

**Leaking Education Quality:
An Analysis of the Potential Effects of Corruption on Brazilian
Public School Students**

Thesis submission for graduation requirements towards:
A Masters of Arts in Human Rights Studies
Graduate School of Arts and Sciences
Columbia University

By:
Mi-Hwa (Mi-Mi) Saunders
UNI mes2290

Thesis Advisor:
Paul Felipe Lagunes
Assistant Professor, School of International and Public Affairs
Columbia University

ABSTRACT

This thesis examines the intersection of corruption and education by analyzing the potential effects corruption has on the educational attainment of public primary and secondary school students in Brazil. I approach the discussion from a human rights perspective and outline the right to education as a duplicative right, or a right that once secured more easily facilitates access to securing other rights. I examine the potential effects of corruption by analyzing educational fund leakage scandals in four Brazilian states that vary in Human Development Index, racial marginalization, and wealth. By exploiting data from the Brazilian Ministry of Education in municipalities where rampant corruption occurred (or occurs), I find a strong negative association between leakages and decreased educational attainment. From this finding, I analyze the effects of decreased educational attainment for racially marginalized students and argue that corruption in public schools is likely to lead to increased racial inequality, decreased ability for public students to matriculate into university, and decreased employment opportunities. The negative effects motivate discussion for transparency and accountability policy recommendations to ensure educational rights.

TABLE OF CONTENTS

PART I) INTRODUCTION	2
PART II) MOTIVATION	4
PART III) LITERATURE REVIEW	6
1) THE RIGHT TO EDUCATION	6
2) CORRUPTION: A GENERAL OVERVIEW	6
3) THE CORRUPTION-EDUCATION RELATIONSHIP: AN INTRODUCTORY CHARACTERIZATION	8
4) EFFECTS OF CORRUPTION ON EDUCATION	9
PART IV) BRAZIL	11
1) LAW OF DIRETIVES AND BASES (LDB) AND CURRENT EDUCATION STRUCTURE	12
2) THE MILITARY DICTATORSHIP AND A CORRUPT STRUCTURE OF EDUCATION FINANCE	14
3) A SHIFT TO DEMOCRACY AND EDUCATION REFORM	16
4) EDUCATION POLICY REFORM: FUNDEF AND FUNDEB	17
5) ACCOUNTABILITY MEASURES	20
PART V) CORRUPTION SCANDALS	21
1) SÃO PAULO	23
2) AMAPÁ	24
3) BAHIA	26
4) MARANHÃO	27
PART VI) ANALYSIS	29
1) METHODOLOGY	29
2) RACIAL INEQUALITY INCREASE	33
3) GREATER DIFFICULTY ENTERING UNIVERSITY	34
4) DECREASED EMPLOYMENT OPPORTUNITY	37
5) EDUCATION QUALITY AND THE FUTURE OF BRAZIL	39
PART VII) POLICY RECOMMENDATIONS	42
1) THE PROBLEM AND TARGET FOR REFORM	42
2) POLICY RECOMMENDATIONS	43
3) DISCUSSION	45
PART VIII) CONCLUSION	47

PART I) INTRODUCTION

It is estimated that the seven countries that spend the most on education worldwide invest over \$1 trillion USD on public education services a year.¹ After health services, education is one of the largest government expenditures, and with good reason, too (Hallak and Poisson, 13-14). Education is vital. It not only allows children to develop skills that help realize their full human potential, but it also can lift the disadvantaged out of poverty to secure a more promising, economically prosperous future. Government education reforms frequently target how more money could optimize educational attainment (Hedges, Laine, and Greenwald, 1994). Such reforms, however, are contingent on funding actually reaching the intended beneficiaries (Wenglinsky, 1998). Cross-national evidence shows that this is far from the case. World Bank researchers Bruns, Filmer and Patrinos (2011) demonstrate that in multiple developing countries, roughly 30% of total funds never reach schools. Mismanagement, inefficiency, and lack of financial expertise are some potential causes of fund leakages. Corruption is another.

Corruption is widely regarded as a pervasive societal problem with a multitude of negative consequences (Gardiner, 2002). The study of corruption has been examined from various perspectives, including analysis of societal perceptions of corruption (Allison and Canache, 2005), the psychological effects of living in corrupt societies (Bayley, 1966), how corrupted entities and organizations function (Frits, Leana, and Pinto, 2008), and/or what motivates individuals to act corruptly (Ibid). Recently, practitioners and academics alike have begun to analyze the relationship between human rights and corruption (Ibid 249-250). This thesis seeks to examine this relationship further by focusing on how corruption can negatively impact the ability of children to secure their right to education. From a human rights perspective, emphasis is on the tangible negative consequences corruption has on children, thus situating children as victims to corruption.

Corruption in education is often damning because it hurts one of the world's most vulnerable groups—children (Hallak and Poisson, 2011). This is common in Brazil, where education fund leakages are rampant. Mid-2000's estimates calculate that anywhere from 13-55% of all Brazilian

¹ The countries are (in order per % of gross domestic product): Denmark, Iceland, the Republic of Korea, New Zealand, Israel, and the United States.

² Transparency International is an international non-governmental organization that monitors corruption worldwide.

³ Teacher neglect of school obligations is known as *teacher absenteeism*. See Part III, § 4 for further definition and

educational funds were lost due to fund leakages (Bruns, Evans, and Laque, 2012, 97). The focus of this thesis will be on corruption in education in Brazil; however, corrupt practices in education are reflective of a broader problem in Brazilian society (Geddes and Neto, 1992). At the national level, the country faces a multi-billion dollar corruption scandal with state-owned oil company, Petrobras. Investigations brought upon by Operation Car Wash (*Operação Lava Jato*) have yielded high-level arrests of businessmen and politicians, including potential impeachment charges of the president herself. The magnitude of corruption within Brazil is worsened by the estimated 2 billion USD of embezzled funds connected to the FIFA 2012 World Cup (Pressly, 2010). From the education sector to state-owned companies and mega-events, Brazil is no stranger to corruption. In this thesis, I focus on corruption in the Brazilian public education system and answer the following question: What are the potential consequences of education fund leakages taken by municipal and state public officials for Brazilian children studying or residing in the municipalities where leakages occur?

This thesis argues that fund leakages of educational earmarked funds are correlated with negative effects for Brazilian children, which have the most negative effects for racially marginalized children in public schools. I demonstrate this point by asserting three main arguments. The first is that historical education reform has created a structure that enables or facilitates fund leakages with education funds. The second is that fund leakages are highly associated with lower educational attainment, and third that this association is likely to affect marginalized public school students by raising racial inequality, decreasing ability to enter college, and decreasing employment opportunities. My findings most closely resemble those of Ferraz, Finan, and Moreira (2012) in “Corrupting Learning: Evidence from Missing Education Funds in Brazil,” who argue that in the presence of corruption in schools, it is the students that suffer. Taken together, the three consequences impede children from securing their right to education and lead to detrimental consequences for Brazil as the nation continues to develop internationally.

The argument that fund leakages lead to negative effects for Brazilian children will take place over 8 parts. The second part will motivate why the study of corruption in education is of principle importance. Third, this thesis will provide background on existing literature to frame discussion on corruption and education from a human rights perspective. Fourth, I will provide overview of education in Brazil, arguing that the government regime change has set a foundation for large-scale

corruption to occur within education. Fifth, I will present corruption scandals of education fund leakages in four Brazilian states as investigated by federal police. These scandals will motivate analysis in the sixth part, where I argue that corruption is highly correlated with negative effects impeding Brazilian children from realizing their right to education. In this section, I argue that fund leakages are highly associated with decreased educational attainment, which is likely to lead to three negative effects that inhibit children from the realization of their human potential. From this, I demonstrate that leakages in education will likely result in increased racial inequality, and decreased university enrollment and employment prospects for students studying in environments where corruption is present. Seventh, I will build on this analysis and present education policy recommendations to prevent future fund leakages. Eighth, I will conclude.

PART II) MOTIVATION

Despite growing evidence of corrupt practices and embezzlement within education, there has been little academic attention on the direct effects of corruption on the fulfillment of the right to education (Hallak and Poisson, 2002). The expansiveness of corruption in education alone makes the topic area worth investigating to better understand how students and children could potentially be at risk. For example, according to Transparency International (TI) (2013, xviii-xx),² it is estimated that 21 million USD was embezzled from education funds in Nigeria in just 2 years and twice that over a five-year span in Kenya. This can be particularly harmful if funding does not reach younger children. Wenglinsky (279) demonstrates that increased funding in American schools resulted in half a grade increase for 8th graders in comparison to a full grade for 4th graders; however, corruption is not cited as the source for fund differences (Ibid). As such, the cross-section of corruption and education is noteworthy precisely due to the potential damning effects it may have on children (Transparency International, 2013).

One negative effect of corruption in education is lower school performance. This thesis is motivated by Ferraz, Finan, and Moreira (2012) who exploit data on federal auditing in Brazilian public schools. They find that primary school students studying in municipalities where corruption is present score 0.35 standard deviations lower than students in non-corrupt municipalities (Ibid). The

² Transparency International is an international non-governmental organization that monitors corruption worldwide.

study is one of the first directly correlating corruption and school quality (Bruns et al, 2012, 51-54). Another effect is potentially passing on corrupt behavior and attitudes to students. Evidence from Mali and Somalia suggests that a greater frequency of teachers neglecting their instruction obligations led to students mimicking teacher behavior (Mennerick, 1993).³ When teachers avoided their responsibilities, students responded similarly, resulting in lower student discipline and adherence to educational rules (Ibid, 419). The negative effects corruption has on education is further explored in Part III, § 4 of this thesis; however, the two effects taken together show introductory promise that a greater understanding of corruption in education can help motivate policy to increase school performance and promote honest, ethical behavior in children.

Research of corruption in education not only holds potential positive benefits for children, but for countries, too. Uslaner and Rothstein (2012) demonstrate that across 50 countries, those with the most developed education systems in the late 1800's had the lowest levels of corruption present-day. Testing for alternative explanations such as religion, the authors find that increased education is the strongest indicator for reducing corruption (5-6). Kenya, Angola, Russia, and Bulgaria are some countries with undeveloped education systems in the 1870's. Tellingly, the aforementioned countries ranked as some of the most corrupt according to the 2014 TI Corruption Perception Index.⁴ This historical analysis lends itself to the understanding that quality education is one of the most effective means to sustainably combat corruption. Therefore, investing in stronger educational institutions today may help a nation reduce corruption. The information and analysis provided in my thesis is done with the aim of contributing to a future where governments provide quality education for children. In the next **Part**, I define and survey key concepts relating to the right to education, corruption, and how the two intersect.

³ Teacher neglect of school obligations is known as *teacher absenteeism*. See Part III, § 4 for further definition and discussion.

⁴ The Corruption Perception Index measures the level of perceived public corruption in a country by assigning a score of 0 to 100 with 0 as highly corrupt and 100 very clean. Kenya (25th); Angola (19th); Russia (27th); Bulgaria (69th) (Transparency International, 2015).

PART III) LITERATURE REVIEW

Section 1) The Right to Education

The right to education is a human right. The content and aims of what the right to education entails is most comprehensively outlined in Article 13 of the International Covenant on Economic, Social, and Cultural Rights (ICESCR) and Articles 28 and 29 of the Convention on the Rights of the Child (CRC). Both documents specify that education should be pursued on the basis of ensuring each child has the ability to participate freely in society and fully develop his or her talents and skills (Smyth, 2000) To this end, education should be developed in accordance with four normative principles and be i) non-discriminatory, ii) accessible and distributable to populations' needs regardless of group membership, iii) universal for primary and secondary education, and iv) promote human solidarity, tolerance, and ethical development (Ibid).

Of the outlined objectives and characteristics, the right to education has the unique characteristic of being *rights-duplicative*, meaning that increased educational attainment can lead to the procurement of additional human rights (Ibid, 16). This is demonstrated in over 70 countries where increased government education had a positive effect on reducing income inequality. Participants reported that increased educational attainment and reduction of income inequality better allowed them to procure employment and obtain adequate housing and vital resources such as clean water (Gupta, 1998). The rights-duplicative nature of education will become an important part of my analysis. Later in this thesis, I argue that corrupt fund leakages impede educational attainment for children and consequently lead to a decreased likelihood for these children to secure stable economic livelihoods (Part VI, § 4-5). In this sense, corruption may contribute to a decreased ability for children to realize their educational rights, which in turn decreases the likelihood that children may procure other rights. Prior to developing this analysis further, the next section seeks to understand what corruption is.

Section 2) Corruption: A General Overview

Corruption is commonly defined as the abuse of public office for private gain (Nye, 1967; Rose-Ackerman, 1978). In “Defining Corruption,” John A. Gardiner (2002) notes two characteristics about the definition: i) emphasis on an individual in his role as public officer; and ii) emphasis on a public official deviating from normal behavior (Gardiner, 2002). As such, this discussion will only concentrate on how public officials perpetuate corruption in public institutions of education. Corruption is often broken down into at least two categories, grand and petty (Transparency International, 2015). Grand corruption is the distortion of state policies to benefit leaders at the expense of the public. Petty corruption is low to junior-level officials abusing entrusted power, often to the detriment of everyday citizens (Ibid).⁵ In both cases, the public often bears the brunt of corrupt acts. The definition captures multiple types of corruption, monetary and not. One of the most common forms is bribery, or attempting to persuade public officials to act a certain way by offering money, gifts, or other incentives. Other forms are rent seeking, state capture, diversion, misappropriation or theft of state funds. Conversely, shirking, patronage and nepotism are some examples of corruption that are often non-monetary (Ibid). They usually involve the manipulation of state policies or public appointments in favor of personal utility and interest.

There are a multitude of corrupt practices that could affect education. Embezzlement, favoritism, bribes, bypassing of criteria, nepotism, selling of information, and academic fraud are but some (Hallak and Poisson, 2002, 20). The International Institute for Education Planning (IIEP) enumerates some ways educational sectors may be affected in practice, which include but are not limited to: the building of schools, recruitment, promotion and appointment of teachers, conduct of teachers, teacher absenteeism, supply and distribution of equipment, food and textbooks, allocation of specific allowances, and examinations and/or diplomas (Ibid). This thesis focuses on fund leakages in education only. As such, I will concentrate on common corrupt practices associated with fund leakages, such as: embezzlement, fraud, local or state capture, clientelism, nepotism, and shirking. Although corruption has potential to have sweeping negative effects on education, there have been few publications relating corruption *directly* to education (Eicher, García-Peñalosa, and Ypersele, 2009; Hallak and Poisson, 2001). Instead, there is a significant amount of literature on the correlation of education to similar social and economic factors, such as strong economic growth often measured in

⁵ Worth noting is that TI breaks corruption up into three categories—grand, petty, and political (Transparency International, 2013). For this discussion, my central topic will concern corruption at the administrative and sub-national governmental level amongst public officials.

terms of GDP and decreasing societal inequality (Chong and Gradstein, 2007). Economist R.J Barro (2000) finds that high-test scores strongly correlate with real national GDP economic growth, for example. Harold Wenglinsky finds a relationship between targeted school reforms decreasing student performance inequality gaps between students from low socioeconomic tiers and students from more affluent families (Wenglinsky, 1998). The aforementioned studies are two examples that demonstrate the complex and multi-faceted relationship that education bears on society. This relationship is further complicated by corruption, which is explored next.

Section 3) The Corruption-Education Relationship: An Introductory Characterization

In “Education, Corruption, and the Distribution of Income,” authors Theo Eicher, Cecilia García-Peñalosa and Tanguy van Ypersele (2009) offer two explanations characterizing the relationship between education and corruption. Both are consistent with existing literature, yet one may offer more explanatory promise. The question starts from debates on double causality seen elsewhere in academic discussion.⁶ The first is that campaigns curtailing corruption could eventually lead to educational increases since monies once used for corrupt exchanges within governments are freed for human capital investments. The second is that more education increases human capital and informed civic participation, allowing citizens to “punish” and detect corrupt officials more efficiently (224-225).⁷ More succinctly, there may be a link between less corruption and more education (first option), more education and less corruption (second option), or both. To the first, although complex, it cannot be assumed that corruption amelioration in education would be followed by increased funding. Schools may not be allocated additional funds or may not have legal access to them. To the second option, there is a correlation between higher educational attainment and higher human capital and civic participation. Economists Robert Barro and Jong-Wha Lee examine the relationship over a 40-year period in 142 economies, consistently concluding that institutions providing higher quality education imply “more skilled and productive workers, who in turn increase an economy’s output of goods and services” (Barro and Lee 2001, 541). The analysis of Uslaner and Rothstein (2014) strengthens this

⁶ See “Inequality and Institutions” (Chong and Gradstein, 2007). Controlling for education within populations and analyzing Gastil, International Country Risk Guide (ICRG), Freedom House, and World Bank indexes, the authors analyze the biconditionality of institutions causing inequality or vice versa. Chong and Gradstein find both to be true: poor institutions cause higher inequality and societal inequality creates poor inequality.

⁷ See Ferraz and Finan, 2008. This concept of making corrupt practices more transparent to the public will be covered later in **Part VII**.

finding by demonstrating that the strength of a country's education system is one of the strongest predictors of its corruption level. In sum, education has multiple positive effects on society, and the corruption-education relationship can be preliminarily summarized as follows: education holds an inversely associated relationship to corruption. When people are more educated, those societies tend to have lower corruption levels and when there are high corruption levels, populations tend to be less educated.

Section 4) Effects of Corruption on Education

Prior to discussing how corruption has negative effects in education, a slight deviation is necessary. Causes to violations of the right to education are vast and innumerable. Corruption is but one. For the purposes of my discussion, I do not purport that corruption is often the main cause in violations to educational rights, nor do I claim that such violations are always stemmed from corruption. Rather, I acknowledge corruption as an important contributor in a chain of events leading to human rights abuses. All human rights may be compromised due to corruption; however, it does not follow that all corrupt acts violate human rights. To understand how corruption violates human rights, Julio Bacio-Terracino of the Organisation for Economic Cooperation and Development (OECD) offers a three-step framework to establish if corruption causes human rights violations (Bacio-Terracino, 2008). The first step is to identify state obligations and necessary actions to protect, respect, and fulfill the right under question—in this case, education. The second is to analyze the corrupt act under question in the scope and context of the human right. Bacio-Terracino makes a firm distinction between corrupt acts *directly* or *indirectly* causing human rights violations. The act of deliberate intent of the committed action is vital to this distinction. A corrupt act directly violates a human right if it was *deliberately* done to create a violation. An underprivileged Ugandan boy having to pay a bribe to get his teacher to grade his tests is one example. The teacher intends to alter whether or not his student passes despite merit of student performance without additional payment, thus affecting the student's right to accessible and quality education outlined in Article 13 of the ICESCR.

Conversely, a corrupt act *indirectly* violates a human right if the violation derived from a corrupt act, where that act was necessary but not sufficient to bringing forth the violation (Ibid, 4). Imagine that the Mozambican federal government allocated \$100,000 USD to pay teacher salary

backlogs after 4 months of unpaid work. Local education officials instead embezzled the majority of funds for personal gain, compelling teachers to quit and search for more sustainable employment. It could be that the educational rights of the students were violated due to the municipality not providing teachers as necessary educational resources. The resources, though, were not provided in part due to the corrupt acts of local officials. Therefore, the act of stealing thousands of dollars was a necessary component that led to a human rights violation. In sum, corrupt acts may lead to human rights violations directly or indirectly. As I will show next, corruption has various negative consequences on ensuring the fulfillment of the right to education.

Education is an attractive and logical target for corrupt officials due to the sheer amount of annual investments governments make.⁸ Corruption in education takes various forms, and evidence shows that its effects lead to lower test scores and student performance, lower enrollment levels, and increases in socioeconomic inequality. Similar findings in two continents correlate the presence of teacher absenteeism with decreased educational performance vis-à-vis test scores. Teacher absenteeism is defined as teachers not being present in the classroom, being present yet not providing scheduled lessons, or not being available at school when they are expected or scheduled to be (Banerjee and Duflo, 2006). Since teachers fail to perform their duties and responsibilities, teacher absenteeism is considered a type of shirking, or avoiding one's obligations. In Zambia, researchers found that a 5% decrease of teacher instruction time correlated with decreased student learning by up to 8% per school year (Das et al., 2007). Duflo, Hanna, and Ryan (2012) further strengthened the correlation of teacher absenteeism with decreased student learning by taking a time stamped picture of Indian teachers and linking school performance to wages. They found that supervision increased teacher instruction time by 30% and led to a 0.17 standard deviation increase in higher post-competency test scores (1275-6). The effects of corruption are substantial enough to make a quantifiable, consistent negative impact on student performance across cultural and geographical boundaries. The same can be extrapolated with the presence of corruption increasing socioeconomic inequality.

Of the 173 countries with free education, it is estimated that 135 require some form of bribe payment (Transparency International, 54). Over half of all surveyed families in 7 African countries reported bribe payment as a requirement for their child to attend school (World Bank, 2010).

⁸ See Part III, § 1 and *Footnote 1* for government expenditures on education.

Paradoxically, poorer families are disproportionately more likely to pay education bribes despite not being able to afford it. One explanation for this is that wealthier families possess more political or institutional power, yielding them with a greater ability to influence teachers and school personnel (Transparency International, 52-55). This results in students from poorer families being less likely to attend school due to difficulties paying a bribe.⁹ The need to pay bribes in developing countries reinforces income inequality gaps, allowing the rich greater access to education while the same cannot necessarily be said for the poor.

In addition to lower learning attainment and increased socioeconomic inequalities, corruption and specifically embezzled funds lead to decreased school enrollment rates. Reinikka and Svensson (2005) famously explored this by analyzing a Ugandan newspaper campaign targeting educational grant leakages that expose embezzlement of school funds by administrators. They find that newspaper distribution increases school funds by 60% from the mid-1990's to 2001, which lead to an average increase of 20 students per distributed newspaper (Björkman and Svensson, 2010). Taken from multiple countries, it is conclusive that corruption in its various forms leads to negative and undesirable effects on students. Academic literature has given a foundation for the discussion of the realistic effects that fund leakages can have for children's futures. In the next **Part**, I will begin my focus on Brazil. Historical, social, and cultural factors will demonstrate how a fragmented education system and government transitions have permitted corrupt exchanges of public education funds.

PART IV) BRAZIL

Up until this point I have framed corruption from a human rights perspective and provided overview of the intersection of corruption and education. **Part IV** will explore corruption within education by analyzing the country of Brazil in detail. A basic overview of the Brazilian education system and key historical developments is necessary. This is done with the objective of understanding modern day corruption scandals and fund leakages committed by state and municipal public officials. As such, **Part IV** seeks to provide essential country background by answering the following question: What are the Brazilian important historical education policy reforms that have led to or helped facilitate corrupt practices in education? Answering this question will require critical overview of the

⁹ The conclusion that bribe-paying is higher for poorer individuals is echoed in other academic research, such as police enforcement and traffic. See Fried, Brian J., Paul Lagunes, and Atheendar Venkataramani (2010) for more information.

political, economic, and social context of Brazil, which is broken up into five sections. The first will provide important overview of historical and current education structure and law. The second will discuss corrupt financing schemas created by the military dictatorship. The third and fourth will discuss shifting democratic education policies with large block grant funding policies. The fifth will overview accountability mechanisms of education finance and argue that current day policies facilitate corrupt exchanges in education.

Section 1) Law of Directives and Bases (LDB) and Current Education Structure

Education has long proved to be problematic for South America's largest country. With a population of 200 million people divided over twenty-six geographically and socioeconomically diverse states and one federal district, coordinating national policies to educate all citizens is a massive task (Central Intelligence Agency, 2015).¹⁰ Unfortunately, however, Brazil started this task quite late. The Brazilian Ministry of Education (*Ministerio da Educaçãõ*, MEC) was only established in 1930 and during such time largely served the middle class (Kosack, 235-6).¹¹ This changed in 1961 when the João Goulart administration passed the Law of Directives and Bases (*Lei de Diretrizes e Bases da Educaçãõ*, LDB), (Ibid, 245-46). The LDB established the below national guidelines, characteristics, and requirements:

- 1) Decentralization of educational responsibility between the federal, state (Article 10), and municipal governments (Article 11) (Title IV);
- 2) Structure of primary, secondary, tertiary and vocational education (Section I, Chapter II);
- 3) Federal, state, and municipal minimum earmarked education funds based off taxes and GDP per territory;
- 4) Teacher education requirements:
 - a. Primary school teachers must have a secondary degree (Article 52)
 - b. Secondary school teachers must have higher-education degree (Article 53)

¹⁰ Brazil has 26 states and 1 federal district, Brasília. Brasília is not considered a state but shares characteristics that states have.

¹¹ Compare this with the United States of America, which established a national education office in 1867.

5) 180 day academic year (Article 72), (President of the Republic, 1996)¹²

Of all the listed characteristics, the government sought to drastically decentralize education fiscal responsibility from the federal government onto state and municipal governments (Filho, 1993). Pre-LDB, the federal government took primary responsibility for financing education. After the LDB, this changed (Ibid, 401-2). The LDB is still the leading piece of legislation outlining the Brazilian education system today. Decentralization is evident in the current education system, which I discuss next.

The government provides four types of public education: early childhood, elementary, secondary, and post-secondary—or tertiary. Early childhood education is not compulsory and corresponds to education for children age 5 or less. Primary education (*Ensino Fundamental*) is compulsory from first to ninth grade for children ranging 6-14 years old (Stanek, 2013). Secondary education (*Ensino Fundamental*) is three years—intended for 15-17 year olds—and has two routes: academic and vocation or technological. Students wishing to pursue vocational school may have this option as opposed to a more traditional academic track (Ibid, 3-4). Higher education refers to university or college studies with students pursuing a bachelors, masters, doctorate, or professional degree.¹³ Taken together, early childhood, primary, and secondary education is referred to as *basic education (educação básica)* and university or tertiary education is *higher education (educação superior)*, (Ibid).

The federal and sub-national state and municipal governments are responsible for administering all funding for basic and higher education. Basic education is the responsibility of the municipal and state governments. Broken down further, municipal governments are responsible for early childhood education while primary education is the responsibility of municipal and state governments. In contrast, state governments are responsible for administering secondary education, including vocational and technological schools (United Nations Educational, Scientific, and Cultural Organisation, 2010). Higher education is the prime responsibility of the federal government and is not augmented by municipal or state financial support. Conversely, when necessary, the federal

¹² Full access to the LDB in Portuguese can be found here: http://www.planalto.gov.br/ccivil_03/Leis/L9394.htm. All translations of the LDB are the author's ("LEI N° 9.394, DE 20 DE DEZEMBRO DE 1996")

¹³ This thesis addresses fund leakages at the public primary and secondary levels. As a result, I will not address higher education with the exception of analysis in **Part V**.

government intervenes to increase educational funding when state and municipal governments cannot meet minimum expenditures (Ibid). The result of decentralization of fiscal responsibilities creates for a complex funding schema to ensure all states—poor or not—reach student spending requirements (Bruns et al, 2012, 4-5). This will be discussed in detail in **Section 4** as such a schema gives way for fund leakages to occur. The following *Table* summarizes the above information of the current education structure.

Table 1: Public Education Structure in Brazil

General programme	Specific programme	International denomination	Grades/Years	Theoretical age	Authority	
Basic education	Early childhood education	Initial education	4 years	0-3	Municipalities	
		Pre-school	2 years	4-5		
	Primary education (compulsory)	Elementary education	1st grade	6-10	6-10	Municipalities, States
			2nd grade			
			3rd grade			
			4th grade			
		Lower secondary school	5th grade	11-14		
			6th grade			
			7th grade			
	Secondary education	Upper secondary education	8th grade	15-17	15-17	States
9th grade						
Vocational and technological education	Upper secondary education	Forms 1-3	15-17	15-17	States	
Higher education	Sequential courses (specific)		1,600 hours	18 or older	Federal Government	
	Complementation courses		Variable			
	Graduate	Bachelor's	2,400 hours			
		Higher Diploma	2,800 hours			
		Technological Diploma	1,600 hours			
	Postgraduate	Master's	2 years			
		PhD	2 years			
Professional degree		3 years				
Specialization courses (certificate)		360 hours				

Source: Ministry of Education, Brasil (2008); UNESCO, 2011

Section 2) The Military Dictatorship and A Corrupt Structure of Education Finance

The decentralized education structure outlined in the LDB was largely dismantled in 1964 under military dictatorship rule.¹⁴ A waning economy, high inflation, and threats of socialism provoked the military to re-centralize most authority and resources back to the federal government, where regime militants held absolute power. Introduction of highly repressive Institutional Acts suspended civil and political rights and granted the regime arbitrary power (Kosack, 253-257). Under these Acts, political parties were abolished; the regime legally had authority to remove elected officials at will; and state laws and citizens' rights were suspended for 10 years (Guerchon, 1971, 265-269). The human rights violations during this time were innumerable. The 2014 Truth Commission estimates that at least 191 people were murdered and 243 disappeared.¹⁵ Many were tortured, including current president incumbent Dilma Rousseff herself (Watts, 2014). Ever since, Brazil has struggled to reconcile the widespread human rights abuses that occurred during this time ("Brazilian truth commission: Abuse 'rife' under military rule", 2014).

Pernicious human rights violations stemming from legally binding Institutional Acts resulted in waning popularity of the military dictatorship. A weakened economy and dissatisfied civilian base put the dictatorship in a vulnerable position. In response to dissatisfaction, the military utilized education as a valuable resource in exchange for support to strengthen its strained relationships with the elite, working, and poor classes (Kosack, 257-260). The government completed this process by establishing strong corrupt relationships with elite business owners to build schools for the purported benefit of the poor. This was done in two steps. First, the military revised LDB requirements and made primary enrollment mandatory. This swelled enrollment rates at increases of 15 million additional primary school students by 1972, most of whom resided in the undeveloped northeast regions (Ibid, 260). To compensate for enrollment, the government strategically awarded construction and production contracts to the wealthy elite who benefited tremendously under military rule. In the northeast state of Bahia alone, 20,000 schools were built (Ibid). Most, however, were extremely poor quality. The World Bank (1979) reported that of newly built schools, 70% housed 8 grades in a one-room building. One report offers a common illustration of a school environment in the northeast (31):

¹⁴ The military dictatorship lasted from 1964-1985 (Guerchon, 1971).

¹⁵ The Brazil Truth Commission released a 2,000 page report after a three-year investigation of human rights abuses committed during the military dictatorship from 1964-85. Over 1,000 testimonials documented the names of over 400 people that disappeared, were murdered, or tortured for political reasons ("Brazil Truth Commission: Torture, executions amounted to state policy", 2014) .

The school is a one-room house where groups of students (officially in different grades) sit and stare. The instructor is unlikely to have advanced beyond basic level education and is paid less than the minimum wage. She is supposed to teach the entire program of studies in all grades, but her knowledge of the subjects is, at best, a product of sheer repetition. The room is overcrowded. There are no textbooks: some volumes were produced but have not been distributed; they are too expensive. Unquestioning repetition of the teacher's words is equated with learning. When this is achieved, the reward is moving to the intermediate or back rows in the classroom (a sign of grade promotion). The price of failure is to stay in the same row or drop out. The magnitude of the problem is large.

By making primary school enrollment a requirement, the military sought to contract with construction companies belonging to elite individuals to strategically reinforce military relationships with the wealthy. As wealthy individuals benefited, children did not. MEC statistics during military rule demonstrate that only half all funds actually reached schools. 40% of these funds were earmarked for “discretionary and off-budget projects”, which made corrupt contracts easily distributable with little accountability (Plank, 1990). What appeared as a policy to educate children was, in reality, a ploy to subsidize the elite and shore up political support (Plank, Sobrinho, and Xavier, 1996). This was done not only with elite business owners, but through political teacher appointments to staff new schools. During the military regime the economy suffered influxes of debt and inflation, making teaching jobs a coveted resource as they offered a stable, albeit low, source of reliable income. Accordingly with the influx of school construction, the demand for teachers increased by 256% from 1964-1989 (Kosack, 256). To staff Brazil’s new schools, the military did away with LDB teacher requirements mandating secondary school degrees.¹⁶ As a result, teacher appointments were awarded in exchange for political support regardless of teachers’ education levels. To this end, the military’s strong clientelistic network of business owners and school employees gave way for pervasive corruption to occur within education.

Section 3) A Shift to Democracy and Education Reform

Military reign did not last, though. Democracy soon came with the presidency of Fernando Henrique Cardoso in 1995 (Power, 2010, 219-220). During the military dictatorship, government services and resources often benefited the wealthy, as is evidenced with government usage of educational funds to build clientelistic networks of political support. Cardoso, and subsequently the

¹⁶ See page 12 #4 with LDB reference to Article 52 and Article 53.

Worker's Party (*Partido de Trabalhadores*, PT)¹⁷, understood this and sought to shift the beneficiaries of government reforms and policies from the wealthy to poor and working class individuals (Hawkins, 2011). After military rule, the Brazilian education system was left in shambles and in dire need of reform (Kosack, 274-283). Due to education finance fragmentation outlined in the LDB (see *Table 1*), poor northern states and municipalities were unable to pay for adequate education systems while southern states and municipalities fared better when financing their schools. The result was a deeply unequal education system where impoverished regions received little funding due in part to the corrupt partnerships outlined in **Part IV, §2** (Brown, 2002). As a result, increased educational development was concentrated in wealthier southern states, further exacerbating educational differences nationwide.¹⁸ Recognizing educational inequalities, the Cardoso administration sought to introduce a new education finance structure that would equalize the experience and quality of education for all Brazilians (de Moura Castro, 2000, 295). The remaining Sections of this **Part** will outline this finance structure and its replacement and demonstrate how current Brazilian finance education policy permits, if not promotes, corrupt exchanges.

Section 4) Education Policy Reform: FUNDEF and FUNDEB

In 1998 the Fund for Maintenance and Development of Basic Education and the Valorization of Educational Professionals (*Fundo de Manutenção e Desenvolvimento da Educação Básica e da Valorização dos Profissionais da Educação* FUNDEF) was established. FUNDEF had two primary functions: (i) to equalize educational expenditures across states regardless of wealth; and (ii) establish a federal spending minimum per student. These two aims were achieved through the creation of a pool of federal funds. The municipal, state, and federal governments put money into one large funding pool (Das Chagas Fernandes, 2003, 7-8). States contributed three-fifths of state revenues, equating to 25% of total revenues. Funds from all 26 states and federal district were then redistributed back to municipalities and states based on the enrollment rates of students in grades 1-8. Where states could

¹⁷ PT is the largest political party in Brazil. It was founded in 1989 out of union and labor networks, to which previous president Luiz Inácio Lula da Silva ("Lula") was an important part. PT continues to be the majority party in power in Brazil (Hawkins, 2011).

¹⁸ The educational context post-military dictatorship is greatly simplified in this section. Due to constraints I cannot elaborate on educational differences in the North and South further; however, the characterization of education as presented is sufficient for understanding motivations for the creation of new education finance policy. For more information on North South differences, see "Race, Gender and Regional Labor Market Inequalities in Brazil" by Peggy A. Lovell in the *Review of Social Economy*, Vol. 58, No. 3.

not meet minimum spending limits, the federal government would use FUNDEF funds to top off state and municipal education funds. FUNDEF top offs meant that not all states received the same federal expenditures (Pinto, 2002). States that could meet federal spending limits independent of FUNDEF funds would not receive additional money. Most states receiving substantial amounts of extra funding were in the North (Bruns et al, 2012, 4-6). Of redistributed monies, 60% by law go to teacher salaries. The finance equalization scheme led to substantial enrollment increases and has been considered a huge success amongst Brazilian policy makers and international education experts alike (Bruns et al, 2011, 246). Primary school enrollment rates in the vulnerable North and northeast soared from 77% in 1998 to 94% in 2008 (Ibid, 5). FUNDEF was doubtlessly considered to be an effective policy as increased enrollment rates alone demonstrate how the money pool was able to reallocate resources to the most disadvantaged areas to increase education enrollment (Gordon and Vegas, 2004, 3-8).

Despite successes, FUNDEF had two downfalls: (i) its mandate only covered funding for grades 1-8, leaving out secondary schools; (ii) it had an expiration date in 2006 (Kosack, 282-283). Regarding (i), higher primary school graduation rates oversaturated secondary school enrollment rates beyond capability. In addition, despite improvements at the primary school level, secondary schools were very poor quality. This meant that there was a very high likelihood students would drop out or graduate functionally illiterate (Davies, 2006).¹⁹ Recognizing both the successes and concerns of FUNDEF, it was extended in 2007 with replaced with a similar fund, FUNDEB. The Fund for the Maintenance and Development of Basic Education and Valuing of Education Professionals (*Fundo de Manutenção e Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação*, FUNDEB) was codified into law by Constitutional Amendment No. 53/2006 (Fundo Nacional de Desenvolvimento da Educação). FUNDEB keeps the same basic structure of FUNDEF but extends the same equalization scheme and funding reallocation by establishing spending minimums per student for early childcare (*crèches*), secondary schools, and some indigenous groups (Ibid). FUNDEB spending minimums are summarized in *Table 2* and overall nationwide redistributed expenditures in *Figure 1*. As shown in *Figure 1*, 2013 FUNDEB funds totaled an impressive R117.6 billion, roughly 29 billion USD using 2013 exchange rates (Bruns et al, 2012, 6). With such an abundance of money to be siphoned off into local economies, the possibilities for embezzlement and misappropriation are

¹⁹ **Part VI** of this thesis will review the low quality of secondary schools.

seemingly endless.

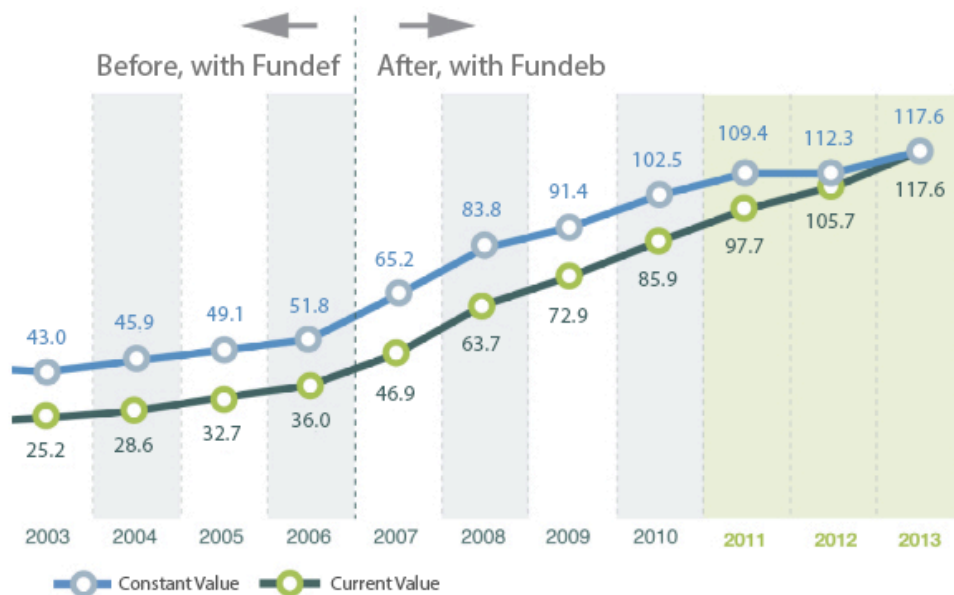
Table 2: Minimum Federal Spending Levels Per Student in 2010

FUNDEB-Mandated 2010 Spending Levels (2010 Rs)		
Level	Rs/student	USD/student
Crèche	1,558	846
Preschool	1,770	961
Primary Education	1,416	769
Secondary Education	1,840	1000
Adult and Youth Education	1,132	615

Source: World Bank, Brazilian Ministry of Education

Note: In 2010, the Brazilian government exceeded the above minimums and spent roughly \$2605 per secondary student. The funding pails in comparison to the OECD country average of \$9,313/secondary student. Of 65 analyzed countries, Brazil ranks in the bottom 10 behind only India, Mexico and Columbia (Organisation for Economic Co-operation and Development, 2014).

Figure 1: Education & FUNDEF/FUNDEB Expenditures from 2003-2013 in Brazilian Currency



Source: FNDE

Source: Instituto Lula, National Fund for Development of Education²⁰

²⁰ For more information, visit: <http://www.brasildamudanca.com.br/en/educacao/federal-government-transfers-fundeb-funds>

Section 5) Accountability Measures

The federal government foresaw potential opportunities to embezzle FUNDEB funds and responded by establishing monitoring groups as outlined in Articles 70, 71, and 74 of the Federative Constitution of the Republic of Brazil (Controladoria-Geral da União, 2012). The groups monitor all municipalities and the local spending of federally allocated funds, which is done in small councils. Each municipality is required to establish an Accompaniment and Social Control Council, or CACS (*Conselho de Acompanhamento e Controle Social do FUNDEB*), which at minimum must contain 9 members as defined below:

- 2 local government representatives
- 1 municipal secretary of education member
- 1 representative of teachers in basic education
- 1 representative of a technical and/or administrative public servant of basic primary school
- 2 parent representatives
- 2 student representatives

Source: Freire, “The Responsibility of the Group of Accompaniment and Social Control of FUNDEB”, 2014

Noteworthy is the civilian and municipal nature of each CACS group. Four parent and student representatives are tasked with monitoring FUNDEB expenditures. The minimum threshold only requires that such individuals are representatives of students and parents without further stipulations requiring a background in accounting, economics, or auditing (Freire, 2014). This means that according to Brazilian law almost half of the minimum group constituency does not need a finance background in so long as they fit the criteria. Also worth noting is a lack of federal or state advisory personnel to monitor fund distribution. The Controller General of the Union (*Controladoria-Geral da União*, CGU)—the federal agency tasked with the corruption prevention—offers an explanation for why this is.

According to the CGU’s accompanying manual for CACS members, *Live Eye (Olho Vivo)*, the citizen at the municipal level plays a vital role in holding local government accountable (Ibid, 20). CACS composition consists of citizens and subnational government officials as to not impose federal authority on the autonomy of municipal and state governments. As such, CACS relies heavily on a strong local citizen base to ensure that federal FUNDEB funds are transparently allocated to schools (Pontes, 2015). Unfortunately, however, the groups do not realize the aspirations of the CGU as many

are ineffective. They are either captured by mayors or do not meet frequently enough to actually monitor usage. CACS members are not financially compensated, leading to one reason why meetings are infrequent. Ironically, members in the government charged with embezzlement are likely to be the very individuals tasked with monitoring its usage (Ferraz, Finan, and Moreira 2012, 6). This allows mayors and public officials to either bypass or use CACS groups as instruments to facilitate corrupt exchange. The CACS, therefore, are ineffective at best and a contradiction in terms at worst. As I will show in the next section, with a decentralized finance system lacking effective oversight, education is highly vulnerable to widespread corruption.

PART V) CORRUPTION SCANDALS

The sociopolitical history detailing educational policy from the start of the MEC in the 1930's onward gives us context to understand corruption within 21st century education. **Part V** will detail four education corruption scandals post-FUNDEF and FUNDEB implementation. From hereon out, usage of the term *corruption scandal* (or *scandal*) refers to a federal investigation conducted by federal police and CGU officials of the misuse of FUNDEB educational funds by public officials. In short, the scandals expose fund leakages of FUNDEB money by public officials. The objective of overviewing corruption scandals is to better understand the methods utilized to embezzle funds, the magnitude of embezzlement and fraud in dollar amount, and most importantly, how such scandals potentially have negative effects on students studying where corruption occurs. States for review in the discussion are selected according to three criteria. The first is whether the state was federally investigated for FUNDEB corruption accusations. The second is level of marginalization in the population. In this discussion, *marginalization* refers to black, brown, or indigenous individuals with non-European ethnic origins.²¹ The third is Human Development Index (HDI).²² The second and third criteria are chosen for two reasons. The first is to better understand how racially marginalized children might be affected differently by fund leakages than populations of European descent. The second is to assess how

²¹ Issues of race and marginalization are far more complicated than characterized in this thesis. I have no intention of minimizing nuances of racial origin or group; however, for the purposes of my discussion, the term *marginalization* will refer to the three aforementioned groups above. Because Brazil is so racially diverse and roughly half of all Brazilians consider themselves brown, I will count states with higher black populations as having higher levels of marginalization. See the work by Edward Telles of Princeton University for a richer discussion on race dynamics in Brazil.

²² The Human Development Index is a composite index created by the United Nations Development Programme (UNDP) to measure the overall social and economic development of an area by factoring in statistics regarding education, longevity, and economic levels. It is a number of 0-1, with 0 being very low and 1 being very high.

children residing in states with less social, economic, and educational resources might be affected in comparison with wealthier states more likely to provide services for its residents. As such, the HDI of the chosen states is an important indicator regarding a state's ability to potentially provide resources and opportunities for children residing in those areas. It should come as no surprise, however, that states with higher marginalized populations are usually the ones with lower HDI indexes. Regarding the two criteria, the North/South divide is noteworthy. Brazil is often characterized as two parts with the North viewed as poor and marginalized and the South viewed as wealthy and European (Telles, 2004, 29-31). Due to economic promise, most European immigrant populations settled in the South after the federal government opened its borders post-slavery (Ibid). The scandals illuminate important divisions between the North and South regions; however, due to constraints I will only elaborate on such differences when necessary.²³ Two states with low HDIs and two with high HDIs are represented.²⁴ Regarding marginalization, one high, one low, and two moderate states are selected. Moderate means that more than half of the population considers themselves brown yet black populations are relatively low, below 10%.²⁵ This yields the following combinations:

- Low HDI; High Marginalization
Poor social & economic conditions; majority black/brown population
- Low HDI; Moderate Marginalization
Poor social & economic conditions; moderate black/brown populations
- High HDI; Low Marginalization
Good or adequate social & economic conditions; high white majority population
- High HDI; Moderate Marginalization
Good or adequate social & economic conditions; moderate black/brown populations

Chosen states to be analyzed from highest HDI to lowest are: São Paulo (0.782; 2nd)²⁶; Amapá (0.7; 12th); Bahia (0.66; 22nd); and Maranhão (0.639; 26) (United Nations Development Programme, 2013). Subsequently, the corruption scandals will be presented in this order. For symmetry and comparative purposes, ideally a low HDI and low marginalization (poor social & economic conditions; high white majority) state would be represented; however, given realities of where corruption scandals occur and

²³ See *Race in Another America: The Significance of Skin Color in Brazil* by Edward Telles (Princeton University Press) for more information regarding racial inequalities between the North and South.

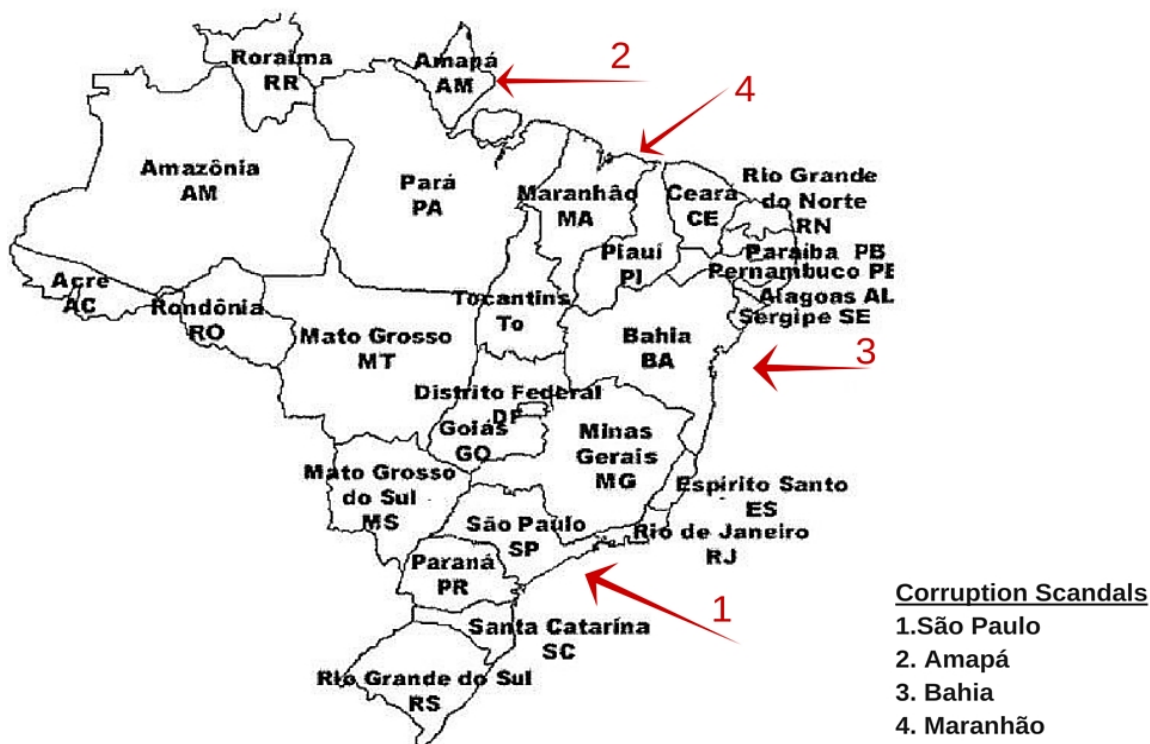
²⁴ By “high” and “low”, I mean high and low comparable to other Brazilian states. HDI comparisons are restricted exclusively within Brazil unless explicitly stated otherwise.

²⁵ Part VI, § 2 provides more specific racial classification breakdown.

²⁶ Format: (HDI; Rank from 1st to 26th of all Brazilian HDI composites)

previously stated concerns with the North/South divide, it appears unlikely to encounter such a situation. The rest of this **Part** will outline the corruption scandal for each of the four states and provide brief background information. **Part VI** will utilize information from the scandals and analyze how this affects the ability of children to obtain an education and seek returns to their education, concluding that corruption has a high likelihood to negatively situate children in their future. *Image 1* geographically shows the states I will analyze.

Image 1: Map of Corruption Scandals of FUNDEB Fund Leakages



Section 1) São Paulo: High HDI; Low Marginalization

São Paulo, located in the southwest of Brazil, is the most populous and wealthiest Brazilian state. The capital, São Paulo, boasts the largest GDP per city not only in Brazil, but in all of South America, too. The state economy consists largely of financial and exchange institutions, including the

largest stock exchange in South America (“Brazil’s Closest Match”, 2014). Of the state’s 11.4 million inhabitants, 61% consider themselves white and a combined 37% brown or black (Instituto Brasileiro de Geografia e Estatística, 2010).²⁷ In 2015, São Paulo and 3 other Brazilian states were targeted by federal investigators in Operation *Águia de Haia* for suspicion of embezzling educational FUNDEB funds (Teixeira and Menezes, 2015). The municipalities of São Paulo, Guaratinguetá, and Cruzeiro were investigated for missing fund leakages (“Operação *Águia de Haia*: prefeitos levavam 10% dos contratos de projetos da educação”, 2015). Specifically, public officials were suspected of being involved with business owner Kells Belarmino of Ktech Key Technology (Ibid). The company provides administrative computer software to teachers, schools, and students. MEC officials paid Belarmino for the creation of the Portal of Education, a software for teachers and students.²⁸ Estimated market prices for comparable software are \$80 USD per month. News sources quoting the federal police estimate that public officials paid Ktech Key Technology roughly \$32,000 USD per month using FUNDEB funds (“Operação *Águia de Haia* Faz Buscas Em Cruzeiro E Guará Contra Desvios Na Educação”, 2015). Belarmino has since been arrested for duplicating fraud schemes in Bahia and Minas Gerais; however, to date no public officials in the three aforementioned municipalities in São Paulo have been arrested for corruption charges (Aguiar and Pitta, 2015).

Section 2) Amapá: High HDI; Moderate Marginalization

Amapá is a small northern state bordering French Guiana and is the second least populous in Brazil. It contains less than 1 million people, 97% of which live in or around the capital port city of Macapá, since 90% of the territory is covered in rainforest (Instituto Brasileiro de Geografia e Estatística, 2014). The majority of residents live in poverty with 36% subsisting on \$20 USD per day (Villaverde, 2015). Despite poverty levels, Amapá has the 12th highest human development index in the country, exceeding indexes of wealthier states such as Bahia and Minas Gerais (United Nations Development Programme, 2010). The state economy is comprised of a large service industry and is known for exportation of gold, iron, lumber and timber (“Economia do Amapá”). Three-fourths of the population consider themselves brown or black, leaving roughly 24% as white (Instituto Brasileiro De Geografia E Estatística, 2010). With high poverty levels, Amapá receives large amounts of FUNDEB

²⁷ The Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística, IBGE*) compiles the most detailed statistics on race and ethnic background. In this thesis, I use the 2010 Brazilian Census.

²⁸ See Appendix 2 for abbreviations.

subsidizes. It is estimated, for example, that municipalities received over \$260 million USD from 2007-2010 (Tito, 2010).

In 2010, a team of 600 federal police commenced Operation Clean Hands (*Operação Mãos Limpas*), a state-wide corruption investigation, amounting to 18 *temporary* prison and 94 search and seizure warrants.²⁹ The Operation's mission was to investigate and detain individuals involved with corruption of FUNDEB funds totaling roughly \$59 million USD. Those arrested included the governor, ex-governor, wife of the ex-governor, and the President of the State Audit Court (Mendes, 2015). The governor and other involved parties were accused of eliciting false contracts with the intent of embezzlement ("PF Cumpre Busca E Apreensão Em órgão Público Do AP – Geral," 2011). For example, the Secretary of Education paid a private security company more than \$68,000 USD per month for emergency security services of school premises for over three years. Incriminating evidence such as public photographs of confiscated cash and goods helped in linking public officials to corruption charges of embezzling large cash lump sums (Santiago, 2015). *Image 2* shows publicly released photographs of goods stolen using FUNDEB funds. To date public officials have not been sentenced to prison as initial warrants only permitted temporary arrest. In commemoration of Operation Clean Hands, citizens of Amapá annually host large social gatherings and movie screenings against the misuse of public funds by corrupt officials. Events to pressure local governments to arrest previously investigated officials persist to no avail ("Há 4 anos era deflagrada a 'Operação Mãos Limpas'", 2014).

²⁹ In other words, the officials originally arrested were later released.

Image 2: Operation Clean Hands confiscated materials used as evidence of misuse of FUNDEB funds



Source: Globo 2014³⁰

Section 3) Bahia: Low HDI; High Marginalization

Bahia is on the West coast of Brazil north of Minas Gerais. It is the wealthiest northern state with a non-white majority population and is eighth richest overall. Of its 15.1 million inhabitants, 62% self-identify as brown and 16% as black (Instituto Brasileiro De Geografia E Estatística, 2010). The state economy and income generation comes from a large supply and production of chemicals, minerals, petroleum deposits, cocoa, and soy (Bahia | State, Brazil,” 2014). As of 2015, the federal police are currently investigating Bahia as part of Operation Águia de Haia. Of the 30 targeted municipalities spanning 3 states in the Operation, roughly 25 are in Bahia. (Teixeira and Menezes, 2015). The prime target of the statewide investigation focuses on congressional Deputy and pastor Carlos Ubaldino. Ubaldino and other public officials are being accused of operating criminal groups to embezzle FUNDEB funds by creating fake contracts with businesses to purchase educational goods. Contracts overinflate prices and 10% of funds are kicked back to public officials and 3% to intermediaries (“Fraude envolvendo prefeituras e Fundeb somaria R\$ 57 milhões, diz PF,” 2015). One company under investigation is Transport Union Brazil (*União Brasil Transporte*) (Teixeira and Menezes). In 2015, head of Transport Union Brazil, Alberto Youssef, was imprisoned on corruption charges in connection with Operation Lava Jato, the national investigation of corruption connected to state-owned petroleum company, Petrobras (Segal, 2015). To date Deputy Ubaldino, other legislative

³⁰ “Globo” is one of the leading national newspapers in Brazil.

members, and mayors have not been arrested (“PF desarticula grupo que desviou R \$57 milhões do Fundeb,” 2015).

Section 4) Maranhão: Low HDI; Moderate Marginalization

Maranhão is situated in northeast Brazil and has a population of 6.8 million. It is one of the poorer states in Brazil, falling in at 16 out of 26 (Instituto Brasileiro De Geografia E Estatística, 2010). The service and industrial sector comprise the largest portion of its GDP with palm trees and timber production as primary sources of income. In all, the economic contribution of Maranhão to the total GDP of Brazil is less than 1% (“Indústria responde por 15,6% da economia do Maranhão, diz CNI”, 2014). In 2008, the federal police and CGU investigated public officials for the misuse of FUNDEB funds in Operation Bird of Prey III (*Operação Ave de Rapina III*). There have been 4 Bird of Prey operations, each targeting different public bodies in different states. 200 federal police and 30 CGU analysts investigated individuals in the municipality of Ribamar Fiquene and city of Imperatriz on public fund diversion schemes for the duration of a year and a half (“Operação Da PF Prende Quadrilha Que Desviava Verbas Do MA – Política,” 2009). Police posed undercover as officials from the MEC and the Ministry of Health and discovered that over 15 million reais, 4.05 million USD, was lost due to fraud. Falsification of documents, setting up and contracting fake businesses, approval of false bills, setting up false bank accounts, and falsification of signatures were common means of fraud. The hastiness of municipalities to sign, approve, and deposit funds with undercover CGU and police personnel substantiated evidence and ended in the detainment of 24 public officials in April 2009 (Ibid).

Four years after Operation Bird of Prey III, Lidiane Leite da Silva took office as mayor of Bom Jardim, a small municipality of 41 thousand people 170 miles from the state capital, São Luis.³¹ Mayor Leite fled Bom Jardim in late August 2015 on allegations of embezzling 4 million USD in educational funds (“Ex-prefeita de Bom Jardim (MA) Lidiane Leite da Silva foi solta após 11 dias presa por suspeita de desvio na verba destinada á educação,” 2015). Investigations were prompted after parents persistently complained that their children were not receiving school meals, which many poor families

³¹ Leite de Silva is notoriously known as the “Whatsapp mayor” since she delegated orders to her mayoral cabinet by using Whatsapp while living in the capital, São Luis (Alexander, 2015).

rely on. In the village of Turi do Augusto, teachers in a school of 50 said their students never received a school meal when Leite was mayor (Pressly, 2016). Leite later turned herself into the Federal Public Ministry of Maranhão in mid-October 2015 on the condition that she not serve a state prison sentence. Instead, Leite negotiated to be under 24-hour supervision by municipal firefighters. As I write this thesis, Leite is on probation (“Fugitive Brazil Mayor Lidiana Leite Hands Herself in,” 2015). It is not clear whether she will be mandated to reimburse officials for embezzled funds or serve official jail time (Araya, 2015).

Image 3: The School in Turi do Augusto that did not receive school meals under ex-mayor Leite



Source: Pressly, Linda. British Broadcasting Corporation.

The following table presents the information of all four corruption scandals. The information is consolidated to facilitate comparisons when analyzing how these four scandals might have adverse effects on children, which I will do next.

Table 3: Overview of Federal Investigations of Misuse of FUNDEF/FUNDEB Funds

State	Marginalization	HDI	Affected Municipalities/Cities	Federal Investigation	Year	Est. Yield of Corruption in USD	Forms of Corruption	Outcome
São Paulo	Low	High	3 municipalities	Operation Águia de Haia	2015	~2 million	Fraud, embezzlement, nepotism	No arrests
Bahia	High	Low	25 municipalities	Operation Águia de Haia	2015	14-15 million	Fraud, embezzlement, nepotism	No arrests; ongoing
Amapá	Moderate	High	Statewide	Operation Clean Hands	2007-10	59 million	Fraud, embezzlement	No arrests
Maranhão	Moderate	Low	2 municipalities, 1 city	Operation Bird of Prey III	2008	6.55 million	Fraud	24 arrests, 1 detainment

PART VI) ANALYSIS

Section1) Methodology

All four of the corruption scandals illuminate the types of practices public officials participate in to embezzle funds. Common to all is that public officials divert education funds for personal gain by committing some version of fraud. Falsifying documents and contracts or entering into partnership with both false and genuine companies is common. This is the case with Kay KTech Technology in São Paulo and Transport Union Brazil in Bahia, which illustrate the willingness of public officials to enter into corrupt arrangements with private parties. Adding an additional party could potentially complicate matters as tracking such companies and their documentation may be harder to do. Another common feature of the scandals is when they happened. *Table 3* illustrates that of the four states under consideration, three experienced corruption scandals of a considerable dollar amount in 2015 alone, 2 of which continue to receive media attention into 2016.³² The only exception is the case of ex-mayor Leite in Bom Jardim, Maranhão. Although Bom Jardim was not federally investigated in connection to a larger operation, the embezzled 4 million USD was scandalous enough to make international

³² Scandals in Bahia and Maranhão are still being investigated.

headlines.³³ The two common features of fraud and the fact that scandals are committed current day demonstrate that embezzling education funds is a viable and realistic possibility, if not an easy one. Not only that, but as shown in *Table 3*, arrests are infrequent, potentially increasing the appeal to embezzle funds and commit fraud. In total, the amount of documented missing funds in all investigations equates to 83 million USD. This dollar amount only reflects numbers released by the federal police to the local media. It seems likely, therefore, that dollar amounts are higher given the legal nature of first needing to secure search and seizure warrants to investigate embezzlement. The magnitude of such mismanagement is seen when calculated in terms of student enrollment. With this money, 103,750 additional primary school students could have enrolled in school.³⁴ This equates to closing 133 medium size urban primary schools for one year due to these four fund leakages alone (“Portal do FNDE—Projeto Espaço Educativo Urbano-12 Salas,” 2015).³⁵ Harkening back to **The Right to Education**, (Part III, § 1), denying children the opportunity of schooling violates the principles that education should be accessible and universal in scope. As such, impeding children from accessing these resources to secure their educational rights constitutes a human rights abuse. If such levels of corruption have considerable damage for over one hundred thousand students in hypothetical terms, how do these fund leakages affect enrolled students? More specifically, what are the effects of the presence of corruption and fund leakages on students and their ability to utilize education to increase employment and economic opportunity?

I will answer this question in two steps. The first step is to analyze the educational attainment in areas where the corruption scandals occur (or occurred) to see if there is a correlation between educational attainment and the presence of corruption. The second step will continue with conclusions from the first and analyze how this might impede children from realizing their full human potential, or skills and talents. For the first step, I utilize data from the Index of Basic Education and Development (*Índice de Desenvolvimento da Educação Básica*, IDEB). IBED is the principal national indicator of

³³ See “Fugitive mayor Lidiane Leite turns herself in”, 30 September, 2015, BBC, <http://www.bbc.com/news/world-latin-america-34400836>

³⁴ Calculated with FUNDEB-mandated 2010 spending levels; see *Table 2* for reference.

³⁵ This calculation is based off of a 2015 urban school project construction manual. Specifications are for a 12 classroom urban school fitting 780 students in total. Based on this estimate, the number of *rural* schools that would equate to would be substantially higher as rural schools tend to be smaller in size. See <http://www.fnde.gov.br/programas/par/par-projetos-arquiteticos-para-construcao/projeto-12-salas> for more information.

educational quality and quantifies student learning with national test scores and passing rates.³⁶ Scores are offered at the national, state, municipal, and individual school level.³⁷ For each score, the MEC provides realistic score goals that schools should be able to meet, if not surpass. This results in scores of two kinds: (i) the actual IBED score received; (ii) the IBED goal set by the MEC. The index is a score of 0-10, with 10 signifying the highest level of comprehension and passing rate and 0 the worst. As a representation, the scores take the following form: Actual Score/Goal Score. 3.8/4.4 is an example, meaning that the municipality actually scored a 3.8 and did not meet its MEC goal of 4.4. Scores reflect the aggregate educational performance of two tested groups—late primary and lower secondary school students. This corresponds to first-fifth and fifth-eighth grades, respectively.³⁸ To analyze fund leakage and educational attainment, I examine the aggregate IBED scores and MEC goals of all the municipalities where corruption scandals occurred in **Part V**. If the presence of corruption is correlated with lower educational attainment for students residing in areas affected by fund leakages, I expect to see that municipalities would not be meeting their MEC IBED score goals.

This is the finding exactly. Of the analyzed 31 municipalities that were investigated for fund leakages in the four states, I found that there is a 68% likelihood that primary and secondary schools did not meet their educational IBED goals but rather decreased in educational performance. As IBED tests primarily mathematics and Portuguese language arts, such findings illustrate that where fund leakages occur, students frequently have a lower probability of meeting their educational goals. On average, municipalities did not meet their goals by 0.4 points. This equates to a drop of comprehension in material by the equivalent of one letter grade in the United States (Ibid). The majority of the time, therefore, where there are fund leakages, there is also a decreased ability to comprehend school material and this is negatively affected in school grades. Such a correlation provides compelling evidence that the presence of corruption and fund leakages is strongly associated with decreased educational attainment in at least two vital areas, mathematics and language comprehension. *Table 4* represents this information in full. The only exception is the state of Amapá. Data of municipalities in Amapá were not included as Operation Clean Hands as the investigation primarily targeted key

³⁶ IBED uses Brazil Test “*Prova Brasil*” and the System of Evaluation of Basic Education (*Sistema de Avaliação da Educação Básica SAEB*) to composite national education scores.

³⁷ All the data used in the **Analysis** is public and taken from the IBED database, found here: <http://ideb.inep.gov.br/>. All cited IBED scores in this thesis come directly from this website with primary concentration on the municipal level. Data manipulation and calculation is done exclusively by the author.

³⁸ See *Table 1* of this thesis for grade and school level breakdown.

individuals—not municipalities. As such, this data is *not* included; however, it is worth noting that Amapá *did not* reach its MEC statewide defined IBED score goals for both first-fifth and fifth-eighth grades. The statewide scores for Amapá are 3.8/4.2 for first-fifth grades and 3.4/4.4 for fifth-eighth grades.³⁹

Table 4: Education Attainment in Municipalities where Corruption Scandals and FUNDEB Fund Leakages Occur

State	Municipality	2013 IBED Municipal Score	Below	Above	Met
Maranhão	Ribamar Riquene	3.8/4.0 (below) 3.6/4.1 (below)	2		
	Imperatriz	4.5/4.8 (below) 3.8/4.2 (below)	2		
	Bom Jardim	4.3/4.1 (above) 3.2/3.4 (below)	1	1	
Total			5	1	0
Bahia	Salvador	4.0/3.8 (above) 3.0/3.3 (below)	1	1	
	Camaçari	4.3/3.8 (above) 3.6/3.3 (above)		2	
	São Domingos	4.5/4.1 (above) 4.2/4.1 (above)		2	
	Ruy Barbosa	3.1/3.9 (below) 2.9/3.0 (below)	2		
	Água Fria	3.1/3.5 (below) 1.9/3.2 (below)	2		
	Capela do Alto Alegre	4.0/4.0 (met) 3.4/3.6 (below)	1		1
	Mairi	(no data) 3.4/3.6 (below)	1		
	Feira de Santana	3.4/3.9 (below) 3.1/ 3.7 (below)	2		
	Buerarema	2.8/3.8 (below) 2.6/3.7 (below)	2		
	Ilhéus	3.6/4.0 (below) 3.2/3.7 (below)	2		
	Itabuna	4.22/4.2 (below) 3.3/4.2 (below)	2		
	Camamu	3.5/3.8 (below) 2.9/3.1 (below)	2		
	Una	4.1/4.6 (below) 4.6/4.9 (below)	2		
	Ibirapitanga	3.4/3.7 (below) 2.7/3.4 (below)	2		
	Camacan	3.5/3.7 (below) 3.4/3.3 (above)	1	1	
	Mirangaba	4.2/3.6 (above) 2.9/3.1 (below)	1	1	
	Uavá	4.1/4.6 (below) 4.6/4.9 (below)	2		
	Teixeira de Freitas	4.4/4.8 (below) 3.6/4.0 (below)	2		
	Paramirim	5.1/4.1 (above) 3.7/4.2 (below)	1	2	
	Livramento da Nossa Senhora	4.0/4.6 (above) 3.1/4.4 (below)	1	1	
	Cotegipe	3.8/3.3 (above) 3.5/3.0 (above)		2	
	Nova Soure	4.0/3.9 (above) 3.1/ 2.9 (above)		2	
	Itapicuru	3.3/3.9 (below) (no data)	1		
Cipó	4.7/4.0 (no data)		1		
Ribeira do Pombal	4.9/4.1 (above) 3.8/3.6 (above)		2		
Total			30	17	1
São Paulo	Guaratinguetá	5.2/5.5 (below) 4.9/5.0 (below)	2		
	Cruzeiro	5.3/5.4 (below) 4.7/4.8 (below)	2		
	São Paulo	(no data) 4.4/5.0 (below)	1		
Total			5	0	0
Amapá	NA	NA	0	0	0
Total			40	18	2
Percentage			68%	30%	2%

Source: IBED

³⁹ Had Operation Clean Hands in Amapá targeted municipalities as opposed to specific individuals, it is likely that the probability of lowered educational performance in the presence of corruption would have been higher given the statewide scores did not reach their MEC IBED goals.

Such findings of decreased educational attainment in the presence of fund leakages beg the following question: What are the consequences of these leakages on educational attainment in realistic terms? Put another way, how does the strong association between leakages and decreased educational performance affect children in municipalities where corruption occurs? Unfortunately, these questions as posed make children the victims of abuse by the governments and officials employed to serve them. The two questions together will be analyzed by utilizing national background of current day Brazilian political and social context. As such, I will argue that fund leakages in education are likely to result in three negative, sequential consequences for children. The first is that increases in racial inequality are likely. The second is that marginalized students will be less likely to enter university on merit. The third will build on the second, arguing that there will be less likelihood for marginalized children to overcome poverty to procure returns on education vis-à-vis employment opportunities. Combined, when the three consequences hold, they will likely lead to a negative aggregate outcome for the future of Brazil, motivating the need for current day educational finance policy reform.

Section 2) Racial Inequality Increase

Of the four states analyzed, racial demographics are broken down as follows:

- Maranhão: Brown 66.7%; Black 6.4%; White 26%
- Bahia: Brown 62%; Black 16%; White 21%
- São Paulo: Brown 30.5%; Black 6.5%; White 61%
- Amapá: Brown 69%; Black 6.5%; White 24%

Source: Brazilian Institute of Geography and Statistics, “Censos Demográficos: Indicadores Sociais Municipais: uma análise dos resultados do universo do Censo Demográfico Tabelas de Resultados”, 2010.⁴⁰

The statistics show that three analyzed states have a majority of brown or black residents. Maranhão, Bahia, and Amapá all have majority populations with brown or black residents totaling over 70% (Instituto Brasileiro De Geografia E Estatística, 2010). Such information implies that children under consideration belong to marginalized groups. As such, findings from the municipal performance of schools affected by fund leakages show that educational attainment generally is lower in states with marginalized students. *Table 4* demonstrates this fact. Of supplied data, only two states, Bahia and São

⁴⁰ To access the source directly, visit:

http://www.ibge.gov.br/home/estatistica/populacao/censo2010/indicadores_sociais_municipais/indicadores_sociais_municipais_tab_pdf.shtm

Paulo, received IBED scores of 5 or above. Between the both, São Paulo more consistently received 5's while Bahia only received one in all the examined municipalities. The aggregate IBED scores of the four states show São Paulo's dominance in high educational performance. Statewide in 2013, Maranhão averaged 3.85; São Paulo 5.4; Bahia 3.85 and Amapá 3.6. On average, then, students from São Paulo are performing over 1 letter grade higher than their peers in northern states. These scores contribute to the conclusion that educational attainment is worse in states with high densities of marginalized populations. This conclusion is supported generally when contrasted with other states whose majority demographic is white or of European descent. Rio de Janeiro and Minas Gerais both have majority white populations and enjoy comparatively high statewide IBED test scores of 4.7 and 6.2, respectively. Taken in context of the nation-wide Brazilian aggregate IBED score of 5.2, states with highly marginalized populations did considerably worse. Such differences demonstrate that brown and black children are put at higher risk of having lower educational performance and attainment than students belonging to states with white majorities. This is important because despite São Paulo not reaching its IBED goals in municipalities where fund leakages are present as shown in *Table 4*, those students still did considerably better than black or brown students in states where corruption is present. The following suggests that the presence of fund leakages has greater potential to hurt the educational development and attainment of brown and black students than it would with white students. This means fund leakages are likely to increase racial inequalities in terms of having greater negative impact on brown and black students than white students belonging to states with majority white populations. Inequalities between races create various negative effects, and the next section will examine how decreased educational attainment for marginalized children can negatively affect their ability to enter university.

Section 3) Greater Difficulty Entering University

One reason racial differences in educational quality and attainment matter is that education is rights-duplicative, or a means to secure opportunities for employment and greater quality of life (Shinn, 369).⁴¹ Steps to procuring opportunities leading to increased life quality are often predicated on a student's ability to obtain a university degree (Fredriksson, 1997). In this section, I argue that decreased educational attainment of marginalized students as associated with the presence of fund leakages caused by corruption is likely to decrease the ability of students to enter university on merit.

⁴¹ See Part III, § 1

My argument hinges on two reasons. The first is that public school education is poor quality. The second is that poor quality education does not enable students to compete with private school students on university entrance exams. To the first, the previous section concluded that fund leakages are likely to increase racial inequalities by negatively impacting marginalized students in comparison to white ones in the public school system. This conclusion is made worse by the already poor quality of public school education in Brazil, as is illustrated by international test scores.

Every three years the Organisation for Economic Cooperation and Development (OECD) tests public school students in 65 countries on math, science, and reading with the Programme for International Student Assessment (PISA) (“Program for International Student Assessment (PISA) Overview”). Consistently, despite Brazil’s educational expenditures exceeding nations such as the United States, Japan, and South Africa, Brazil’s PISA test scores are abysmal. In 2012, Brazil scored 58th on math, 59th on science, and 55th on reading. The OECD reports that slightly less than half of Brazilian students perform at baseline proficiency levels in reading. This translates to students not being able to analyze or comprehend a text beyond identifying the main idea (Organisation for Economic Co-operation and Development, 2012). Such low student performance has in part led the World Bank to refer to Brazilian public schools as “drop out factories” as 30% of all primary school students drop out before completing school and 25% of all secondary school students drop out before graduation (Bruns et al, 2012, 47). For those that graduate, it takes many primary school students 11 years on average to complete 8 years of schooling, and for secondary school students, roughly 15% are 25 years old at graduation (Ibid). Coupled with previous analysis, not only are brown and black students affected more in the presence of fund leakages than white students, but the poor quality of education at the public level confirms that when corruption happens in public schools, there is a high probability that the quality of education that these students receive is actually very low.

A low quality education decreases marginalized students’ abilities to enter university for two reasons. First, students able to attend private school are more likely to take competitive spots in universities that would greatly benefit marginalized students. Given the statistics presented above, parents recognize the poor quality of public education and opt to enroll their children in good quality private schools when financially possible (Kosack, 260). With black and brown populations representing 73% of those in poverty, the private school student body is overwhelmingly white

(“Affirming the Divide”, 2012). These students do considerably better on secondary school exams. Test scores of the 2005 Evaluation System of Basic Education (*Sistema de Avaliação da Educação Básica*, SAEB) for math and science substantiate this claim. Overall, on a scale of 0-500 with 500 being a perfect score, northeast private school students received a 292 in comparison to 226 of northeast public students, a 66-point difference. This is consistent in southern Brazil, where public school students received a score of 255 and private school students a 307 (Rodrigues De Oliveira, Belluzzo and Toldo Pazello, 2009, 5-6). Such differences are important in the context of university entrance requirements. As shown in *Table 1*, the federal government is responsible for financing universities, which it does fully. In other words, all 97 federal tertiary institutions are free of charge. This makes them fiercely competitive. Not only are such universities advantageous since they come at no cost, but they are regarded as Brazil’s most prestigious institutions of higher learning. To apply, students are judged primarily on their test scores of the mandated entrance exam, the *vestibular* (Marteletto, 2012). Even though only 13% of secondary students attend private secondary schools, these students usually perform much better on the *vestibular*. This is reflected in federal enrollment statistics vis-à-vis racial demographics. For example, in specialized schools such as medical schools, roughly 90% came from private schools with 75% that are white (Marcus, 2015). In 2000, roughly 80% of all university students were white as were 98% at the University of Brasilia in 2012 (Public Broadcasting Station, 2007). The federal government responded to university racial inequality by passing Law No. 12,7111, a national affirmative action law mandating 50% of all federal university entrance be reserved for marginalized and/or public school students by 2016. These students apply to a special application pool with less strict standards, meaning such students do not enter university on the same merit system as the standard pool (Ibid).

The resulting poor quality public education as well as competition from more educated private school students makes it insurmountably more difficult for public school students to enter university on their own merits alone without affirmative action. Since fund leakages are more likely to affect the educational attainment of marginalized students vs. white students, it is unlikely that such students could compete with privately educated individuals to enter university. Instead, affirmative action is a more likely avenue given low-test scores of public students in corrupt municipalities. As such, by the time these students apply to university, they are disadvantaged at least three key times. The first disadvantage is the already low quality of the public school system. The second is that this quality is

lowered even further when corruption is present. The third is that this hurts test scores and the ability to perform well on exams such as the *vestibular* in comparison to private school students.⁴² Such consistent lowering of education quality hurts students that are victims of fund leakages when applying to university, and the next section will outline what types of consequences this may have on employment opportunities.

Section 4) Decreased Employment Opportunity

The last two sections have concluded that fund leakages at the primary and secondary education level can lead to an increase of racial inequalities and decrease of educational attainment, which has negative potential consequences at the university level. Thus far, the focus of my analysis has been marginalized children affected by the presence of corruption in school—both at the primary & secondary and federal university levels. In this section, I will continue my emphasis on these children but will concentrate on how the last two sections affect quality of life vis-à-vis future employment prospects. Given the two negative consequences of increases to racial inequality and decreased probability of entering university for marginalized students learning in the presence of corruption, I argue that it is unlikely these students⁴³ will have employment opportunities that allow them to escape disadvantaged economic situations.

The first reason there is decreased likelihood for marginalized children to escape a disadvantaged economic situations is because education and the labor market have long been plagued with racism. A strong foundation of racial discrimination dates back to 1888 when Brazil became the last country to abolish slavery. During that era, the government was highly influenced by popular sentiment of African and black inferiority and subsequently encouraged Europeans to enter Brazil while restricting access to Africans (Birdsall and Sabot, 1996). The government promoted campaigns of inter-racial breeding to whiten the country's phenotype, to which the concept of *racial democracy* was vital. Racial democracy is a concept specific to Brazil. Although complex, it is the attitude or idea

⁴² Andrabi Tahir explores challenges the merits of private and public school divides in his working “Are Bad Public Schools Public ‘Bads?’ Test Scores and Civic Values in Public and Private Schools.”

⁴³ For clarity's sake, when referencing “students” or “children” I mean marginalized children of brown or black race who studied/study in schools and municipalities affected by FUNDEB fund leakages caused by corruption. I will explicitly note otherwise if the term is used differently.

that because Brazil has never had laws or policies against inter-racial mixing—e.g. schooling or marriage—but instead promoted racial mixing, the country is not only racially homogenized, but it has *overcome* racism altogether (Hanchard and Winant, 1999).⁴⁴ Under the guise that Brazil is not a racist culture, many racist and discriminatory practices have occurred, and wage discrimination and education differences verify this. On average white Brazilians make twice as much as Afro-Brazilians, who are twice as likely to be service workers than whites.⁴⁵ Of whites that are service workers, however, they get paid twice as much for the same services. Employment and wage prospects are reflective of education completion rates (do Valle Silva and Hasenbalg, 1999; dos Santos, 2006). White Brazilians are three times more likely to complete high school and college than blacks (do Valle Silva and Reichmann, 1999). These statistics reflect racial divides fueled by historical traditions of African inferiority post-slavery, which becomes problematic when looking at employment prospects for students studying where corruption is present.

Sociologist and scholar on Brazilian race dynamics Edward Telles explains that as Brazil started to more rapidly develop at the turn of the century, returns to education vis-à-vis employment opportunities increased sharply at the university level but decreased at the secondary level. This means that marginalized students in corrupt school environments are not likely to benefit only from finishing secondary school. They must finish university, too (Telles, 126-7). Statistics show that this is not the case, however. The National Institute of Educational Studies and Searches (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Texeira, INEP*) annually compiles data on university matriculation rates per region.⁴⁶ *Table 5* illustrates university regional matriculation rates. The marginalized students under consideration in the corruption scandals discussed in **Part V** are in the North, northeast, and South regions.

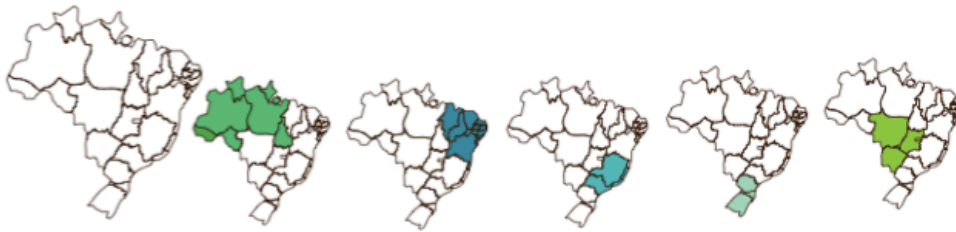
⁴⁴ This is contrasted with racism in the United States. Paulo Freyre, a famous Brazilian sociologist and anthropologist, visited Waco, Texas and observed American laws favoring school segregation and anti-miscegenation. Upon viewing the United States, he concluded that Brazil had overcome racism as the population was able to coexist and mix unlike the U.S.

⁴⁵ “Service worker” means most blue-collar jobs, such as electricians, construction workers, doormen, custodians, etc.

⁴⁶ <http://portal.inep.gov.br/web/censo-da-educacao-superior/resumos-tecnicos>

http://download.inep.gov.br/download/superior/censo/2012/resumo_tecnico_censo_educacao_superior_2012.pdf

Table 5: 2012 Matriculation Rates Per Region



Region	2012	Percentage
North	404,727	6.80%
Northeast	1,213,519	20.50%
Southeast	2,816,086	47.50%
South	941,738	15.90%
Center-west	547,768	9.20%

Source: Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Texeira
Technical Summary, 2012

Comparatively, *Table 5* illustrates that students from São Paulo are at least twice as likely to matriculate in universities than students from Bahia, Maranhão, and Amapá. When combined with analysis by Edward Telles, this means that half of all students in the South are able to seek employment opportunities that are likely to increase economic prosperity. The same cannot be said for students in Amapá. Roughly 10% of all residents are unemployed as jobs growth slows. For example, in February 2015 alone, 27,500 construction and agriculture job opportunities closed, making it harder for the 10% of northeast students with university degrees to procure adequate employment opportunities (Martello, 2015). As northern states such as Amapá face harsher economic realities than richer states such as São Paulo, it is more difficult for northern marginalized students to escape poverty given the low educational attainment correlated with corruption and a poor local economy. Therefore, it appears unlikely that marginalized students will be able to obtain educational returns vis-à-vis employment opportunities.

Section 5) Education Quality and the Future of Brazil

Until this point, analysis has demonstrated how a strong correlation between fund leakages and decreased educational attainment can have realistic negative effects for children studying in corrupt environments. I have argued that decreased educational attainment associated with corruption is likely

to result in an increase of racial inequalities, decreased ability of such students to enter university, and less likelihood for said students to overcome poverty vis-à-vis employment opportunities. As such, negative consequences impeding children from obtaining an education is likely to make pursuing other rights or opportunities more difficult, demonstrating the *rights-duplicative* nature of education (Part III, § 1). Given these three negative consequences, a natural question emerges. What does this mean for the future of Brazil as a country? I explore this question in this section, arguing that should Brazil continue on the path examined in **Part VI** (§ 1-4) of this thesis, it is improbable that Brazil will be able to sustain itself as it fails to develop its own citizen base to meet domestic needs.

Examination of the supply and demand in the Brazilian economy demonstrates that complications in the Brazilian education system fail to meet the demand of employers seeking capable, talented individuals. This is evident in the shift of the Brazilian labor force in the past decade. Studies by the World Bank demonstrate that there has been a 10% decline in blue-collar jobs and a steady increase of white-collar jobs. An increase of non-manual, blue-collar jobs reflects economic shifts towards a need for managerial, professional skills—what researchers call “new economy skills” (Bruns et al, 25). New economy skills require non-repetitive, higher cognitive functioning abilities to solve non-linear problems and work in group settings to solve more complex issues. Not surprisingly, Brazilians possessing these skills are often college educated and are among the wealthiest. With shrinking demand for blue-collar jobs often requiring repetitive or manual tasks, there is a need for education that reflects the labor market demands and the new economic shift (Ibid, 28-31). This reinforces not only the need for increased access to college education for all Brazilians, but an education system that fosters a strong foundation to develop high-level cognitive skills. By analyzing fund leakages alone and the effects this potentially has on children in a poor quality education system, my hope is that it is clear that Brazil is far from meeting its own labor demands.

To this, economists agree that the Brazilian population is not sufficiently educated enough to sustain its own market needs. Overall, analyzing education levels and skills, it is estimated that approximately 22% of the Brazilian population is not ready to enter the labor market (Manrique, 2010). Observation from employers substantiates the estimates of economists. In a study that interviewed over 40,000 employers in 39 countries, roughly 60% of Brazilian employers stated that they were unable to find qualified work candidates. Professions lacking qualified individuals include

those requiring developed skills in mathematics, science, management, finance, and law (Anderson, Baldwin, Lovallo, and Pumariega, “Will a Shortage of Qualified Labor Derail the Brazilian Economy?”, 2012). An inadequate education system that insufficiently prepares Brazilians for the work force has forced employers to take matters in to their own hands. Engineering, chemical, healthcare, and agribusiness companies are but some examines of the kinds of companies that have created their own educational programs to train professionals in advanced studies.⁴⁷ The government has augmented a lack of trained Brazilians by actively recruiting foreigners. In 2014, 94.6% of work visas went to skilled foreigners, totaling more than 230,000 individuals (Rinaldi, 2014). Ricardo Paes de Barros, Undersecretary for the Secretariat of Strategic Affairs of the Presidency of the Republic of Brazil estimates that Brazil needs 10 times the current amount of skilled foreigners to sustain market needs (Paes de Barros, 2015). Fittingly, Paes de Barros holds postgraduate degrees from two American universities, the University of Chicago and Yale University (“Richardo Paes de Barros”). As the Brazilian economy shifts and its public education system consistently demonstrates failure to prepare its citizens to fill needed vacancies in the labor market, the country is in need to rectify complications in its education system.

The above analysis provides strong evidence to suggest that the growth and evolution of the Brazilian economy has outpaced the nation’s ability to educate its citizens to enter the work force as skilled individuals (Badkar, 2014). Not only has the economy outpaced the education system, but it has done so at a substantial rate. The Boston Consulting Group estimates that in less than 5 years, Brazil will have a shortage of 8.5 million skilled workers (Boston Consulting Group, “Global Workforce Crisis Puts \$10 Trillion at Risk in World Economy, Study Shows”, 2014). This is the equivalent of not adequately educating or preparing the entire population of Switzerland, Bulgaria, or Benin (World Bank, 2014). By running the risk of not providing services to its own citizens vital for sustainable economic growth, the Brazilian federal government will likely be forced to rely on outside skilled foreigners to take its highest paying employment vacancies. (Rinaldi, 2014). To avoid shortage of skilled labor complications in a changing economy, it will be necessary to introduce substantive education reform. One such necessary reform will need to address complications arising from corruption. In this thesis, I have demonstrated how the presence of corruption and documented fund leakages is highly associated with decreased educational attainment by analyzing MEC data from

⁴⁷ Orteng, Odebrecht, and Novartis Biociencias S.A. are examples of companies with their own education programs.

corrupt municipalities in São Paulo, Amapá, Maranhão, and Bahia. The importance of this association is contextualized in what this realistically means for children and their futures. I have demonstrated that increases to racial inequality, decreased ability to attend university, and decreased employment prospect are likely to occur. As children are the future population of any country, any negative effects associated with corruption and fund leakages in education are doubtless to affect the future of their country, too. Given the amount of available funds not reaching schools, this is unacceptable and warrants change. To this end, I will propose policy recommendations to mitigate the aforementioned complications spelled out in the **Analysis** part of this thesis. Recommendations are not meant to comprehensively resolve Brazil of education concerns. Rather, they are a first, necessary step in the right direction to ensure that all school funds reach students to aid their life development and not the selfish desire of corrupt public officials.

PART VII) POLICY RECOMMENDATIONS

Section 1) The Problem and Target for Reform

If fund leakages are associated with lower learning attainment, recommendations seek to guarantee that all intended education funds go to schools and the students they serve. Prior to proceeding with recommendations, identifying where the problem lies is key. **Part V** of this thesis outlining the 4 corruption scandals of FUNDEB funds shows that millions, 83 to be exact, are lost to fraud. Common methods to commit fraud involve over-invoicing, as is the case in Bahia with Transport Brazil Union (Part V, § 3); fake contracts such as KTech Key Technology in São Paulo (Part V, § 1); or mayoral and state capture of councils monitoring FUNDEB as is evident in Amapá where the governor, ex-governor, and the State Audit Court conspired to steal funds (Part V, § 2). The problem, then, is not that municipalities and states are not receiving funds from the federal government. They are.⁴⁸ Rather, the problem lies in local and state officials failing to transfer these funds to schools. Therefore, reform should concentrate here. To mitigate fraud, public officials must be held accountable in a transparent manner for their usage of FUNDEB funds. This is the prime responsibility of municipal monitoring councils, CACS.⁴⁹ As structured; however, they are

⁴⁸ See *Figure 4* to review total allotted federal funding to states and municipalities.

⁴⁹ See Appendix 2 for abbreviations.

ineffective.⁵⁰ Accordingly, Brazil should aim to ensure transparency and accountability of school spending by public official at the state and municipal level.

Three specific cultural considerations must be factored in given Brazil’s unique historical and cultural context. The first is recognition that mayoral or higher-ranking political capture of CACS groups is common and poses a large threat to the integrity of the CACS councils. This is present in three of the four corruption scandals—Amapá, Maranhão, and Bahia. For example, Malrinete Grahada, ex-vice mayor under Lidiana Leite of Maranhão, explains that Leite prohibited her from attending education finance meetings (Pressly, 2016). The second element that must be factored into recommendations is a general respect for separation between the federal and local governments. Recall that the CGU CACS publication *Olho Vivo* claims that the reason CACS members are comprised exclusively of local members is out of respect for the autonomy of local and state governments.⁵¹ Later in my recommendations I argue against this consideration in favor of auditing and financial competence to adequately ensure accountability; however, at minimum some respect for lower government autonomy ought to be maintained. The third consideration is the role of private citizens. The Brazilian Constitution clearly upholds the value of public participation, stating that, “all power emanates from the people” (Constitution of the Federative Republic of Brazil). This is true in CACS, where the federal government places high expectations on citizen involvement as a method to monitor funds. Any reform consideration, therefore, must engage the public in a substantive manner. In total, recommendations must address FUNDEB spending transfers by public officials to schools at the local level to ensure CACS groups can effectively monitor with consideration of: i) local capture of CACS groups; ii) government autonomy; and iii) public involvement. To this end, the following policy recommendations are outlined per each involved group.

Section 2) Policy Recommendations

a) CACS Structural Reforms

- i. Mandate financial or economic background and expertise of all CACS members
- ii. Make financial remunerations for CACS members to incentivize meetings

⁵⁰ See Part IV, §5 of this paper and pages 6-7 of “Corrupting Learning: Evidence of Missing Education Funds in Brazil” by Ferraz, Finan and Moreira for more information on ineffectiveness of CACS groups.

⁵¹ See p. 19-20 of this thesis.

- iii. Require meeting participation and attendance

b) Federal Government Reforms

- i. Contract one CGU auditor or representative into each CACS group to hold local groups accountable to the federal government
- ii. Make the CGU manager of the group
- iii. Carry out punishment charges of corrupt public officials to set example of clear consequences for criminal activity

c) Public Official Reforms

- i. Mandate the submission of all receipt copies to CACS groups per month
- ii. For charges more than a defined amount of money, require public officials to quote multiple companies offering similar services before purchase⁵²

d) CACS Monitoring Reforms

- i. Generate monthly expense reports and disseminate on public websites to promote transparency
- ii. Submit “report cards,” or evaluations of how public officials spend money and where, at least twice a year detailing public spending by officials; have the report cards rate municipalities on transparency; distribute to schools, public officials, the CGU and federal government, and public government websites for public view

e) School Reforms

- i. Create advisory committee or designate at least one individual to work in conjunction with CACS
- ii. Have the committee or individual be the liaison between the school and CACS; have said individual(s) be the point of contact to receive municipal report cards or expense reports outlined in **d (ii)**
- iii. Have the committee or individual relay suspicion of corrupt acts to the CACS

f) Public Engagement

⁵² Each municipality should dictate the appropriate amount of money.

- i. Have the CACS parent and student representatives work with the CGU manager to generate an annual letter or short report to the public to be distributed to parents in the municipality concerning spending

Section 3) Discussion

All policy reforms are an introductory attempt to incorporate successful worldwide anti-corruption measures tailored to a Brazilian context. The reforms aim to deter public officials from abusing FUNDEB funds by strengthening CACS groups and their improved cooperation with schools and the public through the emphasis of three intervention approaches.⁵³ The first is information gathering. In order to diagnose the problem or see how public officials are deviating from responsible use of FUNDEB funds, it is necessary to first gather information. Policy reforms **c (i)-(ii)** and **d (i)-(ii)** requiring receipts, expense reports, and public reports, or “report cards,” build a foundation for CACS groups, schools, and the public to understand where money is going in a more transparent manner. With this information, CACS groups can begin to monitor spending patterns. Public officials easily bypassing CACS groups to commit fraud motivates a need for a strong anti-corruption group that officials will see as a direct threat. As sits, CACS groups are weak; however, lessons from other international anti-corruption agencies or monitoring campaigns may prove useful.⁵⁴ The Brazilian CGU shows introductory promise of being taken seriously as a national anti-corruption agency. In all four of the analyzed scandals, the CGU publicly is helping or helped investigate fraud alongside the police.⁵⁵ Investigations by the CGU have had considerable positive effects on the public in helping deter corruption vis-à-vis municipal elections. Ferraz and Finan (2008) demonstrate that corrupt public officials were almost 20% less likely to be reelected after the CGU publicly released the corrupt practices of said officials. This study—among others (Di Tella and Schargrotsky, 2003)—illustrates that anti-corruption groups or campaigns can potentially be a real threat to public officials. Unfortunately, however, CGU investigations only take place after the corrupt acts occur. To target corruption in education, it may prove useful to introduce at least one CGU member into CACS as a

⁵³ Bruns et al (2011) survey accountability education measures in their book “Making Schools Work” and conclude that a multi-faceted approach to utilizing various accountability measures works best to optimize school success (239).

⁵⁴ Hong Kong’s anti-corruption agency, the Independent Commission Against Corruption, is one example. It has been credited for transforming Hong Kong into one of the cleanest cities in the world for its anti-corruption measures involving law enforcement, prevention, and community education (Skidmore, 122-127)

⁵⁵ See **Part V**.

preventative measure to deter officials from stealing FUNDEB funds as noted in **b) Federal Government Reforms**. 22 studies in 11 countries examining how the public engages in corruption in the education sector found that the public helps give a “voice” or “client power,” which can be leveraged against public officials and in turn increase the success of education accountability measures (Bruns et al, 212). This was the case in Uganda (Reinikka and Svensson, 2005) and the Philippines with publicly sharing textbook purchases led to increased school resources (Khattari, Ling, and Jha, 2010). Both studies demonstrate that the public can help make officials more accountable to schools. Alongside Brazil’s commitment to public engagement, the public has been included in the reforms twice. The first is to share CACS finding with the public as shown in **d (ii)**; the second, **f) Public Engagement**, aims to compel community members to take part in making public officials responsible with a report specifically targeting the public. Taken together, it is my hope that the reforms have potential to guarantee that children receive the educational resources intended for them.

PART VIII) CONCLUSION

In this thesis, I demonstrate that fund leakages of Brazilian education funds committed by public officials have negative effects for children. Analysis of current day corruption scandals in four states amounting to over 83 million USD illustrate that corruption in education is a pervasive phenomenon affecting Brazilian societies. By examining MEC data, I found that 68% of all municipalities where fund leakages took place (or are currently taking place) suffer from decreased educational attainment. Given the strong association between fund leakages and lower learning outcomes, my analysis explores what this realistically could mean for the trajectory of a child’s life into adulthood. I find that decreased educational attainment is likely to lead to an increase of racial inequality, greater difficulty entering university, and greater difficulty to seek returns to education vis-à-vis employment opportunities. With Brazil’s shifting economy demands in favor of higher analytical skills, children studying in the presence of corruption are at risk. It is my hope that this thesis contributes to a greater body of research demonstrating that corruption in education deters countries from developing the skills and talents of its citizens. Not only does this have negative effects for individuals in securing their rights to education, but failing to educate a population will unlikely sustain the economic work force demands of a country. Consequently, Brazil’s education policy must change. I argue that current monitoring groups are ineffective in deterring fund leakages and offer policy recommendations to

promote information gathering, a strong anti-corruption group, and public engagement. Education is a means to help children develop to their fullest potential. As shown in this thesis, corruption in education poses a threat to this development. For the future well-being of children and the nations they live in, cutting corruption out of education is imperative.

APPENDIX 1) ABBREVIATIONS ⁵⁶

CACS: Accompaniment and Social Control Council (*Conselho de Acompanhamento e Controle Social do FUNDEB*)

CGU: Controller General of the Union (*Controladoria-Geral da União, CGU*)

CRC: Convention on the Rights of the Child

FUNDEB: Fund for the Maintenance and Development of Basic Education and Valuing of Education Professionals (*Fundo de Manutenção e Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação*)

FUNDEF: Fund of Maintenance and Development of Basic Education and the Valorization of the Magistrate (*Fundo de Manutenção e Desenvolvimento do Ensino Fundamental e da Valorização dos Profissionais da Educação*)

GDP: Gross Domestic Product

HDI: Human Development Index

IIEP: International Institute for Educational Planning

IBED: Index of Basic Education and Development (*Índice de Desenvolvimento da Educação Básica*)

IBGE: Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*)

INEP: National Institute of Educational Studies and Searches (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Texeira*)

ICESCR: International Covenant on Economic, Social, and Cultural Rights

LDB: Law of Directives and Bases (*Lei de Diretrizes e Bases da Educação*)

MEC: Ministry of Education (*Ministerio da Educação*)

OECD: Organisation for Economic Co-operation and Development

PISA: Programme for International Student Assessment

PNAD: National Household Sample Survey (*Pesquisa Nacional por Amostra de Domicílios*)

⁵⁶ Author's note: All abbreviations are based on the language they originated from. This means all sources coming from Brazil will be referenced as they would in Brazilian Portuguese. For those in Portuguese I will include my own English translation where applicable.

PT: Worker's Party (*Partido dos Trabalhadores*)

TI: Transparency International

UNDP: United Nations Development Programme

UNESCO: United Nations Educational, Scientific and Cultural Organization

USD: United States Dollar

APPENDIX 2) TABLES, FIGURES, AND IMAGES

TABLE

1. <i>PUBLIC EDUCATION STRUCTURE IN BRAZIL</i>	14
2. <i>MINIMUM FEDEARL SPENDING LEVELS PER STUDENT IN 2010</i>	19
3. <i>OVERVIEW OF FEDERAL INVESTIGATIONS OF MISUSE OF FUNDEF/FUNDEB FUNDS</i>	29
4. <i>EDUCATIONAL ATTAINMENT IN MUNICIPALITIES WITH FUND LEAKAGES OF FUNDEB FUNDS IN CORRUPTION SCANDALS</i>	32
5. <i>2012 MATRICULATION RATES PER REGION</i>	39

FIGURES

1. EDUCATION & FUNDEF/FUNDEB EXPENDITURES FROM 2003-2013 IN BRAZILIAN CURRENCY	19
--	----

IMAGE

1. MAP OF CORRUPTION SCANDALS OF FUNDEB FUND LEAKAGES	23
2. OPERATION CLEAN HANDS CONFISCATED MATERIALS USED AS EVIDENCE OF MISUSE OF FUNDEB FUNDS	26
3. THE SCHOOL IN TURI DO AUGUSTO THAT DID NOT RECEIVE SCHOOL MEALS UNDER LEITE DA SILVA	28

Bibliography

- Andrabi T, Bau N, Das J, Khwaja A. “Are Bad Public Schools Public ‘Bads?’ Test Scores and Civic Values in Public and Private Schools.” Working Paper.
- “Affirming a Divide.” *The Economist*, January 28, 2012. <http://www.economist.com/node/21543494>.
- Aguiar, Rodrigo and Paula Pitta. “Empresário suspeito em esquema de fraude é preso na Bahia.” *Atarde.com.br. Portal A TARDE*. Accessed November 2, 2015. <http://www.atarde.com.br/politica/noticias/1696386-empresario-suspeito-em-esquema-de-fraude-e-presos-na-bahia>
- Ahmad, Eatjaz, Muhammad Aman Ullah, and Muhammad Irfanullah Arfeen. “DOES CORRUPTION AFFECT ECONOMIC GROWTH?” *Latin American Journal of Economics* 49, no. 2 (November 1, 2012): 277–305.
- Alexander, Harriet. “Brazilian Police Searching for 25-Year-Old Mayor Accused of Corruption and Running Her Town via WhatsApp,” August 31, 2015, sec. World. <http://www.telegraph.co.uk/news/worldnews/southamerica/brazil/11834582/Brazilian-police-searching-for-25-year-old-mayor-accused-of-corruption-and-running-her-town-via-WhatsApp.html>.
- Allison, Michael and Damarys Canache. “Perceptions of Political Corruption in Latin American Democracies.” *Latin American Politics and Society* 47, no. 3 (2005): 91–111.
- Anderson, Christopher J., and Yuliya V. Tverdova. “Corruption, Political Allegiances, and Attitudes toward Government in Contemporary Democracies.” *American Journal of Political Science* 47, no. 1 (January 1, 2003): 91–109. doi:10.2307/3186095.
- Araya, Maurício. “MPF Recorre Contra Revogação Da Prisão de Ex-Prefeita No Maranhão.” *Maranhão*. Accessed January 14, 2016. <http://g1.globo.com/ma/maranhao/noticia/2015/10/mpf-quer-ex-prefeita-de-bom-jardim-lidiane-leite-de-volta-prisao.html>.
- Bacio-Terracino, Julio. “Corruption as a Violation of Human Rights.” SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, January 1, 2008. <http://papers.ssrn.com/abstract=1107918>.
- Badkar, Mamta. 2014. “Labor Shortages Will Cost The World \$10 Trillion.” *Business Insider*. Accessed November 29, 2015. <http://www.businessinsider.com/labor-shortages-will-cost-10-trillion-2014-7>.
- “Bahia | State, Brazil.” *Encyclopedia Britannica*. Accessed November 2, 2016. <http://www.britannica.com/place/Bahia>.
- Banerjee, Abhijit, and Esther Duflo. “Addressing Absence.” *The Journal of Economic Perspectives* 20, no. 1 (2006): 117–32.

- Barro, Robert J., and Jong-Wha Lee. "International Data on Educational Attainment: Updates and Implications." *Oxford Economic Papers* 53, no. 3 (July 1, 2001): 541–63.
- Bayley, David H. "The Effects of Corruption in a Developing Nation." *The Western Political Quarterly* 19, no. 4 (1966): 719–32. doi:10.2307/445147.
- Birdsall, Nancy, and Richard H. Sabot, eds. *Opportunity Foregone: Education in Brazil*. Washington, D.C.: Inter-American Development Bank, 1996.
- Björkman, Martina, and Jakob Svensson. "WHEN IS COMMUNITY-BASED MONITORING EFFECTIVE? EVIDENCE FROM A RANDOMIZED EXPERIMENT IN PRIMARY HEALTH IN UGANDA." *Journal of the European Economic Association* 8, no. 2/3 (April 1, 2010): 571–81.
- Boston Consulting Group. 2015. "Global Workforce Crisis Puts \$10 Trillion at Risk in World Economy, Study Says." Accessed December 5, 2015. <http://www.bostonconsulting.com.au/media/PressReleaseDetails.aspx?id=tcm:121-164660>.
- Brown, David S. "Democracy, Authoritarianism and Education Finance in Brazil." *Journal of Latin American Studies* 34, no. 1 (2002): 115–41.
- "Brazil Truth Commission: Abuse 'Rife' under Military Rule." *BBC News*. Accessed November 21, 2015. <http://www.bbc.com/news/world-latin-america-30410741>.
- "Brazil's Closest Matches." *The Economist*, June 12, 2014. <http://www.economist.com/blogs/graphicdetail/2014/06/comparing-brazilian-states-countries>.
- Bruns, Barbara, David Evans, and Javier A. Luque. *Achieving World-class Education in Brazil: The next Agenda*. Washington, D.C.: World Bank, 2012.
- Bruns, Barbara, Deon Filmer, and Harry Anthony Patrinos. *Making Schools Work: New Evidence on Accountability Reforms*. Washington D.C.: World Bank, 2011.
- Central Intelligence Agency. July 15, 2015. Accessed September 14, 2015. <https://www.cia.gov/library/publications/the-world-factbook/geos/br.html>.
- Chong, Alberto, and Mark Gradstein. "Inequality and Institutions." *The Review of Economics and Statistics* 89, no. 3 (August 1, 2007): 454–65.
- Controladoria-Geral da União. *Olho Vivo No Dinheiro Público*. Brasília, 2012.
Constitution of the Federative Republic of Brazil. Yale Law School. Accessed August 11, 2015. http://www.law.yale.edu/constitution_of_republic_federative.pdf
- Das Chegas Fernandes, Francisco. "Manual De Orientação Do FUNDEB." 2003. Accessed August 18, 2015. <http://portal.mec.gov.br/arquivos/pdf/manual.pdf>.

- Das, Jishnu, Stefan Dercon, James Habyarimana, and Pramila Krishnan. "Teacher Shocks and Student Learning: Evidence from Zambia." *The Journal of Human Resources* 42, no. 4 (October 1, 2007): 820–62.
- Davies, Nicholas. "FUNDEB: The Redemption of Basic Education?" *Educação & Sociedade* 27, no. 96 (October 2006): 753–74. doi:10.1590/S0101-73302006000300007.
- de Moura Castro, Claudio. "Education: Way behind but Trying to Catch Up." *Daedalus* 129, no. 2 (2000): 291–314.
- Di Tella, Rafael and Ernesto Schargrotsky. "The Role of Wages and Auditing during a Crackdown on Corruption in the City of Buenos Aires." *Journal of Law and Economics* 46, no. 1 (April 1, 2003): 269–92. doi:10.1086/345578.
- dos Santos, Sales Augusto, Nelson Olokafá Inocência da Silva, and Laurence Hallewell. "Brazilian Indifference to Racial Inequality in the Labor Market." *Latin American Perspectives* 33, no. 4 (2006): 13–29.
- Duflo, Esther, Rema Hanna, and Stephen P. Ryan. "Incentives Work: Getting Teachers to Come to School." *The American Economic Review* 102, no. 4 (June 1, 2012): 1241–78.
- Eicher, Theo, Cecilia García-Peñalosa, and Tanguy van Ypersele. "Education, Corruption, and the Distribution of Income." *Journal of Economic Growth* 14, no. 3 (September 1, 2009): 205–31.
- "Economia Do Amapá." *Brasil Escola*. Accessed November 5, 2015. <http://brasilecola.uol.com.br/brasil/economia-amapa.htm>
- "Ex-Prefeita de Bom Jardim (MA) Lidiane Leite Da Silva Foi Solta Após 11 Dias Presa Por Suspeita de Desvio Na Verba Destinada à Educação." *DM.com.br*. Accessed October 3, 2015. <http://www.dm.com.br/cotidiano/2015/10/ex-prefeita-de-bom-jardim-ma-lidiane-leite-da-silva-foi-solta-apos-11-dias-presa-por-suspeita-de-desvio-na-verba-destinada-educacao.html>
- Ferraz, Claudio, and Frederico Finan. "Exposing Corrupt Politicians: The Effects of Brazil's Publicly Released Audits on Electoral Outcomes." *The Quarterly Journal of Economics* 123, no. 2 (2008): 703–45.
- Ferraz, Claudio, Frederico Finan, and Diana B. Moreira. "Corrupting Learning: Evidence from Missing Federal Education Funds in Brazil." Working Paper. National Bureau of Economic Research, June 2012. <http://www.nber.org/papers/w18150>.
- Filho, José Camilo dos Santos. "The Recent Process of Decentralization and Democratic Management of Education in Brazil." *International Review of Education / Internationale Zeitschrift Für Erziehungswissenschaft / Revue Internationale de l'Éducation* 39, no. 5 (1993): 391–403.
- "Fraude Envolvendo Prefeituras E Fundeb Somaria R\$ 57 Milhões, Diz PF." *Valor Econômico*.

Accessed October 17, 2015. <http://www.valor.com.br/politica/4132468/fraude-envolvendo-prefeituras-e-fundeb-somaria-r-57-milhoes-diz-pf>.

Fredriksson, Peter. "Economic Incentives and the Demand for Higher Education." *The Scandinavian Journal of Economics* 99, no. 1 (1997): 129–42.

Freire, Eduardo José. "O PAPEL DO CONSELHO DE ACOMPANHAMENTO E CONTROLE SOCIAL DO FUNDEB." *Revista Eletrônica da Faculdade de Alta Floresta* 4, no. 1 (July 28, 2014). <http://faflor.com.br/revistas/refaf/index.php/refaf/article/view/123>.

Fried, Brian J., Paul Lagunes, and Atheendar Venkataramani. "CORRUPTION AND INEQUALITY AT THE CROSSROAD: A Multimethod Study of Bribery and Discrimination in Latin America." *Latin American Research Review* 45, no. 1 (January 1, 2010): 76–97.

Frits, Phil, Leana R. Carrie and Jonathan Pinto. "Corrupt Organizations or Organizations of Corrupt Individuals? Two Types of Organization-Level Corruption." *The Academy of Management Review* 33, no. 3 (2008): 685–709. doi:10.2307/20159431.

"Fugitive Brazil Mayor Lidiana Leite Hands Herself in." *BBC News*. Accessed January 3, 2016. <http://www.bbc.com/news/world-latin-america-34400836>.

Fundo Nacional de Desenvolvimento da Educação, "Portal Do FNDE - Apresentação." Accessed November 13, 2015. <http://www.fnde.gov.br/financiamento/fundeb/fundeb-apresentacao>.

Gardiner, John A. "Defining Corruption." *Political Corruption: Concepts and Contexts*. Eds. Arnold J Heidenheimer and Michael Johnston. Third ed. New Brunswick, NJ: Transaction Publishers, 2002. 25-40.

Geddes, Barbara, and Artur Ribeiro Neto. "Institutional Sources of Corruption in Brazil." *Third World Quarterly* 13, no. 4 (January 1, 1992): 641–61.

Gordon, Nora, and Emiliana Vegas. "Educational Finance Equalization, Spending, Teacher Quality and Student Outcomes: The Case of Brazil's FUNDEF," 2005. http://works.bepress.com/nora_gordon/3/.

Guerchon, C. W. "INSTITUTIONAL ACTS OF THE BRAZILIAN GOVERNMENT." *International Journal of Politics* 1, no. 2/3 (1971): 258–69.

Gupta, Sanjeev. *Does Corruption Affect Income Inequality and Poverty?* International Monetary Fund, 1998.

"Há 4 Anos Era Deflagrada a 'Operação Mãos Limpas.'" *Diário Do Meio Do Mundo - DMM*. Accessed October 20, 2015. <http://www.diariodomeiodomundo.com.br/2014/09/ha-4-anos-era-deflagrada-operacao-maos.html>

Hallak, Jacques, and Muriel Poisson. *Ethics and Corruption in Education. Results from the Expert*

Workshop (Paris, France, November 28-29, 2001). Policy Forum on Education. United Nations Educational, Scientific, and Cultural Organization, International Inst. for Educational Planning, 7-9 rue Eugene-Delacroix, 75116 Paris, France. Web site: <http://www.unesco.org/iiep>. For full text: <http://www.unesco.org/iiep/PDF/Forum15.pdf>., 2002. <http://eric.ed.gov/?id=ED480149>.

Hanchard, Michael and Howard Winants. "Racial Democracy and Racial Identity." Eds. In *Racial Politics in Contemporary Brazil*, Durham: Duke University Press, 1999.

Hawkins, Daniel. "The Influence of Organized Labour in the Rise to Power of Lula in Brazil and Correa in Ecuador." *Labour, Capital and Society / Travail, Capital et Société* 44, no. 2 (2011): 26–55.

Hedges, Larry V., Richard D. Laine, and Rob Greenwald. "An Exchange: Part I: Does Money Matter? A Meta-Analysis of Studies of the Effects of Differential School Inputs on Student Outcomes." *Educational Researcher* 23, no. 3 (April 1, 1994): 5–14. doi:10.3102/0013189X023003005.

"Indústria Responde Por 15,6% Da Economia Do Maranhão, Diz CNI." *Maranhão*. Accessed November 4, 2015. <http://g1.globo.com/ma/maranhao/noticia/2014/11/industria-responde-por-156-da-economia-do-maranhao-diz-cni.html>.

Instituto Brasileiro De Geografia E Estatística. "Censo 2010-Amapá" 2010. Accessed November 3, 2015. <http://www.censo2010.ibge.gov.br/amapa/>.

Instituto Brasileiro De Geografia E Estatística. "Amapá » Macapá." 2014. Accessed November 3, 2015. <http://cidades.ibge.gov.br/xtras/perfil.php?codmun=160030>. "Amapá » Macapá." Instituto Brasileiro De Geografia E Estatística. 2014. Accessed November 3, 2015. <http://cidades.ibge.gov.br/xtras/perfil.php?codmun=160030>.

Instituto Brasileiro De Geografia E Estatística "Censo 2010-Bahia" 2010. Accessed November 3, 2015. <http://www.censo2010.ibge.gov.br/bahia/>.

Instituto Brasileiro De Geografia E Estatística "Censo 2010-Maranhao" 2010. Accessed November 3, 2015. <http://www.censo2010.ibge.gov.br/maranhao/>.

Instituto Brasileiro De Geografia E Estatística "Censo 2010-São Paulo" 2010. Accessed November 3, 2015. <http://www.censo2010.ibge.gov.br/saopaulo/>.

Khatti, N., C. Ling, and S. Jha. 2010. "The Effects of School-Based Management in the Philippines: An Initial Assessment Using Administrative Data." Policy Research Working Paper 5248, World Bank, Washington, DC.

Kosack, Stephen. *The Education of Nations: How the Political Organization of the Poor, Not Democracy, Led Governments to Invest in Mass Education*. Oxford University Press, 2012. <http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199841653.001.0001/acprof-9780199841653>.

- “LEI Nº 9.394, DE 20 DE DEZEMBRO DE 1996.” December 20, 1996. Accessed September 8, 2015. http://www.planalto.gov.br/ccivil_03/Leis/L9394.htm.
- Lovell, Peggy A. “Race, Gender and Regional Labor Market Inequalities in Brazil.” *Review of Social Economy* 58, no. 3 (2000): 277–93.
- Manrique, Lisa. “Brazil’s Education System Falls Behind.” Center for Strategic and International Studies. October 5, 2010. Accessed September 6, 2015. <http://csis.org/blog/brazil’s-education-system-falls-behind>.
- Marcus, Jon. “Brazil: Where Free Universities Largely Serve the Wealthy.” *The Atlantic*, April 8, 2015. <http://www.theatlantic.com/education/archive/2015/04/brazil-where-free-universities-largely-serve-the-wealthy/389997/>.
- Marteletto, Leticia J. “Educational Inequality by Race in Brazil, 1982-2007: Structural Changes and Shifts in Racial Classification.” *Demography* 49, no. 1 (2012): 337–58.
- Martello, Alexandro. Do G1. “Emprego Formal Tem Pior Desempenho Para Fevereiro Em 16 Anos.” 2015. *Economia*. Accessed December 20, 2015. <http://g1.globo.com/economia/noticia/2015/03/brasil-fecha-2415-vagas-de-emprego-formal-em-fevereiro.html>.
- Mendes, Henrique. “Operação Contra Fraude Na Educação Prende 2; Assembleia é Alvo de Busca.” *Bahia*. Accessed November 22, 2015. <http://g1.globo.com/bahia/noticia/2015/07/operacao-contra-fraude-na-educacao-prende-2-assembleia-e-alvo-de-busca.html>.
- Ministerio da Educação. “Instituto Nacional De Estudos E Pesquisas Educacionais Anísio Teixeira.” IDEB - Resultados E Metas. Accessed Fall 2015. <http://ideb.inep.gov.br/>.
- “Now Hiring: Brazil Wants More Foreign Professionals.” *Reuters*, August 24, 2012. <http://www.reuters.com/article/uk-brazil-immigration-idUSLNE87N02920120824>.
- Nye, Joseph S. 1967. “Corruption and Political Development: A Cost-Benefit Analysis.” *American Political Science Review* 61, no. 2 (June): 417-27.
- “Operação Águia de Haia Faz Buscas Em Cruzeiro E Guará Contra Desvios Na Educação.” Accessed November 22, 2015. <http://www.ovale.com.br/operac-o-aguia-de-haia-faz-buscas-em-cruzeiro-e-guara-contra-desvios-na-educac-o-1.603390>
- “Operação Águia de Haia: Prefeitos Levavam 10% Dos Contratos de Projetos Da Educação - NE10.” *ne10.com.br*. Accessed November 7, 2015. http://noticias.ne10.uol.com.br/noticias/brasil/noticia/2015/07/13/operacao-aguia-de-haia-prefeitos-levavam-10_porcento-dos-contratos-de-projetos-da-educacao-556479.php.
- “Operação Da PF Prende Quadrilha Que Desviava Verbas Do MA - Política.” *Estadão*. Accessed September 3, 2015. <http://politica.estadao.com.br/noticias/geral,operacao-da-pf-prende->

quadrilha-que-desviava-verbas-do-ma,333936.

- Organisation for the Economic Co-Operation and Development. "Country Note-Brazil." PISA Results from 2012. 2012. Accessed November 20, 2015. <http://www.oecd.org/brazil/PISA-2012-results-brazil.pdf>.
- Organisation for Economic Co-operation and Development. "Indicator B1: How much is spent per student?" in *Education at a Glance 2014: OECD Indicators*, OECD Publishing. <http://dx.doi.org/10.1787/888933116908>
- Paes de Barros, Ricardo. "A Crise Da Educação é Mais Grave Do Que a Da Pobreza." *Revistaepoca.globo.com*. Accessed December 1, 2015. <http://epoca.globo.com/ideias/noticia/2015/08/ricardo-paes-de-barros-crise-da-educacao-e-mais-grave-do-que-da-pobreza.html>.
- "PF Cumpre Busca E Apreensão Em órgão Público Do AP - Geral." *Estadão*. Accessed November 23, 2015. <http://www.estadao.com.br/noticias/geral,pf-cumpr-busca-e-apreensao-em-orgao-publico-do-ap,647122>.
- "PF Desarticula Grupo Que Desviou R\$ 57 Milhões Do Fundeb." *O Globo*. Accessed November 22, 2015. <http://oglobo.globo.com/brasil/pf-desarticula-grupo-que-desviou-57-milhoes-do-fundeb-16746073>.
- Pinto, José Marcelino de Rezende. 2002. "Financiamento Da Educação No Brasil: Um Balanço Do Governo FHC (1995-2002)." *Educação & Sociedade* 23, no. 80: 108–35. doi:10.1590/S0101-73302002008000008.
- Plank, David N. "Issues in Brazilian School Finance." *Journal of Education Finance* 15, no. 4 (1990): 498–516.
- Plank, David, J.A. Sobrinho and A.C. Xavier. "Why Brazil Lags Behind in Educational Development", 1996. In Birdsall Nancy and Rober Sabot eds. *Opportunity Foregone: Education in Brazil*, Washington D.C.: Inter-American Development Bank.
- Pontes, André Gomes. "A atuação dos Conselhos de Acompanhamento e Controle Social do Fundeb no combate à corrupção." In *Encontro Nacional de Ensino e Pesquisa do Campo de Públicas*, 2015. <https://encontros.ufca.edu.br/index.php/enepcp/ENEPCP2015/paper/view/3877>.
- "Portal Do FNDE - Projeto Espaço Educativo Urbano - 12 Salas." Accessed December 5, 2015. <http://www.fnde.gov.br/programas/par/par-projetos-arquiteticos-para-construcao/projeto-12-salas>.
- Power, Timothy J. "BRAZILIAN DEMOCRACY AS A LATE BLOOMER: Reevaluating the Regime in the Cardoso-Lula Era." *Latin American Research Review* 45 (2010): 218–47.
- Pressly, Linda. "The Party-Loving Mayor Who Went on the Run." *BBC News*. Accessed January 11,

2016. <http://www.bbc.com/news/magazine-35242163>.

“Program for International Student Assessment (PISA) Overview.” National Center for Education Statistics. Accessed October 12, 2015. <https://nces.ed.gov/surveys/pisa/>.

Public Broadcasting Station. “Brazil in Black and White ~ Video: Full Episode : Wide Angle.” Accessed November 3, 2015. <http://www.pbs.org/wnet/wideangle/episodes/brazil-in-black-and-white/video-full-episode/?p=2104>.

Reichmann, Rebecca Lynn and Nelson do Valle Silva. “Racial Difference in Income: Brazil, 1988.” In *Race in Contemporary Brazil: From Indifference to Inequality*. Eds. University Park, Pa.: Pennsylvania State University Press, 1999.

Reichmann, Rebecca Lynn, Nelson do Valle Silva and Carlos A. Hasenbalg. “Race and Educational Opportunity in Brazil.” Eds. In *Race in Contemporary Brazil: From Indifference to Inequality*, edited by Rebecca Lynn Reichmann, by Nelson do Valle Silva and Carlos A. Hasenbalg. University Park, Pa.: Pennsylvania State University Press, 1999.

Reinikka, Ritva, and Jakob Svensson. “Fighting Corruption to Improve Schooling: Evidence from a Newspaper Campaign in Uganda.” *Journal of the European Economic Association* 3, no. 2/3 (April 1, 2005): 259–67.

"Ricardo Paes De Barros." IAP: The Global Network of Science Academies. Accessed November 20, 2015. <http://www.interacademies.net/Activities/10880/BAS2013/2013ConferenceAgenda/20148/20154.aspx>

Rinaldi, Alfred. “Brazil Seeks Over a Million Skilled Workers in 2014-2015 | The Rio Times | Brazil News.” *The Rio Times*. Accessed December 10, 2015. <http://riotimesonline.com/brazil-news/rio-business/brazil-seeks-over-a-million-skilled-workers-in-2014-2015/>.

Rodrigues De Oliveira, Pedro, Walter Belluzzo, and Elaine Toldo Pazello. "Public-Private Sector Differentials in Brazilian Education: A Counterfactual Decomposition Approach." 2009. Accessed October 3, 2015. pp. 5-6

Rose-Ackerman, Susan. 1978. *Corruption: A Study in Political Economy*. New York: Academic Press.

Rothstein, Bo, and Eric M. Uslaner. “The Roots of Corruption: The Roots of Corruption: Mass Education, Economic Inequality and State Building.” SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, July 31, 2012. <http://papers.ssrn.com/abstract=2108795>.

Santiago, Abinoan. “Fotos Mostram Ostentação de Joias E Dinheiro de Presos Na ‘Mãos Limpas.’” *Amapá*. Accessed December 16, 2015. <http://g1.globo.com/ap/amapa/noticia/2014/09/fotos-mostram-ostentacao-de-joias-e-dinheiro-de-presos-na-maos-limpas.html>.

Segal, David. “Petrobras Oil Scandal Leaves Brazilians Lamenting a Lost Dream.” *The New York*

Times, August 7, 2015. <http://www.nytimes.com/2015/08/09/business/international/effects-of-petrobras-scandal-leave-brazilians-lamenting-a-lost-dream.html>.

Shinn, Doh C. "Education and the Quality of Life in Korea and the United States: A Cross-Cultural Perspective." *The Public Opinion Quarterly* 50, no. 3 (1986): 360–70.

Skidmore, Max J. "Promise and Peril in Combating Corruption: Hong Kong's ICAC." *Annals of the American Academy of Political and Social Science* 547 (1996): 118–30.

Smyth, John, ed. "World Education Report 2000." *The Right to Education: Towards Education for All throughout Life*, 2010.

Stanek, Christina. "The Educational System of Brazil." IEM Spotlight: A Resource for International Enrollment Management Community. March 2013. Accessed August 21, 2015. http://www.nafsa.org/uploadedFiles/Chez_NAFSA/Resource_Library_Assets/Networks/ACE/EDU_Systems_Brazil.pdf.

Steer, Liesbet. "Seven Facts about Global Education Financing." 2014. *The Brookings Institution*. Accessed September 12, 2015. <http://www.brookings.edu/blogs/education-plus-development/posts/2014/02/20-global-education-financing-steer>.

Telles, Edward E., and Nelson Lim. "Does It Matter Who Answers the Race Question? Racial Classification and Income Inequality in Brazil." *Demography* 35, no. 4 (1998): 465–74. doi:10.2307/3004014.

Telles, Edward Eric. *Race in Another America: The Significance of Skin Color in Brazil*. Princeton, N.J.: Princeton University Press, 2004.

Tito, Fábio. "Amapá Recebeu R\$ 222 Milhões Do Fundeb Em 2010, Diz Tesouro Nacional." *Política*. Accessed November 8, 2015. <http://g1.globo.com/politica/noticia/2010/09/amapa-recebeu-r-222-milhoes-do-fundeb-em-2010-diz-tesouro-nacional.html>.

Transparency International. "Global Corruption Report: Education." Transparency International. 2013. Accessed September 4, 2015. http://www.transparency.org/gcr_education/content/framework/

Transparency International. "The Anti-Corruption Plain Language Guide." 2015. *Issued*. Accessed October 13 2015. http://issuu.com/transparencyinternational/docs/ti_plain_language_guide.

United Nations Educational, Scientific, and Cultural Organization. "World Data on Education." 2010. Accessed September 11, 2015. http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Brazil.pdf

United Nations Development Programme. *Atlas Do Desenvolvimento Humano No Brasil*. 2013. Accessed November 2, 2015. <http://www.atlasbrasil.org.br/2013/consulta/>.

- Villaverde, João. "Cresce O Número de Brasileiros Em Situação de Pobreza Extrema - Economia." *Estadão*. Accessed September 17, 2015. <http://economia.estadao.com.br/noticias/geral,cresce-o-numero-de-brasileiros-em-situacao-de-pobreza-extrema,1625182>.
- Watts, Jonathan. "Brazil President Weeps as She Unveils Report on Military Dictatorship's Abuses." *The Guardian*, December 10, 2014, sec. World news. <http://www.theguardian.com/world/2014/dec/10/brazil-president-weeps-report-military-dictatorship-abuses>.
- Wenglinsky, Harold. "Finance Equalization and Within-School Equity: The Relationship between Education Spending and the Social Distribution of Achievement." *Educational Evaluation and Policy Analysis* 20, no. 4 (December 1, 1998): 269–83. doi:10.2307/1164325.
- World Bank. "Brazil - Human Resources Special Report." The World Bank, October 31, 1979. <http://documents.worldbank.org/curated/en/1979/10/1556055/brazil-human-resources-special-report>.
- World Bank. "Population Ranking." The World Bank Data. 2014. Accessed December 20, 2015. <http://data.worldbank.org/data-catalog/Population-ranking-table>.
- World Bank. "Quiet Corruption Undermining Development in Africa." World Bank-Africa. 2010. Accessed October 2015.