

Basic Information

Approval Year	: 2017	Region	: REG
Team Leader	: Elacqua, Gregory Michael	Country	: Regional
Taxonomy	: Client Support	Department	: SCL
Fund	: ORC-SOC,SOC	Sector	: ED - Primary Education
Approval Number	: ATN/OC-16230-RG	Sub Sector	: PRI
Execution Agency	: US-IDB		
Execution Status	: Closed		
Operation Objective	: The objective of this TC is to support school systems in the region on the design of school finance reforms, to improve the equity and efficiency of education spending. To achieve this, this TC will fund a set of technical studies and policy recommendations on the structure and functioning of school finance systems.		

Financial Information

RG-T2997

ATN/OC-16230-RG:ORC	Original	Current	% of Current Amount Financed
Amount Financed	\$800,000.00	\$791,105.91	
Disbursed Amount	N/A	\$791,105.91	100.00 %
Commitments not yet disbursed Amount	N/A	-	0.00 %
Available Amount	N/A	-	0.00 %
Final Disbursement Date	Jul 17, 2022		

Status Update

This operation has three main components. In the following lines, we will provide a summary of the relevant events of each one. Analysis of the Financing Rules and Expenses in Education In 2022, there were no activities planned or executed in this component. Analysis of the equity and efficiency of public spending in education- We finalized analyzing the pilot of a digital centralized student assignment system to improve the efficiency and equity in the allocation of students executed in January 2021 in Pernambuco. Databases were created accordingly. - We also conducted an feasibility analysis in the City of Sao Paulo to construct a digital centralized student allocation system. - We also produced a technical note in Caruaru (Pernambuco) that analyzes the impact of the student assignment system on efficiency and equity. Evaluation and dissemination - We completed a study of the pilot in Espirito Santo and generated recommendations for the design of a new student enrollment system. - We also produced a new criterion to prioritize public vacancies in the centralized assignment of students in Pernambuco. - Initial faces of a diagnostic project and subsequent workshop looking at improving Recife's centralized assignment of teachers.

Advance in the Achievement of Outcome and Outputs

Advance in the Achievement of Outcome

1 . To improve the equity and efficiency of public spending in education by identifying the main factors associated with reforms in school finance systems

- Technical assistance for to overhaul the student assignment system in Recife (Pernambuco), system design, interventions, and innovations. Approx: 20k students in all grades; • Rules: new criteria prioritize public vacancies to vulnerable families, institutionalized students (guardianship or custody), siblings, and students with disabilities. Survey - Qualitative instrument designed and applied in territories to map the teacher selection and allocation process in the public sector in Brazil (State of Pará, Municipalities of Recife and Florianópolis) - Quantitative instrument (survey) designed to support the diagnostic on large scale in Brazil. The data collection was organized into 3 phases: • Phase 1 (finished): 13 municipalities and 8 states; • Phase 2 (in progress): ~500 municipalities; • Phase 3 (2023): all cities and states - Technical assistance to improve teacher assignment. The project had 2 initial phases in 2022: diagnostic (documental research, interviews, public data analyses)

Advances in Execution										
1. Analysis of the Financing Rules and Expenses in Education										
Component Cost: \$300,000										
Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
1.1 ^s Feasibility study completed	Studies (#) (SOC)	Studies (#)			Electronic copy of the report approved by the bank	Social Development	Physical			
							2017	0	0	
							2018	3	3	3
							2019	0	0	
							2020	0	0	1
							2021		0	
							2022			
							EOP 2022	3	4	4
							Financial			
							2017	0	0	35507.49
							2018	200000	164492.51	147931.27
							2019	0	16561.24	0
							2020	0	16561.24	16561.24
							2021		0	
							2022			
							EOP 2022	200000	200000	200000

Advances In Execution: The centralized digital enrollment platform pilot (matrícula digital) in Pernambuco generated a significant amount of relevant materials on the efficiency and equity of student assignment systems, much greater than expected for this TC. Therefore, this product corresponds to the ConsiliumBots deliverable on the back-end architecture document. It was developed and completed in 2020.

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
1.2 ^s New databases created	Number of new databases created (SOF) (SOC)	Databases (#)			Database in editable format for statistical software and documents that record process of construction of the file	Social Development	Physical			
							2017	0	0	
							2018	1	1	1
							2019	0	0	
							2020	0	0	
							2021		0	
							2022			
							EOP 2022	1	1	1
							Financial			
							2017	0		
							2018	70000	70000	70000
							2019	0		
							2020	0		0
							2021		0	
							2022			
							EOP 2022	70000	70000	70000

Advances In Execution: Two main databases were built as a result of the studies that are being carried out in Rio de Janeiro: Diagnosis of inefficiencies in the usage of teachers’ time: Optimal allocation - part 1, part 2, part 3 [See products in "Deliverables."] Data from the teacher nudge experiments: Rio survey data (studies 1, 2 & 3 in "Deliverables").

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
1.3 * Feasibility study completed	Studies (#) (SOC)	Studies (#)			Electronic copy of the report approved by the bank	Education	Physical			
							2017	0	0	
							2018	1	1	2
							2019	0	0	
							2020	0	0	
							2021		0	
							2022			
							EOP 2022	1	2	2
							Financial			
							2017	0	0	
							2018	30000	30000	30000
							2019	0	0	
							2020	0	0	0
							2021		0	
							2022			
							EOP 2022	30000	30000	30000

Advances In Execution: Resources from the Regional TC-2997 were used to finance four key initiatives in Rio de Janeiro during 2018. First, we conducted a comprehensive study to examine teacher sorting across municipal schools of different socioeconomic backgrounds in the city. This study leads to two other important projects. (I) diagnosis of inefficiencies in the usage of teachers' time. This diagnosis is a robust case to demonstrate how the IDB can work with Education Departments to develop better tools to track teachers' usage of their contract hours and help distribute their time in the education system more efficiently. The study on teacher allocation led to another important project because of a flagship behavioral science initiative in the Education Division. In this project, we are using nudge techniques to present incoming teachers with choices of the school where they can make a more significant social impact. (II) we conducted three experiments in Rio de Janeiro using behavioral strategies to make the social identity of new teachers more salient before they visited their school districts to choose a school. Preliminary results indicate that nudging can be an effective but low-cost technique to reduce teacher sorting in school systems across Latin American countries. This nudge study has been presented twice, and other IDB colleagues and researchers found the results to be auspicious.

2. Analysis of the equity and efficiency of the public spending in education

Component Cost: \$300,000

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
2.1 ^s New databases created	Databases (#) (SOC)	Databases (#)			Database in editable format for statistical software and documents that record process of construction of the file	Social Development	Physical			
							2017	0	0	
							2018	8	8	8
							2019	0	0	
							2020	0	0	1
							2021		0	1
							2022		0	
							EOP 2022	8	10	10
							Financial			
							2017	0	0	35507.49
							2018	150000	114492.51	38164.17
							2019	0	38164.17	0
							2020	0	76328.34	13851.41
							2021		62476.93	51110.12
							2022		11366.81	10233.7
							EOP 2022	150000	150000	148866.89

Advances In Execution: The centralized enrollment platform pilot in Pernambuco generated a significant amount of relevant materials on the efficiency and equity of the student assignment system, greater than expected for this TC. This one corresponds to the database collected by ConsiliumBots from the new student assignment system in Pernambuco, used for publication. This information is also helpful in informing our work in the region on improving student assignments and strategies to improve efficiency and equity. There original data bases constructed in the matricula digital pilot used in the two technical notes developed as part of this project <https://publications.iadb.org/pt/sistemas-centralizados-de-matricula-guia-de-implementacao> <https://publications.iadb.org/pt/incentivando-alunos-vulneraveis-frequentar-escolas-de-tempo-integral-evidencias-sobre-o-uso-do>

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
2.2 ^s Feasibility study completed	Studies (#) (SOC)	Studies (#)			Electronic copy of the report approved by the bank	Social Development	Physical			
							2017	0	0	
							2018	0	0	0
							2019	3	3	3
							2020	0	0	1
							2021		2	0
							2022		0	
							EOP 2022	3	4	4
							Financial			
							2017			
							2018			0
							2019	150000	150000	80245.67
							2020		69754.33	69754.33
							2021		0	
							2022			
							EOP 2022	150000	150000	150000

Advances In Execution: Four main products were completed and delivered. The first is a working paper published as an IDB publication on the impact of teachers working in multiple schools on student learning in Rio de Janeiro. The paper found that an increase in the number of school jobs over time decreases student proficiency. The paper was presented to the Secretary of Education of the Municipality in Rio, a CIES conference, and the IDB. The second product is a Technical Note on the federal school finance system in Brazil: Fundeb. Jointly with D3e (Think tank in Brazil) and Stanford professors, we developed this Technical Note compiling all current Fundeb’s (Fundo Nacional para Desenvolvimento da Educação Básica) proposals and analyzing them in light of the literature. The Note was published in a timely moment in Brazil since there is an important ongoing discussion about Fundeb’s renewal and design improvement currently under Congressional review. This publication is also the result of previous analyses conducted in 2018 as part of the Fundeb working group this TC funded. The third study is a cross-country analysis of the school funding gap in Latin America. This product is also a result of research conducted on school funding in the region over the last few years. The main results show regressive education funding between high and low SES regions in Brazil and Colombia; on the other hand, Chile and Peru have more progressive school funding. Preliminary results were presented at the CIES conference and the IDB. Finally, due to Pernambuco's student assignment system pilot, ConsiliumBots developed a comprehensive report describing the allocation algorithm recommended for the centralized enrolment system pilot in Pernambuco, with a simulation exercise of applications and vacancies. The report was developed and concluded in 2020.

3. Communication and dissemination

Component Cost: \$200,000

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
3.1 ^s Seminars organized	Seminars (#) (SOC)	Seminars (#)			Electronic copies of seminar presentations and participants' database	Social Development	Physical			
							2017	0	0	1
							2018	0	1	1
							2019	0	2	0
							2020	4	2	2
							2021		1	0
							2022		1	1
							EOP 2022	4	5	5
							Financial			
							2017	0	0	7890.65
							2018	0	14036.45	0
							2019	0	28072.9	0
							2020	50000	42109.35	17875.35
							2021		24234	0
							2022		24234	23005.96
							EOP 2022	50000	50000	48771.96

Advances In Execution: - Technical assistance to support education policy in the improvement of the process of teacher assignment. The project had 2 initial phases in 2022: diagnostic (documental research, interviews, public data analyses) and workshop (planification of the project). In 2023 the project will be designed and implemented, with a centralized assignment system developed by the municipality of Recife with IDB technical support.

- Good practices in educational costs systems, students, and teachers’ allocation shared in executive meetings (policymakers in states and municipalities) and working groups (with 3rd sector institutions):
 - May-20th: Secretaria de São Paulo o Public: Executive meeting, public sector o Theme: student and teacher allocation o Content: Estratégias inovadoras (São Paulo): uso de tecnologia para a melhoria da eficiência e da qualidade educacional
 - Aug-5th: Secretaria de Florianópolis o Public: Executive meeting, public sector o Theme: student and teacher allocation o Content: Estratégias inovadoras (Florianópolis): uso de tecnologia para a melhoria da eficiência e da qualidade educacional
 - Aug-26th: Profissão Docente o Public: Third-sector and specialists invited by the institution o Theme: The importance of improving public competitions (concursus) for teachers to improve the quality of education o Content: Technical analysis and contributions in the working group to support the design of the guidelines for teacher selection in Brazil.
 - Sept-20th: Profissão Docente o Public: Third-sector and specialists invited by the institution o Theme: Innovative experiences (teacher selection) implemented in Brazil and Latin America o Content: Seleção Docente na América Latina
 - Oct-21st: Profissão Docente o Public: Third-sector and specialists invited by the institution o Theme: Operationalization challenges and possible solutions (teacher selection) o Content: Technical analysis and contributions in the working group to support the design of the guidelines for teacher selection in Brazil.
 - Nov-18th: Profissão Docente o Public: Third-sector and specialists invited by the institution o Theme: Risks and legal innovations in teacher selection o Content: Technical analysis and contributions in the work group to support the design of the guidelines for teacher selection in Brazil.
 - Dec-9th: Profissão Docente o Public: Third-sector and specialists invited by the institution o Theme: Systematization of best practices for teacher selection competitions in public networks o Content: Technical analysis and reviewing (final guideline)

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
3.2 ^s Feasibility study completed	Studies (#) (SOC)	Studies (#)			Electronic copy of reports approved by the bank	Social Development	Physical			
							2017	0	0	
							2018	0	0	0
							2019	0	0	4
							2020	8	4	4
							2021		2	1
							2022		1	1
							EOP 2022	8	10	10
							Financial			
							2017	0	0	
							2018	0	0	0
							2019	0	0	8916.19
							2020	150000	141083.81	59182.99
							2021		81900.82	9950.75
							2022		71950.07	65417.13
							EOP 2022	150000	150000	143467.06

Advances In Execution: Technical note on the evaluation of an experiment carried out on the centralized platform in Pernambuco that uses techniques from behavioral economics to encourage disadvantaged students to apply to extended school day programs. <https://publications.iadb.org/pt/incentivando-alunos-vulneraveis-frequentar-escolas-de-tempo-integral-evidencias-sobre-o-uso-do> Recife (Pernambuco) - Support the education reform effort to overhaul student assignment system. We designed the rules (algorithm and priorities) in the back end and innovations to improve equity in choice on the front end. Approx: 20k students in all grades; • Rules: new criteria prioritize public vacancies to vulnerable families, institutionalized students (guardianship or custody), siblings, and students with disabilities. • Interventions: nudges in-platform and off-line with randomized groups (control and treatment) to evaluate the impact of the information improvements to increase chances of applying to a high performing school and of getting a vacancy. All databases will be available in 2023 for analysis. - Support the education policy in the improvement of the process of teacher assignments. The project had 2 initial phases in 2022: diagnostic (documental research, interviews, public data analyses) and workshop (planning of the project). In 2023 the project will be designed and implemented, with a centralized assignment system developed by the municipality of Recife with IDB technical support. We also plan to conduct interventions using behavioral science to nudge teachers to hard-to-staff schools.