



USE OF STANDARDIZED TESTS IN BRAZILIAN BASIC EDUCATION

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Educação



ABSTRACT

- Major standardized tests used in Brazil.
- Uses of these tests.
- The IDEB – Index of Basic Education Development.
- Critical Reading of IDEB.
- My contributions.

MAJOR STANDARDIZED TESTS USED IN BRAZIL

ANA (NATIONAL LITERACY ASSESSMENT)

- **Objective:** To measure the students' level of literacy in Reading, Mathematics and Writing.
- **Target population:** All students enrolled in the 3rd grade of primary school (8-year-olds) in public schools.
- **Test:** Multiple choice and production of a small text.
- **Frequency:** Every year. The first edition took place in 2013.

PROVA BRASIL – SAEB (NATIONAL SYSTEM OF BASIC EDUCATION ASSESSMENT)

- **Objective:** To measure the level of knowledge of the common national core in Reading, Mathematics and Science (from 2013). To monitor the right to learn, as the concrete expression of the right to education.
- **Target population:** All public schools students enrolled in 5th and 9th grades of primary and lower secondary school (10 and 14-year-olds) and a sample or private schools students.
- **Test:** Multiple choice, BIB - 55 items in grade 9 and 44 in grade 5. Common items between different cycles and between school years.
- **Frequency:** Every two years. The first edition took place in 1995.

ENEM (NATIONAL EXAM OF SECONDARY EDUCATION)

- **Objective: Selection** of students for higher education (public and private institutions). Selection of students for various government programs, such as Prouni (University for All Program) and FIES (Student Financing Fund).
- **Tests:** Languages, Mathematics, Natural Sciences, Humanities and Writing. 45 items and a essay.
- **Target population:** 8,700,000 candidates this year. Students graduating from high school and those that have already graduated in previous years; people in search of a high school certificate; and trainees.

USE OF TEST RESULTS

QUALITY OF EDUCATION INDICATORS

- Quality of Education: Concrete learning results that qualify the students for active citizenship. The difference between results from different social groups should be small.
- In Brazil, excellence for a few cannot be called quality.

QUALITY DIMENSIONS

- **Trajectory:** age-grade gap, net enrollment rate, school life expectancy.
- **Learning outcomes:** numerical synthesis of the distribution of proficiencies in Prova Brasil.



MEASUREMENT

Two types of results: Students' schooling trajectory and Learning

- Trajectory uses flow data, collected by the annual School Census
- Learning results measured by the national tests.

- **Distribution of the results: high mean, small variation**

- **Inequality**

related to flow and learning of different social groups.

- Correlation between an indicator of socioeconomic status and the results (?)

EDUCATIONAL RESEARCH

- Many sociological studies have been conducted based on data from the Prova Brasil.
- Educational policies are now analyzed in their capacity to produce concrete results.
- More pedagogical-based research is still necessary.
 - How should we teach the students we have?
 - How to train the teachers we have?

IDEB – INDEX OF BASIC EDUCATION DEVELOPMENT

IDEB

$$IDEB_j = N_j P_j$$

- Indicator obtained by multiplying the performance – N , measured by the average student proficiency in Prova Brasil/SAEB, by the average promotion rate at each school grade, obtained from the School Census.

IDEB - NUMERATOR

SAEB 2005 4th grade (Primary)

State	Mathematics	Portuguese	Standardized grade in Mathematics	Standardized grade in Portuguese
Minas Gerais	200.16	183.30	5.36	4.89

IDEB - DENOMINATOR

	Grade - Years				
	0	1	2	3	4
Promotion rate	82.4	79.1	78.4	97.1	88.4
Promotion rate in decimals	0.824	0.791	0.784	0.971	0.884
Years of schooling required	1.21	1.26	1.28	1.03	1.13

Academic years of study to complete the stage = $(1.21 + 1.26 + 1.28 + 1.03 + 1.13) = 5.91$

$$\text{Performance indicator} = \frac{5}{5.91} = 0.8453$$

IDEB CALCULATION

	P	N = standardized mean score	IDEB = N x P
Minas Gerais	0.84	5.12	4.3

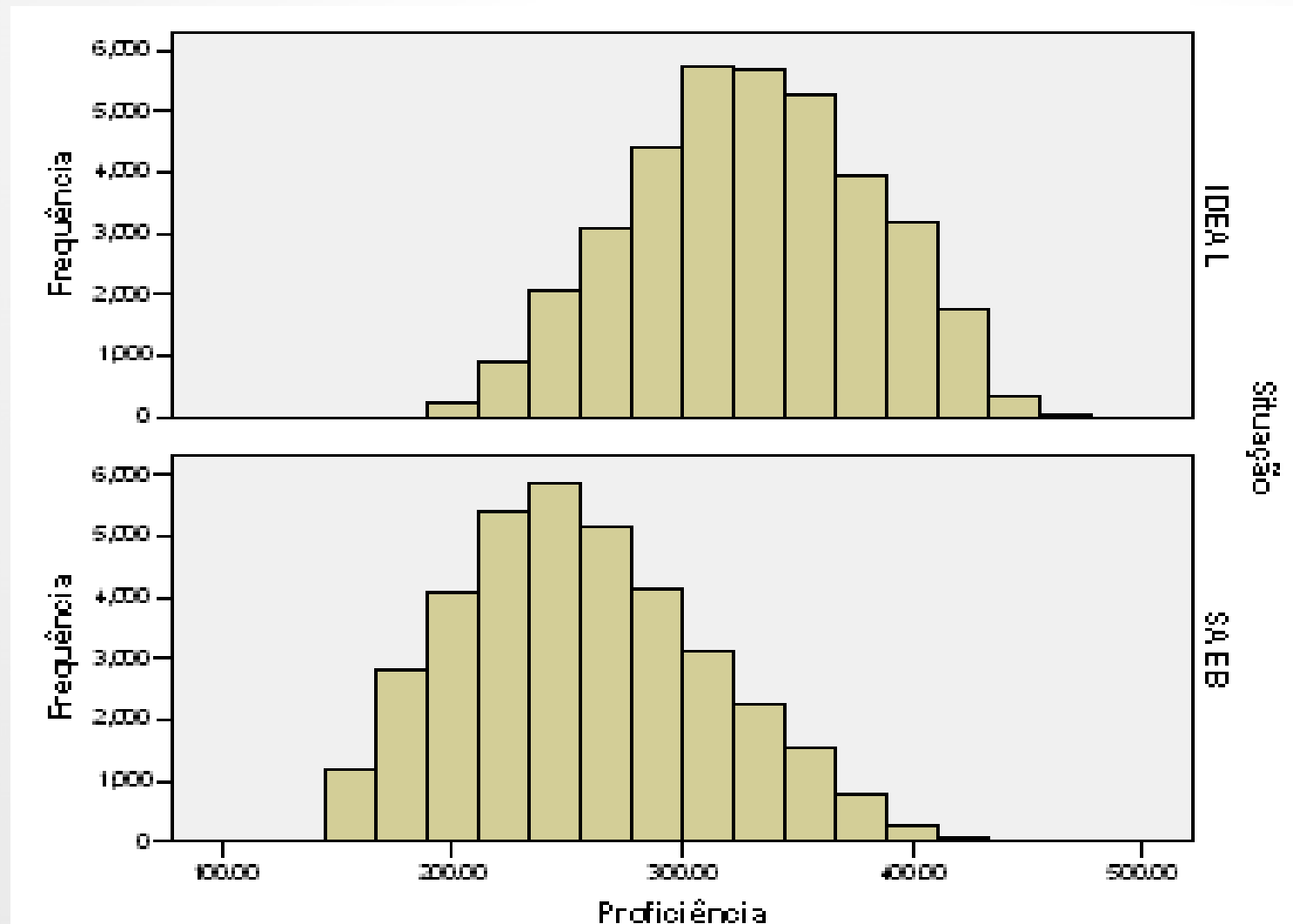
DIFFERENCES BETWEEN BRAZILIAN STUDENTS' PERFORMANCE AND THE OECD AVERAGE IN MATHEMATICS IN PISA 2003

Percentile	Score of Brazilian students in PISA	Score of OECD students in PISA	Difference between OECD and Brazilian students	Difference in standard deviations
5	223	361	138	1.35
15	266	417	151	1.47
30	307	465	158	1.54
50	354	514	160	1.57
75	419	576	157	1.53
90	481	626	145	1.41
95	523	654	131	1.29

REFERENCE DISTRIBUTION IN THE SAEB METRICS FOR BRAZILIAN EIGHTH GRADERS IN MATHEMATICS

Percentile	Percentiles of the current distribution	Difference in standard deviations	Percentiles in the ideal distribution
5	170	1.35	238
15	192	1.47	266
30	223	1.54	300
50	242	1.57	320
75	278	1.53	355
90	316	1.41	387
95	341	1.29	405

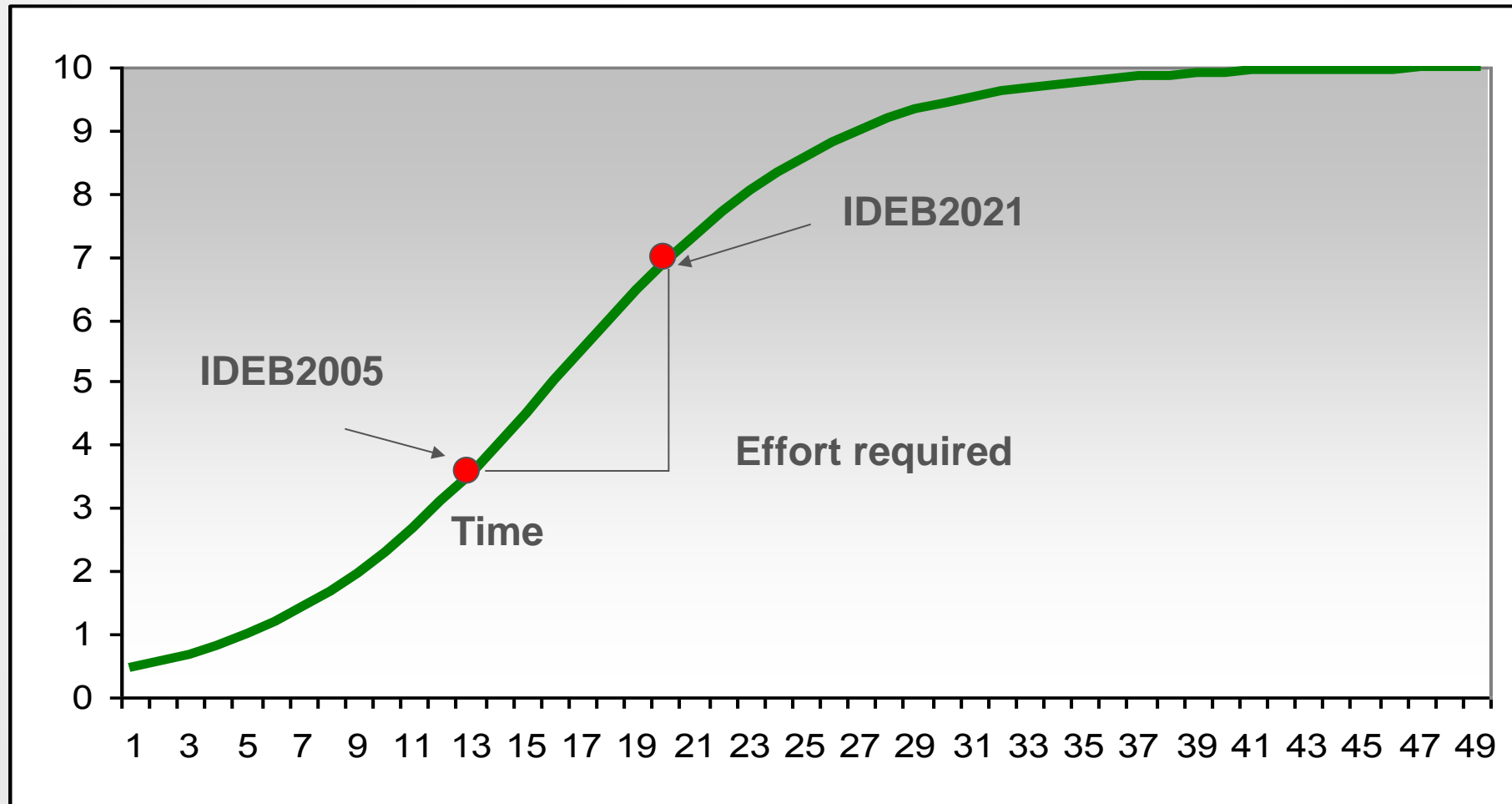
PERFORMANCE OF THE EIGHTH GRADERS WHO TOOK THE 2003 SAEB IN MATHS AND IDEAL PERFORMANCE



IDEB PROJECTION

- Information necessary to design the trajectory of IDEB for Brazil
 - Initial IDEB (IDEB2005)
 - Goal (IDEB2021)
 - Time to reach the goal in years(16 years)

ILLUSTRATIVE CHART OF THE PROJECTION OF IDEB



PROJECTED IDEB GOALS FOR STATE AND DISTRICTS AND SCHOOLS

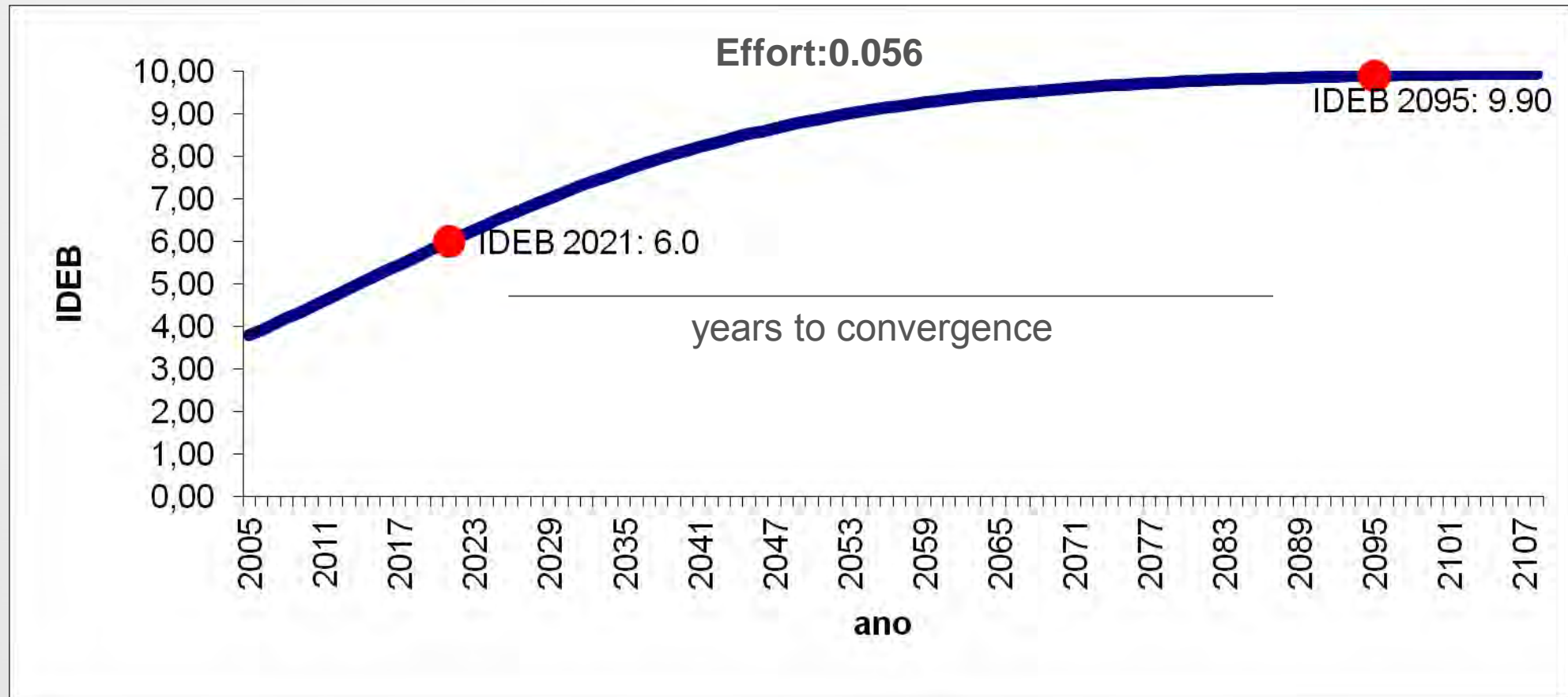
- It is assumed that at the end of this century there will be no IDEB difference either between school districts or schools.
- “A methodological mirage”.

PROJECTIONS FOR BRAZIL 4TH GRADE OF ELEMENTARY SCHOOL

- IDEB2005 Brasil = 3,8
- Goal Brazil 2021 = 6
- Time to goal in years = 16

Effort = ?

Convergence time= ?



PROJECTION FOR DISTRICTS

BASED ON THE CONVERGENCE TIME OF THE COUNTRY - 4TH
GRADE OF ELEMENTARY SCHOOL IN BAHIA STATE (BA)

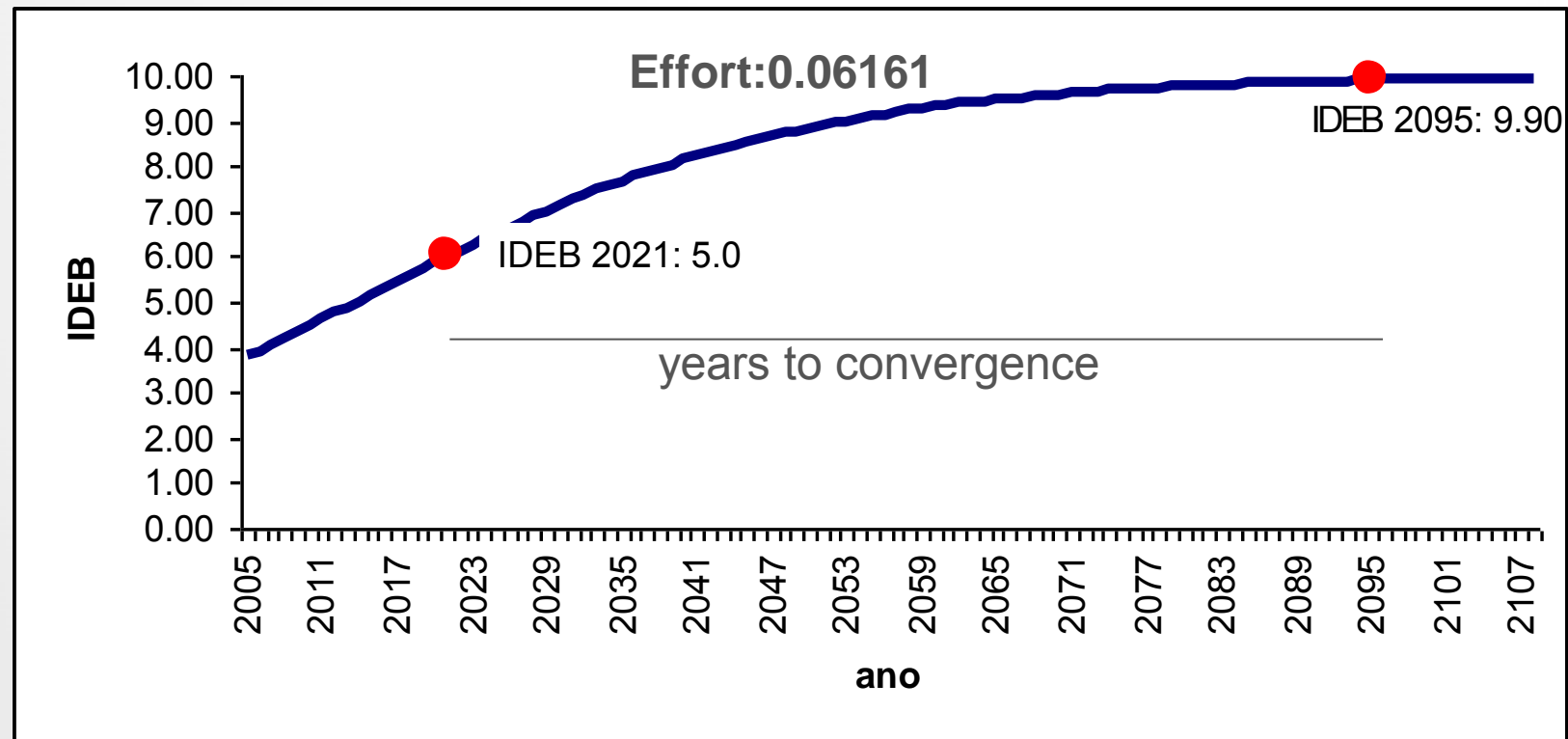
-IDEB2005 BA = 2.7

-Goal BA = 9.9

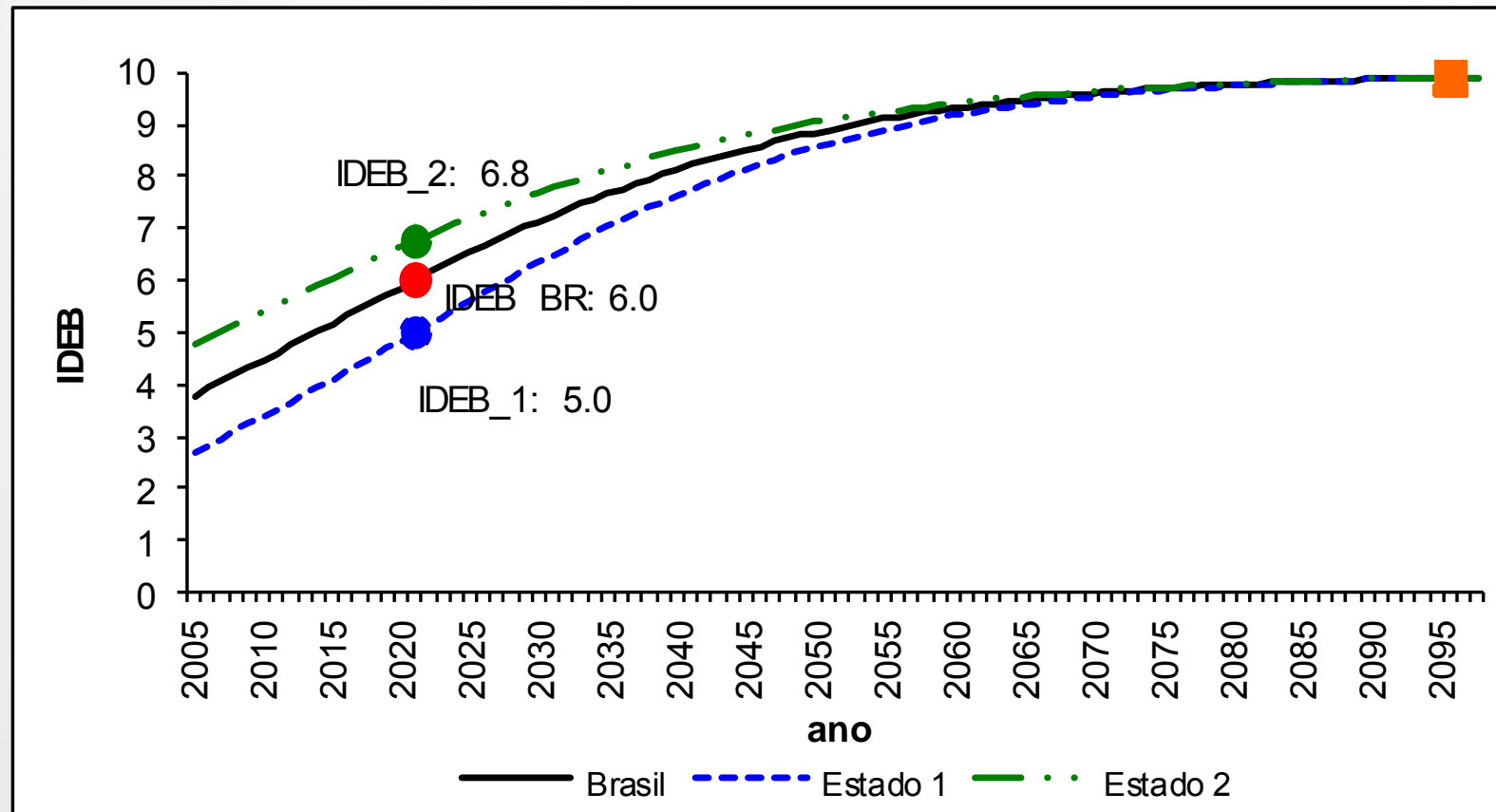
-Time to goal = Convergence = 91

Effort = ?

Goal BA 2021 = ?



REDUCTION OF INEQUALITY



IDEB 2005 AND PROJECTION FOR 2021

	Primary Education		Lower Secondary Education		Upper Secondary School	
	2005*	2021	2005*	2021	2005*	2021
Total	3.8	6.0	3.5	5.5	3.4	5.2
Urban	4.0	6.2	-	-	-	-
Rural	2.7	4.9	-	-	-	-
Public	3.6	5.8	3.2	5.2	3.1	4.9
Federal	6.4	7.8	6.3	7.6	5.6	7.0
State	3.9	6.1	3.3	5.3	3.0	4.9
Municipal	3.4	5.7	3.1	5.1	2.9	4.8
Private	5.9	7.5	5.8	7.3	5.6	7.0

(*) Saeb 2005 data

- As the evolution of quality is related to generations, the goal 6 is related to the generation that will begin their school life in 2017, will arrive at grade 5 in 2021, at grade 9 in 2025 and at the last grade of high school in 2028. For this reason, the 2021 goals are not equal 6 for the last two phases.



Consulta ao Indicador de Desenvolvimento da Educação Básica

1 passo...

Consulte

- ☒ Brasil
☐ Seu Estado
☐ Seu Município

Buscar

IDEB: 2005 e Projeções para o **BRASIL**

	1a fase do Ensino fundamental		2a fase do Ensino fundamental		Ensino Médio	
	2005	2021	2005	2021	2005	2021
TOTAL	3,8	6,0	3,5	5,5	3,4	5,2
Urbana	4,0	6,2	-	-	-	-
Rural	2,7	4,9	-	-	-	-
Pública	3,6	5,8	3,2	5,2	3,1	4,9
Federal	6,4	7,8	6,3	7,6	5,6	7,0
Estadual	3,9	6,1	3,3	5,3	3,0	4,9
Municipal	3,4	5,7	3,1	5,1	2,9	4,8
Privada	5,9	7,5	5,8	7,3	5,6	7,0

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2 passo...Selecione uma
Unidade da Federação

SÃO PAULO

BuscarIDEB: 2005 e Projeções para Redes Estaduais - **SÃO PAULO**

Nível de Ensino	2005	2007	2009	2011	2013	2015	2017	2019	2021
1a fase do Ensino Fundamental	4,7	5,0	5,2	5,5	5,7	6,0	6,2	6,5	6,7
2a fase do Ensino Fundamental	4,0	4,3	4,5	4,7	5,0	5,2	5,5	5,7	6,0
Ensino Médio	3,3	3,5	3,7	3,9	4,2	4,4	4,6	4,9	5,1

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Consulta ao Indicador de Desenvolvimento da Educação Básica

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SÃO PAULO

3 passo...Selecione um
Município

RIBEIRÃO PRETO

Buscar

IDEB: 2005 e Projeções para redes Municipais - RIBEIRÃO PRETO

Ensino Fundamental	2005	2007	2009	2011	2013	2015	2017	2019	2021
1a fase	4,6	4,9	5,2	5,5	5,7	6,0	6,3	6,5	6,8
2a fase	4,1	4,4	4,6	4,9	5,1	5,3	5,6	5,8	6,1

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Consulta ao Índice de Desenvolvimento da Educação Básica - IDEB

[Veja como foi calculado o Índice \(Nota Técnica\)](#)[IDEB 2005 e outros Indicadores por Município e Estado](#)[IDEB e outros Indicadores por Escola](#)**1 passo...**

- ☐ Brasil
- ☐ Sistema Estadual
- ☐ Sistema Municipal
- ☒ Escola

2 passo...

Selecione uma Unidade da Federação:

São Paulo

3 passo...

Selecione um Município:

SERTAOZINHO

4 passo...

Selecione uma Escola:

JOSE NEGRI PROF EMEI E ENSINO DE PG

IDEB 2005 e Projeções para a escola Municipal - JOSE NEGRI PROF EMEI E ENSINO DE PG

Ensino Fundamental	2005 (Observado)	Projeção do IDEB							
		2007	2009	2011	2013	2015	2017	2019	2021
Anos Iniciais	5.9	5.9	6.2	6.5	6.7	6.9	7.1	7.3	7.5
Anos Finais	6.1	6.1	6.2	6.4	6.7	7.0	7.2	7.3	7.5

Fonte: Prova Brasil 2005 e Censo Escolar 2005 e 2006.

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Fonte: Prova Brasil 2005 e Censo Escolar 2005 e 2006.

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CRITICAL READING OF IDEB

FACTS ABOUT IDEB

- The creation of IDEB put student learning at the center of the Brazilian educational debate.
- The new National Education Plan choose the IDEB as the indicator to monitor the improvement of the Brazilian basic education.
- IDEB is a weak accountability system, as there are no sanctions.
- The IDEB is closely associated with the socioeconomic status.

BIPOLARITY OF THE CRITICISM

- There are a number of critics who advocate the abolition of all external assessments. They advocate that the money spent in evaluations should be used elsewhere. Only teachers are legitimate to assess their students. In their words, the assessment system is, at best, useless and, at worst, harmful to education.
- Another group of critics believe that the measurement of educational results is absolutely central and the right incentives, based on these measurements, are enough for education to improve. IDEB should be shown at the door entry of each and every school.
- Important to note that these two positions are present in all national political parties.

MY REFLECTIONS AND / OR CONTRIBUTIONS

- We do not make evaluations, we measure performance.
- A constitutional right that is not monitored is not yet a right. It is a dream.
- When there are millions of students their performance must be measured in order to be monitored.
- In a country that take inequalities as something natural, a public register of students' learning is an important public policy.

- A national common core is strategic. Tests should be based on it.
- Results of performance assessments **must** be contextualized through the indicators of Student and School SES, Teacher Training, Infrastructure, Money spent per student etc..
- Tests pedagogical relevance should be pursued with much more vigor. Show teachers what the evaluation numbers mean through
 - Map of items, Curricular commentary and empirical behavior of items.
- We spend very little money, time and brain in this important activity.

Thank you.

Muchas gracias.

Obrigado.

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