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THE PÉ-DE-MEIA PROGRAM AS A PUBLIC POLICY TO ENCOURAGE STUDENTS TO STAY IN SCHOOL AND COMPLETE HIGH SCHOOL: EVIDENCE FROM THE FIRST RESULTS

O PROGRAMA PÉ-DE-MEIA COMO POLÍTICA PÚBLICA DE INCENTIVO À PERMANÊNCIA E À CONCLUSÃO DO ENSINO MÉDIO: EVIDÊNCIAS DOS PRIMEIROS RESULTADOS

EL PROGRAMA PÉ-DE-MEIA COMO POLÍTICA PÚBLICA DE INCENTIVO A LA PERMANENCIA Y LA FINALIZACIÓN DE LA ENSEÑANZA SECUNDARIA: EVIDENCIAS DE LOS PRIMEROS RESULTADOS

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ABSTRACT

Dropout and evasion in secondary education are historical challenges in Brazilian education, strongly associated with socioeconomic inequalities that compromise the permanence and completion of this stage by young people in the public school system. In this context, the Pé-de-Meia Program emerges as a public policy of financial incentive aimed at the permanence and completion of secondary education by vulnerable students in the public school system. This article aims to analyze initial evidence of the implementation of the Pé-de-Meia Program in light of selected indicators of school performance, flow, and transition, discussing the extent to which the policy design is compatible with improvements observed in the 2020-2024 period. Methodologically, this is a quantitative, descriptive, and ex post study based on secondary data from official databases (Inep, Nilo Peçanha Platform, and Enem statistics), with an emphasis on Figureical analysis and the comparison of historical series. The results point to signs of an association between the Program's duration and higher pass rates, lower dropout and age-grade distortion indicators, and increased participation of public school graduates in the Enem, especially among students more exposed to the need for early entry into the labor market. It can be concluded that, although still preliminary and subject to important methodological limitations, the findings indicate the relevance of Pé-de-Meia as a policy to support high school retention and completion, highlighting the need for continued monitoring and more robust impact assessments as new data sets and series become available.

Keywords: Public Education Policies. Secondary Education. School Dropout Rates. Financial Incentives. Pé-de-Meia Program.

RESUMO

O abandono e a evasão no ensino médio constituem desafios históricos da educação brasileira, fortemente associados a desigualdades socioeconômicas que comprometem a permanência e a conclusão desta etapa pelos jovens da rede pública. Nesse contexto, o

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Programa Pé-de-Meia surge como política pública de incentivo financeiro voltada à permanência e à conclusão do ensino médio por estudantes da rede pública em situação de vulnerabilidade. O presente artigo tem como objetivo analisar evidências iniciais da implementação do Programa Pé-de-Meia, à luz de indicadores selecionados de rendimento, fluxo e transição escolar, discutindo em que medida o desenho da política se mostra compatível com melhorias observadas no período 2020-2024. Metodologicamente, trata-se de estudo quantitativo, descritivo e ex post, baseado em dados secundários de bases oficiais (Inep, Plataforma Nilo Peçanha e estatísticas do Enem), com ênfase na análise gráfica e na comparação de séries históricas. Os resultados apontam sinais de associação entre a vigência do Programa e a elevação das taxas de aprovação, a redução de indicadores de abandono e distorção idade-série e o aumento da participação de concluintes da rede pública no Enem, especialmente entre estudantes mais expostos à necessidade de inserção precoce no mercado de trabalho. Conclui-se que, embora ainda preliminares e condicionados a importantes limitações metodológicas, os achados indicam a pertinência do Pé-de-Meia como política de apoio à permanência e à conclusão do ensino médio, evidenciando a necessidade de monitoramento continuado e de avaliações de impacto mais robustas à medida que novos recortes e séries de dados se tornem disponíveis.

Palavras-chave: Políticas Públicas Educacionais. Ensino Médio. Evasão Escolar. Incentivos Financeiros. Programa Pé-de-Meia.

RESUMEN

El abandono y la evasión en la enseñanza secundaria constituyen retos históricos de la educación brasileña, fuertemente asociados a las desigualdades socioeconómicas que comprometen la permanencia y la finalización de esta etapa por parte de los jóvenes de la red pública. En este contexto, el Programa Pé-de-Meia surge como una política pública de incentivo financiero orientada a la permanencia y la finalización de la enseñanza secundaria por parte de los estudiantes de la red pública en situación de vulnerabilidad. El presente artículo tiene como objetivo analizar las primeras evidencias de la implementación del Programa Pé-de-Meia, a la luz de indicadores seleccionados de rendimiento, flujo y transición escolar, discutiendo en qué medida el diseño de la política es compatible con las mejoras observadas en el período 2020-2024. Metodológicamente, se trata de un estudio cuantitativo, descriptivo y ex post, basado en datos secundarios de bases oficiales (Inep, Plataforma Nilo Peçanha y estadísticas del Enem), con énfasis en el análisis gráfico y la comparación de series históricas. Los resultados apuntan a una asociación entre la vigencia del Programa y el aumento de las tasas de aprobación, la reducción de los indicadores de abandono y distorsión edad-serie y el aumento de la participación de los graduados de la red pública en el Enem, especialmente entre los estudiantes más expuestos a la necesidad de incorporarse precozmente al mercado laboral. Se concluye que, aunque aún son preliminares y están condicionados por importantes limitaciones metodológicas, los resultados indican la pertinencia del Pé-de-Meia como política de apoyo a la permanencia y la finalización de la enseñanza secundaria, lo que pone de manifiesto la necesidad de un seguimiento continuo y de evaluaciones de impacto más sólidas a medida que se disponga de nuevos recortes y series de datos.

Palabras clave: Políticas Públicas Educativas. Educación Secundaria. Abandono Escolar. Incentivos Económicos. Programa Pé-de-Meia.

1 INTRODUCTION

The universalization of access to primary education in Brazil was not accompanied, in the same proportion, by the guarantee of permanence and completion of secondary education, a stage marked by high dropout rates, failure and age-grade distortion, phenomena closely associated with socioeconomic inequalities that affect school-age young people. Several studies identify the need to work, low family income, and precarious living conditions as the main determinants of school withdrawal in this phase of basic education, perpetuating cycles of exclusion and limiting trajectories of social mobility.

Recent data from the Continuous National Household Sample Survey (Continuous PNAD), 2nd quarter of 2025 (IBGE, 2025), reveal that about 8.8 million Brazilians between 15 and 29 years old have not completed high school and do not attend basic education in 2024. The economic factor is the most relevant determinant for this situation, with almost half of the young people pointing to the need to work as the main reason for dropping out, which highlights the difficulty of reconciling study and work in a context of social vulnerability. Also according to the Continuous PNAD (IBGE, 2024, p. 7-8), the adjusted net school attendance rate – young people aged 15 to 17 attending or having completed high school – reached 76.7% in 2024, a value that represents an increase of 1.7 p.p. in relation to 2023, but remains 8.3 p.p. below the target of 85% established by the National Education Plan (PNE) 2014-2024 (Law No. 13,005, of June 25, 2014).

The Report of the 5th Monitoring Cycle of the PNE Goals, released by Inep (2024a, p. 95-96), summarizes the structural nature of these challenges:

> Eight years after the 2016 deadline, universal access to school for young people aged 15 to 17 – underlying Indicator 3A[3] – has not yet been achieved, with 94.0% reaching this indicator in 2023, 6.0 percentage points (p.p.) below the target. Between 2012 and 2023, there was a 5.2 p.p. increase in access to school for this age group, but there is still a significant distance to reach the goal of universalization.
> [...] Regarding Indicator 3B[4], referring to net enrollment rates among the young population aged 15 to 17 years, the results suggest that, in 2023, 76.9% of young people attended [high school] or had completed basic education, an increase of 13.5 p.p. in relation to 2012, but still 8.1 p.p. below the target of 85.0%.

[3] Indicator 3A: Percentage of the population aged 15 to 17 that attends school or has already completed basic education. Goal: 100% coverage of this population by 2016 (Brasil, 2014).
[4] Indicator 3B: Percentage of the population aged 15 to 17 years that attends high school or has completed basic education. Goal: Reach 85% net enrollment in secondary education by 2024 (Brasil, 2014).

In addition, the most recent data from the national indicators of school flow for public secondary education, cycle 2021-2022, released by Inep in July 2025 (Inep, 2025g), record a repetition rate of 4.6%, dropout of 9.5% and migration to Youth and Adult Education (EJA) of 2.0%, configuring a scenario of persistent difficulty in regular progression.

In this context, socioeconomic inequalities have a disproportionate impact on low-income students, who face limitations in access to essential resources such as school materials, transportation, and adequate study conditions, contributing to the maintenance of the cycle of poverty and transforming education – which could be a vector of social mobility – into an additional barrier to inclusion (Madaloz *et al*., 2024). Educational public policies of conditional financial incentive have been consolidated, nationally and internationally, as strategies to mitigate these effects, acting on the economic determinants of dropout and promoting qualified permanence.

The Pé-de-Meia Program, instituted by Law No. 14,818/2024 and regulated by Decree No. 11,901/2024, is part of this set of initiatives by creating an innovative mechanism for educational savings conditional on enrollment, minimum attendance of 80% of teaching hours, annual approval and participation in the National High School Exam (Enem), with benefits totaling up to R$ 9,200 per eligible student. The policy transcends the mere transfer of income by establishing explicit strategic objectives of reducing school retention, dropout, and dropout rates (art. 2, item III), mitigating social inequalities, and stimulating the transition to higher and technical education, breaking the intergenerational cycle of poverty (Brasil, 2024a; Brazil, 2024b).

According to data from the[5] Federal Government's Transparency Portal, in its first year of execution (2024), the Program reached R$ 9.2 billion in expenditures, benefiting 4.1 million students. Coverage reached about 60% of public high school enrollments, considering data from the 2024 School Census (Inep, 2025a), with high relevance for the EPCT Federal Network[6], whose profile of socioeconomic quota students reinforces its priority eligibility (Law No. 12,711/2012).

According to Pereira (2016, p. 77),[7] the central innovation of design lies in the creation of a financial reward for the student, to combat the temporal myopia typical of adolescence,

[5] https://portaldatransparencia.gov.br/beneficios?ano=2024

[6] Federal Network of Professional, Scientific and Technological Education.

[7] In the original: "The literature from neuroscience shows that adolescence is a period of intense structural chance in the brain (Spear, 2000). The maturation changes in the brain during adolescence contribute to some of the behavioral differences from adolescence to other ages, as the higher predisposition to take risky attitudes

in which the immediate opportunity cost of work often overlaps with the future benefits of education, bringing immediate decision horizons closer to long-term educational returns.

> The neuroscience literature shows that adolescence is a period of intense structural change in the brain (Spear, 2000). Maturation changes in the brain during adolescence contribute to some of the differences in behavior between adolescence and other ages, such as a greater predisposition to take risky actions and a tendency to focus on the present and ignore future consequences. In the presence of this myopic behavior, the financial rewards for completing high school can effectively decrease school dropout.

In this sense, formulating a public policy that minimizes this scenario requires initiative and interest from the public sector in contributing to the improvement of the conditions of the most vulnerable, as well as the success of its contribution to the permanence of these students. Given this perspective, it is necessary to understand how the new policy has been decisive in reducing dropout rates and increasing the completion rates of high school among young people in situations of social vulnerability in the first year of its implementation.

Thus, this article analyzes the first results of the Program as a public educational policy, verifying to what extent its initial objectives are reflected in the indicators of school flow, performance and transition observed in the 2020-2024 time series, with the hypothesis that the financial incentive acts as a determining factor for the permanence and completion of high school among vulnerable students in the public network. The success of the initiative will be measured precisely by the ability to consistently change academic performance indicators in the next census cycles, with a more evident impact on the groups historically most affected by school exclusion.

The article is organized into five main sections. After this introduction, the theoretical framework discusses school dropout, architecture of financial incentives and *ex post evaluation* of public policies. The methodology section details the quantitative-descriptive design, secondary data sources (Inep, Nilo Peçanha Platform, Enem) and analytical limitations. The analysis of the results and discussion presents the evolution of the indicators of enrollment, approval, age-grade distortion, dropout, academic efficiency and participation in Enem, confronting them with the objectives of the Program. Finally, the conclusion summarizes the preliminary findings, their implications for public educational policies, and recommendations for future monitoring.

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2 THEORETICAL FRAMEWORK

2.1 SCHOOL DROPOUT AND FINANCIAL INCENTIVES

The Law of Guidelines and Bases of National Education – LDB (Law No. 9,394, of December 20, 1996) – defines the recommended ages for each stage of basic education, whose attendance is mandatory from 4 to 17 years of age. For secondary education, the ideal age range is between 15 and 17 years old (Brasil, 1996). Understanding the presence and absence of young people in this cycle is an essential step for diagnosing school exclusion and for planning educational policies aimed at permanence. The estimate of the population of young people aged 15 to 17 who are out of school is based on the Continuous PNAD, conducted by the Brazilian Institute of GeoFigurey and Statistics (IBGE), the main source of updated information on the educational and socioeconomic conditions of the Brazilian population.

School dropout in Brazilian high school is a multicausal phenomenon, located at the intersection between socioeconomic conditions, school trajectories marked by failures and age-grade distortion, and subjective dimensions linked to the meaning of schooling for young people. Recent studies indicate that socioeconomic inequalities affect low-income students more intensely, whose access to basic resources – such as teaching materials, transportation and minimum study conditions – is often limited, which contributes to the intergenerational reproduction of poverty and transforms the school, many times, from a potential instrument of social mobility into another barrier to inclusion. In this scenario, the need for early insertion in the labor market appears recurrently as a central reason for dropout, especially among young people aged 14 to 29 years.

According to Branco *et al*. (2020), dropout tends to grow as the level of education advances, driven by external factors (such as economic pressure and the need to contribute to family income) and internal factors (such as the disconnection between the school curriculum and students' life projects). In a similar vein, Madaloz *et al*. (2024) point out that the absence of financial incentives is a determining factor for withdrawal from school among low-income students, highlighting that the lack of financial incentives negatively impacts students' permanence in school, along with access barriers such as precarious transportation and scarcity of resources to pay for school life.

The international literature on the economics of education also highlights that adolescents tend to underestimate or "overdiscount" the future benefits of education, favoring immediate gains over long-term returns, such as completing high school. Pereira (2016, p.

63), [8]when analyzing the Better Youth Income program in Rio de Janeiro, shows that, despite the "substantial gains associated with completing high school", dropout rates remain high, which has led many economists to suggest that young people "ignore or discount the benefits of completing high school", in line with evidence from neurology and psychology that characterizes adolescence as a period especially prone to myopic behavior.

In this context, conditional financial incentive policies are conceived as mechanisms to correct this "temporal myopia", bringing the benefits perceived by students closer to the short-term decision horizon. Pereira (2016, p. 76)[9] documents evidence that a performance bonus deposited in a linked account, with full withdrawal only at the end of high school, combined with penalties in case of failure or dropout, produces statistically significant effects in increasing pass rates and reducing dropout among adolescents in situations of extreme poverty.

> This article presents evidence that achievement awards that pay poor high school students for high school completion can substantially reduce school dropout and increase high school completion rates among economically disadvantaged youth. The program's design exploits students' loss aversion by paying for each grade completed but locking the transferred amount in a bank account and releasing the full amount to the student only after timely completion of high school. This rule possibly creates a strong incentive for students who are loss-averse and is likely to influence students who discount the future too much or who exhibit nearsighted behavior.
> In our preferred specification, being eligible to receive the incentive award decreases dropout rates by about 37% and increases pass rates in grades by 14%.

Results of recent research on the Pé-de-Meia Program, although at an early stage, partially converge in this direction: case studies indicate that the benefit works, for some students, as a direct incentive to permanence, although for others, it is appropriated primarily

[8] In the original: "Despite substantial gains associated with high school completion, high school dropout rates are still large both in the US as well as in many countries of the developing world. [...] The inconsistency between such large returns from high school completion and high dropout rates has led many economists to suggest that adolescents either ignore or highly discount the benefits of completing high school. This reasoning is consistent with the literature on neurology and psychology (Spear, 2000) that indicate adolescence as a period especially susceptible to myopic behavior".

[9] In the original: "This paper presents evidence that attainment awards that pay poor high school students for graduating from high school can substantially reduce dropout and increase high school graduation rates among economically disadvantaged youths. The program design exploits students' loss aversion by paying for each grade passed, but by locking the amount transferred in a bank account, and only releasing the full amount to the student after timely graduation from high school. This rule possibly creates a strong incentive for students who are loss averse, and is likely to influence students who highly discount the future or who present myopic behavior. In our preferred specification, being eligible to receive the incentive award decreases dropout rates by roughly 37%, and increases grade passing rates by 14%".

to cover basic needs, which reveals both its potential and its limits to face, alone, the problem of dropout.

Thus, the theoretical debate on school dropout and financial incentives points, on the one hand, to the relevance of monetary instruments aimed at vulnerable young people, and, on the other hand, to the need to understand them as components of broader strategies to combat educational inequalities, articulated with pedagogical policies, social protection and improvement of school conditions.

Analyzing the international experience and in the light of the Brazilian reality, Haddad *et al*. (2022, p. 6) established recommendations to increase the chance of effectiveness of financial incentive policies for completing high school, including:

> The program should not be seen as the great solution to the problems of Brazilian high school. Most of the articles analyzed point to the beneficial effects of financial incentives for students in terms of schooling. However, although significant, the magnitude of the effects is not enough to solve, as a whole, the serious Brazilian educational problem. This conclusion applies to all the variables analyzed: flow, dropout, completion and access to higher education, among others. For example, in Brazil, the net enrollment rate in high school is only 75% for young people between 15 and 17 years old. The largest effects found in the literature of financial aid programs on tuition are around 3 to 5 percentage points.

2.2 ARCHITECTURE OF INCENTIVES AND CONDITIONALITIES: LAW NO. 14,818/2024

The operationalization of the Pé-de-Meia Program, as instituted by Law No. 14,818/2024 and regulated by Decree No. 11,901/2024, is structured in four types of financial-educational incentives articulated with each other. This architecture was designed to act simultaneously on the easing of immediate economic constraints and on the formation of long-term savings, conditioning the receipt to the fulfillment of academic and social requirements. From an analytical perspective, the design of the Program is similar to international experiences of awards for performance or for timely completion of high school, such as the Better Youth Income, which combine deposits in a linked account, partial access to resources during the course and severe penalties in case of failure or dropout, exploring both positive incentives and the aversion to loss of students (Pereira, 2016).

To be eligible for the Program, the student must be between 14 and 24 years old, be a member of a low-income family enrolled in the Unified Registry for Social Programs (CadÚnico) and be enrolled in public high school (federal, state, district or municipal). The

legislation provides for the granting of the following benefits, totaling up to R$ 9,200, per eligible student, until the completion of public high school:

a) Enrollment Incentive: single and annual amount of R$ 200, paid per enrollment registered at the beginning of each academic year;
b) Attendance Incentive: monthly amount of R$ 200, paid in 9 (nine) installments throughout the year, totaling R$ 1,800, subject to proof of minimum school attendance of 80% of the monthly teaching hours, a level higher than the minimum of 75% provided for in the Law of Guidelines and Bases of National Education (LDB) for regular approval;
c) Incentive-Conclusion: annual amount of R$ 1,000, deposited at the end of each school year completed with approval, accumulating up to R$ 3,000, with withdrawal allowed only at the end of high school;
d) Enem-Incentive: a single amount of R$ 200 for third-year high school students from the public network who register and participate in the two days of application of the Enem tests, under the terms of Decree No. 11,901/2024 and MEC Ordinance No. 470/2025 (Brasil, 2024b; Brazil, 2025a).

It is imperative to highlight the hybrid nature of the availability of these resources. While the Enrollment Incentive and the Attendance Incentive can be moved monthly by the student, acting as mitigators of the need for immediate work and material barriers to access school, the Completion Incentive is configured as a blocked educational savings, whose full withdrawal is only allowed after the certified completion of all high school. This combination is close to the mechanism described by Pereira (2016), in which the accumulated balance can only be fully withdrawn at the end of the cycle, and the student simultaneously experiences the prospect of future gain and the risk of loss in case of abandonment or failure.

Recent studies on the Pé-de-Meia emphasize that this structure of benefits and conditionalities reinforces the objective of not only guaranteeing access, but ensuring qualified permanence and completion of basic education, directly combating dropout motivated by economic factors and mitigating inequalities of opportunity between students from different social backgrounds. Madaloz *et al*. (2024) define the Program as "a proactive and structured measure to strengthen the Brazilian educational system", by directing resources specifically to students in vulnerable situations, with a view to promoting financial inclusion and equal opportunities in the completion of high school.

Finally, according to article 5, item III, of Decree No. 11,901/2024, the student may be dismissed from the Program in case of dropout, dropout, or failure for two consecutive times or for a period of two years, which gives the institutional arrangement an additional disciplinary component and reinforces the character of commitment to academic success. This logic dialogues with the literature on conditional transfer programs, according to which the careful definition of what is incentivized, how the incentive is framed, and the sanctions associated with non-compliance with conditionalities is decisive for maximizing the effectiveness and cost-benefit ratio of the policy (Pereira, 2016, p. 65).[10]

> The correct choice of what to encourage (Barrera-Osorio et al., 2011), how to frame the incentive (Barrera-Osorio and Filmer, 2013) or how to label it (Benhassine *et al*., 2015) has important consequences on the magnitude of the program's impact. The correct targeting and design of the incentive portion of CCT [conditional cash transfer] programs is crucial to maximize their cost-effectiveness.

2.3 EVALUATION OF PUBLIC POLICIES: THE *EX POST PERSPECTIVE*

The evaluation of public policies occupies a central place in the contemporary agenda of state management, constituting a fundamental instrument to assess efficiency (use of resources), effectiveness (achievement of goals) and effectiveness (social impacts) of government interventions. According to the Practical Guide for *Ex Post Analysis* of the Civil House, the evaluation after implementation allows not only to verify whether the objectives have been achieved, but also to identify design and execution flaws, guide adjustments and improvements, and support decisions on continuity, expansion, or redirection of policies (Brasil, 2018a).

In the specific field of educational policies, Haddad *et al*. (2022) emphasize that "all public policy must be evaluated *ex post* to ensure that its objectives have been achieved", emphasizing that evaluation is important "also for adjustments in the design of the program in order to make it increasingly efficient according to the objectives outlined", and may even identify "spillover effects on actors that are not the focus of the programs, but that have the possibility of generating desired and positive results" (Haddad *et al*., 2022, p. 8). Such a perspective is particularly pertinent for student financial incentive programs, whose impact

[10] In the original: "Right choosing what to incentivize (Barrera-Osorio et al., 2011), how to frame the incentive (Barrera-Osorio and Filmer, 2013) or how label it (Benhassine et al., 2015) has important consequences over the magnitude of the program impact. Correctly targeting and designing the incentive portion of CCT [conditional cash transfers] programs is crucial in order to maximize its cost effectiveness".

depends both on the individual response of beneficiaries and on broader changes in school and family dynamics.

In the case of the Pé-de-Meia Program, the *ex post* perspective implies monitoring whether the design of the policy – based on payment conditioned to enrollment, attendance, completion and participation in Enem – translates into consistent improvement in indicators of permanence, performance and educational transition, explicitly considering its temporal and methodological limitations. As this is a high-cost policy and of recent implementation, the consolidation of a robust monitoring and evaluation system, with clear goals and defined indicators, becomes an indispensable condition both to qualify the public debate on its merits and to ensure the best use of available resources.

3 METHODOLOGY

3.1 DESIGN AND NATURE OF THE RESEARCH

This research is characterized as a quantitative, descriptive and exploratory study, with an *ex post design* for the evaluation of public policies, focused on the analysis of secondary indicators of performance, flow and school transition in the 2020-2024 time series. The methodological focus is on the verification of variations and trends in academic indicators in the first year of implementation of the Pé-de-Meia Program (2024), assuming an observational character appropriate to the identification of preliminary signs of alignment between the empirical results and the normative objectives of the policy, recognizing the impossibility of causal inference in such a restricted time horizon (Brasil, 2018a).

3.2 DATA SOURCES

The data comes from official educational statistics databases:

a) Synopses Annual Statistics of Basic Education and Educational Indicators of Inep, covering enrollments, public high school graduates, school performance rates (pass, fail, dropout) and age-grade distortion at the national level (Inep, 2025a; Inep, 2025b);
b) Statistical Synopses and Microdata of Enem, with numbers of high school graduates from the public network enrolled and present on the two days of application of the tests (Inep, 2025c; Inep, 2025d); and
c) Nilo Peçanha Platform (PNP), official statistics environment of the Federal EPCT Network established by Setec/MEC Ordinance No. 1/2018, which subsidizes

management indicators such as Dropout Rate, Academic Efficiency Index and Retention Index by Cycle (Brasil, 2018b; Brazil, 2021; Brazil, 2025b).

Inep conceptualizes enrollment as formal registration in the Educacenso System on the reference date of the Census (last Wednesday of May) (Inep, 2024b), while the PNP considers enrolled those who have maintained an active bond for at least one day a year, according to the Methodological Reference Guide of Educational Statistics of the Federal Network (Brasil, 2020; Brazil, 2021). The series analyzed (2020-2024) contextualizes the implementation framework of the Pé-de-Meia, with the exception of the preliminary nature of the 2024 evidence.

3.3 ANALYTICAL STRATEGY

The analysis adopts descriptive and comparative procedures:

a) Analysis of time series with absolute and relative variations (percentage points) between consecutive years and in the total period;
b) Identification of trends and inflections temporally correlated to the implementation of the Program;
c) Comparison between aggregate levels (national x Federal Network) to highlight institutional singularities; and
d) Exploratory interpretation aligning observed variations with the mechanisms of the Nest Egg, recognizing alternative factors such as post-COVID-19 recovery and complementary policies (Haddad *et al*., 2022).

3.4 INDICATORS ANALYZED

The main educational indicators of academic efficiency and performance analyzed in this article, listed below, are defined in the Dictionary of Educational Indicators of Inep (Inep, 2004) and in the Methodological Reference Guide of Educational Statistics of the Federal Network (Brasil, 2020):

a) Approval Rate: percentage of approved over enrolled (Inep, 2025e);
b) Failure Rate: percentage of failed over enrolled (Inep, 2025e);
c) Dropout Rate: percentage of students who dropped out of some grade before the end of the school year (Instituto Unibanco, 2024; Inep, 2025e);

d) Age-Grade Distortion Rate: percentage of students with two or more years of school delay, according to the Inep methodology (Unicef, 2018; Inep, 2025f);
e) Dropout Rate: percentage of students who dropped out of school before completing a course or stage of education, not renewing their enrollment in the following school year, even if they passed or failed the previous one, resulting in the definitive interruption of studies (Instituto Unibanco, 2024; Inep, 2025g);
f) Retention Index per Cycle: specific to the Federal EPCT Network, percentage of enrollees exceeding the deadline for completion of the course (+1 year) (Brazil, 2025b);
g) Academic Efficiency Index: specific to the Federal EPCT Network, percentage of graduates within the expected period (+1 year), plus a percentage (projection) of students retained in the reference year who will be able to complete the course (Brasil, 2025b); and
h) Enem Graduation Participation Rate: percentage of graduates enrolled in Enem in relation to the total number of students enrolled in the third year of high school registered in the School Census (Inep, 2025a; Inep, 2025c; Inep, 2025d), also considering studies that deal with student participation in Enem (Silva; Rosistolato, 2021).

3.5 METHODOLOGICAL LIMITATIONS

The present study recognizes the following limitations:

a) Absence of granular disaggregation: the data used are aggregated at the national and Federal Network levels, not allowing differentiated analysis by school unit, municipality or individual characteristics of students;
b) Lack of control for confounding variables: the analysis does not apply matching, stratification or statistical modeling techniques to isolate the specific effect of the Pé-de-Meia Program from other factors that also influence educational indicators;
c) Limited time horizon: only one year of full implementation (2024) is available for review, insufficient to establish sustained effects or identify cyclical patterns;
d) Impossibility of causal inference: the variations observed in the indicators cannot be attributed exclusively to the Program, and must be interpreted as signs of temporal association and compatibility with policy objectives;

e) Influence of alternative factors: the 2020-2024 series comprises a critical period of post-pandemic recovery from COVID-19, during which multiple educational policies at the federal and state levels were implemented, making it difficult to isolate specific effects.

Although the research is based on official and methodologically robust data, the interval of approximately three years between the reference year and the disclosure of longitudinal indicators at the national level restricts the ability to assess, in a timely manner, the adherence of empirical results to the normative objectives established by Law No. 14,818/2024, especially with regard to the reduction of retention rates, repetition and school dropout, whose results related to the transition of the 2024-2025 cycle, which covers the first year of implementation of Pé-de-Meia, are expected to be released by Inep in mid-2028. In this sense, the time limitation in the availability of national school flow indicators introduces an important structural bias in the analyses developed in this study, since the effects of the Pé-de-Meia Program on central variables such as dropout and repetition cannot be observed in the same time horizon in which the policy is implemented.

In this sense, the evaluation of the Program at the national level, in this article, is predominantly anchored in short-term outcome indicators – such as approval and age-grade distortion – which, although relevant, do not fully capture the dynamics of transition between grades and stages, nor do they allow the identification of trajectories interrupted over time. Such delimitation implies that the conclusions presented here are necessarily preliminary, aimed at identifying trends and initial signs of alignment with the purposes of the policy, and not at the exhaustive measurement of its effectiveness on the school flow in the strict sense.

In addition, the lag in the disclosure of longitudinal indicators reduces the capacity of public managers, researchers and social control bodies to carry out timely monitoring and reassessments, which, consequently, delays the adoption of route adjustments and the correction of any distortions in the implementation of the Program. In this context, the analysis developed in this work should be understood as an analytical approach conditioned by the limitations of the national statistical production system, which reinforces the need for caution in extrapolating the findings and in formulating inferences about the medium and long-term impact of the Pé-de-Meia on school flow indicators.

4 RESULTS AND DISCUSSIONS

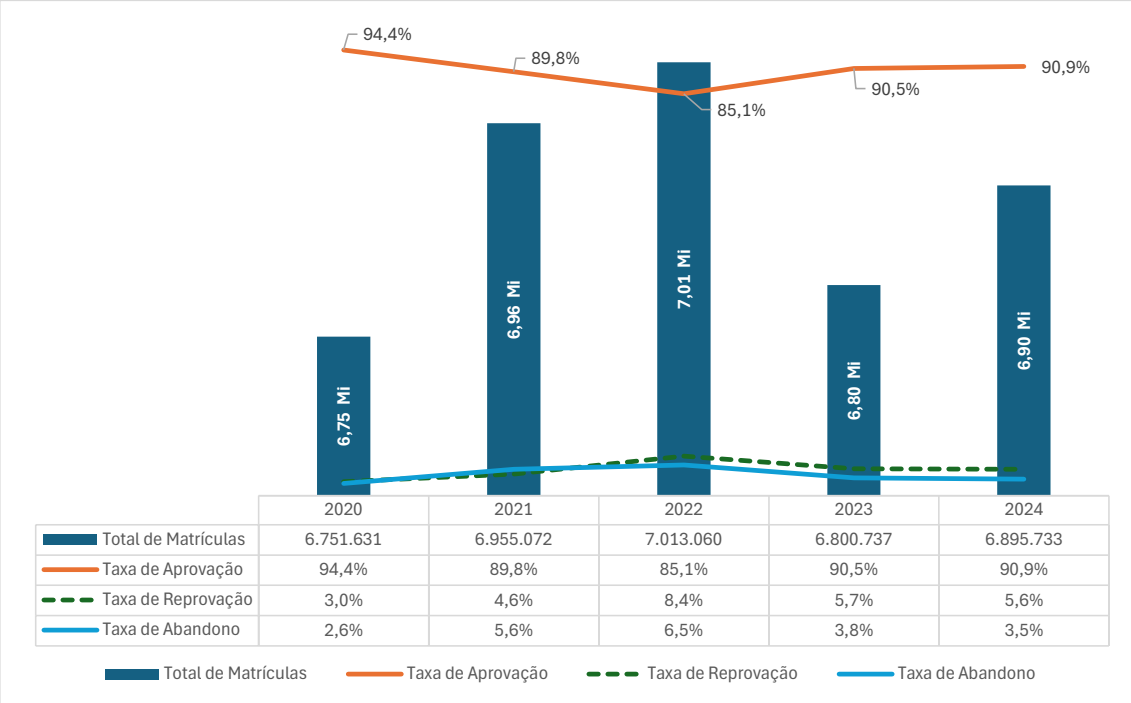
In this section, the results related to the main indicators of performance and school flow are presented and discussed, with emphasis on the comparison between the period immediately prior to the implementation of the Pé-de-Meia Program and the first year of its validity. The analysis seeks to identify trends and possible signs of alignment between the behavior of the indicators and the objectives of the policy, respecting the methodological limitations already explained. The results of the indicators come from publicly available data at the national level on enrollment, school performance rates (pass, fail and dropout) and age-grade distortion rates, released by the National Institute of Educational Studies and Research Anísio Teixeira (Inep), an autarchy linked to the Ministry of Education, as well as on school flow/transition rates (dropout) and retention rates per cycle and academic efficiency in high school in the Federal Public Network extracted from the Nilo Peçanha Platform (PNP).

4.1 ENROLLMENT AND SCHOOL PERFORMANCE RATES IN PUBLIC HIGH SCHOOL

Figure 1 shows that total enrollment in public secondary education (1st to 3rd grade) remained relatively stable in the 2020-2024 period, oscillating around 6.75 to 6.90 million students, without abrupt variations in coverage. This stability in the volume of enrollments indicates that any changes in performance indicators are mainly due to internal dynamics of school flow, and not to significant movements of expansion or retraction of access.

Figure 1

Number of public high school enrollments11 in Brazil and respective School Performance Rates (2020 to 2024)



	2020	2021	2022	2023	2024
Total de Matrículas	6.751.631	6.955.072	7.013.060	6.800.737	6.895.733
Taxa de Aprovação	94,4%	89,8%	85,1%	90,5%	90,9%
Taxa de Reprovação	3,0%	4,6%	8,4%	5,7%	5,6%
Taxa de Abandono	2,6%	5,6%	6,5%	3,8%	3,5%

Source: Prepared by the authors based on the Annual Statistical Synopses of Basic Education and the Educational Indicators related to School Performance Rates.

With regard to income rates, a more volatile behavior is observed, especially in the years immediately after the Covid-19 pandemic. In 2022, the worst performance in the series is recorded, with the pass rate falling to 85.1%, accompanied by a significant increase in failure (8.4%) and dropout (6.5%), suggesting a scenario of strong disorganization of school trajectories. As of 2023, however, there is a gradual recomposition of these indicators: approval returns to levels above 90% (90.5% in 2023 and 90.9% in 2024), while disapproval and dropout retreat to levels below those observed at the height of the crisis (5.6% and 3.5%, respectively, in 2024).

In the context of the first year of implementation of the Pé-de-Meia Program (2024), this improvement in school performance is compatible with the objectives of the policy, which seeks to reduce failures and dropouts through financial incentives conditioned to enrollment, attendance, and completion. Although it is not possible to attribute direct causality, the maintenance of high pass rates, associated with the reduction of failure and dropout in a

[11] The total of High School includes enrollments in regular High School Propedeutic, Integrated Technical Course (Integrated High School) and Normal High School/Teaching).

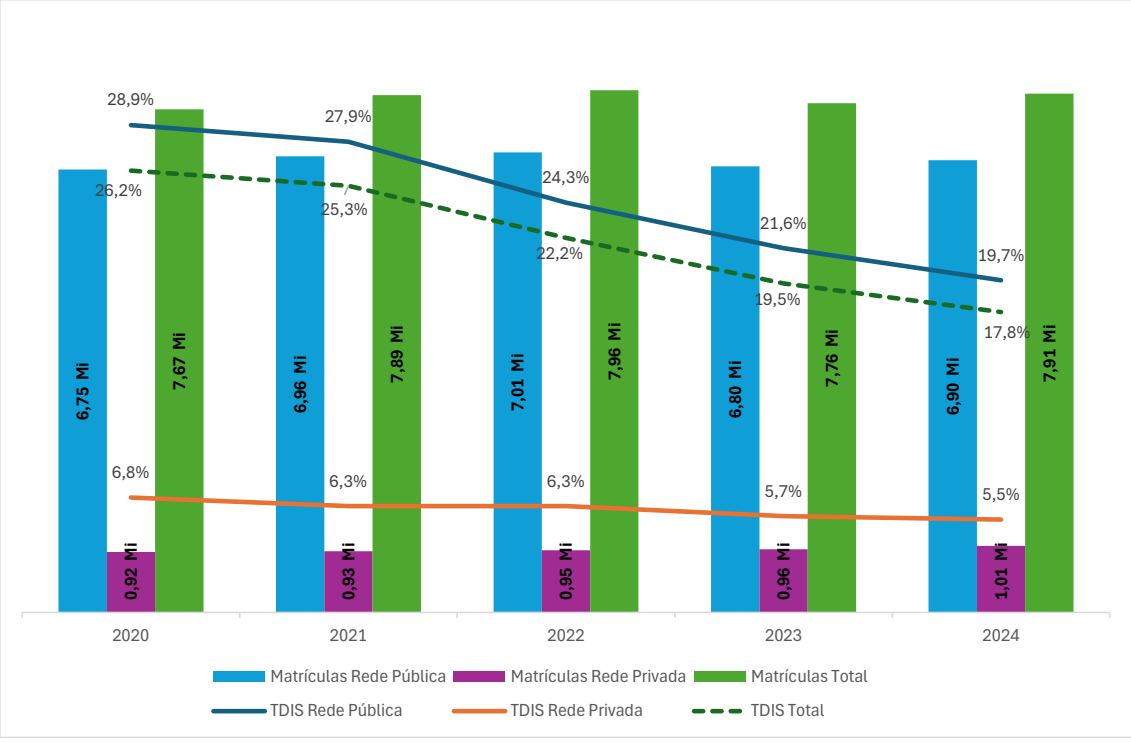
scenario of enrollment stability, suggests a more favorable environment for the permanence and completion of high school, especially among students in situations of socioeconomic vulnerability.

4.2 AGE-GRADE DISTORTION RATE IN HIGH SCHOOL

Figure 2 shows the evolution of the age-grade distortion rate in secondary education in Brazil, disaggregated by education system (public, private, and total), in the period 2020-2024. The results point to a consistent trajectory of reduction of distortion in the public network, which goes from 28.9% in 2020 to 19.7% in 2024, indicating a drop of more than 9 percentage points over the time series. A similar trend, although at a lower level, is observed in the private network, so that the total indicator also shows a continuous decline in the period.

Figure 2

Age-Grade Distortion Rate in High School in Brazil by school system (2020 to 2024)



Source: Prepared by the authors based on the Educational Indicators related to the Age-Grade Distortion Rates.

From an analytical point of view, these results show a double movement: on the one hand, the progressive correction of accumulated school delays, with a lower proportion of students attending grades incompatible with the expected age; on the other hand, the persistence of important asymmetries between networks, which reflect structural inequalities

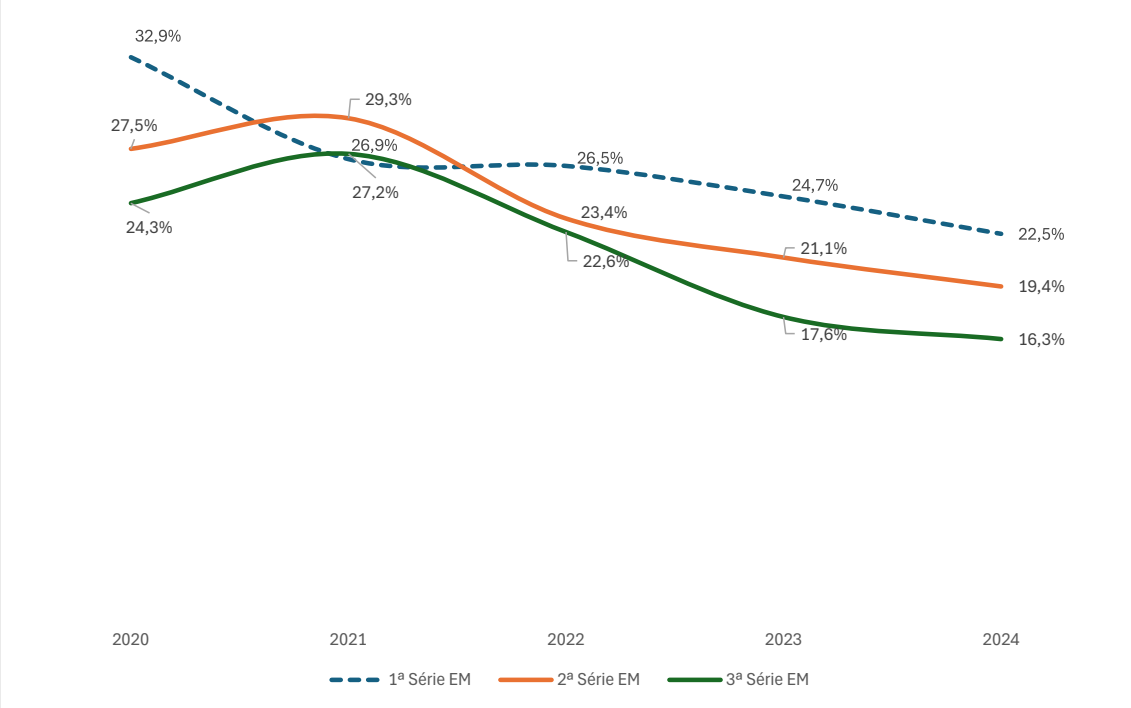
in supply, teaching conditions and the socioeconomic profile of the students. The combination of the reduction in the age-grade distortion and the improvement in the pass rates observed in 2023 and 2024 suggests a more favorable environment for the regularization of the school flow, although part of this improvement is due to policies and efforts prior to the creation of the Pé-de-Meia Program.

It is also important to highlight that the reduction in the age-grade distortion in the public school system observed in the 2020-2024 period, although consistent, does not eliminate the gap in relation to the private school system, which shows that financial incentives, by themselves, are insufficient to equalize school trajectory patterns between such unequal socioeconomic contexts. The literature on financial incentive policies indicates positive effects, but of moderate magnitude, which reinforces the need to combine programs such as Pé-de-Meia with structural measures to improve the quality of the offer, the curricular organization and the learning conditions, at the risk of only partially reducing a problem that is, at the same time, a problem that is at the same time a problem that is not only partially reduced. symptom and cause of broader educational inequalities.

Figure 3 shows the evolution of the age-grade distortion rate in Brazilian public high school, disaggregated by school grade (1st, 2nd and 3rd grades), in the period 2020-2024, revealing distinct patterns of school delay throughout the trajectory of high school. It is observed that the distortion is more pronounced in the 1st grade in all the years analyzed, with values consistently higher than those of the subsequent grades, which suggests that late entry or initial repetition accumulate effects that are perpetuated throughout the cycle. In the time series, all three grades show a downward trend in the distortion, although with different intensities and rhythms, indicating a progressive correction of the school flow in the public network.

Figure 3

Age-Grade Distortion Rate by public high school grade in Brazil (2020 to 2024)



Source: Prepared by the authors based on the Educational Indicators related to the Age-Grade Distortion Rates.

Analytically, the results show that the age-grade distortion is not evenly distributed throughout high school, but is concentrated preferentially at the beginning of the cycle (1st grade), where the higher values signal problems of late access, accumulated repetition of elementary school or migration from other educational systems. The reduction observed in all grades, especially between 2022 and 2024, suggests that school regularization policies – including continued progression, parallel recovery, and incentives to remain – have generated positive cumulative effects on the flow, with a lower proportion of students attending grades incompatible with the expected age (15-16 years for 1st grade, 16-17 for 2nd, and 17-18 for 3rd).

In the first year of implementation of the Pé-de-Meia Program (2024), this downward trajectory acquires strategic relevance, since the indicator is recognized in the literature as an important predictor of future dropout: students who accumulate repetitions and are "out of age" tend to drop out of school more frequently, especially when pressured by economic needs. By mitigating the urgency of early insertion in the labor market and creating financial incentives associated with the permanence and completion of secondary education, the Program acts precisely on one of the mechanisms that feed the distortion, even though the

data available until 2024 only allow us to identify compatibility between the design of the policy and the observed trend. and not to attribute to it, exclusively, the inflection of the indicator.

However, relevant asymmetries persist between the grades that require specific attention. The persistently higher distortion in the 1st grade points to bottlenecks at the time of entry into high school, possibly associated with the transition from elementary school, while the relative convergence between the 2nd and 3rd grades indicates that retention policies are more effective in the intermediate and final phases of the cycle. This heterogeneity reinforces that financial incentives such as the Pé-de-Meia, although pertinent to mitigate economic pressures on vulnerable students (especially in the 3rd grade, close to the eligibility age), are insufficient in isolation to equalize trajectories marked by structural inequalities in access and quality.

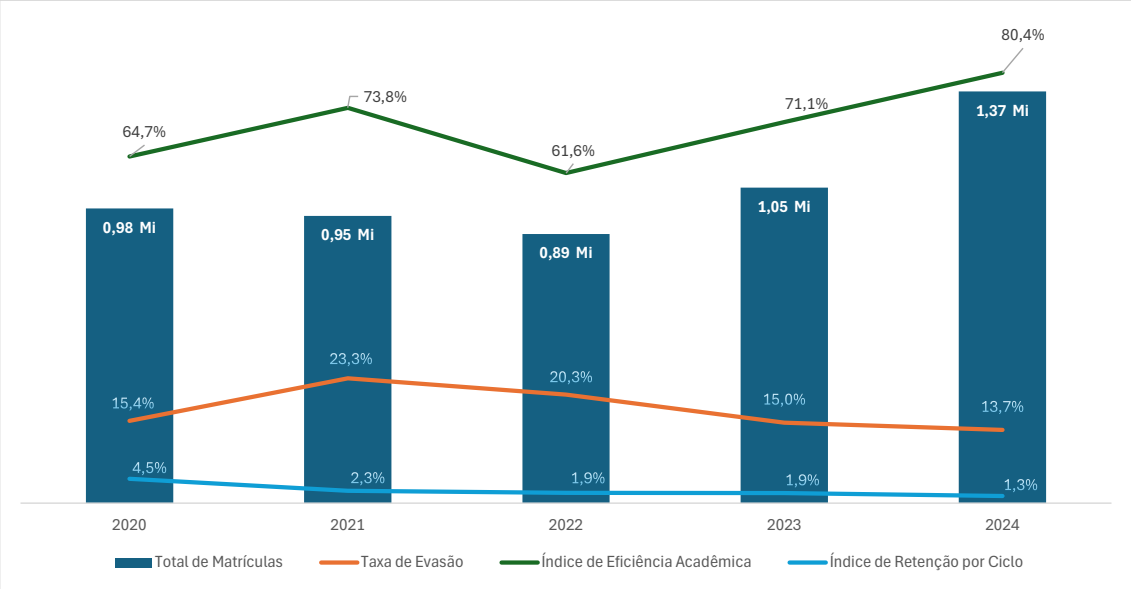
The literature on educational policy evaluation emphasizes that reductions in the age-grade distortion, although positive, should be interpreted with caution over short time horizons, as they may reflect both real flow improvements and compositional effects (lower enrollment of students with severe discrepancy). In the case of Pé-de-Meia, the 2024 data only allow the identification of preliminary signs of alignment with its objectives of reducing retention and dropout (art. 2, item III, Law No. 14,818/2024), requiring future longitudinal analyses to verify whether the decrease in distortion is sustained and associated with higher rates of effective completion of high school in the public network.

4.3 DROPOUT RATES AND RETENTION RATES BY CYCLE AND ACADEMIC EFFICIENCY IN HIGH SCHOOL IN THE FEDERAL PUBLIC NETWORK

Figure 4 summarizes the evolution of the number of enrollments in high school in the Federal Network of Professional, Scientific and Technological Education, as well as the dropout rate, the Academic Efficiency Index and the Retention Index per Cycle, in the period 2020-2024. There is a significant growth in enrollments, which went from 0.98 million in 2020 to 1.37 million in 2024, suggesting an expansion in the supply of vacancies and the presence of the Federal Network in secondary education.

Figure 4

Number of high school enrollments in the Federal Public Network/PNP[12] and respective results of the Academic Performance Indicators (2020 to 2024)



Source: Prepared by the authors based on data extracted from the Nilo Peçanha Platform.

From the point of view of the flow, it is verified that the dropout rate, although still high in some years, shows a downward trend at the end of the series, while the Academic Efficiency Index increases, indicating a higher proportion of students completing the courses within the expected time (or with a slight delay) and greater use of the training effort. At the same time, the Retention Index per Cycle tends to decrease, which signals a reduction in the number of students who excessively exceed the period of payment, contributing to a more regular and efficient flow.

In the context of the implementation of the Pé-de-Meia Program, these results suggest that the Federal Network – already characterized by performance indicators higher than the national average – presents favorable institutional conditions to enhance the effects of the financial incentive on academic permanence and success. The combination of expanding enrollments, reducing dropouts, increasing academic efficiency, and decreasing prolonged retention is consistent with the Program's strategic objectives and indicates an environment in which the policy can reinforce trajectories of school success, especially among low-income students who enter the Federal Network through inclusive access policies. such as the Quota Law (Law No. 12,711/2012).

[12] Filters in the PNP: [Type of Course] = Professional Qualification (FIC), High School, Technical; [Offer Type] = Not Applicable, Concurrent, Integrated.

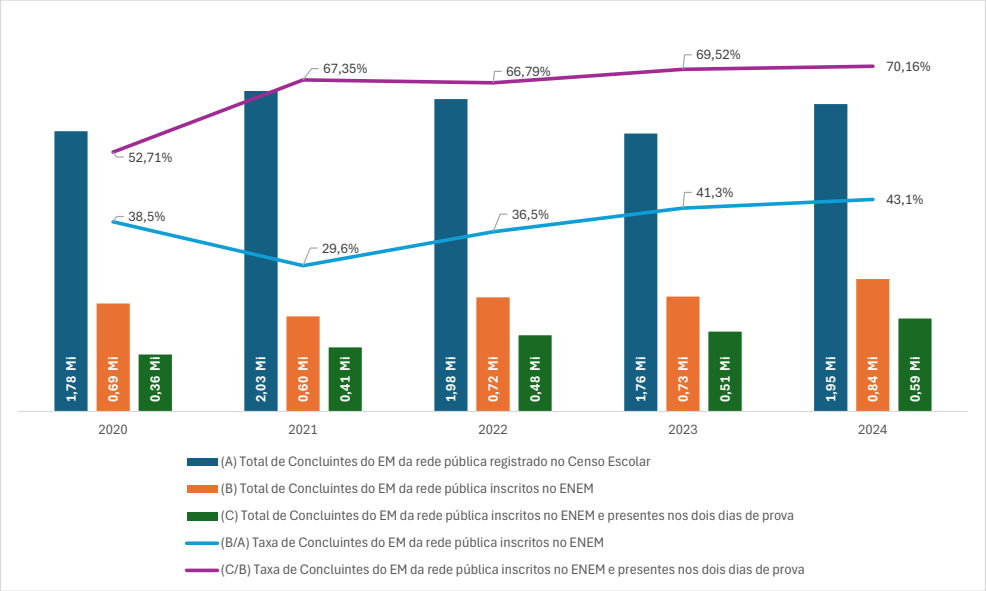
However, it is necessary to recognize that these improvements result from a wide range of factors, including investments in infrastructure, specific pedagogical policies and the selective profile of the Federal Network itself, which prevents the direct attribution of results to the Pé-de-Meia. Even so, the articulated reading of the indicators reinforces the hypothesis that financial incentive programs, when combined with high-quality institutional environments, tend to generate positive synergies in reducing dropout and optimizing school flow.

4.4 PARTICIPATION RATE IN ENEM OF GRADUATES IN PUBLIC HIGH SCHOOL

Figure 5 shows the evolution of the number of graduates of regular high school in the public network (federal, state and municipal), specifically enrolled in the third year, as well as the registration and effective participation rates (presence on the two days of the test) in Enem, in the period 2020-2024. In absolute terms, the total number of graduates enrolled in Enem oscillates between 0.69 and 0.84 million, without abrupt variations, while the number of graduates enrolled and present on the two days of application of the Enem tests grows more pronounced throughout the series.

Figure 5

Number of third-year high school graduates in the public school system in Brazil and respective Enem registration and participation rates[13] (2020 to 2024)



Source: Prepared by the authors based on the Annual Statistical Synopses of Basic Education; Synopses Annual Enem Statistics; and Enem Microdata.

The rates derived from these quantities reveal two relevant movements. First, the proportion of public school graduates enrolled in Enem increases from 38.5% in 2020 to 43.1% in 2024, indicating that a growing fraction of graduates seek the exam as a gateway to higher education. Secondly, the attendance rate among enrolled graduates – that is, the proportion of those who actually attend the two days of the test – rises from 52.71% in 2020 to 70.16% in 2024, suggesting greater engagement and commitment to taking the exam.

These results are particularly significant in light of the design of the Pé-de-Meia Program, which institutes the Enem Incentive as a specific benefit conditioned to registration and participation in the two days of the exam. The simultaneous increase in enrollment and attendance rates among graduates of the public network is compatible with the objective of stimulating the transition from basic education to higher education, reducing material and symbolic barriers for low-income students to participate in the main university entrance exam.

[13] To calculate the variable "Total number of EM graduates from the public network enrolled in Enem and present on the two days of the test", the following filters were used in the Enem Microdata: [TP_ST_CONCLUSAO] = 2; [TP_DEPENDENCIA_ADM_ESC] = 1, 2, and 3; [TP_PRESENCA_CN] = 1; [TP_PRESENCA_CH] = 1; [TP_PRESENCA_LC] = 1; and [TP_PRESENCA_MT] = 1. For the year 2024, due to the changes in the Enem Microdata model carried out by INEP, the data on this variable were obtained through a request for access to information on the Fala.BR Platform.

Although the trend of recovery in participation in Enem is already manifesting itself after the most critical period of the pandemic, the level observed in 2024 suggests that the financial incentive may be contributing to consolidate this recovery, expanding adherence to the exam precisely among groups historically underrepresented in higher education. Still, given the short time horizon and the existence of other competing factors (such as fee exemption policies, mobilization campaigns, and changes in the exam itself), the analysis should be interpreted as preliminary evidence of alignment between the behavior of graduates and the objectives of the Program, and not as definitive proof of its impact on participation rates.

5 CONCLUSION

The results analyzed in this article indicate that the Pé-de-Meia Program has relevant potential as a public policy to encourage the permanence and completion of high school, especially among public school students in situations of socioeconomic vulnerability. Initial evidence suggests a positive correlation between the granting of financial-educational incentives and the improvement of performance indicators, such as approval, reduction of dropout, and increased participation in Enem, although such findings should be interpreted as associations compatible with the objectives of the policy, and not as conclusive proof of causal impact.

However, it should be noted that the six formal objectives of the Program are broad and ambitious, ranging from the reduction of dropout and retention to the mitigation of social inequalities and the encouragement of the continuity of studies in higher and technical education. In light of this multiplicity of purposes, it is unlikely that a single policy instrument – centered on financial incentives – will be able to produce profound changes in all these dimensions on its own, especially in a time horizon as short as the first year of implementation. This finding reinforces the need to situate the Pé-de-Meia as part of a broader arrangement of policies for secondary education, and not as a self-sufficient solution to the historical problems of this stage.

From the evaluative point of view, it is also observed that the policy lacks clear operational goals and an explicit set of key indicators to be monitored, which makes it difficult to construct objective criteria to assess its effectiveness. Unlike other recent federal initiatives, such as the National Literate Child Commitment and the Full-Time Schools Program, which announce specific quantitative targets for coverage and performance over a

defined horizon, Pé-de-Meia does not explain, for example, what reduction in dropout or dropout is expected to be achieved in three or five years, nor what equity goals should guide its implementation. This absence of measurable goals weakens the *ex post evaluation* of the policy and makes it more difficult to be accountable to society about the use of the resources involved.

This point is particularly sensitive because it is a policy of high fiscal cost, with an estimated annual expenditure of billions of reais, an amount higher than that of other structuring programs recently implemented in the Brazilian educational agenda. In contexts of budget constraints, the literature on public policy evaluation emphasizes the importance of comparing relative costs and benefits between programs, identifying whether the resources employed could not generate greater impact in alternative or complementary arrangements. Thus, it is essential that the Pé-de-Meia be the object of frequent evaluations, using more robust methods and longer historical series, capable of estimating with greater precision the magnitude of its effects on school flow, educational inequalities and transition to higher education, in order to understand its impacts and make eventual improvements and adjustments in the design.

Even when international and national studies point to positive effects of financial incentive policies for young people, the magnitude of these impacts is usually moderate – often in the order of a few percentage points in indicators such as enrollment, attendance or completion – which is below the structural transformation required by the current framework of Brazilian secondary education. In a scenario in which the net enrollment rate still remains below what is desirable and deep inequalities in access, permanence and learning persist, a financial support program tends to function as a relevant piece within a more complex "gear", but not as the only or sufficient solution to reverse the situation of exclusion and school failure alone.

The findings of this study, while showing promising signs of alignment between the design of the Program and the evolution of some indicators, also reinforce the centrality of integrated policies that combine monetary incentives with pedagogical strategies, psychosocial support actions, improvement of teaching working conditions, improvement of governance and financing of secondary education, expansion of professional and technological education and expansion of the school day, among other fronts. If the school does not become more attractive, welcoming and connected to the life projects of young

people, non-attendance, dropout and dropout tend to remain structural challenges, although they can be partially reduced by transfer programs or educational savings.

It is concluded, therefore, that the Pé-de-Meia Program constitutes an important advance in the agenda of equity and social justice in education, by explicitly recognizing the weight of economic restrictions in the school trajectory of young people in vulnerable situations and by seeking to address them through financial-educational incentives. For its potential to be fully realized, however, it will be necessary to: (i) make explicit goals and result indicators in the medium and long term; (ii) institutionalize a system of continuous monitoring and evaluation, with a focus on cost-effectiveness; and (iii) articulate the Program with a broader set of structural reforms and policies for secondary education. In this sense, the Pé-de-Meia-se should be understood less as a definitive solution and more as a strategic component of a systemic project to reconfigure the stage, whose effectiveness will depend on the quality of its coordination with other initiatives and the rigor with which it is monitored and improved over time.

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