Project Title: **Tá de Pé Educação.**

Country/Region: **Brazil/ South America**

Implementing Agency: **Transparência Brasil (TB)**

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A - OBJECTIVES

A - 1 - CONTEXT AND PROBLEM ANALYSIS

Brazil is a federalist country, which means that jurisdiction over most policies is a responsibility of all three levels of government (municipal, state and federal level). In the case of education policies, specific legislation generally splits the responsibility for policy implementation and service delivery across those three levels, according to the different tiers in the education system: municipalities are responsible for most of basic education (mainly nurseries, pre-school and primary education, from 1st to 9th grades), states for secondary education (in some cases, also middle school/ junior high) and the federal government for higher education (college, universities and graduate school).

Despite this division of roles, the federal government still keeps the main responsibility to coordinate national education policy and apply redistributive policies to balance regional inequalities and supplement state and municipalities policies. Moreover, given that most municipalities and states have their budgets dependent on federal transfers, the federal government has an essential role in complementing states and municipalities funding for basic education[1].

This is more so because Brazilian Constitution mandates that states and municipalities spend at least 25% of their revenues with education. Since most municipalities have a lower tax revenue compared to the federal government, there is not much room for increasing spending in education within municipalities budget constraints, especially in a time of fiscal crisis.

Despite all the money directed to support the sector, educational achievement is still poor. Several studies have shown that increasing resources to basic education does not necessarily translate in better educational outcomes, mostly due to misallocation of funds, inefficiency and corruption in public spending (Menezes Filho & Amaral, 2009; Monteiro, 2015; Tannuri-Pianto, 2015; Caetano, Ávila & Tavares 2017) .

This seems to be the case in Brazil. According to reports by auditing agencies such as the Federal Comptroller's Office (CGU) and the Federal Audit Court (TCU) federal spending in basic education is plagued with cases of fraud, corruption and inefficiency, and accountability is poor. One report found (da União, 2018c) that in Bahia and Paraná states, for instance, at least 60% of school meals do not match the planned menu meal, partially due to fraud and corruption. Fraud in contracting of school transportation is also common, as evidenced by a recent joint investigation [incluir link para artigo] by the Federal Police and the CGU that arrested and charged public civil servants in 10 states with corruption and fraud in school transportation contracting. Transparência Brasil also found that, in a program aimed to fund construction of schools and nurseries, 15% of all federal funding was wasted in paralyzed constructions alone.

Poor oversight of federal spending on education is a big part of the problem. Although the federal government has an accountability system, according to which states and municipalities have to report their expenditures, it lacks the capacity to adequately

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[1] According to 2016 data, 68% of all tax revenue in Brazil went to the federal government, whereas 25% went to states and only 6% to municipalities (Mundial, 2017). Data from 2017 collected by Transparência Brasil also shows that the federal government transferred to states and municipalities about US$ 16 billions (PPP) to basic education.

process the information received, thus making the existing monitoring system largely ineffective.

According to an interview we conducted with employees of the Inter-American Development Bank last August, who work on the subject of education in Brazil, there are no shared standards among municipalities on education spending information. There is, in fact, a national platform - Sistema e Informações sobre Orçamentos Públicos em Educação (SIOPE), managed by FNDE - to collect and share data on educational spending by states and municipalities. This should provide such standards and good quality data, as use of the platform is mandatory for every subnational entity that seeks resources from the federal government. However, FNDE does not check or use this data for auditing and monitoring of programs, thereby giving little incentives for adequate use of the system[2].

Auditing agencies, such as CGU and TCU, either work on a case-by-case basis, with investigations in response to complaints, or by sampling, which covers only a small percentage of all spending in a large country like Brazil. Their recommendations to audited bodies for improvements in their internal monitoring practices are not followed up regularly to ensure their implementation, and governments often do not comply with them and face no consequences.

Poor monitoring translates in an inability to cross check information with other federal databases, such as employee registries or invoice databases, which could more effectively detect fraud and corruption. The federal government also fails to properly monitor its own spending. For instance, reports by auditing bodies found that the government kept transferring funds to public entities which failed to comply with reporting requirements. Transparência Brasil also found that municipalities failed to inform the addresses of constructions sites in at least 10% of constructions, which is against federal government regulations.

Furthermore, this accountability process suffers from a general lack of transparency to the public and stakeholders involved in monitoring federal spending. Civil society has a low ability to process public information, due to the lack of metadata, basic indicators and lack of transparency on the quality of service delivery. Despite the existence of structures to empower civil society monitoring, such as local education councils, their impact on monitoring and auditing is low to non existent.

The basic problem is that downward transparency (from government to civil society) is lacking. Without increasing transparency it is very hard for social monitoring to have an impact in the usage of money, as expected from Brazilian law.

CONTEXT OF FEDERAL PROGRAMS

Another reason for the ineffective monitoring by the federal government is the poor management of federal programs. Transparência Brasil counted more than 100 different active programs of federal fund transfer to basic education in 2017, each one with its own accountability process, bank accounts, goals and monitoring schemes.

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[2] A study by Santos (2012), for instance, found significant discrepancies between data submitted by the state Rio Grande do Sul, while comparing information on education spending submitted through SIOPE and that sent to the State Court of Accounts (TCE-RS) in 2010. According to SIOPE data, the state spent 20% of revenue on education, whereas data on the TCE/RS system indicated 27%.

Most of the resources are concentrated on a few programs. About 50% of the US$ 16 billions of federal funds aimed at basic education are directed to four programs: FUNDEB, PNAE, PNATE, and Proinfância. The programs are similar in the way the function (they are federal programs que supplement public policies that are responsibilities of state and municipalities, have basic data in a centralized way, since are federal programs, and have similar problems of lack of information and monitoring).

Therefore, actions to improve efficiency in those programs are likely to have a big impact. In the subsections below we briefly contextualize their relevance and why we want to focus on them in the project Tá de Pé Educação.

FUNDEB

Officially known as Fundo de Manutenção e Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação, FUNDEB is the main national policy for basic education in Brazil. It received in 2017 about 35% - US$ 5.6 billion - of all federal funds for education. It was enacted in 2007 and covers all basic education, from infant education in nurseries up to vocational education to teenagers and basic education of young and adults (such as literacy programs to adults)[3].

Essentially, its purpose is to ensure a minimum spending per student in basic education in all states and municipalities. Each state has its own fund, which receives 20% of all revenues from the respective state government and all municipalities within the state. From this big pot, funds are then redistributed to finance education services across that state, based on the number of students enrolled in public schools - which is estimated by an annual school census.

Whenever the amount collected in the fund for a specific state is not sufficient to reach the minimum spending per student established, the federal government complements it with additional transfers. Since 2010, federal contributions to the fund have amounted to 10% of all its resources - a total of about US$ 56 billion (PPP) in 2016.

Legal provisions for spending through FUNDEB also seek to ensure a minimum spending in the remuneration of education professionals. At least 60% of resources received through the fund must be used for salaries of teachers and other professionals involved in education planning, supervision and coordination, as well as in school management.

The law that created FUNDEB also introduced participatory oversight structures known as Conselhos de Acompanhamento e Controle Social do Fundeb (CACS), which shall include among its members representatives of the public administration, teachers and other school workers, as well as parents and students.

Although great in theory, the truth is that many of these councils do not function well in practice, and lack the ability to properly monitor FUNDEB spending. According to a CGU report on a sample of states and municipalities (União, 2013), 33% of CACS did not monitor FUNDEB spending in any way. This may be due to lack of training for councilors, but in many cases ill-intentioned local administrations seem to deliberately sabotage their work,

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[3] FUNDEB replaced its predecessor, FUNDEF, which had been created through a constitutional amendment passed in 1996, mandating that 60% of the education budget (and 15% of all revenue) should be used to fund primary education. The creation of FUNDEB in 2007 established new rules for minimal funding and extended the scope of education services covered.

restricting access to documents and denying resources to finance their activities, such as schools visits and meetings.

In such a context, it is no wonder that a large share of FUNDEB funds are illegally employed. A CGU report from 2013, covering a sample of four states and 120 municipalities, found the following: i) for 59% of the subnational entities audited, FUNDEB resources were partly spent for purposes incompatible with the aim of the program; in 41% of them cases of procurement fraud were identified; iii) and 42% of them made illegal payments.

FUNDEB will expire in 2020 and for this reason, there is already a proposal of constitutional amendment to make it permanent and change the way its funds are distributed. The need for more data and assessment of where it works and where it needs to be improved will be critical to this new law.

PNATE

The Programa Nacional de Apoio ao Transporte Escolar (National Program to Support School Transportation) was initially created in 2004 to improve access of students living in rural areas to schools, and was expanded in 2009 to include students in all basic education.

Since 2003, state and municipal governments are responsible for providing schools transportation for schools under their jurisdiction. They may even destine part of the funds received through FUNDEB for that purpose. Therefore, PNATE consists of supplementary funding by the federal government to support state and municipal spending on school transportation, and is transferred to subnational units on a regular basis, according to the number of students reported in the previous school census.

According to reports by CGU, the main problems affecting PNATE include non compliance with traffic regulation requirements (e.g vehicle specifications, driver certification etc.) and contracting fraud (da União, 2018a). The result is that the service provided is often precarious, at times even jeopardizing the safety of students.

Lack of transparency on data about service providers, their vehicles, drivers etc. and the state of actual school transportation makes it hard for government, auditing agencies and civil society to monitor this program and prevent fraud and corruption. There is also lack of awareness among citizens about what the legal requirements are and how they can complain when those are not met.

PNAE

The Programa Nacional de Alimentação Escolar (National Program of School Meal) or PNAE is a federal public policy with a long history. The first school meal program is from 1955 (da União, 2018b). It evolved over the years and received its current designation in 1979. According to its most recent legal framework (Law 11947/2009), the program aims to support growth, development, learning, school achievement and good eating habits among students through eating education actions and providing adequate nutritional meals in schools.

Similarly to PNATE, transfers through PNAE are automatic and based on data from the previous school census. In 2017 the total amount transferred to state and municipalities was 1,7 billions by US$ ppp and reached about 40 million students. The program covers not only state public schools, but also private non-profit schools.

The management of PNAE resources is complex, and the level of decentralization in how the funds are used can vary significantly. In general terms, the funds are transferred to so-called executive entities (*entidades executoras*, or E.Ex.) (), which are institutions related to education in the different levels of government - e.g. state secretary of education, municipal secretary of education or federal schools (mostly vocational schools). These may choose to manage the program in a centralized way, procuring all goods for the provision of meals and delivering food stuffs to education facilities, where the food is then prepared and served. Alternatively, they may contract out the service to firms that provide the meals to students. However, they can also opt for semi-decentralized or decentralized models, where the funds are partly or fully transferred to executive units (*unidades executoras* or U.Ex.), which then manage the purchase of food and the provision of service for the students in their respective units. Executive units can be non-profit organizations or parents and teachers associations responsible for local management of schools.

This level of complexity, and the fact that some large municipalities even use a mix of these different management models (such as São Paulo, for instance), create difficulties for effective social and government monitoring of the program. Collection of information on performance of services in terms of quality of food and compliance with school meal menu is hard. In theory menus of schools are available at least in official gazettes of municipalities and states. However, this data is hard to assess systematically, as this content is not always easily accessible or available in an open format.

Another factor that adds to that complexity is the fact that the program has also been used for other social objectives, such as strengthening income generation for local food producers (*family farming*). For that purpose, the law regulating PNAE established a requirement that at least 30% of funds shall be used to buy food from such producers. This creates additional management and monitoring costs, on top of reducing efficiency of expenditures, as such products may be purchased at prices 20% higher than those offered by other suppliers.

The most common problems reported by auditing agencies in relation to PNAE include procurement fraud, but some cases are directly associated with fraud in the purchases as part of the family farming quota - more specifically, suppliers that present phony certificates to unduly profit from the 20% markup allowed. From the point of view of monitoring PNAE, however, this family farming requirement increases the cost of monitoring for all parts involved.

As with FUNDEB, monitoring of PNAE shall also be conducted by participatory oversight structures, so called Conselhos de Alimentação Escolar (CAEs), formed by representatives of the public administration, teachers and other school workers, as well as parents and students and other civil society organizations. Nevertheless, these councils are also ineffective and lack the means to function properly (incluir referência para relatório do TCU).

Proinfância

In Brazil, most constructions of public schools/nurseries are funded by the Federal Government, via a program called Proinfância, which transfers funds to local governments to hire contractors. However, due to weak social control, these investments do not always materialize. There is no official data about this matter, but reports of controlling agencies, preliminary conversations with local government officials and a report by Transparência Brasil (Voigt & Sakai, 2017) indicate the existence of a large range of problems in executing these projects drawn by the Federal Government.

Losses caused by the abandonment of construction companies could be reduced or even avoided if federal officials could detect mismanagement in bidding and contracting procedures at local level. More than corruption, poor administrative capacity of local administrations represents high risks for public interest in contracting procedures, which, therefore, should be systematically monitored. For financial and geographical limitations, Federal Government can only do sampling monitor and control of these procedures.

A -2 - OBJECTIVES

In the context of the problems and challenges affecting the aforementioned federal programs and addressed in this project, we highlight four main issues: i) deficient monitoring management of information by the Federal Government; ii) fraud and corruption in contracting procedures; iii) deficient monitoring of service and product delivery; iv) lack of indicators to assess efficiency of spending in terms of educational achievement. All these problems cause poor outcomes of public policies in education in Brazil.

Thus, our **general development objective** is to help improving educational achievement in the medium and long run. Our **specific development objective** is to improve efficiency of federal expenditures aimed at basic education. And the **direct objective of the project** is to improve monitoring and social auditing of federal transfers to basic education.

Our theory of change establishes that, to improve social and government monitoring, we must first increase transparency. The government will be pressured to better manage its own information about the programs -- making it easier to detect and prevent waste and corruption; and civil society will be able to monitor educational programs in a much more effective way. This is the strategy we plan to adopt.

As suggested by Kossow & Dykes (2018), Informations and Communication Technology (ICT) can improve government efficiency and reduce corruption through "upward transparency (whereby the state receives citizen feedback to understand how lower-level bureaucrats are performing), [and] downward transparency (whereby government activities are made more transparent to citizens), and the mobilisation of citizens" (p. 5).

A - 3 - EXISTING INITIATIVES

There are a few related existing initiatives that are worth mentioning, since they show the increasing relevance and awareness of governments and auditing agencies to the issues mentioned.

In 2017, students of state schools in Belém, the state capital of Pará, used a mobile app "monitorando a cidade" to monitor their school meals. The project was a partnership between a local civil society organization, Observatório Social de Belém, and the CGU regional unit in the state. As a result, the state department of education developed proposals to solve some of the problems found. According to preliminary findings in a recent study, students reported that quality of school meals improved after the monitoring (Martano, Riser, Craveiro, 2017). The initial success of this project has helped other schools to replicate the effort, but still in a small scale and not continuously. This initiative is an inspiration for our project, although in a very different scale and outreach.

In December 2017, São Paulo city department of education launched a web app to increase transparency on schools meals data, called "Prato Aberto" (https://pratoaberto.sme.prefeitura.sp.gov.br/). It provides information on school meals menu and allows students to evaluate quality of food. However, it is restricted to São Paulo city, which is the most rich city in Brazil, and has low possibility of being replicated by other municipalities, due to the specifics of São Paulo city.

On the government side, a new web platform (http://paineldeobras.planejamento.gov.br/) was launched by the federal government in 2017, with basic information on public construction works. However, the data made available is very limited, and has not contributed to improve resources available for social monitoring, as it is not possible to know which works are delayed or paralysed.

There are also ad hoc auditing initiatives by agencies such as CGU and TCU that assess compliance with the law of federal programs such as PNAE, FUNDEB, PNATE and Proinfância. They are not, however, a systematic assessment or fiscalization by auditing agencies of the programs and implementation of recommendations are very limited.

All in all, the above mentioned initiatives show that the problem is widely recognized, there are initiatives by both civil society and auditing agencies, but they are not structured, wide in scope and continuous over time. The present project intends to fill this gap, by structuring information for the whole country, providing monitoring tools that can be used by school communities in any part of the country and integrating with existing initiatives in auditing agencies.

B - WORK PLAN

Since we are addressing a complex problem, we do not intend to solve it all at once and on our own. Our approach, instead, is to tackle the problems which we are more likely to impact with the lesser cost.

This project will focus on four programs aimed at basic education:

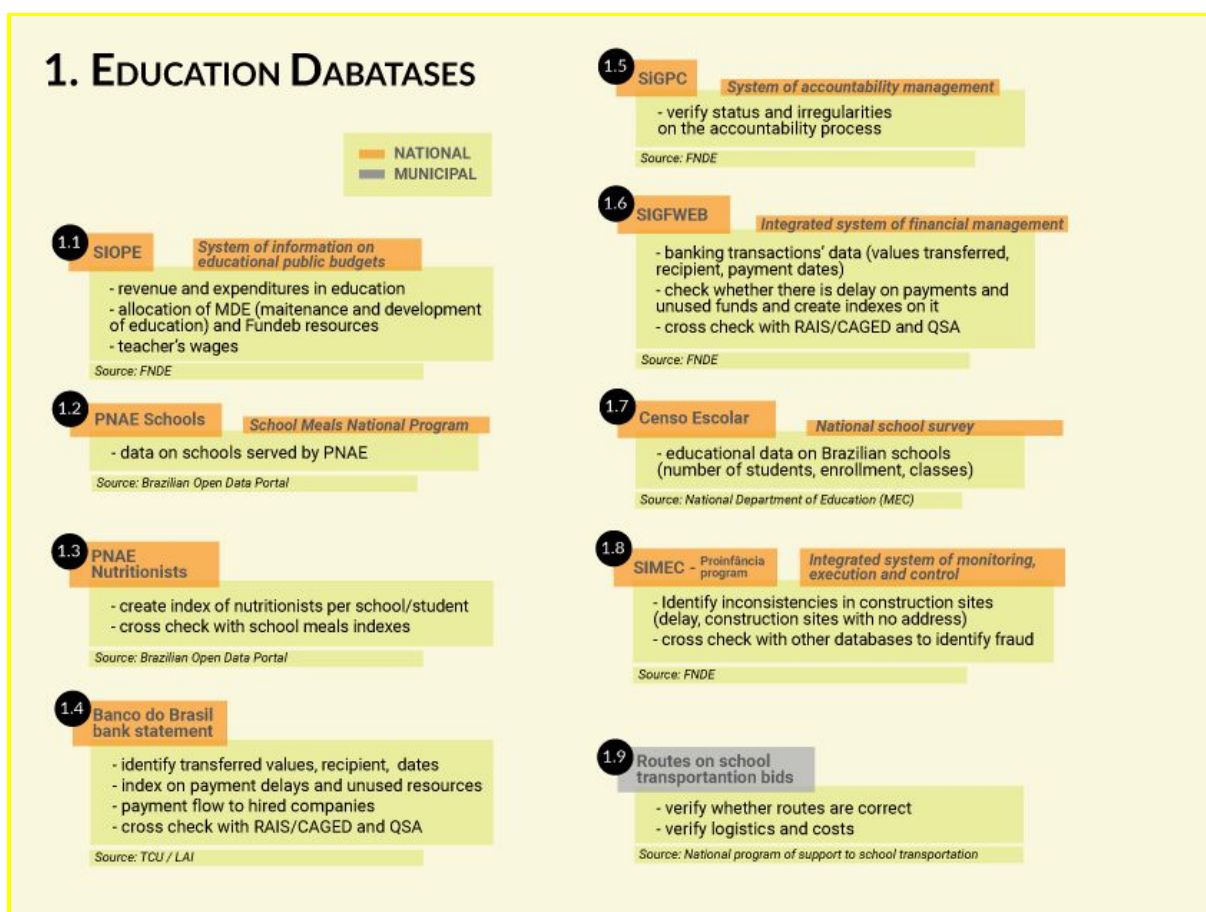|	Program name	2017 budget (in million US$, ppp)
1	Fundo Nacional de Desenvolvimento da Educação Básica (FUNDEB)	5,600
2	Programa Nacional de Alimentação Escolar (PNAE)	1,700

3	Programa Nacional de Transporte Escolar (PNATE)	248.5
4	Proinfância[4]	212.3

Outcome 1: Increase downward transparency (from government to the public)

In order to achieve this aim, we will build an online platform linking several sources of information and creating simple indicators that will allow citizens to identify in a friendly way problems in the selected educational programs affecting their municipality/state. Also, local participatory councils (CACS, CAEs etc.), civil society organizations and the press will be able to gain more knowledge and awareness of the problem and push for change.

The platform will have two dimensions: on one hand, it will display a map of risk, based on the automatic analysis of available data. On the other, it will publish data provided by citizens that use our digital tools to gather local information. We want to build an online "database heaven" with a dual-purpose: to be used by journalists and activists; and to put pressure on governments for actively publishing data for which clearly there is demand.

The three charts below summarise the several sources of data that we aim to collect, organize and make available. We grouped the data sources on three types: educational data, monitoring support data, and political data.

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[4] Includes construction of sports courts for schools.

Chart 1. Educational data sources. For each data source, we present a brief description of the data and possible usages. We also present the source of the data.

2. MONITORING DATABASES

NATIONAL
FEDERAL

2.1 CAGED
RAIS — *National database of employed and unemployed workers*
Anual report on social information
- identify ghost companies/companies created recently, with no specialized employees
- statue of company
Source: Ministério do Trabalho (MTE)

2.2 QSA — *Associates and owners of legal entities*
- cross check with RAIS
- identify associates who are campaign donors or work for political parties
- find cartel, subcontracted companies' associates, relations of companies with the same associate
Fonte: Receita Federal

2.3 CEIS — *National registry of disreputable and suspended companies*
- cross check with QSA to identify associates of disreputable companies
- employers of disreputable companies (via RAIS)
Fonte: CGU

2.4 DAP — *Certification of family farmers*
- data on family farmers
- cross check with other databases (RAIS, QSA) to identify fraud on PNAE bids
Fonte: Portal Brasileiro de Dados Abertos

2.5 SISOBI — *System for death register*
- cross check with QSA, to verify deceased associates and possible fraud
Fonte: Dataprev

2.6 RENAVAM — *National registry of automotive vehicles*
- identify the vehicle, amount of students that would fit in and whether there is a certified driver
Source: Transit Department (Denatram)

2.7 Oportunidade Agricultura Familiar — *Public tenders of products from family farmers*
- verify school meal bids (via public notice)
- create database from public notices' info
- data from Serenata de Amor (official gazette) to cross check with the bidding info (homologated companies, sucessful bidder)
- crawler to look for proposals based on the notice
- sucessful bidder info and bid's page
Source: Department of Agricultural Development

2.8 NF-e — *Eletronic Tax Receipt*
- data on eletronic tax receipts issued for public expenditures
- CNPJ (a Brazilian certificate for legal entities)
- validate information and identify fraud on accountability of FNDE programs, as well as cross check with photo's info
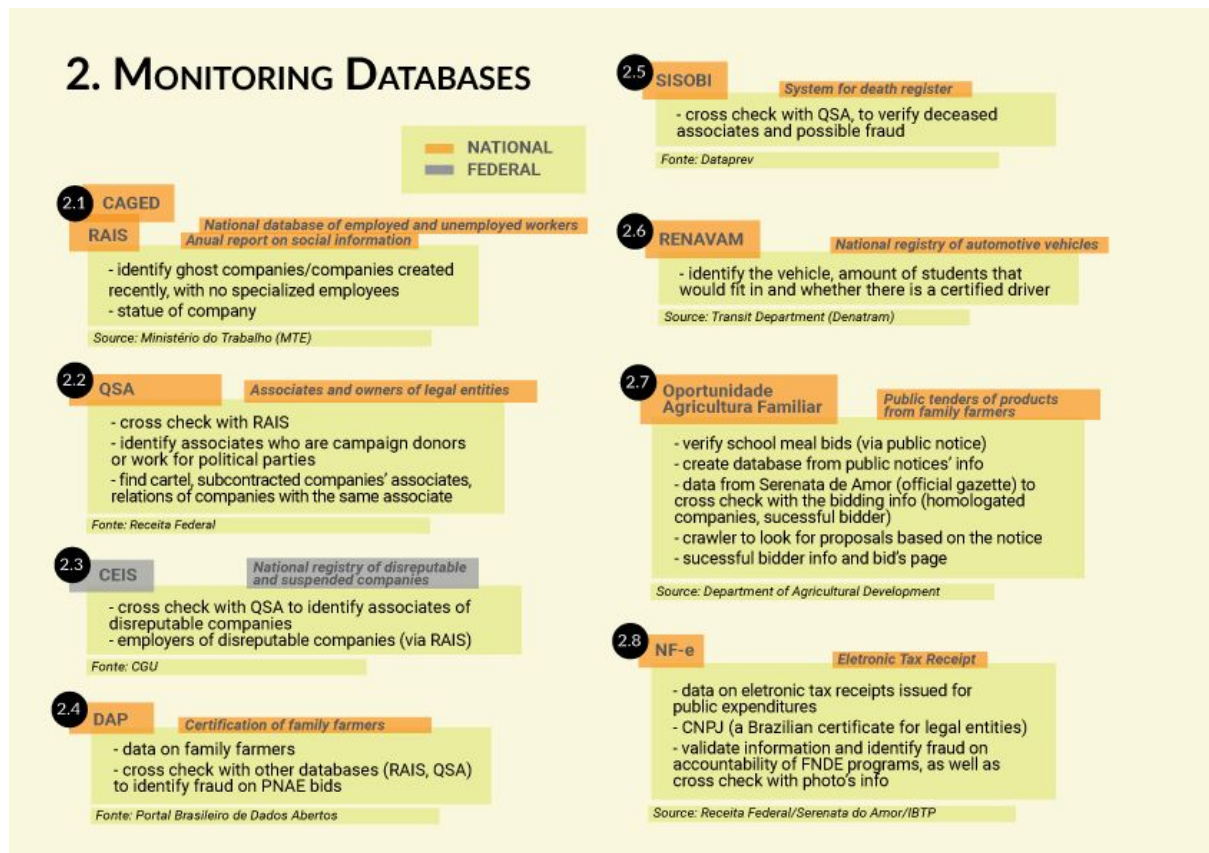*Source: Receita Federal/Serenata do Amor/IBTP*

Chart 2. Monitoring support data sources. For each data source, we present a brief description of the data and possible usages. We also present the source of the data.

3. POLITICAL DATABASES

3.1 Parties' expenditures
- parties expenditures during and after elections; verify amounts, CNPJ, service/product hired
- cross check with other public expenditures and associates'
- see associated politics', identify non-ethical patterns, conflict of interest, violations of the 8.666/1993 law
Source: Superior Electoral Court (TSE)

3.2 Electoral results
- data on elected politicians (mayors, council members)
- identify political groups and parties in office
- identify privileges on fund transfers to certain political groups
- cross check with QSA, RAIS and public expenditures
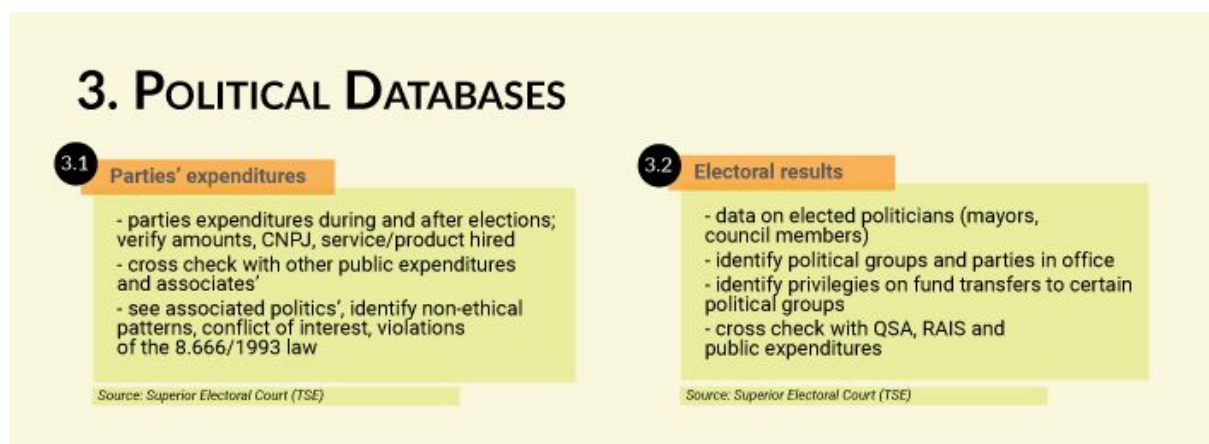*Source: Superior Electoral Court (TSE)*

Chart 3. Political data sources. For each data source, we present a brief description of the data and possible usages. We also present the source of the data.

As we can see, we have nine different educational data sources, eight monitoring data sources and two political data sources. The platform will provide linkage among data sources, making it possible for a user to see problems for each of the programs we will be

monitoring (FUNDEB, PNATE, PNAE and Profinância). So, for instance, in the back-end, we could cross compare data on public purchases for PNAE, based on data source 2.7, and the presence of nutritionists at schools, from data source 1.2, to see whether and how the absence of these professionals impacts quality of purchases. With this information, users of the platform will be able to better target schools without nutritionists for monitoring. This is a simple example, to illustrate what will be available.

Outcome 2: Increase upward transparency (from the public to government)

To attain this goal, we will make available several digital tools that will make it easy for citizens to collect information about the policies where they happen and reliably give feedback to government authorities and auditing agencies.

We already have a mobile app, Tá de Pé, that allows any citizen to anonymously take a photo of a public construction of schools and nurseries and send to us. The photo then is analyzed by engineers, who assess if there is any evidence of irregularity (delay, missing or incorrect data etc.). Whenever we find any evidence of problem, we send an email to the local mayor asking for explanations and commitment to solve the problem in a specific time frame. If they do not answer in 15 days, we send emails to local councils and CGU, to act upon the information gathered. Citizens get feedback of any new information on their apps. We also have a twitter profile (@tadepeapp) in which we can receive photos and tweet about the complains and answers we receive from the app. Thus, any citizen, regardless of the app, can follow what is happening in a social network channel.

Our goal with this project is to expand these tools, so that citizens and members of school communities can monitor service delivery for other education policies and report on any problem they find in their school. So, with the app, they will be able to take photos of school meals and menus in their schools. Such photos will be assessed by voluntary nutritionists on compliance to legal requirements regarding quality and nutritional aspects. They will also be able to take photos of school buses, including plate and inside the vehicle. We will thus assess if they comply with regulations and in selected cases, try to gather more detailed information about the vehicles via FOIL requests. Whenever we find a problem, we will replicate the same reporting cycle of Tá de Pé in asking for explanations from the authorities and communicating replies back to citizens.

We also plan to expand our social network presence, by including Instagram in the mix. Instagram has 50 million[5] active users in Brazil, most of its user base is composed of young people. Due to its nature it is perfectly suited for a project based on taking several photos. We will create a profile in which people will be able to tag us and follow complaints.

Additionally, we will run workshops in 10 state capitals in Brazil, with at least one city from each of the five regions of the country. We have a list of 15 potential cities, based on potential of impact and local support we can receive, and we will select 10 to receive the workshops. We plan to target four schools in each municipality, and promote a civic activity in which they will use our digital tools to gather information on their schools.

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[5] See:
https://www1.folha.uol.com.br/mercado/2017/10/1931057-com-50-milhoes-de-usuarios-brasil-e-segundo-no-ranking-do-instagram.shtml

We also plan to reach other school communities and social activists with online trainings in the format of webinars. In 2017 and 2018 Transparência Brasil conducted three online courses for activists on how to monitor construction works and public procurement, as part of project Obra Transparente. Participant evaluations and practical usage of the methodologies learned show that the trainings were very successful. We already received several requests to make the content of the training available online (which we will do so soon, after a final revision of the materials). The demand for training demonstrates the high interest of citizens to learn more about monitoring government.

With the webinars and the in-site workshops, we seek to give participants incentives to use and share our tools, as well as share feedback at the Project's platform.

We will also run two hackathons to promote development and usage of our tools and data generated by the project. We ran a few hackathons in the past, with excellent participation and solutions that were later adopted by us. To give on example, the twitter profile for the Tá de Pé was developed as a solution on a hackathon we ran last March at Google Campus, in São Paulo, which was then adapted and put it into production.

Outcome 3: Increase of evidence-based studies and public policies (elaboration, implementation, monitoring and auditing) in education by government, audit agencies and civil society organizations

To achieve this outcome, we plan to leverage our strategic position as one of the key civil society organizations in the field of social monitoring, transparency and open government in Brazil.

Transparência Brasil is a civil society representative at several Transparency and Open Government councils and partner with auditing agencies[6]. We plan to leverage this network to promote more government transparency, opening of data, improvement in management of information and processing of citizens feedback and complaints. We are also part of several civil society coalitions[7], that we plan to engage with to promote our tools, results and information to enhance their ability to influence public policy and make more informed decision in supporting a given public policy. Our strategy is thus to engage with a wide range of relevant actors to promote improved transparency and monitoring of educational spending.

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[6] Transparência Brasil is one of civil society's representatives at the Transparency Council of the Federal Senate, Transparency Council of the São Paulo State, Management Committee of National Infrastructure for Open Data, and Shared Management Forum of Open Government Partnership of the city of São Paulo. We have partnerships with the Fiscalization and Monitoring Committee (Comissão de Fiscalização e Controle) at the Lower Chamber in Congress, with CGU and Federal Prosecutor's Office (MPF) in project Tá de Pé, and with TCU in initiatives to foster civil society auditing as a a member of TCU's Center of High Studies to Fight Corruption and Fraud.

[7] We are members of the civil society monitoring coalition ("Frente pelo Controle") and collaborate in projects with Observatório Social do Brasil, Engineers without Borders groups and Associação Brasileira de Jornalismo Investigativo (Brazilian Investigative Journalism Association). We were one of the founders of the Forum for the Right to Access to Information ("Forum de Direito de Acesso à Informações Públicas"), that was critical to the approval of FOIL in 2011. We are also establishing new partnerships with organizations and groups focused on education, such as Todos Pela Educação, Mapa de Educação, and CONSED (Conselho Nacional dos Secretários de Educação), among others.

Firstly, we plan to present results of the project in public hearings, send complaints and findings to auditing agencies and advocate in the several forums and councils where we participate for better public policies on transparency, open data and improved monitoring policies.

Secondly, we expect to partner with civil society organizations engaged in monitoring to use our tools and access the information we produce to increase their ability to make a difference at the local level where they work.

Thirdly, we hope to partner with groups already focused in education to increase their impact, ability to monitor government and improve public discourse.

Fourth, we will push for openness of data. Some of the data sources that will be collected to build the platform are not open right now, such as data source 2.6, which has data from registered vehicles. It will be part of the project to push for its openness, so we can increase the effectiveness of social auditing on education.

Last, but not least, we will use our good positioning as source for several journalists and media outlets to raise awareness about the project data and results. To illustrate our visibility, in 2017, the press cited us 183 times. 65 of those mentions were replications in regional outlets of news pieces published in majors outlets/portals. This is important because we can reach a more diversified audience in such a large country as Brazil.

Outputs	Key Activities	Timeframe (2.5 years – 10 quarters)									
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Outcome 1: Increased downward transparency											
Output 1.1 Development of the database	Creation of database: gathering data, creating data dictionary, identifying primary keys and foreign keys in data sources, building the database, coordination of team	X	X								
	Validation of database: first queries to produce internal reports		X	X							
Output 1.2 Development of online platform	Creation of website, wireframe, design, application development, tests, coordination of team	X	X	X							
	Releases of improved platform: iteration (feedback collection, new features, tests, release)				X	X	X	X	X	X	X
Output 1.3 Platform outreach	Launching of the platform in an event with key stakeholders, webinars and workshop training at ABRAJI annual congress on data usage of the platform, interviews to the press, coordination of team				X		X				
Outcome 2: Increased upward transparency											
Output 2.1	Design sprint, creation of prototype,		X								

Development of civic tech tools for upward transparency	research test with 2 schools and iteration, coordination of team.												
	Creation of app for school meals and transportation: development of back-end (application and database), development of front-end (wireframes, flux and design), release and marketing, coordination of team			X	X								
	Creation of twitter bot for photos of school meals and transportation: development of back-end, marketing, coordination of team.				X								
	Creation of Instagram bot/profile (for photos of construction and food meals): development of back-end, marketing, coordination of team.					X							
	Maintenance of APPs and social network bots					X	X	X	X	X	X		
Output 2.2 Civic tech tools outreach and capacity building of partners	Workshop in 10 municipalities and 40 schools across Brazil: selection of schools, planning of workshop, measuring participation					X		X	X				
	Webinars to other schools: preparation of materials and technical setup, selection of schools, holding webinars and measuring results, coordination of team.							X	X	X			
Output 2.3 Promotion of civic tech tools or data visualization among civil society	2 hackathons: organization, partnerships, selection of participants, coordination of team.										X		X

Outcome 3: Increase of evidence-based studies and public policies (elaboration, implementation, monitoring and auditing) in education by government, audit agencies and civil society organizations													
Output 3.1 Publication of 3 reports on Education programs	Data collection and analysis, writing, social media and press release, interviews and articles to press, coordination of team.				X	X		X	X			X
Output 3.2 Advocacy in federal government	Report presentation, follow-up meetings				X			X			X	X
Output 3.3 Advocacy in	Public hearings and meetings discussing findings, follow-up researches				X			X			X	X

Congress and audit agencies											

Risk Mitigation

The main risks associated with the project are related firstly to gathering information to build the platform and secondly in engaging citizens to use our digital tools.

Transparência Brasil has lots of past experience working with government data to build databases in web platforms. In Às Claras, back in 2002, we were the first organization to publish information on campaign donations for candidates. In 2006, again, we were the first to publish information about congress and judicial records of congressmen and woman as part of project Excelências. More recently, we published information on the Supreme Court (project Meritíssimos), FOIL (Achados e Pedidos) and construction works of schools and nurseries (Tá de Pé). We know from experience that government data is messy, lacks primary keys and foreign keys, definitions and concepts are mixed across databases and some of them are not publicly available or in an open format.

Thus, the amount of data that we will be able to gather, organize and put on-line will partly depends on how much the government will cooperate with us to assist in the construction of the database, providing data dictionaries and access to microdata. It will also mean that we will not gather all information in a single step, and we may be forced to publish just one part of it in this first phase of the project. It may also increase the cost of developing the platform, as the complexity of the task increases.

To mitigate this risk we already mapped the main databases and how open and publicly available they are. We know that there is a minimum of information that we will be able to gather that will be helpful to citizens, press etc. Another strategy is to incorporate the push for more open and organized data as a goal do the project. Thus, mapping and documenting difficulties and inconsistencies in government data is an important result in our fight to improve downward transparency. Finally, we will use an agile development method, so we can publish early and more often, mitigating the risk of delaying to much publication of information to the public.

On a second token, another major risk is related to engaging citizens to use digital tools. There are plenty of civil tools nowadays in the form of apps, which make it harder for a single app to be highlighted and highly used by the public. There are also decreasing trends in the importance of mobile apps, since brazilians spend most of their time on mobile using social networks. We also know, from experience, that the path from knowing that the app exists, to download it and being an active user is a long journey.

This means that it may take more time than expected to achieve significant active users, photos etc. We may also have to spend more money with social network ads, depending on the conversion rates.

To mitigate this risk, we expect to use our experience with Tá de Pé on promoting the usage of our app. We will use the same app, with new features. Thus, we expect to use our current basis of active users to not start from scratch. The same is true for our social profile on Twitter.

In fact, Tá de Pé was designed from the beginning (including its name) to be generic and able to include more and more monitoring of government promises and policies. Thus, the communication strategy just need to be adapted to address the new service deliveries.

Given the difficulties of converting new users, we developed a communication strategy to engage people over a longer period of time, and only at the end ask the engaged people with our brand to download the app and use it. We separated our possible users into 4 subsets to compare the results across them. We found out that two groups responded better to our communication campaign in terms of downloads, namely Transparência's lookalike audience and educational community. Therefore, we will build on those learnings to focus our resources on more responsive groups for more efficient results.

Of course, our current users are used to our being about monitoring construction works and the launch of new features must be made with care, in order to avoid losing our users and not gaining new ones. This is the most critical aspect of the project and it is hard to predict in advance what will happen and may delay completion of the goals of the project. At the same time, we expect that mobilization of new users might be simplified by the fact that new features will enable users within schools to monitor services directly at their reach in their everyday activities, therefore lowering significant monitoring costs for them, in contrast with the monitoring of construction works, which is more complex and requires that users go to specific locations.

C - RESULTS AND LONG TERM IMPACT

We have three main outcomes for our project, as described above in the workplan. By increasing both upward and downward transparency, and social monitoring, and improving government policy and civil society advocacy efforts (our third outcome) we expect that we will see a decrease in waste for public funds for education, less corruption and fraud and more efficiency in usage of money.

The table below summarises how we will measure each outcome (indicator and how to monitor it) and the expected result (target versus baseline).

Outcome indicators and targets

Outcome 1: Increased downward transparency			
Indicator 1.1: Availability of open and public data.	**Baseline:** Research of all available data sources, which ones are public and which ones are in open format.	**Target:** Opening of four data sources.	**Monitoring:** permanent monitoring of new data sources
Indicator 1.2: Number of unique visitors to web platform (yearly) by the end of the project.	**Baseline: zero**	**Target:** 20,000	**Monitoring:** Google analytics

Outcome 2: Increased upward transparency			
Indicator 2.1: Number of schools monitoring service delivery	**Baseline: zero**	**Target: 40**	**Monitoring:** Database logs
Indicator 2.2: Number of active users of monitoring tools	**Baseline:** 500 (average of last two months for Tá de Pé)	**Target:** 500 (in a month)	**Monitoring:** Database logs, social network analytics.
Indicator 2.3: Number complaints sent via monitoring tools.	**Baseline:** 20 (average of last two months for Tá de Pé)	**Target:** 100 (average per month)	**Monitoring:** Database logs.
Outcome 3: Increase of evidence-based studies and public policies (elaboration, implementation, monitoring and auditing) in education by government, audit agencies and civil society organizations			
Indicator 3.1: Number of news pieces related to the information and reports	**Baseline:** 35 citations (average of recent projects of Transparência Brasil per year - Achados e Pedidos and Tá de Pé).	**Target:** average of 40 per year.	**Monitoring:** Daily news clipping
Indicator 3.2: Number of studies of organizations devoted to improving education policies or academic studies using our data or report findings.	**Baseline:** zero.	**Target:** 5 studies.	**Monitoring:** Studies clipping.

We also expect that outcome 1 and outcome 2 will interact and improve public policies. The first expected effect of this interaction is on procurement for PNAE. Thus, we will run a randomized controlled trial to assess the effect of increasing downward and upward transparency on the prices of public procurement for school meals. Cities or schools (to be defined) will be randomly assigned either to a treatment or control group. In the treatment group, they will show up in our digital tools (platform, app and bots), so citizens will be able to use our data and tools to monitor them. In another (control) group, they will not show up and citizens will not be able to use our data and tools to monitor them. We may also use some block randomization, to test combinations of different arms of treatment (such as only app and social network, app and platform, types of management of resources etc.). And we will measure the average price of public procurements in PNAE in both treatment and control groups, to estimate the average treatment effect.

Long Term Impact

The long term impact of the project is to improve educational achievement. In agreement with our theory of change, we expect the long term impact to happen via first-order, second-order and third-order effects. The order of an effect is related to its importance and how direct is the impact. First-order effects have higher significance (in expectation) and a direct impact. Second-order (or higher) effects have lower impact (in expectation) and are indirect (depend on on other things to happen).

❏ *First-order effect:* By avoiding diverting funds from education to other ends, we expect a direct effect over time on the quality of educational achievement in the schools and municipalities affected by our project. Since we will have more money being effectively spent with students and schools, this should translate in better educational achievement.
❏ *Second-order effect:* The first indirect causal path is due to enhance in public policies (more evidence based). The second causal path is due to increased social monitoring. With more information and access to tools to monitor local government, we will have more and more social monitoring by civil society on average in the targeted municipalities, which should improve the quality of the public policies in education.
❏ *Third-order effect:* We also expect a third order effect, since it will be easier to build indicators of public spending in education, which in turn will allow studies of what works or not and how to improve public policy in the field of education.

Since the long-term impact will not happen during the execution of the project, we will not be actively tracking it. However, we expect to go back to some metrics after five to ten years to assess this impact. In this sense, we would look at metrics such as: PISA and IDEB scores, that measure educational achievement by sample and in the population of students and schools, respectively.

D - PLAN FOR DISSEMINATION OF RESULTS

Beyond the engagement with key advocacy stakeholders (outcomes 3.2, 3.3, 3.4), i.e., federal government, audit agencies, National Congress and CSO of education; press releases to our mailing list on the reports (outcome 3.1), specific activities directed to public schools (outcome 2.2) and to activists and journalists (outcome 1.3), we plan to disseminate project results to a broader public with the following activities:
❏ Presentation of the project and its results at conferences on transparency and accountability organized by the government at all levels, directed to public servants; or organized by civil society, directed to other members of civil society and academia focused on challenges of public administration and accountability;
❏ One-page summary of the results of each report with infographics to be distributed at conferences and to potential new partners;
❏ Project results summary to be included in our annual activities report to our Board and Associates and further interested public;

❏ Short videos and infographics for social media targeted to Transparência Brasil's audience and general public interested on public policies of education.

These additional activities will integrate a larger effort to disseminate information and results from this and other parallel related projects[8], for which we seek funding from other sources as well. Travel costs for participating at conferences and other events, for instance, will be budgeted as part of the other projects.

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[8] We plan to develop two parallel projects addressing the same issues, but focusing more strongly on capacity building and monitoring of public procurement, and on the development of indicators of expenditure efficiency in education, respectively.

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