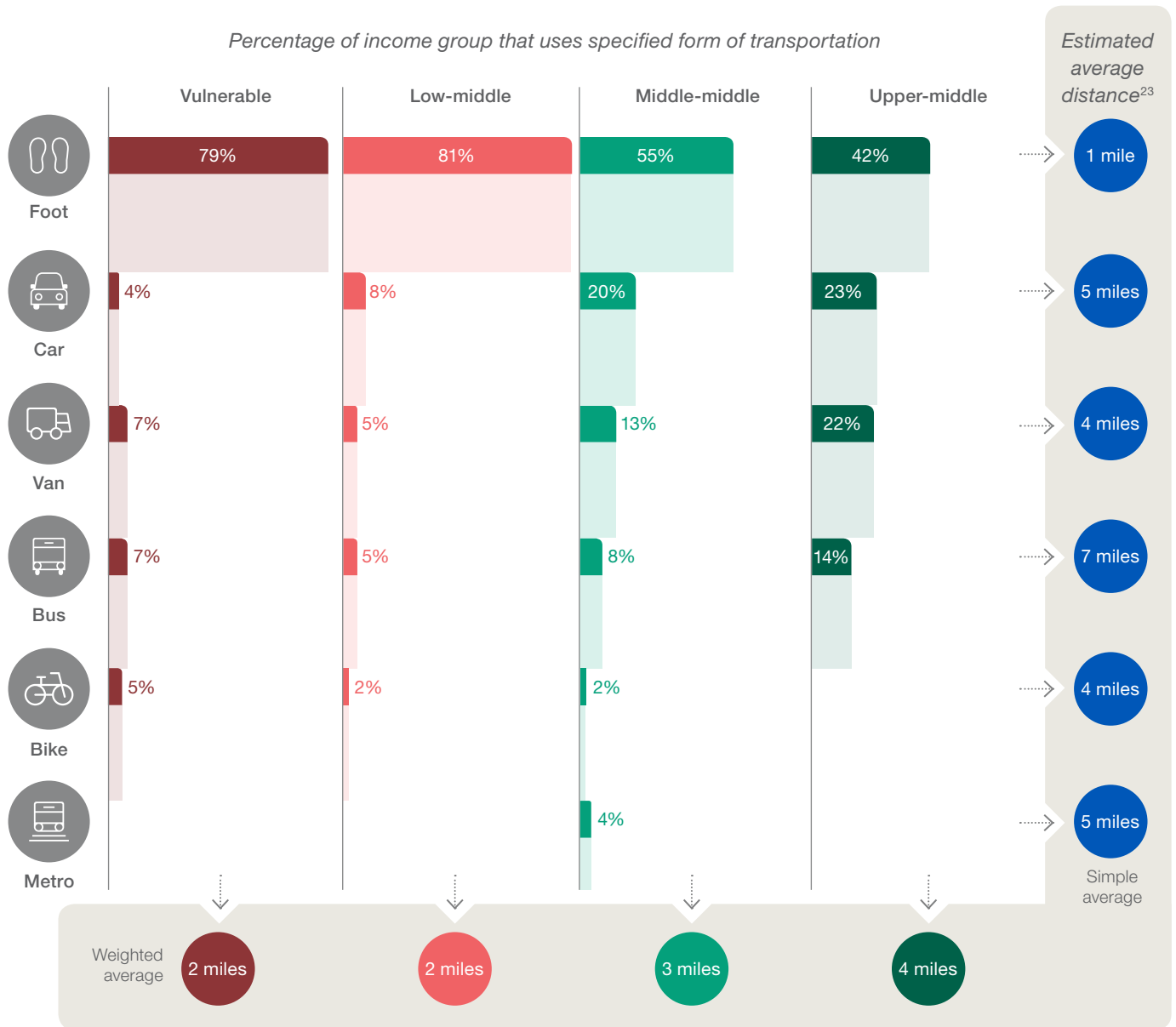
²² <http://www.seguridadjusticiaypaz.org.mx/biblioteca/prensa/download/6-prensa/200-as-50-cidades-mais-violentas-do-mundo-em-2014>

of escorting effectively doubles the monetary cost associated with public transportation, presenting a high-opportunity cost for parents, and may impact parents' employment. Families may even incur a transport cost of the "escort" in cities where public transportation is offered for free to students. In many cases, these costs (monetary and logistic) are directly correlated to the school's distance from the family's home. Our data suggests that the average distance traveled to school roughly doubles between vulnerable and upper-middle-income families, and increases by a factor of five between students who access their school by foot and those who access their school by car. While there are many possible explanations for upper-middle-income families traveling longer distances to school, one factor supported by qualitative interviews is that low-income families, and particularly those without private vehicles, disproportionately choose closer schools to avoid the financial and logistical burden associated with transporting their children in an unsafe environment.

Our data suggests that the average distance traveled to school roughly doubles between vulnerable and upper-middle-income families, and increases by a factor of five between students who access their school by foot and those who access their school by car.

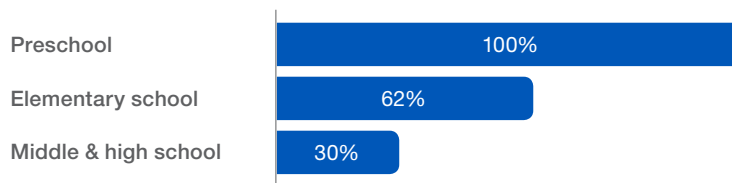


Higher income groups travel significantly farther to school, expanding their options



The costs and logistics of getting to school often affect the entire family's schedule

Percentage of parents who report that their child is escorted to school



Source: Quantitative survey, all mothers, n=458

²³ Distance to school was calculated based on the reported travel time to school and mode of transportation. We assumed an average speed of 4 km/hr by foot, 25 km/hr by car, and 15 km/hr for bikes, buses, vans, and the metro.



Unlike the school choice decision, where students and parents are required to find one viable option, security and transport can completely rule out participation in any extracurricular activities for LMI students. As mentioned in the previous chapter, when surveying parents, we found a large proportion of parents who believed that extracurricular courses were important and yet their children had not participated in any extracurricular courses in the last 12 months. When asked why their children had not participated, 64% of these parents referenced the difficulty of paying for courses while 34% referenced the difficulty of getting to the courses. Upper-middle-income students participate in free extracurricular activities at roughly five times the rate of vulnerable students, highlighting the impact of non-price access barriers on lower-income families. Of these families, many stated that extracurricular offerings are simply not offered in their neighborhoods. Others emphasized that increased security risk in the afternoon and evening limits their participation. The pursuit of extracurricular courses that are not within walking distance poses a significant monetary and logistical cost to the family. Biweekly transportation with parents or siblings as an escort to an extracurricular course could be as much as R\$90 per month in São Paulo. The average monthly expenditure on extracurricular courses, for families who do spend, is between R\$150 and R\$180. Thus, transportation would represent a significant increase in the total investment required.

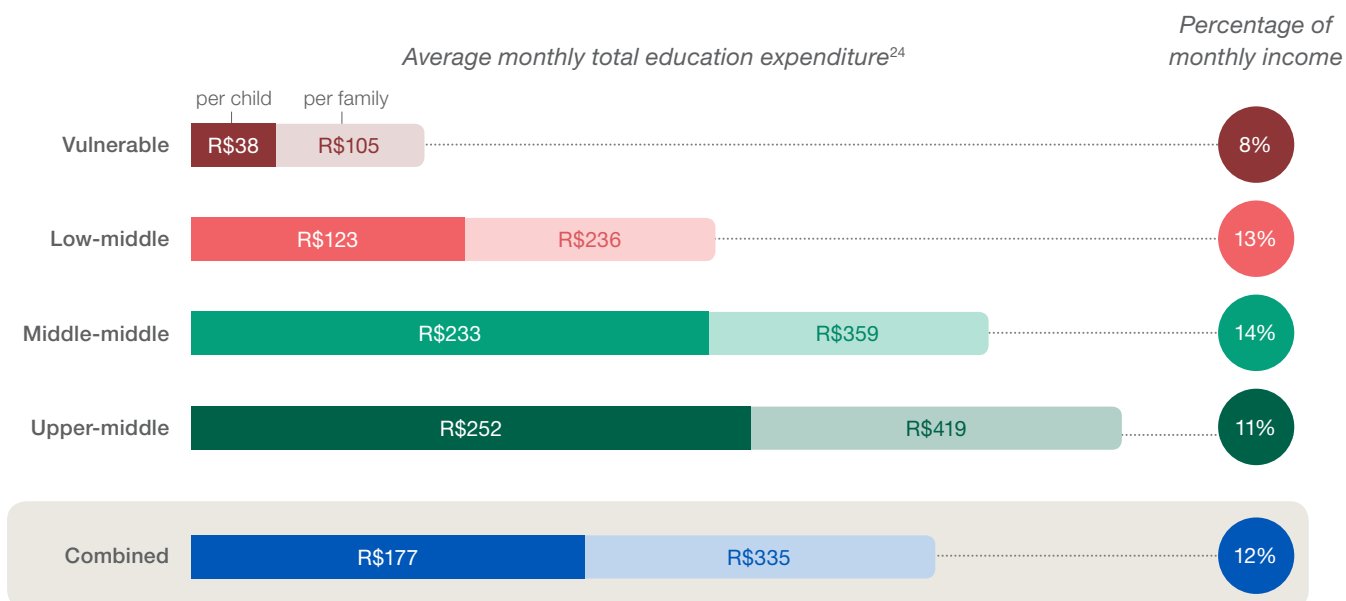
The unsafe environment experienced by many LMI families means that students do not have the autonomy to come and go from their homes by themselves. Public school students who attend school for four hours per day may spend the remaining six to eight hours per day at home, often without the opportunity to play outdoors and potentially without adult supervision. Innovations in transportation and last mile delivery systems may unlock crucial educational opportunities for LMI students.

Laura is 16 years old and lives in Bahia, where she studies at a public high school. Violence is a daily issue in her community. She says “my neighborhood is violent and even in my street we face assaults. When I leave home, my mother always asks God to protect me, because she knows there are many thieves, even in the morning. The region is full of drug dealers.” Every day, she develops complex strategies to avoid violence, taking longer routes, always walking with friends, and choosing safer streets. “I have fear, but if I couldn’t face it, I wouldn’t leave home even to go to school.”

“There is violence, a lack of security and police patrol. There is a [police] station, but it is always closed. I don’t go out. There are times when we are on the street and those drug dealing boys are there with guns. I feel scared, not that he will kill me, but of there being a stray bullet.”

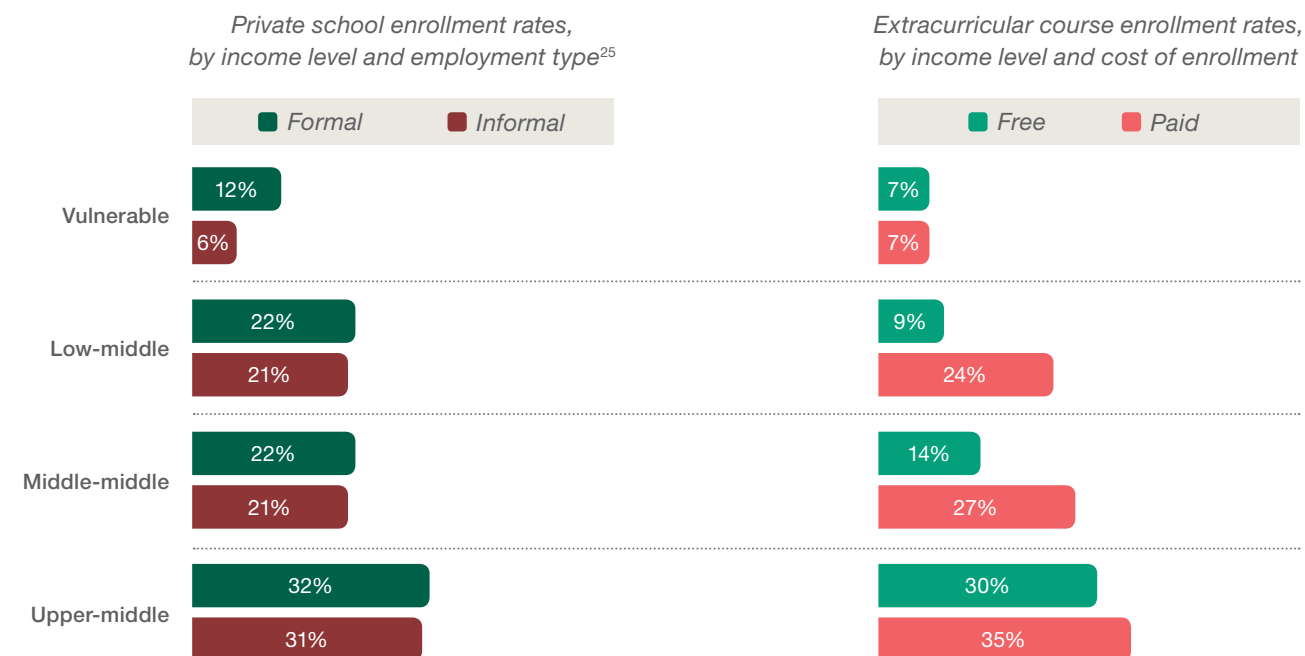
Low-income student, Salvador

Average spend on education roughly quadruples from vulnerable to upper-middle income families



Source: Financial diaries, n= 135

LMI families are much less likely to send their children to private schools and enroll much less frequently in extracurricular activities



Source: Financial diaries, n=135

Source: Quantitative survey, all mothers, n=458

²⁴ Educational spending includes: tuition and school fees, school transport, educational materials, books, school rides, food, uniform, extra courses, and online education products.

²⁵ Informal employment is defined by the International Labor Organization as all jobs in unregistered and/or small-scale private unincorporated enterprises that produce goods or services meant for sale or barter. Formal employment is within the legal employment framework which ensures access to workers' rights (e.g., social security, paid time off).

Financial access: Ability to pay as a barrier to access

The second access barrier which restricts the educational choices of parents and students is the ability to pay. Understanding the ability and willingness of LMI parents and families to pay for supplemental educational products and services is integral to creating sustainable offerings for the segment.

Families in all sub-segments of the LMI population spend between 8% and 14% of their monthly income on education, which in absolute terms means that the average spend on education roughly quadruples from vulnerable to middle-income families. Lower-income families are less likely to send their children to private schools, pay less for private schools, and enroll less frequently in paid extracurricular activities.

We heard from families that there is a range of basic costs associated with keeping their children in school, even in the public system, including food, transportation, books, uniforms, etc. These expenses can already represent a major expense for LMI families and limit their ability to pay for other supplementary educational services. While LMI parents aspire to send their children to private schools, the financial reality is that many are not able to afford the private schools that are currently available. A small number seek to supplement their children's education with extracurricular offerings given that private schools are not an accessible option.

Among vulnerable families, our data suggests that those that participate in the formal labor market and thus have more stable income enroll in private schools at almost twice the rate of families that work in the informal labor market. Given that only 30% of vulnerable wage earners are employed in the formal sector, this raises the question of whether innovative financing models could increase access for LMI families. There is some evidence that LMI families are already very creative in managing variable cash flow—as they often rely on members of the extended family, such as grandparents, godparents, uncles, or even ex-partners—to help with educational payments in particularly tight months or ask their child's school to accept a late payment. Aside from extended family resources, LMI families also often rely on scholarships to enroll in private schools; of our sample, 27% of private school enrollees receive scholarships and of those roughly half covered tuition expenses in full.

Given that technology has the potential to resolve some of the aforementioned access barriers for LMI families by offering low-cost and available-anywhere offerings, in the next chapter we will explore the current usage of education technologies and parent and student perceptions toward those offerings.

Families in all sub-segments of the LMI population spend between 8% and 14% of their monthly income on education, which in absolute terms means that the average spend on education roughly quadruples from vulnerable to middle-income families.





Spotlight on global and local innovation

Expanding access through hyperlocal and online offerings

IkamvaYouth is a South African nonprofit organization which provides afterschool tutoring to LMI students in the townships where they live. Ikamva is focused on empowerment through education, e-literacy training, and career guidance, particularly of youth who otherwise would not have access to the skill development opportunities afforded to their more privileged counterparts in the suburbs. The IkamvaYouth model draws on a large and growing pool of volunteers made up of students (from nearby universities) and local professionals. The organization is driven by ex-learners who gain entrance to tertiary institutions and return to tutor. More than half of the volunteers at longer-established branches are ex-learners. For 2015, IkamvaYouth had roughly 1,400 learners from grades 8-12 across 11 branches at an effective cost of around \$335 USD per learner.

IkamvaYouth: <http://ikamvayouth.org>, Siyavula: <http://www.siyavula.com/>,

4YOU2: <http://www.4y2.org/>

Siyavula is able to provide tech-enabled educational enrichment to some of the most geographically isolated students in South Africa through an innovative partnership with Vodacom. Siyavula is an ed-tech company that has built an adaptive learning platform focused on math and science for high school students. Starting in 2014, Siyavula partnered with Vodacom Foundation's Mobile Education Schools Programme to zero-rate their website, meaning that anyone with a Vodacom SIM card can access Siyavula's Intelligent Practice materials without incurring data or airtime costs. This program has dramatically expanded access for LMI students and rural students to Siyavula's online educational resources.

4YOU2 brings foreign teachers to live and teach English in favelas in Brazil, through the offering of low-cost courses. Its business model includes mini advanced units where the teachers can access the most remote places in these communities, expanding and facilitating English language learning access.



How our findings explain the two social movements in Brazil

MOVIMENTO PASSE LIVRE 2013

In 2013, the “Movimento Passe Livre” (Free Pass Movement) started a street protest in São Paulo that culminated in a big street protest in the whole country. Students mobilized to protest against the proposed price increase of bus tickets. As a result, the São Paulo government eliminated the proposed price increase, and subsequently approved free bus tickets for students to go to school.

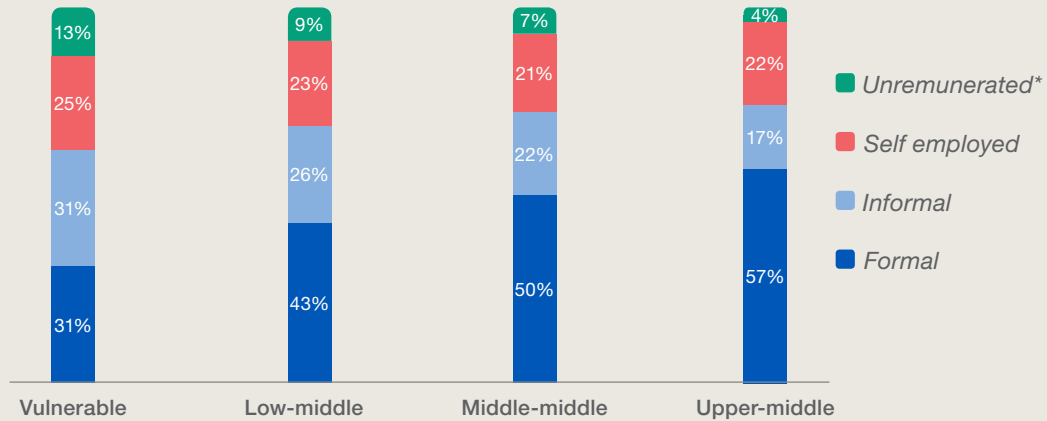
STUDENT RELOCATION 2015

In 2015, São Paulo State Government decided to relocate students from 100 schools in an initiative to separate high school students from elementary students. Students were against this relocation and occupied many schools in protest.

In both of these cases, students responded forcefully when their access to school, either due to the price of transportation or the location of their school, was threatened. We hope this study helps to contextualize the critical access constraint for LMI families.

Informal labor for LMI families

Distribution of employment status, by income level



Source: IBGE/PNAD 2014

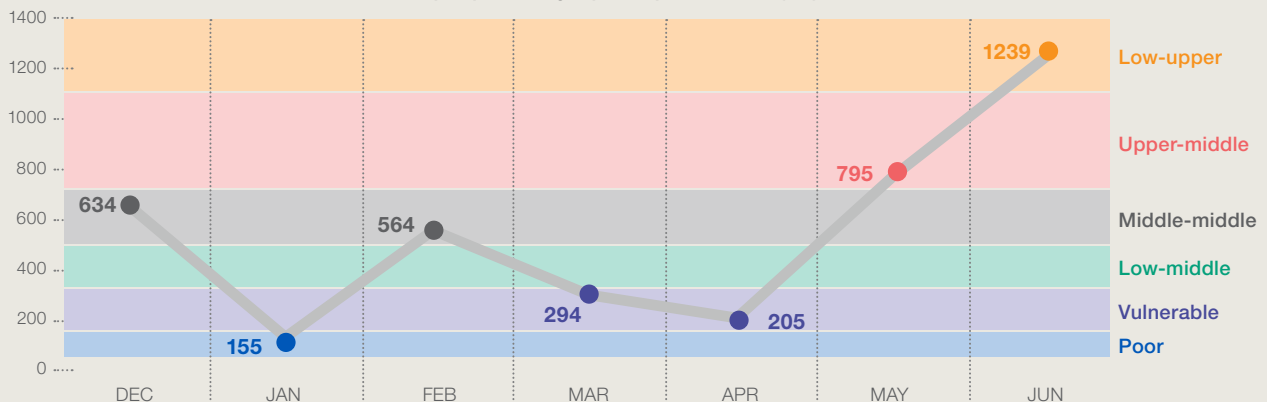
*The classification of unremunerated aggregates several IBGE labor classifications including workers in production for their own consumption (agriculture, forestry, fishing) or for use by their family unit (construction), as well as unpaid workers acting as apprentices, trainees, or in aid to a religious or charitable institution.

A significant proportion of LMI income families participate in the informal economy. These families face unique cash flow instability which can affect their purchasing behavior in a variety of ways. The graph below represents the typical income pattern for an LMI family.

In this case, the family was composed of five people—mother, father, and three children. The mother had not completed high school, and was enrolled in adult education courses. She formerly worked as a municipal school janitor, but was formally unemployed for the last five months. During that time, she began informally caring for an elderly person and selling her handiwork. Her husband worked as a bricklayer and was fired recently. He was paid relatively high wages, between R\$2,000 and R\$2,500 per month, but paid inconsistently. In the last month depicted below, he received payment for his last three months of work.

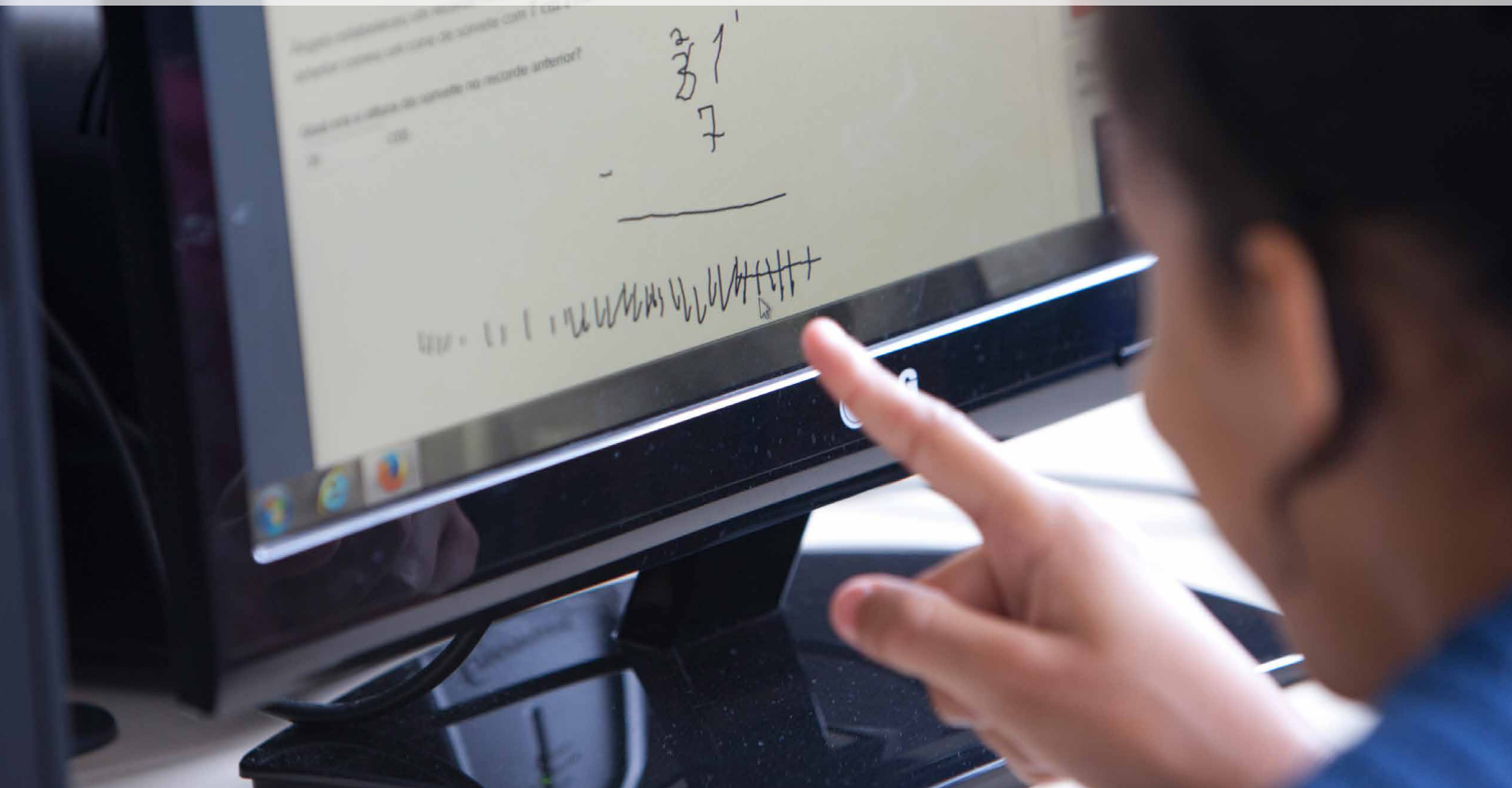
Source: Financial Diaries, 2013. Available at: <http://www.cgap.org/blog/seasonal-unsteady-income-drives-economic-vulnerability-brazil>

Income variation over time
5 people family – per capita income (R\$)





Chapter 4: Untapped opportunities in education technology



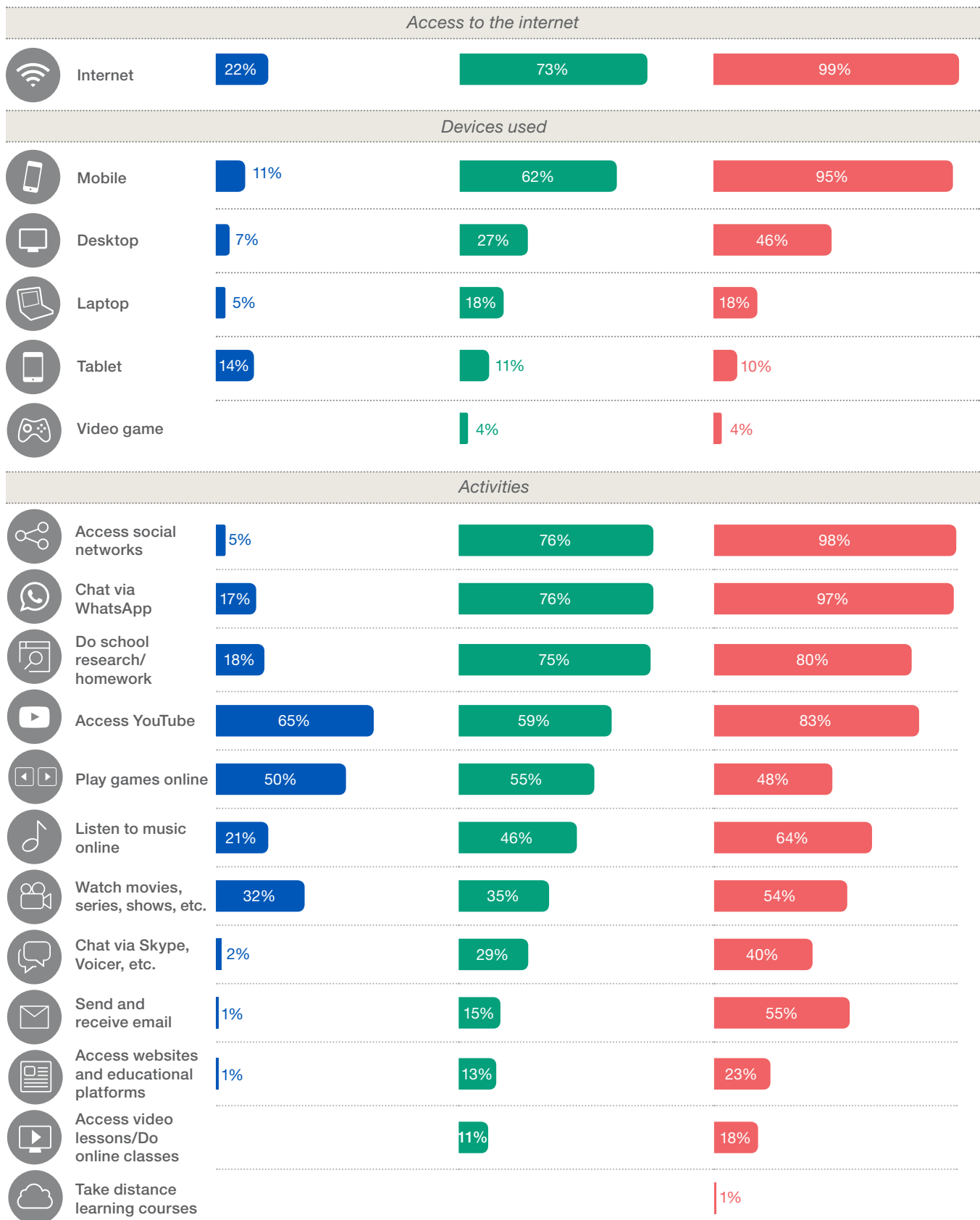
Technological access has vastly expanded in Brazil over the past decade, a trend which has impacted all income levels, including the LMI segments. In fact, the internet has many advantages particularly relevant for LMI families. For example, the internet represents a low-cost source of entertainment for families with very limited disposable income. It is also perceived as a tool to keep children occupied indoors given the poor security in many LMI neighborhoods. Finally, LMI families acknowledge the internet's role as an educational resource. Specifically, for parents who did not attend school or may have only attended school at the elementary level, parents are acutely aware of their children's need for additional resources to help them with their homework. In this context, parents consider the internet an essential in-home service, and categorize it in the household budget alongside non-negotiable expenses, such as utilities.

Despite the recognized value and widespread adoption of technology at home, our research suggests that technology is largely underutilized as an educational resource for LMI students. In this chapter, we will discuss the use of technology as an educational resource both in school and at home, as well as the attitudes of parents and students toward ed-tech.

Despite the recognized value and widespread adoption of technology at home, our research suggests that technology is largely underutilized as an educational resource for LMI students.

How do LMI students use technology?

■ *Preschool* ■ *Elementary school* ■ *High school*



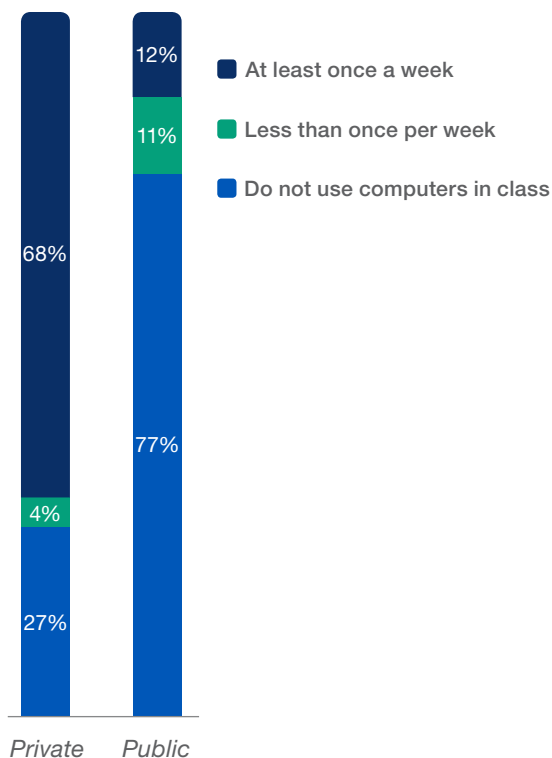
Source: Quantitative survey, parents of preschool school students, n=165, parents of elementary school students, n=175, high school students, n=121

How is technology used in schools today, according to students?

Although official data suggests that 97% of schools in Brazil have computers and 93% of them have access to the internet,²⁶ our research indicates that this technology is far from an integral part of the educational experience of LMI students. Seventy-seven percent of public school students and 27% of private school students report not using computers in their classes. Within the public system, the use of technology is even lower among poor and vulnerable families, suggesting unequal access within the public system. Many students in public schools spoke about computer labs with severely restricted access, broken computers, and poor internet connections. Such comments were less common in interviews with private school students, who were even commonly allowed to use computers outside of school hours. For both sets of students, the use cases for technology appear to be extremely limited; 57% of students mentioned that their computer usage is restricted to search tools (e.g., Google) and the second most frequently mentioned use case for technology is group projects (17%), which may also include unstructured web searches. This insight about how students are currently using technology confirms the general notion that hardware provision alone will not improve learning outcomes.

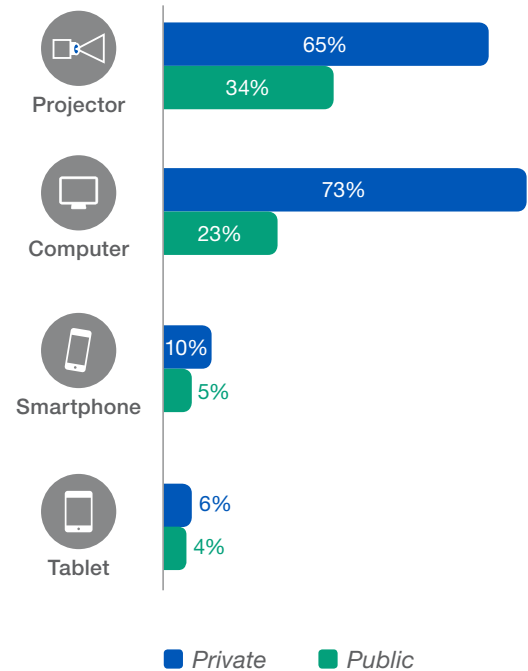
Technology use in the classroom

Frequency of use of computers, by school system



Source: Quantitative survey, high school students, n=122

Percentage of students who report using the stated technology in the classroom, by school type



Source: Quantitative survey, high school students, n=118

26 (TIC Educação 2013) Information and Communication Technologies in Education.



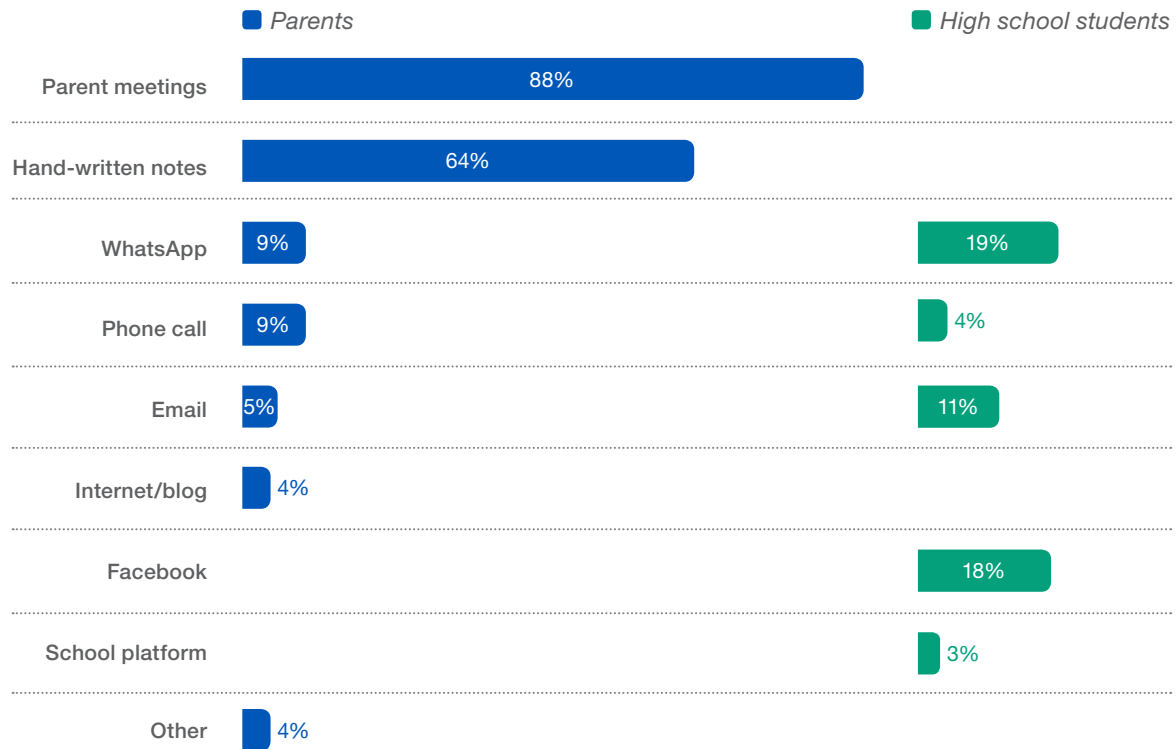
How is ed-tech used outside of the classroom, according to students and parents?

While many students already use technology to support academic activities at home, similar to patterns in school, the use is relatively unstructured. Over 90% of high school students interviewed use the internet to conduct research while 24% access educational websites (e.g., Wikipedia, Brasil Esola, Infoesola), 19% access video classes and 5% access online classes. The vast majority of qualitative interviews focused on the use of search engines and video classes on YouTube. When asked how they were introduced to the educational websites or software they use at home, 76% of students stated that they found the websites themselves, 23% responded that siblings helped them, 4% referenced classmates, and another 10% referenced teachers. This suggests that at this point more structured educational tools are not being assigned or recommended by the majority of teachers or schools.

An interesting point of intersection between in-school and at-home use of technology is how teachers and students communicate. Over one-third of students use technology to communicate with their teachers outside of school hours, while the majority of parents still rely on in-person meetings or hand-written notes from teachers. It's interesting to note that the vast majority of students appear to be relying on non-education-specific communication tools (e.g., WhatsApp, Facebook, and email) rather than school platforms.

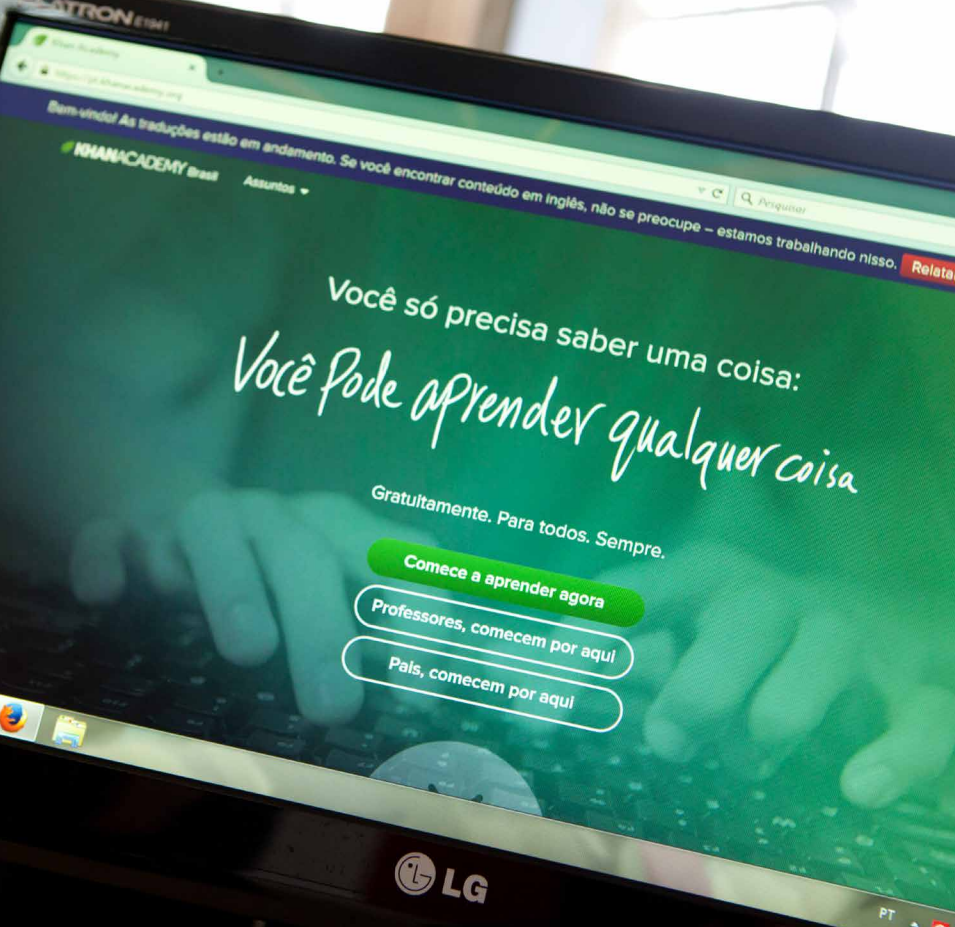
How do students and parents communicate with teachers outside of class?

Percentage who report using the specified means of communication



Source: Quantitative survey, all parents, n=458, high school students only, n=122





How do parents and students make choices about ed-tech?

While there are undoubtedly institutional and infrastructure-related barriers to the use of ed-tech (e.g., poor internet access, lack of training for teachers and administrators), the attitudes and perceptions of students and parents may be equally influential and yet often unacknowledged.

Overall we heard strong interest from students to utilize technology more at school, as they were particularly cognizant of the gaps between at-home and at-school usage, as well as between the availability and functionality of technology in schools. At the same time, students cited the limitations of technology, some of which seem to be related to the current unstructured nature of their technology usage. Students did not see technology as a tool to structure or plan their studying, to personalize their educational experience, or make them more efficient. In fact, given that students often use search engines to answer specific questions while studying or completing homework, they sometimes find that the internet does not help them answer the most difficult questions. Students also reflected that it was easy to get distracted by entertainment and leisure content available at their fingertips while online.

“These YouTube classes teach the basics in physics, they are not thorough. They address mechanical energy, but I thought that the explanation about elastic energy was very weak and I couldn’t understand it.”

High school student

“The internet gets in the way. It already comes with the answers. It is not good for studying since everything has already been done for you.”

Father of high school student

“Distance learning should have fixed hours. You should have a commitment with a defined hour. I would not enroll my daughter. Flexibility is not positive. There is a need for more rules to make it work. In a course that is not online, the lecturer can observe a student’s difficulties and give focused explanations.”

Mother of high school student



Parents were generally less concerned about or interested in the integration of technology in the classroom and even had concerns about how technology was already being used by their children as an educational resource at home. Parents felt that using search engines to answer specific homework or study questions made their children less creative, less apt to employ critical thinking skills, and more likely to find “ready to use” content. Parents also acknowledged the potential for distraction and lack of “enforceable” focus on academic content. Parents also expected internet access to unlock limitless free education and so were wary about the added value of paid services.

Finally, both parents and students mentioned that online courses and services were perceived to be less prestigious than services offered in-person.

This feedback from students and parents suggests that while the untapped potential of ed-tech is considerable, entrepreneurs and policymakers have an uphill journey to stimulate demand from students and parents and clarify the value proposition of ed-tech products and services. Given the overwhelming potential of technology to facilitate safer and cheaper access to education, responding to the two cross-cutting access challenges highlighted in Chapter 3, we hope to see significant evolution in customer attitudes toward ed-tech in the coming years.



Chapter 5: Conclusions and opportunities



We set out to study and document the choices and perspectives of LMI students and parents toward educational offerings with the strong belief that parent- and student-centric research in the field of education could produce actionable insights. Our hope is that this report elevates the voices of LMI families to policymakers, philanthropists, and entrepreneurs to ensure that our collective efforts are more parent- and student-centric, and that LMI families are empowered with products and services that suit their unique demands. Below, we share three areas for innovation that we heard, under no false pretense that this is an exhaustive list.

How to leverage the power of parents

LMI parents are critical decision-makers in the educational system and yet often are ill-equipped to make decisions which maximize the educational outcomes of their children. While some attempts have been made to put data about schools in the hands of parents, we have learned that data portals are not enough. Is there other data about individual student performance (grades, standardized test scores, etc.) that could be pushed to parents via SMS along with an invitation to sign up for extra tutoring or online study programs? Technology-enabled tools to promote communication between schools and parents, particularly at the middle and high school level where communication drops off today, may also help increase the touch points between parents and schools, thus providing them with a better perspective on the quality of education their child is receiving. We believe there are many low-cost and potentially highly effective ways to engage parents in their children's education that may be implemented by policymakers or philanthropists and operationalized through new technological innovation.

How to continue the learning outside of the classroom

Given poor educational outcomes in combination with the half-day timetable for schools, it is clear that education must continue outside of the classroom. Significant efforts have been made by the public and private sectors to promote education outside of the school day. However, we believe that additional effort could be made to offer these products, or new products, in ways that acknowledge the financial and logistical constraints faced by LMI families. Our study specifically highlighted the demand for tutoring and language courses by elementary school parents, as well as English language, ENEM preparation, and career guidance courses from high school students. Microfranchising models, such as those deployed by 4You2, promote hyper-local delivery of education content. These allow students to access tutoring and courses close to their homes and avoid the monetary and non-monetary costs of transportation. Technology-enabled solutions, including blended and distance learning, may also help overcome access barriers. However, as discussed in Chapter 4, entrepreneurs should be prepared to educate parents and students regarding the value propositions over paid products over freely available content.

How to promote and strengthen safe and affordable transportation options

Given the significant logistical challenges faced by LMI families, we believe that increasing safe and affordable transportation solutions would unleash more demand from LMI students. Technological solutions for shared transport (carpooling, bus pooling), expanded access to secure school buses, or even innovative models to ensure secure transport by foot could enable families to consider educational programs and services that would have otherwise been inaccessible.

Looking forward

By understanding what is working and what is not working for diverse education stakeholders—including students and parents—we can more effectively innovate and create solutions that deliver much-needed results. While listening to and learning from these diverse perspectives is essential to improving student outcomes, the views of parents and students in particular need to be captured proactively with much greater frequency. We hope this report incites discussion, further exploration, and action. We invite similar parent- and student-centric education research on LMI families in other Latin American markets.





