

Improving Public Secondary Education in Brazil: Opening Doors and Breaking the Cycle

by

Elisa Helena Xiol Y Ferreira

B.Sc. Hons., Intl. Development & Globalization, University of Ottawa, 2009

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

in the

Department of Political Science
Faculty of Arts and Social Sciences

© **Elisa Helena Xiol Y Ferreira**
SIMON FRASER UNIVERSITY
Fall 2013

All rights reserved.

However, in accordance with the *Copyright Act of Canada*, this work may be reproduced, without authorization, under the conditions for "Fair Dealing." Therefore, limited reproduction of this work for the purposes of private study, research, criticism, review and news reporting is likely to be in accordance with the law, particularly if cited appropriately.

APPROVAL

Name: Elisa Helena Xiol Y Ferreira
Degree: Master of Arts (Political Science)
Title of Thesis: *Improving Public Secondary Education in Brazil:
Opening Doors and Breaking the Cycle*

Examining Committee:

Chair: Douglas Ross
Professor

Anil Hira
Senior Supervisor
Professor

James Busumtwi-Sam
Supervisor
Associate Professor

Eduardo Marques
External Examiner
Associate Professor, Political Science,
University of São Paulo

Date Defended/Approved: November 4, 2013

PARTIAL COPYRIGHT LICENCE



The author, whose copyright is declared on the title page of this work, has granted to Simon Fraser University the non-exclusive, royalty-free right to include a digital copy of this thesis, project or extended essay[s] and associated supplemental files (“Work”) (title[s] below) in Summit, the Institutional Research Repository at SFU. SFU may also make copies of the Work for purposes of a scholarly or research nature; for users of the SFU Library; or in response to a request from another library, or educational institution, on SFU’s own behalf or for one of its users. Distribution may be in any form.

The author has further agreed that SFU may keep more than one copy of the Work for purposes of back-up and security; and that SFU may, without changing the content, translate, if technically possible, the Work to any medium or format for the purpose of preserving the Work and facilitating the exercise of SFU’s rights under this licence.

It is understood that copying, publication, or public performance of the Work for commercial purposes shall not be allowed without the author’s written permission.

While granting the above uses to SFU, the author retains copyright ownership and moral rights in the Work, and may deal with the copyright in the Work in any way consistent with the terms of this licence, including the right to change the Work for subsequent purposes, including editing and publishing the Work in whole or in part, and licensing the content to other parties as the author may desire.

The author represents and warrants that he/she has the right to grant the rights contained in this licence and that the Work does not, to the best of the author’s knowledge, infringe upon anyone’s copyright. The author has obtained written copyright permission, where required, for the use of any third-party copyrighted material contained in the Work. The author represents and warrants that the Work is his/her own original work and that he/she has not previously assigned or relinquished the rights conferred in this licence.

Simon Fraser University Library
Burnaby, British Columbia, Canada

revised Fall 2013

ETHICS STATEMENT



The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

- a. human research ethics approval from the Simon Fraser University Office of Research Ethics,

or

- b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University;

or has conducted the research

- c. as a co-investigator, collaborator or research assistant in a research project approved in advance,

or

- d. as a member of a course approved in advance for minimal risk human research, by the Office of Research Ethics.

A copy of the approval letter has been filed at the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Simon Fraser University Library
Burnaby, British Columbia, Canada

update Spring 2010

ABSTRACT

While victories have been claimed at the primary and tertiary levels in recent years by successive governments, reflecting their shift to social issues, Brazilian public high schools are still far from receiving adequate policy attention and funding. As a result of the poor quality and quantity of public secondary education, the bulk of the population (of lower socio-economic status) is underrepresented at the university level.

This study examines – both on theoretical and empirical grounds – whether the education policies implemented during the administration of Luiz Inácio “Lula” da Silva (2003–2010) were founded on the needs of students and appropriate for the obstacles at hand. It discusses the literature on factors that affect educational outcomes. It then presents findings from the case study conducted in the state of Goiás. Lastly, based on the quantitative and qualitative information collected, policy recommendations are put forth, keeping in mind the national goals of moving forward as a nation through providing its citizens the necessary tools to thrive.

In addition to the potential to improve the national economy, enhancing the quality of the education offered in public high schools could serve to improve the ability of students of lower socio-economic status in being admitted into universities, increasing their life-chances and the possibility of higher incomes – ultimately, breaking the intergenerational cycle of poverty and moving Brazil forward in the face of the knowledge economy.

Keywords: education policy; policy reform; education and development; social stratification in developing countries; secondary and tertiary education analysis

ACKNOWLEDGEMENTS

To my family, for their endless love and support,

To the students who participated in this study,

To the professors that guided me in this pursuit,

To the nation I hold dear, whose progress I am committed to,

To my love, my rock... Thank you.

TABLE OF CONTENTS

Approval	ii
Partial Copyright Licence	iii
Ethics Statement	iv
Abstract	v
Acknowledgements	vi
Table of Contents	vii
List of Tables.....	ix
List of Figures	x
List of Acronyms	xi
Preface	xiii
Part I: Introducing the Study.....	1
Background/Context.....	4
Part II: Relevant Findings in Literature.....	15
Key Causal Factors Related to University Access	16
Role of Socio-Economic Status (SES) and Other Personal Determinants	16
Parents: Role of Income, Education and Involvement	17
Other SES-related Factors	22
Empirical Review	23
Considerations.....	26
Role and Impact of Secondary Institutions	27
Public versus Private	27
Infrastructure: Needs & Effects.....	28
The Importance of Information and Supportive Circles	29
Considerations.....	30
Empirical Review	31
Characteristics of Universities and University Policies.....	33
Social Inclusion as a Guiding Principle - Entrance Policies	34
Universities' Current and Future Capacity	36
Empirical Review	37

Part III: Case Study - Goiás, GO.....	40
Methods.....	41
Findings.....	44
Role of Socio-Economic Status (SES) and Other Personal Determinants	45
Role and Impact of High Schools	51
Characteristics of Universities and University Policies.....	56
Part IV: Policy Recommendations – A Look into the Future.....	62
Role of Socio-Economic Status (SES) and Other Personal Determinants	65
Role and Impact of High Schools	65
Characteristics of Universities and University Policies.....	69
Considerations.....	72
Part V: Closing Remarks.....	74
Reference List	77
Annex.....	85
Annex 1 Administration of Brazilian Education by Levels of Government	86
Annex 2 Visualizing Literature vs. Policy Design vs. Effects of Implementation	87
Annex 3 Student Surveys, developed for study in question - conducted with <i>private</i> and <i>public</i> school students, in low and high-income municipalities in the state of Goiás, 2012–13	88

LIST OF TABLES

Table 1:	Lula’s Policies re: improvement of secondary education sector and access to higher education.....	9
Table 2:	Summary of Relevant Literature on Access to Higher education, as related to SES and other personal determinants	27
Table 3:	Summary of Relevant Literature on Access to Higher education, as per quality of secondary education	32
Table 4:	Summary of Relevant Literature on Access to Higher education - role of Universities and University Policies.....	39
Table 5:	Summary of Findings - Answering the Research Questions.....	64

LIST OF FIGURES

Figure 1: Federal Universities in Brazil, Demographic of student body	10
Figure 2: Percentage of high schools by administration type, 2010, Brazil	11
Figure 3: Visualizing discrepancies in distribution, from secondary to tertiary levels of education.....	12
Figure 4: Evolution in Enrollment Rates in Higher Education (undergraduate), Brazil.....	38
Figure 5: Level of educational attainment of parents, as per student responses, Jaraguá and Goiânia, Brazil 2012	48
Figure 6: Student ratings on parental involvement in studies, Goiânia and Jaraguá, Goiás, Brazil 2012	49
Figure 7: Student ratings on infrastructure and supplies, Goiânia and Jaraguá, Goiás, Brazil, 2012.	53
Figure 8: Student ratings on information sessions and other preparation for options post-graduation, as per study's field research, Goiás, Brazil, 2012-2013.....	54
Figure 9: Ratings among students: Role of ENEM on academic outcomes	58
Figure 10: Students' plans post HS graduation, Goiânia and Jaraguá, Goiás, Brazil, 2012.	59

LIST OF ACRONYMS

CCTs	Conditional Cash Transfers
CGU	<i>Controladoria-Geral da União</i> - Office of the Comptroller General
CNEC	<i>Campanha Nacional das Escolas da Comunidade</i> - National Campaign for Community Schools
Enem	<i>Exame Nacional do Ensino Médio</i> – National Secondary Education Exam
FUNDEB	<i>Fundo de Manutenção e Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação</i> – The Fund for the Maintenance and Development of Basic Education and Enhancement of Education Professionals
Fies	<i>Fundo de Financiamento Estudantil</i> - Student Financing Fund
GDP	Gross Domestic Product
GO	State of Goiás, Brazil
HE	Higher Education
HS	High school
IBGE	<i>Instituto Brasileiro de Geografia e Estatística</i> - Brazilian Institute of Geography and Statistics
Inep	<i>Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira</i> - National Institute of Educational Studies Anísio Teixeira
LDB	<i>Lei das Diretrizes Brasileiras</i> - Law of Brazilian Guidelines
MEC	<i>Ministério da Educação</i> – Ministry of Education
OECD	Organization for Economic Cooperation and Development
PISA	<i>Programa Internacional de Avaliação de Estudantes</i> - Programme for International Student Assessment
PNAD	<i>Pesquisa Nacional por Amostra de Domicílios</i> - National Survey of Households
ProUni	<i>Programa Universidade para Todos</i> – University for All Program
Prova Brasil	<i>Avaliação Nacional do Rendimento Escolar (Anresc)</i> – National Assessment of Educational Attainment/Yield
PT	<i>Partido Trabalhista</i> – Worker’s Party
ReUni	<i>Programa de Apoio a Planos de Reestruturação e Expansão das Universidades Federais</i> - Support Programme for the Restructuring and Expansion of Federal Universities
SAEB	<i>Sistema de Avaliação da Educação Básica</i> – Basic Education Evaluation System

SES Socio-economic Status
SiSu *Sistema de Seleção Unificada* - Unified Selection System

PREFACE

This thesis is an original intellectual product of the author, E. Ferreira. The fieldwork reported in this study was covered by SFU Ethics Project 2011s0714.

Part I:

INTRODUCING THE STUDY

In recent years, the world's eyes have turned to Brazil as a result of its economic growth and potential for continually increasing prosperity and development. Despite this upswing, as one of the countries with the highest inequality in the developing world, Brazil still has several sectors that require attention and refurbishing. The education sector is indisputably one of them. Much like other developing countries, the Brazilian public education system continues to suffer from deficiencies in capacity and quality. While some sectors in the country become increasingly prosperous, on the educational front Brazil is well below global standards. Brazilian PISA scores are amongst the lowest and the discrepancies in age-grade settings are amongst the highest (Inep, 2009). The repercussions of these inadequacies have for some time negatively affected the opportunities available to both the citizens of Brazil as well as to the nation as a whole. With a population close to reaching two hundred million, the difficulties to 'move forward' are not a result of lack of talent and skill amongst its citizens. Instead, the challenges largely lie in the nation's (in)ability to tap into the potential human capital that rests within the Brazilian population.

This study dives into the issues surrounding policies to increase [public] university enrolment rates in Brazil during and after the presidency of Luiz Inácio 'Lula' da Silva (2003-2010). It assesses the education policies and strategies during the Lula administration that targeted secondary (high school) and tertiary (university) education, particularly those that directly and indirectly sought to increase public school students' access to federal universities¹, aiding students of

¹ Federal universities were selected for this study because they are deemed to be the highest quality universities in the country (Rondoni, 2011). Moreover, they [federal universities] are free of charge, making them the most coveted institutions among Brazilian students. Their reduced numbers in comparison to a larger sample size including other higher education institutions will facilitate data collection for the upcoming section. Federal universities are by definition public (free of charge) and should [in theory] be accessible to all regardless of their income if they meet the educational standards to pass the *vestibular*, the university entry exam.

lower socio-economic status (SES). Ultimately, it aims to answer the following questions: Were the education policies adopted in Brazil during the Lula government (2003-2010) effective in increasing public school students' access to federal universities? If so, 1) what areas and factors did these policies target that led to improvements? 2) What mechanisms were employed to ensure success (i.e. how)? If not, 1) why was the government unable to reach its objectives? What, if any, factors should have been addressed during planning and implementation that were not included? 3) What are the recommendations that can be made for future policies based on the evidence provided?

In 2010, of the top 20 high schools in the country, in terms of their rating on the Brazilian National Secondary Education Exam (*ENEM – Exame Nacional do Ensino Médio*), only one was a public school² and only two were outside of the wealthiest region of Brazil (southeast region: São Paulo, Rio de Janeiro, Minas Gerais and Espírito Santo) (IBGE, 2011). In 2010, Brazil had 8,375,675 students enrolled in secondary education; 1.2% at federal high schools, 85.9% at state high schools, 1.1% in municipal and 11.8% in private (Frigotto, 2010). According to Brazilian indicators, only 9% of the students between the ages of 18 and 24 were successful in being admitted to university in 2010 (Frigotto, 2010). Moreover, in that same year, the average spending per pupil at the [public] high school level in Brazil was of US\$2,571 (R\$5,715.33); while the average among OECD countries was of \$9,014 (R\$20,038.12) per pupil. Among the 32 countries, Brazil ranked last in investment per pupil at the secondary education level in 2010 (OECD, 2010). Figures such as these depict how there is still room for improvement in the provision of education in Brazil. Having said that, the literature and statistics available on the topic of access to higher education and the role of policy, will, through this paper, reveal that Lula's administration was accurate in determining many of the structural issues at play in the debate of improving education and access in Brazil. At the same time, however, it reveals components of policies were not completely aligned with the needs of these sectors and the Brazilian people, that can serve as clarifications on the low rates of Brazilian enrolment and funding in comparison to the world (more specifically, before and after Lula's administration). While in the secondary education sector, problems occurred in the policy *implementation* process, the higher education sector faces

² The only public high school on the Top 20 list of 2010 was the Colégio de Aplicação da UFV – Coluni, in Minas Gerais, a state with high income rates in the most prosperous region of Brazil (Southeast region of Brazil) (Ibope, 2011).

issues now that are the result of failures in policy *design* during the Lula era, furthered by current President Dilma Rousseff. This paper argues that one of the primary inconsistencies that hinders those of lower SES in educational terms is the significant difference between the quality of the education being offered in public and private schools; the latter being of considerably higher quality reflected in the rates of students from them being admitted into higher education. In addition to this public/private divide, the average income level of municipalities also affects the quality of the education provided (at both public *and* private high schools), given that the higher the average income of the municipality, the higher the quality of the education offered.

Due to the complexity of the topic, this is a two-fold study: the first portion consists of an analysis of the theoretical and empirical literature on access to higher education and the factors that affect admission. The succeeding segment is based on field research, where a qualitative study was conducted by means of surveys and interviews with key stakeholders in the secondary/tertiary education sector (i.e. students, teachers/administrators and political figures) in the state of Goiás. Goiás is a state illustrative of the country average both in educational and economic terms (i.e. based on students' test scores compared to the national average and on household income levels). In other words, the 'weight' of the variables presented in the literature regarding access to/aptness for higher education are ultimately tested on the ground and reviewed. In addition to highlighting issues that were confirmed and refuted during the field research, such as the relevance of parental income and education, findings that expose the flaws and achievements of Lula's policies will be discussed in full, such as the need to provide students with information sessions on post-high school options and the improvements in infrastructure that did occur. With a better understanding of what affects educational outcomes and university access, one can potentially determine whether the policies put in place during the previous government in fact tackled the appropriate issues. This will highlight government procedures but will also serve to provide insight on what has impeded the rates of public school students in higher education from increasing in all of the regions in Brazil, revealed to be an agglomeration of factors some of which are difficult to tackle while others less so.

This study also provides insight into the obstacles in increasing access to higher education in Brazil through the lens of the main stakeholders of these policies: the students. Their standing on the effectiveness of these policies and

distribution methods is valuable insight. It allows one to better understand what students believe are important to their academic success and whether they believe the education they are receiving (including the resources available to them at school) are up to standard with what they need to achieve said success. This method is intended to be an original contribution to the literature on factors that affect educational outcomes in Brazil as it views the debate on equality of access through a qualitative, more people-oriented lens. This emphasis on perceptions is also, however, a limitation of this study – as more of the focus is on subjective attitudes and opinions, as opposed to concrete figures (also used, to a lesser extent) that depict what areas continue to require improvement for the end goal of equitable access to higher education.

This analysis is followed by policy suggestions and a discussion of follow-up research that could help the Brazilian government in the long-standing battle to overcome the strains of socio-economic disparity, moving forward in terms of development on a micro and macro scale. As the research reveals, the most significant factors that affect education levels and capacity to be admitted into federal universities *were* included in the policies (i.e. policy outputs) during the Lula government, this aims to explain how the chain of effect was broken in the implementation stage, with under-funding being a key element. Although not all of the public schools and universities in Brazil were assessed, the goal was to retrieve information on a representative sample to allow the results to be internally generalized. Furthermore, since the problems faced in Brazil reflect the symptoms of many Latin American countries (LAC) and other nations, the lessons learned here can also be informative beyond the Brazilian case.

BACKGROUND/CONTEXT

In the 2013 protests, over 1.4 million Brazilians took to the streets in 120 cities, to voice their demand for change and improvement in various sectors; among these were cries for improvement in the provision and quality of Brazilian education. What began as a revolt against an increase in bus, metro, and train fares in various cities across the country, quickly became a platform for citizens to unveil what *they* believe is crucial to the development of the Brazilian populace. This movement unveiled the public's disenchantment with the status quo: with rampant corruption (i.e. embezzlement cases and apparent immunity of politicians, lack of transparency and financial accountability) and unsuitable

policies that have not addressed the poorly functioning health sector, low education rates, inadequate welfare benefits, police brutality, and the recent spike in inflation, to name a few (Folha de São Paulo, 2013). Current President Dillma Rousseff (2011) vowed to heed to the peoples' demands, including investing the royalties received from the petroleum extraction into education. This movement by the people is the first of its kind since the 1992 protests against the then-president Fernando Collor de Mello and promises to shed more light on the deficiencies of the sectors in question, now that the people have turned its eyes, and the world's eyes to them. It can be the mark of a new relationship between the Brazilian people and the government. However, before one can understand how Brazil as a nation will move forward in the face of such a movement, it is important to first look back and understand the evolution of the education sector in Brazil, and how it was perceived and approached by previous administrations.

Prior to the presidency of Luiz Inácio "Lula" da Silva (2003-2010) in the Federative Republic of Brazil, [former] president Fernando Henrique Cardoso³, member of the Brazilian Social Democratic Party (1995 – December 2002), made significant steps towards improving the education system. This was mainly due to the implementation, in 1996, of the Law of Directives and Bases of National Education (LDB). The LDB clarified the roles of the municipal, state, and federal education systems⁴, called for the democratisation of school governance, aiming to provide schools with more autonomy by decentralizing funding and decisions, making curricula more flexible and encouraging higher teacher qualifications (OECD, 2010). Yet, it was the presidency of Luiz Inácio "Lula" da Silva (2003-2010) that truly represented a historical break from previous governments with regards to social issues, giving them significantly more attention with a myriad of new social policies. The latter raised total resources for education substantially from 3.5% of GDP in 2000 to 5.6% of GDP by 2009 and distributed resources more equitably than in the past (Inep, 2010).⁵ Projects such

³ The presidency of Fernando Henrique Cardoso, otherwise known as "FHC", was also marked by the implementation of Neo-liberal policies in Brazil.

⁴ Annex 1 includes a chart describing how the different levels of government (i.e. the Union, the states, the Federal District and the municipal governments) administer the Brazilian education sector, as per the separation of powers agreed upon in the Constitution of 1988.

⁵ Although the spike up to 5.6% of GDP towards education is significant in the context of Brazil, it is important to note that this percentage is still lower than the average for OECD countries, which in 2010, was 6.3% of the country's GDP (OECD, 2011).

as the increasingly popular conditional cash transfers that made attending school a requisite to participate (chiefly *Bolsa Escola* and *Bolsa Familia*) helped shift over 40 million people out of the lowest income level⁶ (OECD, 2010). Successes have been witnessed in primary education where enrolment increased and national test scores improved (Inep, 2010). Moreover, Lula's government invested in improving the agencies and methods of monitoring and evaluating Brazilian education. Indicators were better developed to measure the capacity of educational services, their efficiency, quality and expenditure; the dissemination of data to the general public, media and policy makers improved and an integrated education information system was created (Inep, 2011). Said information systems, including SAEB, SiSu and the *Prova Brasil*, in addition to the other policies implemented, were meant to pave the way for better policies and better results.

The secondary and tertiary levels of education, were also addressed by new policies. In 2003, the newly elected President released the document titled *A School the Size of Brazil (Uma Escola do Tamanho do Brasil)* where his government drew a picture of the state of education in Brazil upon their entry and made a number of promises in terms of what would be addressed during his Presidency. The Lula government vowed to improve the overall quality of public education as well as to facilitate the transition for public school students from one level of education to the next (*Uma Escola do Tamanho do Brasil*, 2003). It voiced its understanding of the importance of providing people with quality education and encouraging them to seek higher levels of instruction, as the proper method of increasing the opportunities for growth of its citizens and the country. Several issues were highlighted as priorities including: the gradual universalization of secondary studies with the guarantee of democratic and quality education, the provision of additional infrastructure (including buildings, laboratories, technological resources, etc.), the formation of competent and updated education professionals (in adequate numbers), an enhancement in the textbooks used, and the development of permanent mechanisms for the participation of students and the community to engage in discussions for the better management and evaluation of said schools (*Escola do Tamanho do Brasil*, 2003). Policies put in place at the tertiary education level sought to increase university enrolment rates of public

⁶ While praiseworthy, it is important to note that conditional cash transfer programs are only a short term solution to the poverty issue in Brazil. Although these ensure that students are attending school, it does not tackle the lack of quality education being offered at these schools.

school students directly, through an emphasis on social inclusion and new entry requirements and procedures. The two main policies at the university level were the ProUni and the ReUni programs. ProUni seeks to increase enrolment rates of public high school students in universities by facilitating their entry into private universities. For the first half of 2010, 165,000 scholarships were offered to low-income students in private institutions of higher education across the country (Prouni, 2012). Prouni has served over 1.2 million students, 69% with full scholarships since its inception (Prouni, 2012). The Program for the Restructuring and Expansion of Federal Universities (Reuni) aims to expand the access and retention in higher education. It consists of a series of measures adopted by the federal government to restore growth of public higher education, creating conditions for the federal universities by promoting the physical, academic and educational expansion of the federal network of higher education. The actions of the program include increased vacancies in undergraduate courses, expanding the supply of evening courses, promotion of pedagogical innovations and combating evasion, among other goals that are intended to reduce social inequalities in the country. The expansion of the Federal Network of Higher Education started in 2003 with the internalization of the campuses of public universities. With this, the number of municipalities served by universities increased from 114 in 2003 to 237 by the end of 2011 (Reuni, 2011). Since the beginning of the expansion 14 new universities and more than 100 campuses were created to allow an increase in enrollment and the creation of new undergraduate courses (Reuni, 2011). Reuni is unlike social quota policies (such as Prouni) that aim to tackle the deficiencies in equitable access to higher education. It is a project that aims to mainly increase the physical capacity of public higher education institutions. While students at the high school level may be unaware of this policy, it was implemented as part of the government's initiative to increase access to public higher education.

In terms of funding these pledges, the FUNDEB initiative was greatly relied upon during the Lula administration, as a mechanism to adequately distribute the investment in public education throughout the country. The Fund for the Maintenance and Development of Basic Education and Enhancement of Education Professionals, FUNDEB (*Fundo de Manutenção e Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação*) was created to replace FUNDEF, the Fund for the development of Fundamental Education and Valorization of Teachers (*Fundo de Manutenção e Desenvolvimento do Ensino*

Fundamental e de Valorização do Magistério) which began during the Cardoso administration and was in place from 1998 to 2006.

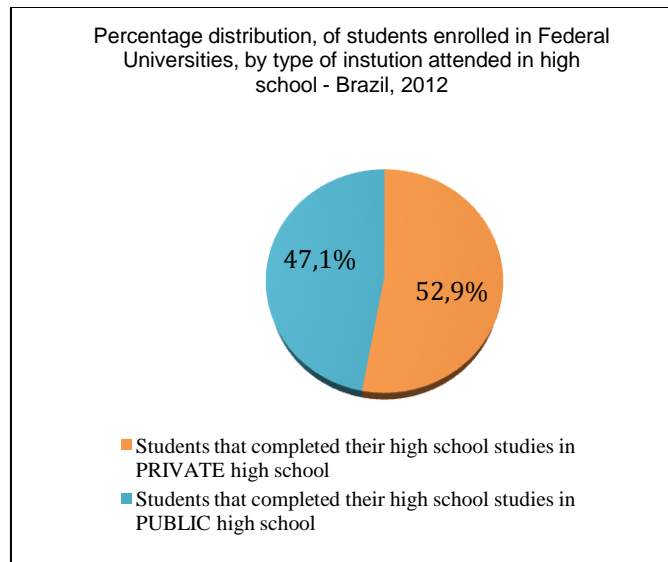
Formed almost entirely by funds from taxes and transfers from the states, the Federal District and municipalities, the funds are distributed based on the number of students in public primary and secondary education, according to data from the year prior's school census. FUNDEB also has a federal component as a supplement. As per the legislation, a portion of federal funds is invested where the amount invested per student within each state does not reach the nationally set minimum. Municipalities receive FUNDEB resources based on the number of students in early childhood education and elementary education, and states, based on the number of students in middle and high school. Fundeb's resources are distributed automatically (without authorization or arrangements for this purpose) and are periodic, by crediting the account of each specific state and local government. This is intended to avoid unnecessary delays in the provision of funds and consequently resources, which have been established as priorities in these levels of education. In other words, FUNDEB is an updated variation of FUNDEF, which has been established to allow for the government to manage the needs of each state and equally distribute funds based on said needs. In theory, it is a remarkable tool that tackles both the needs of each sector per student and the horizontal imbalances that occur between states due to variations in investment capacity of each. In practice, however, as this study will showcase, the distribution of funds appears to have led to uneven results (both in the resources available to students from lower and higher income areas, and in their grades). Table 1 outlines the main policies put forth during the Lula administration to tackle the issues of quality secondary education and access to higher education.

Table 1: Lula’s Policies re: improvement of secondary education sector and access to higher education

Paradigms	Lula’s Policies
Socio-economic factors and other personal determinants	<p>** None of Lula’s policies addressed these factors as part of their commitment to improve the secondary education sector, or to increase the rate of public school students admitted into public universities – Nevertheless, these variables are important to include because the field research could indicate that these factors are very influential in the students’ interest and capacity to pursue higher education, and should consequently be considered in policy design (policies: ways to bypass effects of SES on educational attainment).</p>
Quality & Attributes of the Secondary Education Sector	<ol style="list-style-type: none"> (1) Ample number and use of quality facilities, equipment and resources (including but not limited to: new libraries, computer labs, textbooks, lighting, ventilation, etc.) (2) Monitoring of teaching practices and student learning <ul style="list-style-type: none"> • Pedagogic/political practices defined and known by all stakeholders (3) Improved salary for teachers <ul style="list-style-type: none"> • Sufficiency and stability of school staff (4) Adequate planning <ul style="list-style-type: none"> • Varied and transparent mechanisms to evaluate students • Democratized information • Access, understanding, and use of official indicators for evaluating the school and school networks (5) Provide additional and effective guidance on options after graduation (i.e. pursuing higher ed., technical training, joining the work force, etc.) (6) Acting school councils <ul style="list-style-type: none"> • Effective participation of students, parents and the community in general.
Universities and University Entry Policies	<ul style="list-style-type: none"> • ProUni/Fies Expansion Program to increase enrolment rates of public high school students in universities by facilitating their entry into private universities through government grants to outsourced private universities and to students directly • ReUni/SiSu: Expansion program that seeks to facilitate students’ entry into public federal universities through social quotas etc. Both ReUni and ProUni utilize the National Secondary Studies Exam (ENEM) as the determinant. ENEM: The National Secondary Education Exam, is a non-mandatory Brazilian national exam, which evaluates high school education in Brazil and is utilized as a standard university entrance qualification test. ENEM is the most important exam of its kind in Brazil, with more than 4.5 million test takers in 1.698 different cities (Inep, 2011). • Universidade Aberta para Todos (UAB): Facilitating access to university through distance education courses. • Expansion of public tertiary education system: building new public universities throughout the country to address demand and government needs.

Despite all these promises and some successes, many problems persist and the rates of public school students being admitted into federal universities are low in comparison to their private school counterparts. While only 11.8% of Brazilian students attend private high schools⁷, they make up 52.9% of the federal university population (Figure 1; MEC, 2010). In 2003, surveys showed that 46.2% of students that attended the public universities either studied exclusively or mostly in public high schools (Andifes, 2004). In 2011, that rate was of 50.4%, showing an increase of 4.2% in the rates of students from public schools attending public universities in Brazil – from the beginning to the end of Lula’s terms as president (Andifes, 2011). Furthermore, in 2010, 81% of high schools were public institutions and only 19% were private as depicted in Figure 2 below (MEC, 2010).

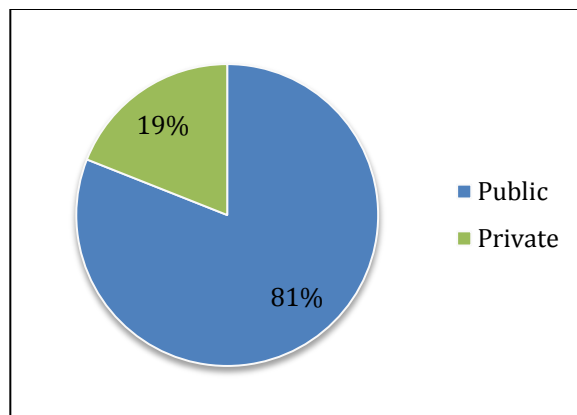
Figure 1: Federal Universities in Brazil, Demographic of student body



Source: MEC, 2010

⁷ The students enrolled in private high schools are proven to be of higher income homes than their public school counterparts (IDEB, 2012).

Figure 2: Percentage of high schools by administration type, 2010, Brazil



Source: MEC, 2010

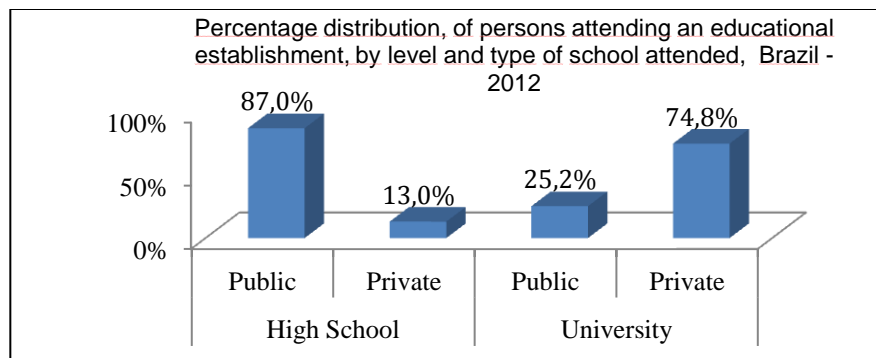
The total number of enrollments in higher education in Brazil surpassed 7 million last year and increased 81% between 2003 and 2012. Ten years ago, the Higher Education Census recorded 3,887,022 registrations, a number that rose to 7,037,688 in the latest edition of the survey (INEP, 2013). The total number of students enrolled in higher education in 2012 reached 2,747,089. The number of graduates was 1,050,413, according to INEP (2010).

Even though it has grown in number of institutions, the number of enrollments in public higher education is still a minority in Brazil according to data from the Ministry of Education. According to the Higher Education Census (INEP, 2010), between 2003 and 2009, the public higher education sector grew 18.9%, while the private network, which was already the majority grew 36.9%, i.e. double (Globo News, 2011). This finding is worrisome because private higher education institutions in 2001 already accounted for 68.9% of enrollments in higher education. In 2010, this share reached 74.2% (Globo News, 2011). Last year, eight out of ten new students enrolled in private higher education institutions. These institutions were also responsible for 77% of diplomas issued to graduates of 2012 (INEP, 2013).

As seen in Figure 3, enrollment in private universities is exceedingly high considering the interest in public tertiary education among students. This suggests that despite the attention paid to increasing access to public universities, the 'counter-policies' that allowed increased access to private universities may have been more effective in comparison. The high enrollment rates in private universities may also be due to other factors, including the

continued inaccessibility of public universities due to exam requirements, or perhaps due to the limited 'fiscalization' among private universities that may make being admitted or graduating less difficult in comparison to public institutions at the tertiary level. For the purposes of this paper, it will be discussed as relative to the low percentages of enrollment in public universities, given the government's explicit goal to increase access to public universities.

Figure 3: Visualizing discrepancies in distribution, from secondary to tertiary levels of education



One pertinent point is the role of race, in the debate of interest in and access to higher education. Race plays a role in the discussion of access in Brazil, as it is intrinsic to the nation's historical composition and fifty-one percent (51%) of Brazilians defined themselves as black or brown in the 2012 census (Ipea, 2012). Some scholars largely associate race and socio-economic status (and its consequent effect on opportunities), while others suggest that Brazilian society is stratified more so by class, than race per se. Nelson do Valle Silva (2013), a specialist on social mobility from the Federal University of Rio de Janeiro, stated in a recent article of *The Economist* that: "race affects life chances in Brazil, but does not determine them" (pp. 4). Much like the students from public schools, black and brown students struggle to have access to higher education. Having said that, the rates of black 18-24 year olds in higher education in 2006 was double the proportion in 2001 (Ipea, 2012). According to Cicalo (2008), the core of the debate on access in Brazil revolves around socio-economic standing more so than race due to the high miscegenation of its population, and also due to a context that has long been molded by the ideology of racial democracy. He states that:

“according to a very dominant view, since Brazilian people are the result of a racial mixture between European, African, and Native Indian population, racial boundaries cannot be clearly drawn in this country; also, as a result of genetic mixture and blurred racial boundaries, discrimination and marginality of the Afro-Brazilians would be due not to ‘racial’ problems but primarily to a ‘class’ one” (Cicalo, 2008, p. 265).

Numerous authors in North America use Critical Race Theory as an analytical framework when assessing access to higher education, as it provides a lens through which to question, critique, and challenge the manner and methods in which race, supposed meritocracy, and racist ideologies have shaped and undermined policy efforts for African American student participation in higher education (Harper, 2006; Kezar et al., 2005; Lewis & Hearn, 2003). However, many of these scholars conclude that increasing access to the public good of higher education is beneficial to everyone—public interests converge when “more Americans across racial/ethnic groups earn college degrees and assume societal roles that enhance global competitiveness, decrease crime and poverty, among other advantages” (Harper et al., 2009, p.16). Following this mindset, and in order to reduce the scope of this study, the race discussion will be restricted to its role in university policies (i.e. affirmative action). Although the topic of race will not be tackled directly, the recommendations put forth in Chapter 4 apply to all students that feel they are hindered as a result of discrimination. If pursued, said policy reforms could serve to increase the opportunities of access to all students, regardless of their race or socio-economic status.

This study seeks to explore why students who attend public high schools and are in most cases of lower-income families are the clear majority, yet statistics suggest that they are not represented in public higher education in similar numbers despite Lula’s promise to address this discrepancy. Furthermore, it aims to determine what should be tackled by policy and how, to reduce the lack of societal representativeness within the education system in Brazil.

In essence, the thesis argues that although the socio-economic condition of individuals can and does affect educational outcomes, the Brazilian government should aim to bypass the impact of SES by decreasing the substantial gap in quality that exists, when comparing the education offered in public and private high schools throughout the country. This can be done through higher investments (state and federal) in the public secondary education sector as well as improved monitoring to avoid disparities in investment capacity (i.e. horizontal imbalances) and/or the misuse of funds. Moreover, the study argues

that an essential component to improvement consists of increasing the communication between the representatives of the secondary and tertiary levels to ensure cohesion within and between levels of Brazilian education, a factor only briefly discussed in the literature reviewed.

Part II:

RELEVANT FINDINGS IN LITERATURE

To assess the efficiency and effectiveness of the education policies employed, it is important to first understand what the literature on the topic suggests are elements that can affect one's educational outcomes⁸. Such understanding allows one to better determine which [if any] of the factors affecting a person's educational outcome is within the government's realm of responsibility to address. As such, the literature reviewed consists of theoretical and empirical insight on what influences students' interest in, and pursuit of, higher education.

Three main paradigms stand out in the debate on the key causal factors/obstacles contributing to educational levels and university access. The first (1) revolves around socio-economic status and other personal determinants; the second (2) the quality and attributes of secondary education and the third (3) reviews the effects of university entry policies and other traits of tertiary education. Evidently, increases and decreases in enrolment are correlated with multiple influences (i.e. enrolment trends do not occur in isolation) and as a result the three paradigms listed are often intertwined. The significant interconnectedness of three main factors is presented in this section. The factors presented and the association between these elements substantiate the choice of variables included in the field portion of this study. In other words, the literature justifies the importance of the variables and in the next stage, through surveys and interviews, their significance in students' decision and capacity to pursue higher education will be assessed.

⁸ Understanding what factors affect people's educational outcomes both in *country specific terms* (i.e. in Brazilian literature) and *generally* (i.e. around the world), allows one to spotlight both issues that have already been declared to exist in the country at hand while also looking at the larger picture to ensure that other factors have not been overlooked in the national academic, political and economic debate thus far - that should be included. In other words, it allows for a comprehensive list of factors that can affect educational outcomes and university access, crucial to the understanding of what factors should be considered in the policy arena and what should not.

Despite the growing importance and attention to the topic, the empirical studies on the impact of education policies on access to universities in Brazil are quite limited. The existing empirical studies on topic revolve mainly around an analysis of the results available in Brazilian education indices. The purpose of reviewing the existing works is to identify the areas that have been tackled by scholars, while also noting the potential gaps and contradictions in these empirical studies, drawing attention to the overall strengths and weaknesses of the data sources used. Moreover, in order to assess in the field the efficacy of the policies employed, one must first review the literature on factors that affect educational outcomes to determine what variables should be included in the survey/interview portion of this study. Policies that address the needs of the people and educational institutions are much more likely to be effective if they are tending to the structural issues at hand, as opposed to merely brushing the surface of the problem, so it is important to review all potentially relevant variables. The empirical literature review follows the same sequence as the theoretical portion, under the headings of the three paradigms: (1) the role of socio-economic status and other personal determinants, (2) the role and impact of secondary institutions, and (3) the characteristics of universities and university policies.

KEY CAUSAL FACTORS RELATED TO UNIVERSITY ACCESS

Role of Socio-Economic Status (SES) and Other Personal Determinants

In an analysis of the variables that affect educational outcomes, many scholars agree that the factor that most significantly contributes to positive or negative results is one's socio-economic standing and background (França, 2010; Borges & Carnielli, 2005; Fitzgerald, 2004). According to a large portion of the literature, students that have difficulties entering post-secondary institutions are often from lower-income homes. Fitzgerald (2004) stated that: "only 22 percent of college-qualified, low-income high school graduates [in the United States] earn a bachelor's degree compared to 62 percent of their high-income peers" (p. 13) and there are several reasons for this. Family income and wealth play a tremendous role in the school options available to students for their high school years, as well as for higher education; as does parental education and involvement (Mazumder, 2003; Berkner & Chavez, 1997; Mora, 1997; Ludwig, 1986). However unfortunate this may be for large portions of society that are not wealthy,

ultimately, the higher the income, the greater the options in quantity and quality of education. Those who critique this social reality, like Pinto (2004) and Zeferino (2011), argue that the students entering university in Brazil are not necessarily the most capable, but in fact the most well-trained. While Pinto (2004) and Zeferino (2011) wrote in the context of Brazil, the discrepancies in opportunity they describe are evident in other countries as well.

Within the literature reviewed on the effects of socio-economic status and other personal determinants, a few key concepts arose, that appeared to be a consensus amongst scholars, regarding what affects one's academic outcomes. These include: parental income, education and involvement, as well as one's access to internet at home and personal predispositions. These features also cause a trickle effect that unveils other impacts, revealing the multifaceted aspect of this debate. Are students more likely to succeed as a result of their parent's income, or perhaps, as a result of their parent's higher levels of education (which possibly allowed them to have higher incomes)? If there is no parental involvement in one's academic standing, will the student succeed regardless if they are from a higher income home? These are all questions explored in this segment. Scholars agree that whether or not one will succeed in the pursuit of higher levels of education depends greatly on the drive and will of the individual (Plank et. al., 2001), regardless of these SES-related factors. However, consensus also exists that there are factors that affect educational outcomes that should be noted by policy makers, to address any imbalances in the provision of education [that should be fair and equal] that may occur. In the policy arena, these imbalances can ultimately be tackled, to ensure equal opportunity and societal representativeness in each and all education sectors.

Parents: Role of Income, Education and Involvement

According to Susan Mayer (2002) and a myriad of other scholars, parental income is positively associated with virtually every dimension of child well-being that social scientists gauge. Educational attainment and outcomes indubitably fall within this category. However, significant contention exists regarding the extent to which income in itself is a significant variable and how policy should approach this. In other words, there is limited congruence in terms of the extent to which parental income affects educational outcomes and where/how policy should intervene. It is important to note, as stated by Mayer (2002):

“While social scientists have long been interested in the effect of family background on children’s outcomes, they have often been more interested in the effect of social rank, social class, or socioeconomic status (SES) than in the effect of family income. SES is usually a composite of parents’ education, occupation and income. SES was never intended to be a proxy for income. Because education and occupation tend to exert effects on children independent of the effects of income, the effect of SES is not likely to be the same as the effect of income” (p. 18).

With this, Mayer (2002) not only sheds light on the difference between assessing income and SES as a whole, but also underlines the multitude of factors that are at play when assessing factors that affect educational outcomes. Also, as a result, the discussion of income and SES presented here are separate, beginning with income.

In the United States, where tuition costs are high, some scholars determine that parental income affects educational attainment because low-income parents cannot afford to pay their children’s college costs (Mayer, 2002; Kane, 1995). An alternative explanation underscores the correlation between parental income and the quality of their children’s primary and secondary schooling, which implies that student’s achievement in these lower grades and expectations for post-secondary schooling are affected by their parent’s income (Heckman, 1997). The latter theory is more applicable in the case of Brazil where university tuition costs are not substantial, and the most prestigious universities in the country are free of charge. Moreover, recent scholarly research in the area of access to higher education contends that it is long-term factors, such as family background, over short term factors such as credit constraints, which are of greatest importance in determining access to post-secondary education (Finnie & Mueller, 2008). According to the document issued by the Educational Policy Institute of Queen’s University in 2008, *Measuring the Effectiveness of Student Aid*, resources “aimed at relaxing credit constraints (e.g. loans and even grants) may be misdirected and might be better utilized at improving student performance at (or before) the high school level” (p. 4). The discussion of credit constraints in the discussion of educational attainment, particularly its relation with parental income, is restricted here.

Taubman's (1989) study on the role of parental income in educational attainment presents the use of consumption and investment models⁹ to relate expenditures on children's education to parental income and wealth, using U.S. empirical studies as his basis. In his study, the conclusion is that parental income does in fact matter in the debate of educational outcomes of children (Taubman, 1989). Children from higher-income homes are said to be at an advantage both in terms of their performance as well as the opportunities available to them.

Lindahl (2004) reviews various contributions upholding the view that financial limitations significantly impact educational attainment. Similarly, the *Learning Curve*, a report published by Pearson Education in 2013 based on research by the Economist Magazine Intelligence Unit,¹⁰ determined that on the surface, money and education seem to create a virtuous circle, with rich countries [and individuals] buying high quality education for their children who, in turn, gain economically. Nordin (2011) states that when income is examined as a separate variable, the research reveals a consistent positive relationship between family income and student achievement. In addition to his analysis of the National Assessment of Educational Progress (NAEP) database, Nordin (2011) cites Hill and O'Neil (1994) who found that increasing family income by \$10,000 per year was associated with an increase in student achievement of 2.4 percentile points. Grissmer, Kirby, Berends, and Williamson (1994) had similar findings on the relationships between income and mathematics as well as income and reading achievement.

In contrast, Carneiro and Heckman (2003) suggest that *current* parental income does not explain child educational choices, but that family fixed effects that contribute to *permanent* income, such as parental education levels, have a much more positive role. While Cameron and Heckman (1998) use US data, and Chevalier and Lanot (2002) use the UK National Child Development Study data, both studies reached the latter conclusion. According to the same *Learning Curve* (2013) report cited earlier: "a closer look indicates that both higher income levels

⁹ As per Taubman (1989) the consumption model explores the benefits to the parent and/or child such as social status, a better understanding of and functioning in the world and a richer appreciation of culture. The investment models assume that all the benefits to the children occur as increases in earnings.

¹⁰ This report breaks down the factors that lead to "successful education outcomes – both economic and social." The Economist team studied a range of international data from over 50 countries and also conducted interviews with 16 international educational experts (Forbes, 2013).

and better cognitive test scores are the result of educational strategies adopted, sometimes years earlier, independently of the income levels existing at the time. More important than money, say most experts, is the level of support of education within the surrounding culture” (Crotty, 2013).

The question then becomes, what affects ‘support for education’ at home? Evidently, a number of scholars believe family income has a high correlation with student’s academic success. However, others believe that parental income is often inextricably connected to parental education. The education level held by parents is important and closely linked to their income seeing that higher incomes are often the result of higher education. Students whose parents completed a post-secondary degree are more likely to seek out higher education due to parental influence. This influence can come in the form of pressure, or simply by motivating children who see/feel the advantages of pursuing higher education based on the quality of life they, and their parents’ experience. Nordin (2011) describes parents as a model for learning, who “determine the educational resources available in the home and hold particular attitudes and values towards education” and also that “the educational attainments which leads to the occupations of parents serve as an indicator of the values and resources with which parents create this environment” (p. V2-312).

The opposite is also true according to José Ginés Mora (1997), a professor at the Institute of Education of the University of London, who claims in his paper on Spanish higher education that teens whose parents or main householders work in agriculture or non-skilled labour are likely to follow in their parents tracks and do not pursue higher education. When the parents have not attended university, the pressure on their children to attend is not as high as in higher-income homes (Giroux, 2004; Mora, 1997). Furthermore, households where the parents have not completed tertiary studies are likely to receive lower incomes. Often, lower income households require that teens take on employment during high-school and this in itself decreases the opportunities of interest and enrolment in universities (Fitzgerald, 2004). Lower family incomes with low levels of parental education are said to have the reverse effect of those seen in higher income homes with higher levels of education among the parents: the choice of schools for their children is limited given that most teens in this case attend public high schools for financial reasons and parents’ are not particularly adamant about their children pursuing further education. Whether this is in fact the case will be assessed during the field research portion of this study.

A study conducted by Dubow et. al. (2008), through the use of the Columbia County Longitudinal Study¹¹ in the United States, determined that parents' educational level when the child was 8 years old significantly predicted educational and occupational success for the child 40 years later. In other words, parental education is a relevant factor in students' outcomes, as per Dubow et. al. (2008). Across the globe, in India, Mukherjee and Das (2008) came to similar conclusions. In the latter's work, an emphasis is placed on the role of parental education in schooling and child labour in Urban India, the conclusion remains that parents' levels of education play a significant role in determining the outcomes of their children: the higher the education level, the less likely their children will be subject to child labour and/or early school drop-out (Mukherjee & Das, 2008). While some variables differ, the conclusion put forth by Mukherjee and Das (2008) are relevant to this debate. It exposes the bearing of parental education on the outcomes of their children and sheds light on the experiences witnessed in another developing country, which generally speaking, resembles Brazil. The authors also highlight the role of social capital through the lens of the economics of education, underscoring how the differences in socio-economic background greatly impact the eventual education an individual will receive (Mukherjee & Das, 2008).

Another feature that is often said to be fundamentally linked to one's academic outcomes within the sphere of socio-economic factors, in addition to parental income and education, is the role of parental involvement in the students' academic life. As mentioned, there appears to be a general consensus that students from higher income homes are more likely to excel academically due to the multifaceted effect of said high income homes (often means parents have high levels of education and many correlate parental education with encouragement for their children). Fan (2001) explains that parents' Education Aspirations for their children, "have a consistent (across student and parent data and across ethnic groups) effect on students' academic growth, over and above the effect of SES" (p. 56). Smith (2004) claims that researchers agree that rates of parental involvement are lower in low-income communities than in higher

¹¹ The Columbia County Longitudinal Study began in 1960 when all 856 third graders in a semirural county in New York State were interviewed along with their parents; participants were re-interviewed at ages 19, 30, and 48 (Dubow et al., 2008). These results provide strong support for the unique predictive role of parental education on adult outcomes 40 years later (Dubow et al., 2008).

income schools and consequently “children of higher income families are receiving more of the academic and attitudinal benefits of parental involvement than low income children” (p.44). Meanwhile, Lee and Bowen (2006) ascertained that the positive effects of parental educational levels on achievement appear to be mediated by parental involvement. This means that the parents’ human capital (i.e. educational attainment) is transmitted to their children in the latter’s development of human capital only *if* and when the parents direct social capital towards their children (Lee & Bowen, 2006). It is, according to them, essentially inadequate to claim that students’ whose parents possess higher levels of education will inevitably be involved in their children’s academic lives and as a result their children will succeed. Positive and superior academic outcomes are more likely to occur if the three factors here discussed (income, education, and involvement) are positively correlated (Lee & Bowen, 2006; Hill et. al. 2004).

Other SES-related Factors

In countries like Brazil where the university entry exam requires knowledge of at least one foreign language, being of a higher socio-economic stratum allows parents to register their children in second language courses as well as other university preparatory classes (*cursinhos*) that those with lower incomes often cannot afford (Borges & Carnielli, 2005). In addition to the second language (i.e. English, French or Spanish) and prep courses deemed essential in the case of Brazil, as stated by the dean of the Aeronautical Institute of Technology Mikal Gartenkraut (via Fernandes Jr, 2004), students in lower-income homes (particularly in rural areas) often do not have access to computers and internet in comparison to their higher-income counterparts. This further decreases their opportunities of pursuing higher education and successful enrolment as essential skills are not being developed (Borges & Carnielli, 2005). Although one cannot make the assumption that those living in rural areas all receive lower incomes, some scholars have noted a rural and urban divide amongst those who enrol in universities and have claimed it is in fact due to socio-economic factors, with the former revealing considerably lower rates (Lopes et. al, 2007; INEP, 2006; Conlon & Kirby, 2005).

The numerous factors in this segment, that have been underscored by scholars as relevant to one’s educational outcomes – the role of parental income and education, the role of parental involvement, the potential strains of lower income homes (i.e. teens having to take on a job during high school), the need

and ability to take supplementary courses, access to internet, and SES in general – were thus included in the surveys in order to gain a better understanding of the extent to which students/teachers believe these factors are significant in the students’ decision and ability to pursue higher education.

Empirical Review

The overall conclusion from Rumberger’s (2010) empirical study is that social class still matters in the United States, in terms of educational attainment and life chances. His analysis suggests that students from privileged backgrounds complete more schooling and earn higher wages than students from disadvantaged backgrounds (Rumberger, 2010). He further states that the odds of completing college for a student from a high SES background are more than six times greater than for a student from a lower socio-economic background, even when regulating for other predictors such as grades, and college expectations (Rumberger, 2010). “This suggests, for example, that even if students from disadvantaged backgrounds acquire the same level of cognitive skills by the end of eighth grade and have the same desire to attend college, they are still less likely to do so than students from a privileged background” (Rumberger, 2010, p. 253). During the field research, students were asked to rate the importance of SES on educational attainment and consequent life chances, to determine whether students in Brazil believe this to be the case

Maria Helena Guimarães de Castro (2009)¹², in her article on evaluation systems, calls attention to the disadvantages students from lower income families experience in terms of educational attainment; an issue highly visible in many of the indices that now track progress [or lack thereof] in the education sector in Brazil. In her breakdown of the National Secondary Studies Exam (ENEM – *Exame Nacional do Ensino Médio*), de Castro (2009) discusses how the focus on socio-economic status when comparing public to private schools conjures an enormous amount of discomfort for students, parents and teachers that know and feel the effects of low SES in the quantity and quality of education provided in public schools. This in turn leads students and teachers to be discouraged and unmotivated to improve conditions and/or excel because the odds are against

¹² De Castro (2009) is the former state secretary of Education in São Paulo, former president of Inep (National Institute of Educational Studies and Research Anísio Teixeira) and former executive secretary of the Ministry of Education,

them regardless (de Castro, 2009; Domingues et. al., 2000). Instead of creating a positive agenda that aims to evade the effects of SES in education through improvements, ENEM results have only served to reinforce the disturbing and debilitating debate on SES that in itself does not contribute to improvements in the quality of education (de Castro, 2009). The overall approach to education in Brazil is critiqued¹³ as many key issues hide behind the extensive and continuing affliction with SES (de Castro, 2009). Many of her findings substantiate the claims in the theoretical literature¹⁴, yet the difficulty of taking that data and converting it into efficient and effective education policies is arguably the most pertinent point.

Other works have taken a different route. Instead of criticizing the arguably excessive presentation of SES figures in education indicators, some attempt to track the effects of SES, hoping to find results that suggest its role is decreasing and education is being 'de-elitecized' in Brazil (RES, 2008). The Journal of Higher Education in Brazil (*Revista do Ensino Superior*) presented a study in 2008 that included statistics from the National Institute of Educational Studies and Research Anísio Teixeira (Inep) and confirmed the fact that the richest and consequently most educated young adults *continue* to be the ones attending federal public universities. Michelotto et. al. (2006) also confirm through the use of Inep statistics that Brazilian society continues to cultivate the notion that university is a privilege of the higher classes whose children are predestined to attend, as a result of their families education and income. These figures substantiate the variables discussed in the theoretical review, indicating that in fact students whose parents have higher levels of education are more likely to attend university themselves. As will be discussed in the case study, the field research results suggest that although the national statistics reveal this to be the case, when the students at public schools are asked, they do not seem to associate their parents education to their pursuit (or not) of higher education.

¹³ DeCastro (2009) does, however, also applaud the recent developments in evaluation systems by stating that for too long policies have been based on speculation and this is without a doubt a step in the right direction.

¹⁴ According to de Castro (2009), as a result of the recent attempts to universalize access to education in Brazil, many 'new' students are extensively disadvantaged in terms of language skills and in access to cultural goods. She discusses the weight of factors such as the level of education parents hold, the family's socio-economic standing, and so forth, based on an assessment of the statistics in said indexes.

Bourguignon et al. (2003) follow a strategy based on direct information given by survey respondents about the education and occupational position of their parents, as available in the 1996 Brazilian household survey (PNAD). This information permits measuring not only the extent of intergenerational educational mobility but also the way in which parents' characteristics, and some other circumstance variables, affect the earnings or income of their children, independently of the education of the children. By controlling for the year of birth, it is also possible to see how the influence of parents and social background has changed across cohorts and whether opportunities account for an increasing or decreasing proportion of total inequality.

Another study conducted that is relevant to the debate on whether Lula's policies had grounding in the reality of students and teachers is Whitaker and Fiamengue's (2001) *Secondary Education: Responsibility of the State or the Enterprise?* It compares vertically and horizontally within and between different courses respectively to determine whether in fact attending a private high school increases one's chances of being accepted into university (Whitaker & Fiamengue, 2001). Although this study was conducted prior to Lula's terms as president, the findings are relevant as they partially coincide with the findings in the field research conducted, which moves away from the notion that the *only* factor at play is the public versus private divide. They reinforce the importance of one of the variables discussed in the theoretical literature review: the need for supplementary courses. According to these authors, it is not the type of high school that one attends that increases or decreases access to university, the determining factor is whether students attend supplementary courses (*cursinhos*) or not (Whitaker & Fiamengue, 2001; Franco, 2008). The authors believe the impact of secondary schooling is in itself nullified as a result of these variations and declare that what *really* makes a difference is whether students attend *cursinhos* (Whitaker & Fiamengue, 2001).

Although schools that have the capacity to invest in teachers (training, wages, etc.) and infrastructure are often private, Whitaker and Fiamengue (2001) stress that this is not always the case. There are public high schools that are managed with a focus on progress and are highly equipped to tend to student needs, and there are also a number of private schools that fall well below the unspoken expectations for the kind of enterprise that it is (Whitaker & Fiamengue, 2001). This article suggests that the quality of education advertised in and by private high schools is not always present, yet people continue to

believe that private high schools will prepare students for university in a more effective manner than public high schools (Whitaker & Fiamengue, 2001). Their study is quite pertinent to the questions posed here as it not only suggests that private schools are not necessarily 'better', but it also sheds light on a potential contradiction that exists within the empirical evidence (as per the FONAPRACE's findings examined above that stresses private schools *are* more equipped). In other words, the value given to *cursinhos* and the wide spectrum of quality across private [and public] high schools quality of private schools was explored in more depth in the field study to confirm or refute these findings.

Considerations

The summary of the findings in the literature is displayed below, in Table 2. A few of the Brazilian scholars reviewed stated socio-economic factors decisively contribute to educational prospects and life chances (Libâneo, 2008; Lopes et al., 2007; Borges & Carnielli, 2005); the recommendations are more geared towards addressing the precarious state of public high schools, both in quantity and quality of the infrastructure and education provided. The authors go as far as spotlighting the problems and recommending solutions in that context, but the practicality of implementing these changes is not addressed. Although not explicitly, most of the authors acknowledge that while socio-economic factors are perhaps the most determinant, there are also other issues at play, including the role and impact of the quality of secondary institutions. Nevertheless, given the rampant belief that socio-economic factors are important in determining one's academic outcomes, the survey portion of this study includes questions pertaining to students' parental income, education, involvement, whether or not the students work, and so forth.

Table 2: Summary of Relevant Literature on Access to Higher education, as related to SES and other personal determinants

Paradigms	Assessments made in Literature
Socio-economic factors and other personal determinants	<ul style="list-style-type: none"> • Parental Income <ul style="list-style-type: none"> – ↑ income often = private schools for children – ↑ income often = ↑ability/willingness to pay for prep and language courses • Parental Education <ul style="list-style-type: none"> – ↑ education = ↑ chance children will pursue ↑ education • Other personal determinants <ul style="list-style-type: none"> – Parental involvement/influence – Access to computers/internet/technology • Individual characteristics: intelligence and personal motivation

Role and Impact of Secondary Institutions

The Program for International Student Assessment (PISA) revealed in 2009 that student performance in Brazil’s public schools is quite inferior to its private counterpart. Testing knowledge in math, reading and sciences, the average obtained by students in private schools was 502 points, while in the public sector it was an average of 387 points (PISA-IBGE, 2010). Closely linked to socio-economic factors, the quality of education provided to students at the high school level also greatly influences whether students will choose to pursue higher education and whether they will be capable of doing so. An assessment of the literature on the matter reveals that the quality of private schools versus public schools can and does greatly affect the educational outcomes of a student, arguably more so than SES related factors.

Public versus Private

As mentioned, students of higher SES can afford to attend private high schools while lower income students are often limited to public schools. In Brazil, 86.4% (nearly 7 million) of the students enrolled in high school are currently attending public schools, while 13.6% are in private systems (IBGE, 2010). The data reviewed in Brazilian education indicators¹⁵ substantiate the claim made in the

¹⁵ Relevant Government indexes reviewed: National Institute of Educational Studies and Research Anísio Teixeira (Inep), the Basic Education Development Index (Ideb - *Índice de Desenvolvimento da Educação Básica*) and its two components: the School Census (*Censo Escolar*)

literature: the higher the income, the higher the likelihood of attending a private high school. Said indicators also spotlight how the students attending private high schools are the ones being admitted to federal (i.e. public) universities. While there are areas that appear to be exceptions, generally it has been reported that there are visible differences to the quality of the education offered in public schools versus in private schools (Krueger, 2004). Having said that, the study conducted by the Center on Education Policy in 2007, found no evidence that private schools in themselves actually increase student performance (Center on Education Policy, 2007). While they acknowledge private schools may do more to develop students' critical-thinking abilities, not just the rote memorization required to do well on achievement tests, for which public schools have been criticized for (Center on Education Policy, 2007). According to their study, it is the "kinds of economic and resource advantages their parents can give [students] (p. 19)" – as well as the level of parental involvement in their kids' education, that determines success or failure in high school. In other words, the report indicated that private schools have higher percentages of students who would perform well in any environment based on their previous performance and background. Whether this is in fact the case will be assessed in the field portion of this study, once responses from students in public and private institutions are collected and compared.

Infrastructure: Needs & Effects

Private secondary institutions use the high tuition returns to invest in infrastructure, i.e. they have the funds to improve facilities, services, and installations needed for optimum execution of the supply side of education (França, 2010; Leite, 2010; Borges & Carnielli, 2005). This in turn leads to better results in student performance as the schools are better equipped with supplies, teachers are well-trained in the areas they teach, and the students have more guidance and support available to them. The conditions in public schools are often – although not always – unsatisfactory in comparison (Leite, 2010; Libâneo, 2008; Fernandes Jr., 2004). The substandard infrastructure that exists in many public high schools leads to a less than desirable quality in the education provided. For

and the National Basic Education Evaluation System (SAEB – *Sistema Nacional de Avaliação da Educação Básica*). Also used: the National Secondary Studies Exam (ENEM – *Exame Nacional de Ensino Médio*), the Higher Education Census and the National Higher Education System (Sinaes – *Sistema Nacional de Avaliação da Educação Superior*).

example, according to Anderson (2008), the lack of teaching materials is negatively correlated to student achievement test scores; high school teachers in Brazil have a high turnover rate as a result of low wages, poor training and overall frustration with the system (Libâneo, 2008; Lopes et. al, 2007). Inadequate management at the school level also leads to low numbers of administrative and faculty members due to inefficient use of funds (in some cases a result of corruption) and less than supportive working environments. Little to no training at the administrative level is also a setback (Anderson, 2008; Libâneo, 2008; Hill, 2005). These factors were all included in the survey/interview portion of this study in order to confirm or refute the correlation *and* significance of these factors in relation to the students' interest and capacity to pursue higher education. Discussed in more depth in the upcoming section on the field research, the findings suggest that private schools in low-income areas – while more equipped than their public counterparts- are still below the standards of quality necessary to ensure that students' are being properly prepared for higher education.

The Importance of Information and Supportive Circles

Jonathan Cohen (2009) argues that the goals of education need to be reframed to prioritize not only academic learning, but also social, emotional, and ethical competencies. Cohen (2009) notes the gulf that exists between the evidence-based guidelines for social-emotional learning, which are being increasingly adopted at the state level, and what is taught in schools of education and practiced in preK–12 schools. While knowledge that supportive circles are important for the development of students, they are not always put in practice to the fullest extent.

Perry et al. (2010) examined school engagement as a mediator of academic performance through the effects of career preparation (career planning, career decision-making self-efficacy), parental career support, and teacher support among diverse urban youth in middle school and high school. In their study, they found that:

“Career preparation exerted a substantial and direct effect on school engagement, which in turn exerted a substantial and direct effect on grades; through the mediating effect of school engagement, the results support the idea that career preparation plays a crucial role in facilitating the academic performance of urban youth” (Perry et. al., 2010, pp. 286).

These findings, combined with the literature that indicates sources of social capital (e.g., teachers, mentors, extended family) outside of the traditional nuclear family often play a salient role for many urban youth, suggest there is value in tending to the social environment within the high schools (Harper et al., 2009). Teachers are also a key (although often overlooked) source of support for helping students to prepare for their careers, which would help them become more engaged in school. Because students may not have regular access to parental career support for a variety of reasons (e.g., chronic poverty, negative life events, underemployment, family stressors), “teachers might assume a more prominent position in their process of thinking about who they want to become in the world of work” (Harper et al., 2009).

Given these findings, the survey portion of this study also includes questions on the relevance of supportive circles and information sessions, to determine whether they should in fact be included in policy, to improve the quality of secondary education provided in Brazil and access to higher education.

Considerations

Ultimately, students of lower SES and others that attend public secondary education institutions are not receiving adequate, let alone the first-rate education that is needed to equip students with the tools that allow them to have a prosperous future. In order to address these inadequacies, scholars stress the importance of investing in infrastructure (Leite, 2010; Libâneo, 2008; Anderson, 2008; Hill, 2005; Fernandes Jr., 2004, Berkner & Chavez, 1997). This requires government funding (or local fundraisers) for additional classrooms, a lower teacher-student ratio, more teacher training and higher wages for teachers, and more counsellors, amongst other things. Anderson (2008), Hill (2005) and Fernandes Jr. (2004) emphasize the importance of improving certain subject areas: students are not developing suitable literacy and writing skills and knowledge of math at the high school level, areas that are crucial for entry to university. Given that IDEB evaluates these two areas, it can serve as a good indicator of improvement [or not] over time. Supportive working environments are also important since democratizing school management would allow the needs of teachers to be heard, who are then more capable and willing to address the needs of students. Plank and Jordan (2001) explain that their recommendations to provide better guidance to students relating to their post-

secondary options are neither new nor costly, however they rely too heavily on schools' self-directed desire to change the status quo and underestimate schools' needs for government support (often in the form of funding) to trigger action. Plank and Jordan (2001) write in the context of the United States but suggest that their theories and recommendations are applicable beyond American borders. In the case of Brazil, the constraints in their theories are also valid.

The literature proposes that the effects of SES are further exacerbated as a result of the quality [or lack thereof] of the education offered at the high school level. As such, to reduce the impact of SES without suggesting impractical solutions such as income redistribution, policies that confront the concrete issues such as improving infrastructure and teacher training in public schools must be put in place. In reality, the Lula government did vow to address these issues, but the effectiveness of the manner in which they have done so is still in question.

Empirical Review

The variables introduced in the theoretical literature review are clearly presented in Lula's document *A School the Size of Brazil* (2003) as government priorities for this level of education during Lula's presidency. Consequently, the empirical studies on the role and impact of secondary institutions revolve mainly around the features presented in the document *Escola do Tamanho do Brasil* (2003) directly and indirectly, determining whether or not promises were kept.

Although some scholars (de Carvalho, 2006; Cueto, 2005) suggest congruence between what theories propose and what policy makers are paying attention to, it does not imply that the Lula government was the first to recognize these variables as important to address. In 2000, Domingues et. al. pointed out similar factors as important (i.e teacher training/qualification, etc.) through the use statistics available pre-Lula. Moreover, in 2010, Luana Bonone exposed - through a series of semi-structured interviews with former ministers of education, student body leaders and university professors - how the factors regarding the lack of quality in secondary education mentioned in the literature and statistics remain unchanged for the most part. As such, more must be done to address the problem. Table 3 displays the variables, said to be most significant, in one's interest in and capacity to pursue higher education, within the jurisdiction of the secondary education sector.

Table 3: Summary of Relevant Literature on Access to Higher education, as per quality of secondary education

Paradigms	Assessments made in Literature
Quality & Attributes of the Secondary Education Sector	<ul style="list-style-type: none"> • Tuition returns are what permit improvements in infrastructure <ul style="list-style-type: none"> – Private schools = ↑ returns = ↑ infrastructure – Public schools = ↓ returns = ↓ infrastructure • Infrastructure needs <ul style="list-style-type: none"> – ↑ available = ↑ interest and grades amongst students <ul style="list-style-type: none"> ◆ Teaching materials ◆ Trained teaching staff ◆ Adequate management (with training) <ul style="list-style-type: none"> ◦ Supportive work environment • Leadership and Information <ul style="list-style-type: none"> – Importance of instructional and communitarian leadership <ul style="list-style-type: none"> ◆ available = ↑ interest and grades amongst students <ul style="list-style-type: none"> ◦ Positive social networks • Ample and accurate information on career/higher education options

Again, empirical studies appear to correspond to the needs described in the theoretical review and the conformity goes beyond academia, with citizens and policy makers alike revealing similar attitudes towards the topic.

The need for improvement in high schools has existed for years yet little has been done in the sector and consequently, not much (other than to reiterate the same problems continue) has been written. More was expected on the variation in terms of investments at the state level and how that affects efforts to improve secondary education. While there are reports such as those issued by the Office of the Comptroller General (CGU) in Brazil¹⁶, that discuss the percentage of federal funds that are misused when transferred to the state-level governments – there is limited insight on how to address the issue of misuse more effectively so as to prevent it and ensure funds are adequately distributed. In addition, there is limited emphasis in the need for a better understanding and policies regarding the quality of primary and secondary education as a *means* of accessing higher education. The factors presented in this section – the value of

¹⁶ The Office of the Comptroller General (CGU) is the agency of the Federal Government in charge of assisting the President of the Republic in matters which, within the Executive Branch, are related to defending public assets and enhancing management transparency through internal control activities, public audits, corrective and disciplinary measures, corruption prevention and combat, and coordinating ombudsman's activities. The agency provides, however, only normative guidance as required.

infrastructure, teacher training, supportive work environments, higher wages for teachers, the public vs. private divide, and others – were also included in the surveys as a means of unveiling the importance of these elements in the eyes of the key stakeholders.

It is important to note that addressing the weaknesses apparent in high schools in itself would not necessarily guarantee the enrolment of more students in higher education. In addition to the socio-economic factors at play, and the role and impact of high schools on student achievement and outcomes, one must also consider the barriers university entry requirements place on students' attempts to enrol and conversely, the policies put in place to facilitate entry. Thus, the following sections discuss the characteristics of universities and university policies and their role in facilitating the transition from one level of education to the next and increasing access to higher education.

Characteristics of Universities and University Policies

One cannot address the demand for higher education while ignoring supply factors (Giroux, 2004). It is therefore valuable to the debate on increasing [public school students'] university enrolment rates to also review the characteristics of universities. At the university level, the Brazilian government's investment nearly matches the investment developed nations put forth, yet Brazil has the lowest percentage of the population with a university diploma of all OECD countries (OECD, 2011). Furthermore, in Brazil, people who possess tertiary education, receive an average of 157% more than those who do not (OECD, 2011). These discrepancies are explored in this study, as part of the goal to determine what, if anything should have been included in Lula's policies in order to increase the rates of public school students in university.

Most universities exhibit unequal representation of social classes, with a considerably elitist student body (Zeferino, 2011; Leite, 2010; Tessler, 2007; Lisboa, 2004; Fitzgerald, 2004). This exclusive nature of higher education has foundations in a historical tendency evident throughout the world (Fernandes Jr., 2004). In earlier times a university education was only suitable for, and available to, the wealthy (Fernandes Jr., 2004). More recently, many institutions of higher education have sought to incorporate inclusion as a social principle (Libâneo, 2008; Pinto, 2004) in order to have different groups represented and also to make room for lower-income students that wish to gain access to more opportunities.

Yet, the arguably overdue but necessary aspiration to be more inclusive cannot occur overnight, nor can it happen without additional investments. In relation to the questions at hand, the debate on social inclusion is relevant because it is one of the State government's methods (in conjunction with Brazilian universities) to reduce the impact of SES; a means of doing so without directly undertaking the poor secondary education factor. Whether this principle is the most adequate approach is still in question, with academics on both sides of the debate. Nevertheless, as it is a principle that influenced policy during the Lula administration, it is important to explore and discuss.

Social Inclusion as a Guiding Principle – Entrance Policies

A variety of 'social' policies have been put in place in order to address the limited transition of high school students into universities, many of which specifically target lower-income students who suffered from poor education provision at the high school level. In Brazil, where tuition is not the main impediment, the level of difficulty of the entry exam is often what reduces the chances of students from lower incomes and lower educational backgrounds. To address this issue and the resulting lack of societal representativeness in Brazilian higher education, different methods/policies have been selected by different universities, including social quotas (Zeferino, 2011; Lopes et.al, 2007) and progressive entry exams taken while students are in high school (Tessler, 2007; Borges & Carnielli, 2005). Social quotas, where a certain percentage is added to the students' final test scores, is a new procedure that has been introduced in recent years.¹⁷

Since they are so recent, the long term effects of social quotas have not yet been seen. To allow students, who do not possess the knowledge to pass the entry exam without these social quotas, to be admitted into university can potentially have a negative impact on both the secondary and tertiary education sectors of Brazil. It can lead to a reduction in the quality of the education offered in universities in order to meet the needs of those coming in with limited knowledge in comparison to their high-income counterparts; and/or if the expectations of students [once admitted] remain the same, these social quotas

¹⁷ A variation of social quotas as described was utilized in the ProUni and ReUni programs employed during the Lula Administration. Please see footnote 3 for details on the two programs.

will allow students to be admitted but will not help them to stay in the programs, as they will likely struggle and possibly be required to halt their post-secondary studies. Moreover, as public school students become more aware of the lower requirements for their admittance, these social quotas can discourage students from excelling in high school – further reducing morale amongst them. These methods have received criticism, particularly from those that believe they are mechanisms that attempt to circumvent the need for more substantial educational reform at the secondary level (Leite, 2010; Libâneo, 2008; Tessler, 2007; Fitzgerald, 2004). According to Cicalo (2008) quotas could potentially “infringe on the quality principle as stated by the [Brazilian] constitution, as well the culturally widely accepted criterion of ‘merit’” (p.264). He also suggests that by introducing quotas, the state is choosing a “cheap and very partial solution,” where no structural resource distribution is made and state responsibilities for social distribution are withdrawn. According to Cicalo’s (2008) numbers, the academic performance of quota and non-quota students is very similar. As such, the relevance of social quotas was also included in the survey portion of this study, to expose what students and teachers think about these quotas, and how relevant their existence has been in the students’ decision to pursue [or not] higher education.

Another aspect of university admissions that has been critiqued by scholars is the fact that entry requirements for degrees of higher prestige that lead to higher incomes upon completion (i.e. law, medicine, business, etc.) are so exclusive that only students who reaped the advantages of quality education and a higher SES are qualified (Tessler, 2007; Borges & Carnielli, 2005; Mora, 1997). As shown by Rosemberg (2004), Brazil represents a “social paradox where only wealthier students have traditionally had access to free university education” (p. 65). A simplistic manner of illustrating this phenomenon would be: only the children of doctors and lawyers can afford to go to (and have received the preparation for) medical or law school, thus perpetuating the cycle of social divide and limiting the opportunities available to those of lower income. While student aid may help the student pay for their education, the limited knowledge acquired during high school limits their options in terms of programs they are qualified for. Evidently, while education can contribute to social mobility, it can also contribute to the preservation of inequality. Ultimately, this issue must be addressed if the promise of potential income mobility for those that pursue higher education is to continue.

Universities' Current and Future Capacity

The significant impact of tuition, average wage levels, and average education levels have already spotlighted the difficulties lower income students face and the advantages higher income students embrace. Yet, one must also consider how universities will accommodate the higher numbers of students if the goal of increasing enrolment rates is to be achieved (given the other factors or a portion of them are addressed with effective policies). In order to receive larger number of students, institutional capacity must be augmented. This includes raising the numbers of vacancies for students, the amount of professors, classrooms and availability of courses (i.e. increase number of actual classes) as well as other traits (Lopes et. al, 2007; Tessler, 2007; Giroux, 2004). A study conducted at the Federal University of Minas Gerais in Brazil indicated that increasing the number of courses available at night had a significantly positive effect on the number of public high school students interested in attending the university (Lopes et. al, 2007).

With regard to the availability of funding for such endeavours, entry exam coordinator for the University of Campinas (UniCamp) Leandro Tessler (2007) claims that at least in the case of Brazil, one way of addressing this issue is to inform universities and students alike that not all higher education institutions must be teaching, research and post-graduate centers. This attempt by most universities to be fully operational in all three areas leads to overstretching of federal funds. It could be avoided if universities were willing to narrow their needs by specializing in teaching undergraduates *or* research *or* post-graduate options instead of attempting to be equipped for all three (Tessler, 2007). It must be stressed that the goal is to 'simply' make it more accessible to members of lower socio-economic strata, not negatively influence the high standards of universities in terms of knowledge and information.

An emphasis on capacity also sheds light on the concurrent discussion of representation of different groups within the university setting. Gurin et. al. (2002), rooted in theories of cognitive development and social psychology, present a framework for understanding how "diversity introduces the relational discontinuities critical to identity construction and its subsequent role in fostering cognitive growth" (p. 330). The results of their analyses highlight the educational and civic significance of informal interaction among different racial and ethnic groups during university years (Gurin et. al., 2002). The work of Brand et. al. (2010), where population heterogeneity is considered in returns to

schooling, reasoned that in the absence of a college degree, individuals from more advantaged social backgrounds can still rely on their superior resources and abilities while low propensity men and women have limited human, cultural, and social capital and hence particularly limited labor market prospects. They conclude that “the most disadvantaged individuals with respect to observed social background, achievement, and ability are the most likely to benefit from a college education” (p. 293). This statement underscores the importance of increasing access for those of lower SES, as they are the most likely to benefit from higher education. In the case of Brazil, the analysis of different policy initiatives for expanding the HE system conducted by McCowan (2007) determined that an equitable expansion is possible only through investment in the public sector. According to McCowan (2007): “It is not that the State is unable to fund an expansion in the public sector, but that successive governments have made a conscious decision to channel investment into the private sector - a phenomenon that has been seen across Latin America” (p.594). This expansion is not equitable however, since students of lower socio-economic background are for the most part confined to courses of lower quality or lower subsequent value (McCowan, 2007). As such, the debate on universities’ capacity and representativeness are intertwined with the notion of how these policies will affect students in the long-run, i.e. life opportunities. In other words, it is not as simple as opening the doors and welcoming all students in: expansion must be equitable.

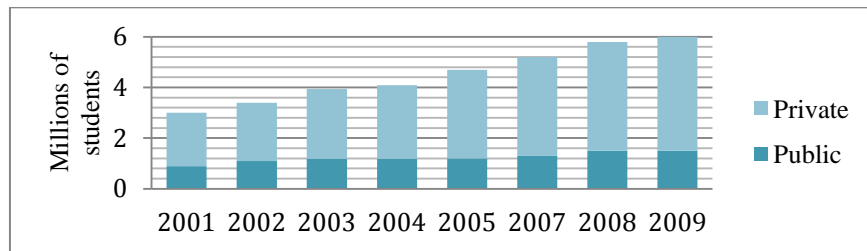
Empirical Review

As per the theoretical literature review, one requires more than a well-developed and equipped high school in order to be admitted into university. In fact, a large determinant of university access is how well-prepared and managed universities are to receive students. In the case of Brazil, where social inclusion is becoming a guiding principle, it is important to ensure that appropriate policies are put in place that encourage and permit democratization, not further deepen the problem of elite capture and social divide. A review of quantitative studies, a method that appears to be dominant in discussions of this sector, aims to draw attention to the empirical evidence on the university-access debate and what (if anything) is put out of sight.

Through the use of Inep (National Institute of Educational Studies and Research Anísio Teixeira) statistics, Franco (2008) suggests that there is

somewhat of a duality found in the higher education sector during Lula’s era. On one hand, there were significant financial investments; on the other, the expansion witnessed was far from democratized (Franco, 2008). The problem is not the lack of funding necessarily, it is more so the fact that it [funding] should be more appropriately linked to goals, objectives and results (Franco, 2008). Having said that, Franco (2008) criticizes the launching of ProUni by the federal government as it was a move in the wrong direction. As a result of ProUni, an aggressive expansion of private higher education institutions has occurred (Figure 4) and this has, according to Franco (2008), strained government funds needed in the public sector.

Figure 4: Evolution in Enrollment Rates in Higher Education (undergraduate), Brazil



Source: MEC, 2010

The studies on the other programs in place, such as ReUni have also received mixed reviews. Schwartzman (2011) critiques the academic drift occurring in higher education in Brazil as a result of these programs. The tendency toward uniformity that programs like ReUni are reinforcing combines goals that may be in conflict with each other (Schwartzman, 2011): where the same mechanism the federal government uses to measure the quality of secondary education is also used as a criterion in affirmative action programs. With 6.148 million students currently enrolled in undergraduate studies (PNAD, 2011) and more being admitted, these issues must also be reviewed in order to prevent programs and investments from reinforcing the flaws of the existing educational system.

Table 4 summarizes the findings within this paradigm. The factors here presented were also included in the surveys for confirmation of their significance. This includes: the availability of night courses, the impact of the universities’ size on the students’ decision to attend, the role and usefulness of

social inclusion programs, as well as the increase in private institutions, to name a few.

Table 4: Summary of Relevant Literature on Access to Higher education – role of Universities and University Policies

Paradigms	Assessments made in Literature
Universities and University Entry Policies	<ul style="list-style-type: none"> • Elitist nature of higher education (around the world) <ul style="list-style-type: none"> – Contributing to the preservation of inequality • Social Inclusion as a guiding principle <ul style="list-style-type: none"> – Student aid (mainly N. America) – Social Quotas and progressive entry exams (Brazil) <ul style="list-style-type: none"> ◆ Must ensure aiding students of lower SES does not impact quality of higher education • Universities’ Current and Future Capacity <ul style="list-style-type: none"> – Not necessarily equipped to receive more students <ul style="list-style-type: none"> ◆ ↑ students = ↑ infrastructure needs • Includes ↑ classrooms, ↑ availability of courses, ↑ professors (and often ↑ wages)

Part III: CASE STUDY – GOIÁS, GO

The main purpose of the case study conducted in the state of Goiás was to determine which factors, amongst those listed in the literature review as influential to one's educational outcomes and access to university, are truly significant in the reality of students in Brazil and should consequently be considered in the policy arena. In other words, through surveys and interviews with key stakeholders, including high school and university students and the state of Goiás' Superintendent of Secondary Education, this portion of the study spotlights what *they* believe are the factors that facilitate and/or impede access to university and what areas require more policy attention. The role of socio-economic factors, high school characteristics, and university policies are explored in-depth, to allow for an analysis of whether the policies implemented during the Lula administration were in fact targeting the appropriate elements, based [or not] in the reality of those afflicted by the obstacles to higher education. Also, since the Brazilian literature on the topic of quality of education and policies often critiques the governments' over-reliance on quantitative figures, this study aims to review the case from a qualitative standpoint, to later examine how these approaches produce outcomes that are analogous at times and dissimilar in others.

The findings of this study have yielded mixed results, revealing areas where Lula's administration succeeded in targeting the appropriate factors, while also exposing components that stakeholders believe are important but were relatively neglected. Moreover, features discussed in the theoretical review of the preceding chapter are confirmed and refuted here, drawing attention to the gaps in the literature on the topic of access to higher education. In order to clearly identify said gaps in the literature and policy, however, it is important to first explain the methodology of the study - beginning with the rationale behind the choice of state, sample size, and questions.

METHODS

The decision to investigate the state of Goiás for this study was made on a number of grounds. To begin, Goiás is near the median in the statistics on average household income: where Brazil's average income in 2010¹⁸ was of R\$632 per household, in Goiás it was R\$ 630 (IBGE, 2010). Average household income was selected for this study for a number of reasons. To begin, the literature on factors that affect educational outcomes and access to higher education underscored the significance of parental income and education on students' outcomes. Given that the literature further emphasized the correlation between high levels of parental education and parental income (the higher the education, the higher the income opportunities), it was believed that choosing municipalities with high and low average incomes would shed light on whether this correlation between parental levels of income and education exists (through survey responses) and whether parental income levels are in fact the most relevant factor in the discussion of educational outcomes.¹⁹ The latter would be examined through the eyes of students: whether they believe their parents income levels affect their educational outcomes and access to higher education. It was important to select average household income as a variable in order to view the potential variations between the responses of students from lower income homes and those of higher income homes. As the goal was also to determine whether a quality divide truly exists between public and private high schools, and whether this is a [more] significant variable in the debate on access, choosing average household income also allowed for an analysis of whether household income even matters if the student is placed in a private high school. In other words, using average household income as part of the selection criteria allows one to determine if private schools provide higher quality education across the board or if the regions where the average household income is higher, boasts better private schools than their lower income counterparts. As this was in fact proven to be the case, it shows that in low-income areas, regardless of how high the student's parental income is, the education offered at the institutions in these regions appears to be subpar. This in itself suggests that the quality gap between and within public and private high schools throughout the country is a more

¹⁸ Statistics from 2010 are being used in order to assess the situation immediately after Lula's administration.

¹⁹ In Brazil, specifically, several authors also discussed the correlation between household income and students grades in the National Secondary Education Exam.

relevant factor in the debate on access to higher education in Brazil than parental income per se.

Furthermore, given that FUNDEB was put in place to ensure that all states receive equal funding and policy attention in the secondary education sector, minimal variations should exist within the state in terms of funding and resources. As per the FUNDEB legislation, it should not matter where the surveys are conducted within any state, the public schools should be providing similar responses as their funding is based on school-specific indicators (number of students) and each school should be receiving relatively equal assistance and attention. Choosing average household income, as opposed to a more state-based variable, could test the relevance of parental income while also testing the effectiveness of funding distribution policies, if/when disparities were witnessed in different regions of the state.

Analyzing a state with an exceedingly higher average income such as São Paulo, for example, could skew the results given the availability of more state funding (higher taxes) for investment in public schools. Meanwhile the results of states with very low average incomes would yield the reverse. Moreover, the field research aimed to confirm or deny the importance of income when comparing the quality of public and private high schools within the municipality, but also to assess its [SES] role between municipalities (i.e. are the schools in high income municipalities more equipped to the needs of students than their lower-income counterparts?). As such, choosing a state in the median in terms of average income would avoid extremes and allow for a wider application. In addition, while the rate of students attending university in Brazil was of 9.2% in 2010 (IBGE), Goiás presents a 7.7% rate (IBGE, 2010). This factor was considered because in order to fully understand if in fact Lula's policies were responsible for the rates of enrolment, one must assess an area with higher rates to better understand the reasons for their 'success'.²⁰ Lastly, proximity, time and resources also played a role in determining the state suitable for this study.

The choice to conduct this study in different municipalities, one of low and one of high average incomes (with a pilot study in mid-average income municipality), aimed to explore and present a better picture of the divergence in educational provision and interest in higher education between different income

²⁰ The state of Amazonas also revealed high numbers, closer to the national rate. However, it was not considered for this study given the distance and limited funds.

levels/different municipalities *in addition to* exploring the extent and effect of the public vs. private divide at the high school level. It is important to note that the municipalities chosen were based on a list of cities in Goiás that had at least one public and one private high school and therefore are not precisely indicative of the lowest and highest income levels of the state. The municipalities explored were Jaraguá (lowest on relevant scale), and Goiânia (highest). The pilot study, where the variables and questions were tested, was conducted in the municipality closest to the median, Petrolina de Goiás (IBGE, 2011). Students from the Federal University of Goiás (Goiânia) were also included in the study via their participation in the survey/interviews, so as to better understand the stance of *former* high school students, their experience in being admitted and their opinions on the policies in place that assisted them [or not] in the process of becoming university students. In each of the municipalities, the goal was to survey thirty (30) students from a private high school and thirty (30) from a public school. The schools were chosen based on their *ENEM* results²¹. Although the original design included the participation of parents, it became apparent during the pilot study that parental participation in this form of study is virtually impossible in that region given that for the most part, students arrive at/return from school without their parents and they [parents] are not willing to complete surveys at home (many do not have the level of schooling necessary to feel comfortable with such forms). Thirty (30) university students from the Federal University of Goiás also participated, as did the current Superintendent of Secondary Education in Goiás, Dr. Fernando Pereira dos Santos. The latter was included in order to better understand the government's position on the conditions of the Brazilian public education sector, the choices of policies and the political opinion on how to proceed in the coming years. All participants provided their views on the current conditions of the Brazilian education system, specific to their school/experience and generally speaking.²² In total, counting

²¹ The National Secondary Education Exam is a non-mandatory Brazilian national exam, which evaluates high school education in Brazil. The test is utilized as a standard university entrance qualification test. ENEM is the most important exam of its kind in Brazil, with more than 4.5 million test takers in 1.698 different cities (Inep, 2011). The schools with the highest grades could reveal successes (to be applied in other schools) and so they were chosen for this study – however, must note that it was exceedingly difficult to collect the data due to lack of collaboration so a number of private schools were removed from list.

²² All surveys and interviews were conducted and collected as per the policies and guidelines of the Research Ethics Board of Simon Fraser University.

the pilot study conducted to test the survey questions, two-hundred and ten (210) students participated in study, as well as other relevant stakeholders.

The choice of questions was tailored based on the paradigms described in the literature. After a first section that asks basic profile questions (i.e. age, how many people in their household, whether or not they work, and other SES oriented questions), the following sections revolve around rating parental/teacher involvement and guidance, the conditions of the school and the policies implemented during Lula's administration. Lastly, they were asked to rate the importance of the different factors that surfaced in the literature review, separated in the same categories: (1) SES and other related factors, (2) attributes of the high schools, and (3) university characteristics and university policies. This includes the importance of access to internet, the influence of parental income and education, the relevance of the potential for higher salaries, the need for information sessions on higher education options and/or life after graduation, and many others (please see annex for full copy of surveys). All of these components, therefore, were included in order to confirm or refute empirically both the theories in the literature and the assessments of Brazilian indicators with regards to what factors shape and influence a students' ability to pursue higher education in Brazil.²³

FINDINGS

In order to paint the picture more clearly, it is important to begin by stating that ninety-two percent (92%) of the high school students who participated in this study declared that they intend to pursue higher education upon the completion of their high school studies. This in itself already diverges from the statistics regarding the percentage of high school graduates that are successful in being admitted to university, which in 2012 consisted of only 19% of students between

²³ Please note this is a small 'n' study which covers a limited number of schools and stakeholders. The choice of state, municipalities, schools, and sample size of this study have been to ensure the sample is representative as possible. Confirmation of how this case is demonstrative on a larger scale can be provided upon the completion of a larger-scale project.

the ages of 17-24 (Inep, 2012).²⁴ In other words, a significant gap exists between the rates of those interested in pursuing higher education and those that are actually successful in doing so. Lula's administration vowed to increase opportunities and the quality of education to allow any and all students interested, to at least have a genuine chance at being admitted to higher levels of education. Statistics such as this one will be explored in this section to highlight the gaps in the literature and policies during Lula's administration. They will also allow for a brief analysis of current President Dilma Roussef's strategies, given that the current president's policies are aligned with Lula's due to their party's platform. For the purposes of clarity, this segment is divided into the same categories as the literature review, and both survey and interview responses will be reviewed. It becomes evident quickly that, while there are components of the sectors in question (secondary and tertiary education) that were left unattended and/or underfunded during Lula's administration, there are also positive findings that unveil that the Brazilian government has advanced in its ability to determine what are the needs of its people in these educational levels.

Role of Socio-Economic Status (SES) and Other Personal Determinants

As the literature indicates that socio-economic factors and other personal determinants are arguably the most significant in determining one's interest in/capacity to pursue higher education, a number of questions regarding the relevance of SES factors and other household issues were posed to the participants of this study and this will be reviewed first. To recall, the features discussed included the role of parental income, education and involvement, as well as the importance [and limited] access to internet and personal aptitude. Students from higher-income homes were said to have more support for education and access to the tools necessary to pursue higher education, including access to university preparatory courses in Brazil called *cursinhos*. This phenomenon was said to preserve the inequality in Brazil, as those of higher-

²⁴ It also disproves to a certain extent, the claims made in the literature that students from low-income homes will likely follow their parents' decision to not pursue higher education. The fact that 74% of the students from the public school of the lower income municipality indicated that they work but still plan on attending university moves away from the assertion discussed in the literature review as well, which suggests this group would also be deterred from being interested in university

income homes are more likely to be admitted to universities, while those of lower-income homes are not represented in higher education in similar numbers.

Findings in this section of the study provided interesting insight on the variations in opinion between students of different municipalities as well as on the misconceptions of the literature when applying it to the Brazilian reality. To begin, in terms of parental income, the students from the high-income municipality indicated in high numbers (average of 80%) that this is in fact an important component in the students' interest in/ability to pursue higher education. On the other hand, seventy percent (70%) of students from the public school in Jaraguá (low-income municipality) believe parental income is only slightly if at all important. This is interesting because the students whose parents have the lowest-income levels of the groups compared are the ones who do not believe this affects their access to university. It is important to note that this does not refute the claims made in the literature regarding the sizeable effect of parental income; it reveals that students are not necessarily hindered in their interest to pursue higher education, as a result of their parents' lower income levels.

Also related to income is the enrollment in university preparatory courses called *cursinhos*. A number of authors associated high income homes with enrollment in *cursinhos*, suggesting that the higher the family income the higher the chance students will take said courses. These courses are said to increase the chances of being admitted into university and since it was depicted as a resource used almost exclusively by students from higher-income homes, the literature suggests they are represented at the university level in high numbers partially as a result of this phenomenon. This notion was not upheld by the data collected, as eighty percent (80%) of students (all groups combined) indicated they are not taking *cursinhos*. When looking only at the responses from students in Goiânia, eighty-three percent (83%) of students from the private school and seventy-one percent (71%) from the public school declared they do not take said courses. In other words, although there are some students that have chosen to take *cursinhos*, this is not exclusive to students from high-income homes or to students from private schools specifically, as the literature suggests. When reviewing the responses of university students, sixty-eight percent (68%) said they did not attend *cursinhos* while in high school and fifty-two percent (52%) said they did not after high school. Thus, the reliance on *cursinhos* to be admitted into university is not as prevalent as it has been given credit to be and as a result, the

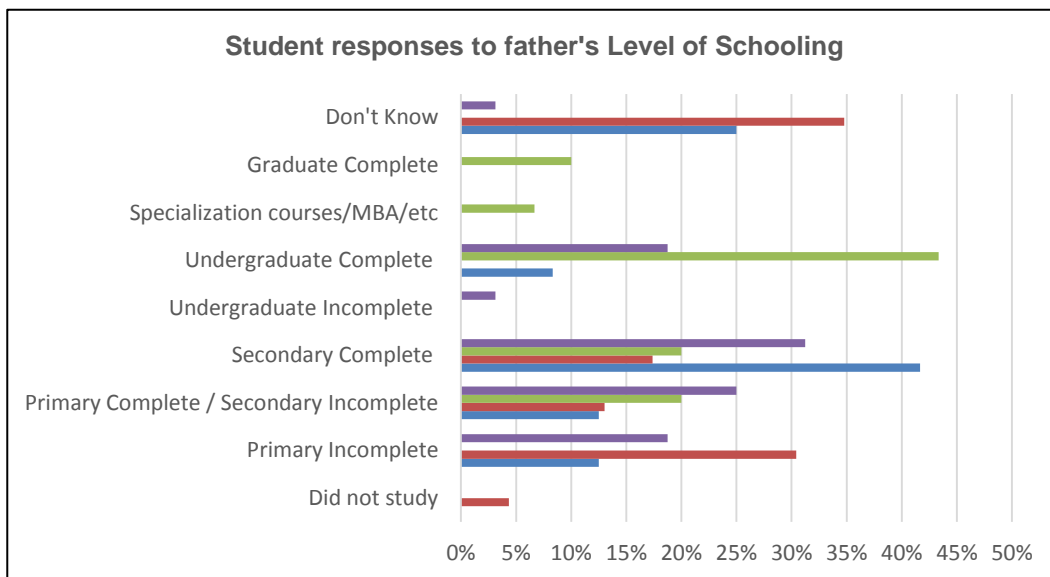
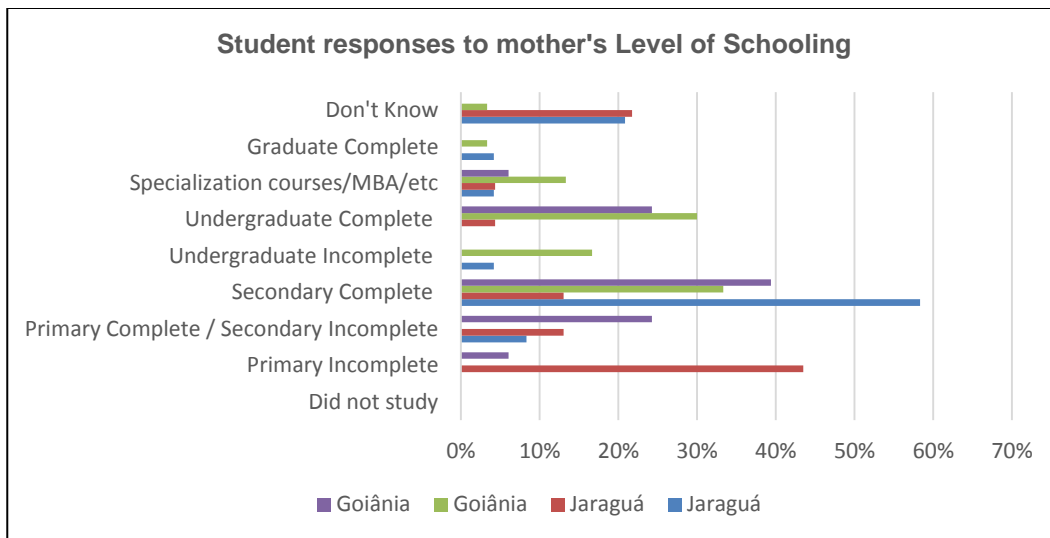
use of *cursinhos* will be dismissed from the list of factors that significantly affect educational outcomes here discussed²⁵.

Regarding the role of parental education, the majority of students indicated that their parents' education does not affect their interest in/capacity to pursue higher education. Fifteen percent (15%) of students from the public school in Goiânia (i.e. high-income municipality) indicated it was extremely important and forty-four percent (44%) as somewhat important, followed by the students in the private school of the same city, with fifty-three (53%) declaring it to be extremely or somewhat important. As such, the trend appears to be that students from the higher income municipality believe their parents' education affects their educational outcomes more than their lower-income counterparts. This belief, when compared to the levels of education amongst the parents of the students who participated, becomes worthy of note considering the higher levels of educational attainment by the parents in the high-income municipality.

While thirty percent (30%) of students from the public school in Jaraguá indicated their fathers did not complete primary school and forty-three percent (43%) said the same of their mothers, and the majority of students from the private school of the same city (Jaraguá) indicated their parents completed high school – the parents' levels of education in Goiânia were considerably higher. At the public school, twenty-four percent (24%) of students (as opposed to the 4% in Jaraguá) said their mothers had completed their undergraduate degree while nineteen percent (19%) of fathers (as opposed to 0%) were said to have the same. At the private school in Goiânia, thirty percent (30%) of students claimed their mothers have completed their undergraduate studies and forty-three percent (43%) stated that was the case for their fathers (as opposed to 0% and 8% in Jaraguá respectively). These statistics, displayed in Figure 5 confirm that the students whose parents have higher levels of education are the ones who believe parental education affects their (students) studies and outcomes.

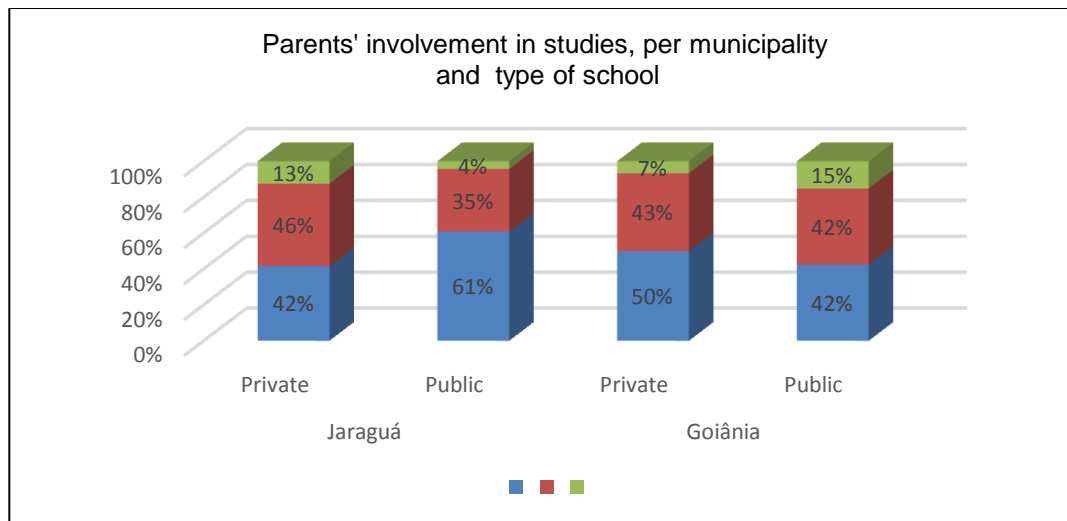
²⁵ Note: Statistics on the rates of students in university that were admitted after taking *cursinhos* is not available on a national scale. As such, *cursinhos* may be very relevant to the students' capacity of being admitted. However, given that this is not an area where government policies would be suitable (if quality of education at public schools was high there would be no need for supplementary courses one *has* to take to be admitted into university), the notion of *cursinhos* will not be pursued further in this study.

Figure 5: Level of educational attainment of parents, as per student responses, Jaraguá and Goiânia, Brazil 2012



In terms of parental involvement, interesting and unexpected results were also found. Although the literature suggests that parental involvement is more frequent and comprehensive in higher-income homes, this study revealed the opposite to be true. Only four percent (4%) of students from the public school in the lower income municipality indicated their parents are not at all involved in their studies. Among students from the higher income municipality, a larger percentage indicated their parents are not involved (15% of public school students in Goiânia said their parents are not at all involved), as per Figure 6.

Figure 6: Student ratings on parental involvement in studies, Goiânia and Jaraguá, Goiás, Brazil 2012



When considering the levels of education among the parents of students from the lower-income public school, the rate of involvement exhibited in the field research contradicts the literature. Despite the fact that many of these parents did not complete elementary school, support for education at home and parental involvement is high. Here, once again, it becomes apparent that while SES may affect a students' *capacity* to be admitted into university, it does not impact students' *interest* in pursuing higher education to the extent it is said to occur. *This is relevant because if students are interested in pursuing higher education, even if their parents do not possess high levels of schooling, the high school sector can and should aid these students in their endeavours as this is the role of this sector: to further develop students' skills and prepare them for higher levels of education.*

The other component examined in the SES section of the literature is access to internet. Unlike other areas reviewed so far, where the field research countered the assertions made in the literature, limited access to internet in lower-income homes was confirmed and students do in fact believe lack of access affects their educational outcomes. As the section on high school characteristics will underscore, although limited access to internet at home has been proven, this does not necessarily require policy attention. If high schools provide students with these resources, the need to tackle this SES based issue directly within the household could be eliminated.

Ultimately, the responses given to the SES-related factors reveal that students' *interest* in pursuing higher education are not as directly linked to

parental income, education and support as the literature suggests. This does not mean that these elements do not affect one's *capacity* to be admitted, yet it does confirm that there are high rates of interest in pursuing higher education, regardless of the students' socio-economic background. The study has unveiled so far that more often than not, the disparities in responses are between municipalities, as opposed to between public and private schools. So how should policy address this? Findings illustrate there is limited need for SES related policies if the goal is to increase the rates of public school students enrolled in university.²⁶ The only SES-related policy that could be suggested does not even affect household incomes or individuals per se; it would be to ensure that horizontal imbalances between municipalities are addressed by the government, in the form of funding, through proper calculations and monitoring, in order to avoid the evident inconsistencies.²⁷ Although federal funding is already provided to states

²⁶ Note: this is not to say that conditional cash transfer (CCT) programs and other policies implemented to reduce the inequality in Brazil are necessarily inadequate; CCTs are suitable to address the short-term goal of encouraging students to complete their elementary and high school education (via cash incentives). The info in this section only stresses that *if the goal is to increase the rates of public school students in public [federal] universities*, attempting to tackle SES disparities head-on is not the most viable or efficient approach. CCTs or other SES-related policies do not speak to the long-term goal of increasing rates of public school students in university as they do not tackle the inferior quality of education being offered at public schools - that house the majority of high school students in Brazil. What is the point of helping them financially if they are not academically equipped to be successful in a university setting?

²⁷ When there is a sizeable mismatch between the expenditures assigned to regional governments and the revenue sources made available to them, the central government can assist through intergovernmental transfers (Schroeder and Smoke, 2002). While governments will typically have access to tax and debt instruments with regards to revenue, intergovernmental grants provide an additional method for allocating funds amongst the different levels of government within a federal system. In effect, the disparity between different levels of government in their access to revenues and commitments to expenditures, also known as vertical imbalance, is a significant justification for intergovernmental transfers (Schroeder and Smoke, 2002; Bird, 2001; Oates, 1999).

continued

in order to address these imbalances, it is clear that the discrepancies between municipalities are not addressed as adequately, or else there would not be a visible difference in the infrastructure and education methods (quality) at the public schools in different municipalities. If the only factor was household income, there would not be observable discrepancies in public schools throughout the state, as the investment stage would ensure that municipalities were receiving the necessary state funding to ensure consistency. Having said that, it is important to note that this policy suggestion falls more closely under the category of high school characteristics as it does *not* aim to help particular individuals that qualify; instead, it would seek to stifle the visible differences in quality between schools in low versus high income municipalities.

Role and Impact of High Schools

Although the literature on the topic of access to higher education focuses greatly on the impact of socio-economic status, this study aims to prove that the role and impact of high schools is far greater and requires much more policy attention than the popular SES factors discussed. On this matter, experts have stressed that private schools boast more infrastructure and suitable management in comparison to public schools due mainly to the former's access to more [private] funding. Upon reviewing the data collected during this study, this suggestion is confirmed in the case study. The private schools visited, both in Jaraguá and Goiânia, revealed higher quality teaching materials, general infrastructure, and teacher training to name few. In addition to the evidence that the private schools are more equipped to provide quality education to its students, however, it also became evident that the public/private divide is exacerbated by the difference in

Another aspect of equity that can be addressed through the use of intergovernmental transfers is the horizontal dimension. It is important to note, however, that when there is a heavy reliance on transfers from the central government incentives for responsible fiscal decision-making are undermined as a result of such dependence. Decisions then become "outcomes of politically driven negotiations between central and local authorities, not the result of weighing benefits and costs of prospective public programs" (Oates, 1999, p. 1143). Cameron (1974), who writes of education finance in particular, states that a trade-off exists between local autonomy and the degree of equity in policy distribution. Sectoral or specific purpose transfers, particularly those that are formula based, are examples of limits on autonomy for the purposes of more uniform and equitable outcomes. However, excessive rules and bureaucratic setbacks imposed by government can delay the availability of resources (Gomes et. al., 2007). As such, it is important to be cognizant of the 'red-tape' between the process of requesting federal assistance and the process of having it delivered.

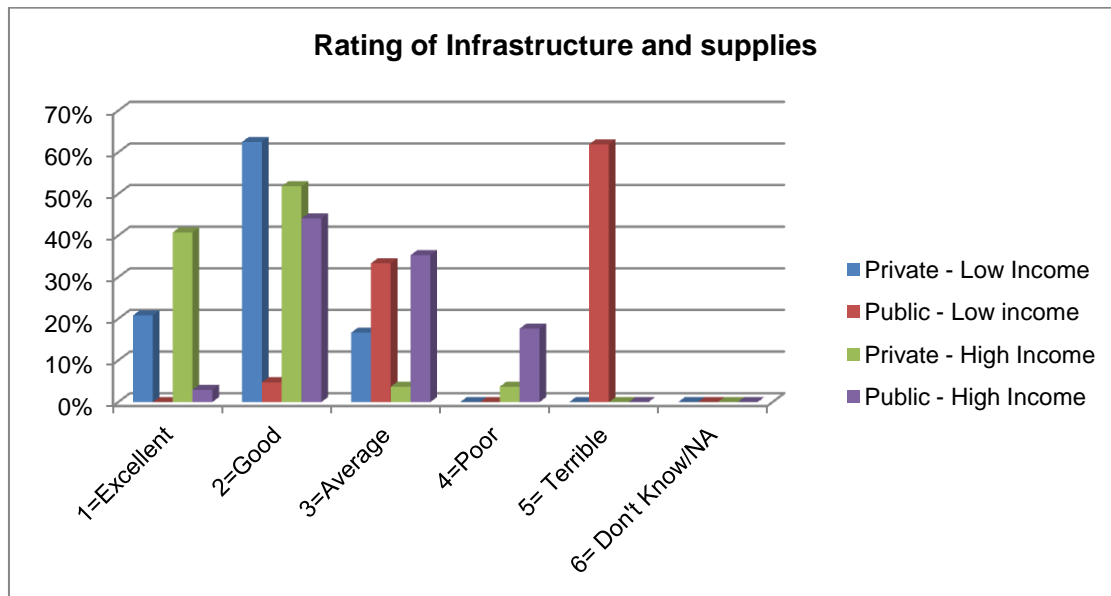
quality between the low and high income municipalities. In other words, although the private schools in each city proved to be better equipped for students' needs than the public schools in the same city, the high-income municipality boasted schools of higher quality than their lower-income counterpart, regardless of the type of school (both public and private). This confirms that the divide in quality is not only between public and private schools, but is also a result of the municipality's income levels (i.e. the lower the income level of the city, the lower the quality at both public and private schools in the area, although the private schools are still more equipped than the public schools). Ultimately, students that attend public schools in low-income municipalities are, in most cases, extremely disadvantaged in terms of high school educational attainment.

When the students who participated in this study were asked to declare which elements [under the heading of high school characteristics] are relevant in their interest in and capacity to pursue higher education, all groups were in agreement with the literature, indicating the school's infrastructure, teaching materials, teacher training and information sessions as crucial to their success both in high school and after. The most crucial components were said to be teacher training and the availability of information sessions on the options available to students upon the completion of their high school studies (i.e. university, technical training²⁸, etc.). In terms of satisfaction, the students from the public school in Jaraguá were the most dissatisfied with these features at their school. Eighty-five percent (85%) of students from this school classified the teacher training as 'poor' and fifty-one percent (51%) claimed info sessions are poor/terrible. Furthermore, sixty-two percent (62%) of students classified their school's infrastructure as 'terrible' and eight-seven percent (87%) said the same about the school's teaching materials (Figure 6 and Figure 7). These rates expose the poor conditions of the public school in the low-income municipality studied, as students' rated almost all of the components said to be critical for the provision of quality education (i.e. teacher training, information sessions, infrastructure, and teaching materials) as unsatisfactory.

²⁸ The availability of quality technical training in Brazil is an area that requires more research and investment. Currently, this sector is under-funded and unsystematic in comparison to other education sectors; progress in this sector could yield exceedingly positive results given the current lack of quality training in the 'trades' and the high rates of students who are not admitted into universities and have limited options to increase income/specialization.

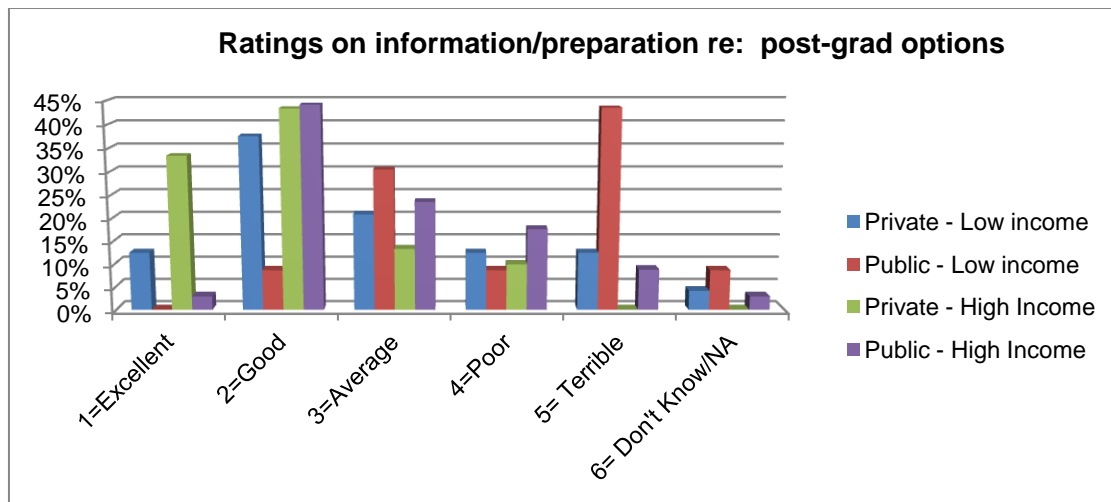
Compared to the responses from the public school in Jaraguá, other participating groups appear to be ‘more pleased’ with the conditions of their schools as a whole, but all revealed dissatisfaction with at least one attribute [or lack of the same]. As the literature ‘predicted’, after the public school students from Jaraguá, the group that showed the highest levels of dissatisfaction were the students from the public school in Goiânia. Eighteen percent (18%) of the students from the public school in Goiânia declared the infrastructure is terrible, forty-eight percent (48%) of students rated teacher training as poor (Figure 7).

Figure 7: Student ratings on infrastructure and supplies, Goiânia and Jaraguá, Goiás, Brazil, 2012.



As for the information sessions, said to be important in helping students understand their options and requirements for work/study after graduation, twenty-seven percent (27%) of students indicated they are dissatisfied with how their school tackles this important feature of high school education. The majority of students at both of the private schools (low and high income municipalities) gave high ratings to all of the components, with the exception of the availability of information sessions on post-graduation options. In Jaraguá, twenty-six percent (26%) of the private school students rated their information sessions as terrible; in Goiânia, 10% said the same, as displayed in Figure 8.

Figure 8: Student ratings on information sessions and other preparation for options post-graduation, as per study's field research, Goiás, Brazil, 2012-2013.



These statistics essentially confirm the claims made in the literature regarding the difference in quality between public and private high schools, the latter being much more equipped than the former. As was the case in the SES section, the field research also proved there are significant differences in opinion and quality between municipalities. This can be seen particularly in the case of the public school in the low-income municipality where students are clearly *more* dissatisfied than any other group. The upcoming chapter on policy recommendations will shed more light on these levels of dissatisfaction. Lula's administration did vow to address issues of infrastructure, teaching materials, teacher training, and guidance on post-graduation options in Brazilian public high schools. So why are there still observable differences in quality between public and private high schools *and* between municipalities? The main obstacle here is not the lack of proper policies that address the components considered [by experts and confirmed by the field research] to be crucial, per se. Instead the problems lie in the **insufficient funding**²⁹ designated by government to address these issues effectively, the **lack of communication** between the secondary and tertiary education representatives, and the **bureaucratic impasses** in accessing said funding. As for the variation between municipalities, if the issues identified were

²⁹ The investment was either insufficient or it did not 'reach the ground' as intended. Misuse of funds is a possibility but since that cannot be confirmed, additional investment and increased monitoring is the main viable solution.

addressed, the relevance of average income levels (of the home or municipality) on educational outcomes would be reduced.

The interview with Dr. Fernando Pereira Santos, Superintendent of Secondary Education in the state of Goiás, shed valuable light on where [members of] governments stand on the current issues that affect public secondary education in Goiás and the country. When asked about the components of secondary education that require more attention, the Superintendent laid out five main points. To begin, (1) the universalization of primary education in Brazil is a relatively new phenomenon and only now has it become apparent that the secondary education system is not equally equipped/improved to cater to the needs of students at this level. He also emphasized (2) the excessive number of courses currently listed as mandatory for high schools to cover and the problems with the encyclopedic nature of high school education in Brazil, as tremendous deterrents to achieving higher quality of education and higher rates of students successful in pursuing higher education in Brazil. These latter issues could be resolved if (3) more cooperation existed between the secondary and tertiary levels of education, wherein an agreement could be made to reduce the content of the vestibular to allow high schools to focus on core classes, as opposed to stretching themselves out thin and attempting to cover an array of additional topics such as ethics, sociology, etc. Due to this excessive number of courses, teachers are said to have little choice but to utilize a blackboard teaching/learning method, as any form of inventive approach would be too time consuming and difficult to maintain. In addition, the Superintendent pointed to (4) the slow pace of the bureaucracy this sector faces. According to Dr. Santos, a tremendous gap exists between the process of completing the requirements for state funding, for example, and the time this funding reaches the ground. Moreover, (5) the process of accessing funding and communicating between various levels of government is in itself lengthy and time consuming. This, he stresses, is not exclusive to the state of Goiás and is experienced throughout the country. He declared that:

“We, here in government, are doing what we can even if/when it is not sufficient. We understand that many times it is not. The truth is, however, that this is the place to be if we wish to see change – so as testing as processes might be we have to adhere, while never surrendering in the battle for the rights to quality education of the citizens of our state and of our country. Let it be clear, however, that this is a battle that can only be won with state and federal attention, partnerships must exist.”

Dr. Santos acknowledged the system is far from perfect. Yet, he argues that any substantial changes to the secondary education sector and access to university must be made via government, as education is a key component of the country's success and is its responsibility to address. Although he recognizes the limitations (in planning, funding, monitoring, and reviewing), he also stressed that there have been successes. Despite the inadequacies of the current secondary education sector and access to university initiatives, Dr. Santos stressed that the picture a couple of decades ago was exponentially worse and both quality and enrollment improved significantly during Lula's administration.

The review of students' stance towards the quality of their high school education coincides to a large extent with the claims made in the literature and the quantitative figures used in Brazil to determine policy. While there were implementation issues that will be discussed in the next chapter, the fact that triangulation confirms the policies are attempting to target pertinent obstacles is very positive. Despite the barrier to real improvement caused by underfunding and lack of cooperation between sectors, this essentially means that the Brazilian government is, for the most part, in tune with what the students and teachers need in the secondary education sector. In the tertiary education sector, however, the obstacles appear to be in policy *design*, where key components to the success in increasing rates of public school students in public universities, were overlooked in the policy arena.

Characteristics of Universities and University Policies

Much like in the previous segments, the responses to the questions about university policies and access unveiled mixed opinions. It is important to recall that the university-oriented policies in place during the Lula administration (mainly ProUni and ReUni) targeted public school students. Given the evident advantage private school students have as a result of the higher quality education they receive, these policies aimed to avoid further advancing the opportunities of private school students, by concentrating on the group in need of assistance.

In spite of the government's attempts, however, public school students have expressed in high numbers their belief that ProUni and ReUni are 'better than nothing' yet far from 'ideal'. To begin, the ProUni policy by definition aims to increase the rates of public school students in private universities. As

discussed earlier, this does not help further the goal of facilitating access to public universities. It also does not reflect the interest of the majority of high school students: 78% of all students surveyed indicated they plan on pursuing public universities for their tertiary education³⁰, recognizing the superior quality of public universities and reduced costs of the same. In terms of the ReUni policy, although it pledges to help students' entry into public universities through social quotas, ninety-six percent (96%) of the students surveyed had never heard of said program. Arguably, since the main goal of Reuni was to increase the physical capacity of federal universities, the fact that students have not heard of the expansion that occurred does not signify its failure. On the other hand, however, if the expansion did not translate into awareness and increased admissions amongst all groups it cannot be claimed a full success. According to data from the Higher Education Census of 2009, for example, ten percent (10%) of the 'seats' offered by the public tertiary education system were not filled in 2009 (Abril, 2010). Altogether, in 2009, there were 5,954,021 enrollments in the Brazilian higher education system, with 1,523,864 in public institutions (federal, state and local) and 4,430,157 in private universities (Abril, 2010). Seeing as the statistics reveal a number of these 'added vacancies' have not been filled, one can stand to reason Reuni did not reach the ground as intended. Thus, given that the explicit goal of the government was to increase rates of public school students in public universities, there were issues with both policy *design* and *implementation* here.

Responses amongst private school students regarding the importance of ReUni and ProUni expose their disregard for said policies. It does not affect how hard they strive in high school nor does it impact their interest in higher education. These students, from the private schools of both municipalities, focus their efforts on scoring well on the National Secondary Education Exam (ENEM), an exam created by former President Fernando Henrique Cardoso, but greatly expanded during the Lula administration. The grades students obtain on this exam are used by universities as an admission requirement, students who score well can choose to apply based on their grade on the ENEM as opposed to taking

³⁰ 97% of private school students from Goiania (i.e. high income municipality - high quality of education) stated they want to attend a public university; followed by 76% of public school students from Goiania, 71% from public school students in Jaraguá and 61% from private school students in the latter municipality. These statistics prove that students who are most equipped to be admitted into *public* universities are private school students from high income municipalities, and in fact, almost all of them wish to do so.

the *vestibular* (university entrance exam). Forty-seven percent (47%) of the students from the private school in Goiânia rated the ENEM as extremely relevant in their interest in/capacity to pursue higher education (plus 50% that declared it to be somewhat important). In the private school in Jaraguá, a lower percentage of students perceive the ENEM as highly relevant (17% extremely important; 54% somewhat), yet these rates are still considerably higher than in the responses from public school students of the same municipality.

Among the public school students from Jaraguá, the interest in the ENEM is low mainly due to the fact that students are aware that the quality of the education provided to them does not prepare them enough to score well on the exam. From this group, thirty-five percent (35%) of students declared the ENEM is not at all important to their academic standing or aspirations (Figure 9). Fifty percent (50%) also declared social quotas to be ‘not at all important’.

Figure 9: Ratings among students: Role of ENEM on academic outcomes

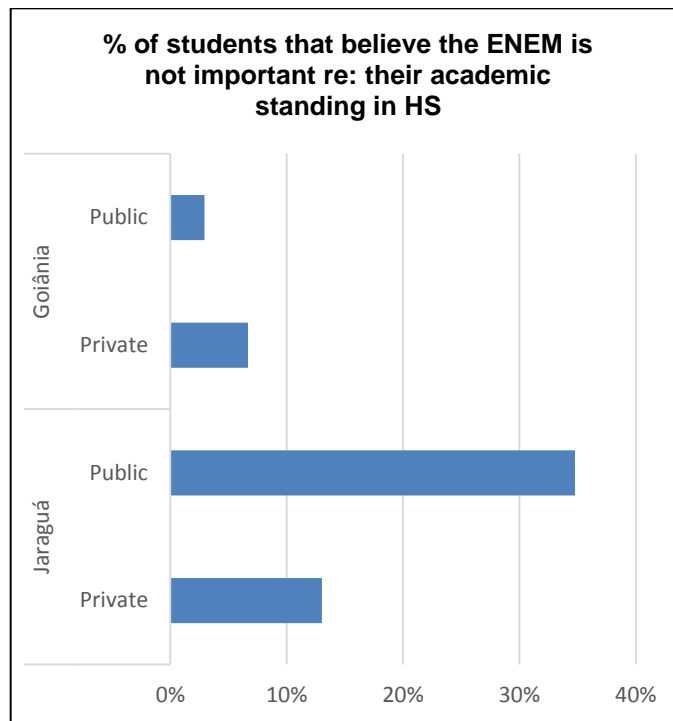
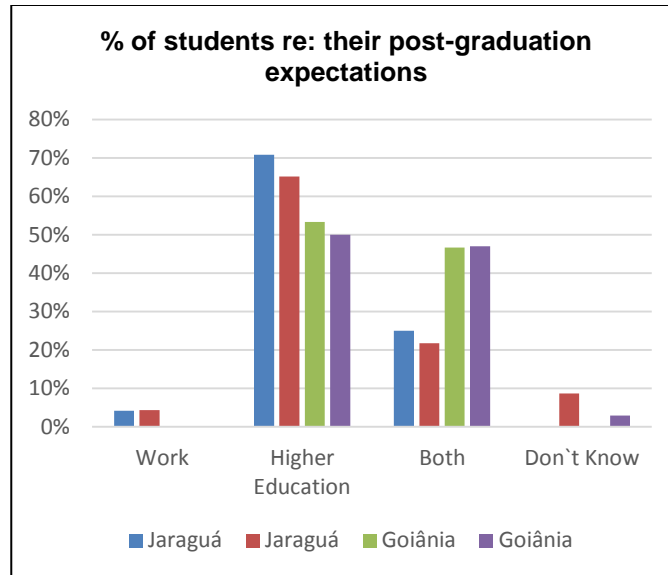


Figure 10: Students' plans post HS graduation, Goiânia and Jaraguá, Goiás, Brazil, 2012.



What is disconcerting about this picture is that if eighty-seven percent (87%) of students (Figure 10) from that school wish to pursue higher education, yet they are aware they are not equipped to meet the high pass-mark requirements of the ENEM, how is it that they will have the knowledge to pass the *vestibular*, known to be much more comprehensive? The answer to this seems to be that a high percentage of these students will not be admitted, despite their interest in higher education.

Although students from the public school in Jaraguá seem discouraged with regards to the opportunities ENEM can provide to them, the students from the public school in Goiânia have a very different view. This group showed the highest levels of interest in the ENEM and social quotas, with 53% and 35% of students declaring these features to be extremely important, respectively. While public school students know the quality of their education is not up to par in comparison to private schools, these students from the public school of the higher income municipality, understand that these procedures are their opportunity to be admitted into federal universities.

In contrast to the popularity of social quotas among public school students from Goiânia, private school students from both municipalities vehemently expressed their disregard for this concept. Students from the private schools surveyed believe that social quotas are not a suitable way of addressing the lack of quality in the public education sector. In the interview segment of the study,

ninety-three percent (93%) of private school students conveyed the message that policies to address the issue of low rates of public school students in universities should focus on improving the public education sector to allow public school students to 'fairly compete' for seats at universities. To them, the concept of social quotas does not reward anyone in the long run; instead, it puts students from high income municipalities and homes at a disadvantage they do not deserve to bare.

Ultimately, the group that most values the policies of the tertiary education sector are the public school students from the high income municipality of Goiânia. These students seem to understand the deficiencies of their education system but, they also know that in terms of the policies put in place to help public school students, they are the most equipped (in comparison to other public schools) given the even lower quality of education being provided to students in public schools in low-income municipalities. It therefore becomes evident that there are positives to these policies, but only a portion of the students in Brazil are experiencing the benefits of them.

Dr. Fernando Pereira Santos, Superintendent of Secondary Education in the state of Goiás, emphasized what he believes to be the main obstacle to adequate university entry policies: lack of communication. Currently - and during Lula's administration - the degree of communication between the secondary and tertiary education sectors is and was practically nil, and this has proven to be a considerable disadvantage to both groups. Teachers at the high school level do not know what will be tested and so many run the risk of spending time on subject matter that will not be on the exam, while neglecting areas that will. Also, as discussed in the previous section, the excessive number of courses required at the high school level for the *vestibular* oblige teachers to resort to teaching mechanisms that do not always entice the students, such as blackboard learning/teaching. When one adds this lack of communication to the already troublesome picture of the Brazilian public high school sector, the obstacles for public school students to be successful in their pursuit of higher education are substantial.

As a result of the lack of insight of the Brazilian government to include policies that ensure effective communication between sectors (while they are vowing to facilitate the transition from one level of education to the next), and the limited success of the ReUni and ProUni programs amongst students, it can be said that Lula's administration failed in its policy *design* in this sector.

Recommendations on how to alleviate the problems faced due to this design issue are put forth in the next section.³¹

³¹ Annex 2 depicts the linkage between the literature, the policies, and the students' responses to their relevance and effect.

Part IV: POLICY RECOMMENDATIONS — A LOOK INTO THE FUTURE

The questions that were posed at the beginning of this study: Were the education policies adopted in Brazil during the Lula government (2003-2010) effective in increasing public school students' access to federal universities? If so, 1) what areas and factors did these policies target that led to improvements? 2) What mechanisms were employed to ensure success (i.e. how)? If not, 1) why was the government unable to reach its objectives? What, if any, factors should have been addressed during planning and implementation that were not included? 3) What are the recommendations that can be made for future policies based on the evidence provided? Through an extensive analysis of the literature on access to education, the statistics available that depict the Brazilian educational setting, and an examination of the policies implemented during Lula's administration, as well as a small 'n' study conducted to assess the relevance of these factors when compared to the reality of the students in question, it has become possible to address these queries.

According to the evidence, the question of whether or not the policies adopted during the Lula government were effective in increasing public school students' access to federal university must be answered as 'somewhat'. The policies implemented in the secondary education sector were in fact the proper targets: infrastructure, materials, teacher training, and information sessions. High school students claim that conditions have been 'better' at their schools than they were in earlier years, pre-Lula (although many still claim that despite improvements, quality is still inferior to the desired and promised state). However as only a limited number of schools have received sufficient funding and assistance that allowed students to pursue their interests in higher education without being disadvantaged by their socio-economic status or the type of high school they attended, they cannot be claimed as undeniable successes. The new monitoring mechanisms - SAEB, SiSu, Prova Brasil, etc. - are more on target than

in previous administrations, which partially answers the question of what mechanisms were employed to ensure success. Yet, a stronger link between design and implementation must occur in order for more tangible effects to be seen. While there were pockets of success throughout the country, where rates increased, these improvements were not seen across the board and this should not be the case.

With regards to university policies and their effect on access, these too can be said to have been ‘somewhat’ successful. Alternative entry policies and added infrastructure at the university level are significant developments. Moreover, the rates of students in higher education did in fact increase during Lula’s years as president. However, these were in most cases at private universities. As such, the goal of increasing access was addressed, but not within the realm of public education. As the latter was explicitly a goal the Lula administration aimed to achieve, it is evident that more suitable policies are necessary, that speak to the core of the societal representativeness and equal opportunity agenda.

To answer the question of *why* the government was unable to reach its objectives, as discussed, there were issues in policy *implementation* at the high school level and of policy *design* at the university level. Added investment and increased monitoring could potentially address the obstacles the secondary education currently experiences, if a focus is maintained on infrastructure, teaching supplies, teacher training, and so forth. At the tertiary education level, it is important to revisit the policy design phase to ensure that future policies avoid further discrimination of socio-economic groups and are inclusive without affecting the integrity of the higher education institutions and system.

Lastly, the most pertinent questions [and answers] moving forward: What, if any, factors should have been addressed during planning and implementation that were not included? What are the recommendations that can be made for future policies based on the evidence provided? The following sections review these in depth, based on the categories of the literature and the empirical study. One crucial finding is that increasing the availability of information sessions at the high school level, that shed light on the options students have after graduation and what is required of them in order to reach any goals they may have, could significantly improve the rates of students who are successful in pursuing higher education. Evidently, the information sessions themselves would not address the disparity in the quality of the education in Brazil. However, these information sessions, if coupled with added investment

and increased monitoring of these investments, could allow for a new generation of students – those that are aware of their options, and equipped to pursue them. Furthermore, a substantial increase in the communication between the secondary and tertiary levels of education (as well as with all levels of government) should have been addressed during the planning and implementation of Lula’s policies. Communication and cooperation amongst the different levels is indispensable if the goal of the government is to facilitate the transition for students between one level of education to the next. The summary of these findings, as per the research questions posed, is indicated briefly in Table 5 below.

Table 5: Summary of Findings - Answering the Research Questions

Questions	Findings
Were the education policies adopted in Brazil during the Lula government (2003-2010) effective in increasing public school students’ access to federal universities?	<ul style="list-style-type: none"> • Somewhat <ul style="list-style-type: none"> – Ratio of public-private actually worsened over time. – Rates of public school students in public universities increased by 4.2%
What areas and factors did these policies target that led to improvements?	<ul style="list-style-type: none"> • HS: Infrastructure, materials and teacher training. • HE: alt. entry policies, added infrastructure (capacity). • Problems persisted, however.
What mechanisms were employed [by government] to ensure success?	<ul style="list-style-type: none"> • Through the use of quantitative indicators and some surveys, policy makers were able to accurately determine what most pressing issues are
Why was the government unable to reach its objectives?	<ul style="list-style-type: none"> • At HS level: issues in policy implementation (Low investments or possible misuse of funds) • At HE level: issues with policy design (policies implemented were not most suitable for issue at hand)
What, if any, factors should have been addressed during planning and implementation that were not included?	<ul style="list-style-type: none"> • Availability of information sessions at HS on post-grad options • Ample communication between secondary & tertiary levels of education.
What are the recommendations that can be made for future policies based on the evidence provided?	<ul style="list-style-type: none"> • Increase investment to secondary education to ensure necessary improvements in infrastructure, teacher training, and information sessions on post-grad options (state government); • Increase monitoring to avoid horizontal imbalances in quality of public sec. education (state & federal government); • Re-evaluate university entry policies that may circumvent need to improve quality of secondary education (federal government).

As the ultimate goal is to provide insight on the factors policy should focus on to increase the rates of public school students in federal universities, the following, more explicit policy recommendations are presented, divided into the same groupings as the literature review and the empirical study. These are based on the triangulation between the academic literature, Brazilian education indicators and the field research.

ROLE OF SOCIO-ECONOMIC STATUS (SES) AND OTHER PERSONAL DETERMINANTS

The disparity in socio-economic status amid the Brazilian populace is evident and long-term reform to address this is necessary. However, there are more relevant short and medium term 'direct' measures that can be implemented to address the issue of access to higher education. More direct investment in the secondary education sector and more communication between the secondary and tertiary levels of education, to name a few - can solve the 'low rates' problem more effectively than attempting to confront SES issues head on. Furthermore, the field research showed that parents' low income and educational levels do not affect students' *interest* to pursue higher education to the extent the literature suggests. Although it was confirmed that students from lower-income municipalities are disadvantaged in terms of quality of education, attempts to tackle the 'low-incomes' issue would be exceedingly costly and only possibly effective.

ROLE AND IMPACT OF HIGH SCHOOLS

In the secondary education segment, based on the variables selected, triangulation has confirmed that the policies implemented in this sector during Lula's terms as president were, in fact, targeting the appropriate factors. Although there are rampant critiques amongst Brazilian stakeholders of the over-reliance on the quantitative indicators used to determine investments, they do, for the most part,³² highlight the factors that require more attention (as

³² Based on the literature and field research, these assessment methods could be more comprehensive and accurate if a significant qualitative portion was included. This would allow
continued

confirmed by the qualitative portion of this study). In this sector, (secondary education) the problem seems to be in the *implementation* of these policies.

The importance of a number of variables taken from the literature were confirmed during the field research (and also supported by the Brazilian indices used by the government). Generally speaking, *infrastructure, supplies, teacher training, and information sessions on post-graduation options* were the main features students considered relevant, and in the lower income cases, subpar. While the policies implemented during Lula's administration attempted to tackle these issues, the investment was either insufficient or it did not 'reach the ground' as intended. In other words, these areas still require attention, the most attention based on this study's findings, despite the investments made to address them to date.

In order to address the issue of 'underfunding', the federal government should invest at least the 10% of the GDP as promised by the current president Dilma Rousseff and increase the per pupil spending in the secondary education sector, while ensuring that horizontal imbalances within states are being addressed through the use of a monitoring mechanism. Evidently, the concrete figures (i.e. precise dollar values) require an in-depth analysis of the State and state's budgets, which are not within the scope of this paper. However, the notion this paper corroborates is the need for added investment, expressively higher than the status quo, recalling that Brazil's current per pupil spending is below par in OECD 'standards'. Perhaps the federal and state offices that monitor investment could be updated and harsher penalties could be put in place to tend to the potential misapplication of funds. This additional investment could [if substantial enough] reduce the disparity between the quality of education between public and private high schools through the provision of improved infrastructure and supplies.

Regarding teacher training, there were/are policies in place to encourage teacher training but given the needs of lower-income municipalities, eligibility requirements and training are not considered to the fullest extent. *Added communication and interaction between the secondary and tertiary education sectors* is also recommended at the tertiary level. If applied, training could be delivered by/at the public universities in the region more effectively - making it 'easier' for

teachers and students to voice their needs and concerns directly to the government, avoiding an over-reliance on quantitative figures as indicators used in the policy design process.

teachers due to lower costs and reduced travel time. As for the issue of teachers teaching materials that they are not trained in, the utopic recommendation would be to bar schools from hiring teachers in fields they are not qualified to teach but, given the low numbers of teachers in lower-income areas, more research focus on this aspect is required in order to put forth sound policy advice. Some fixes are clear, including teacher training, testing, and increased salaries. However, the manner in which these factors should be approached in Brazil require particular attention to the budgets and viable processes within the country.

On the issue of information sessions, this aspect could 'easily' be solved with a policy that stresses the need to inform students of their options. Mandatory sessions for students in grade 10 and above could help students determine what is the appropriate course of action for them after graduation, be it higher education, technical training, etc. Both high school students and university students that participated in this study expressed the importance of having info sessions to help students determine not only what is the appropriate course of action but also guidelines on how to proceed once they have decided. Teachers and student-teacher relations could also benefit from this, as teachers will become more informed of what they are preparing their students for and consequently, it would be more likely that teachers would adjust their class content accordingly. While this could be included in federal policy to ensure all states abide, it can also be successful if funded and organized at the state level. Costs of this are low and organization manageable.

Although high school education is the responsibility of state governments in Brazil, given that the main issue appears to be insufficient funding – there must be a federal component to revised policies, ensuring additional investment from federal government to avoid repeating the same mistake of under-funding crucial reforms and to reduce horizontal imbalances even further. When there is a sizeable mismatch between the expenditures assigned to regional governments and the revenue sources made available to them, the central government can assist through intergovernmental transfers. With a total area of over 8 million km², and a population over 190 million, Brazil suffers from an extensively uneven distribution of resources, peoples, and consequently tax revenue (OECD, 2010). While the Brazilian Law of Directives (LDB) stipulates the percentage of state and municipal revenue that must be used for education purposes, it does not take into consideration the discrepancy in revenue between states. As such,

some states have much more to invest while others lag behind. One could even argue the gap between that which was promised and that which was delivered was the result of the government putting forth policies that have not properly considered states with lower revenues, developing an imbalance between the federal government's expectations and the local government's capacity. Different regions are endowed with different resources and/or economic advantages and moreover, the population in these different regions seldom possesses identical demands for local public services. As the FUNDEB initiative is among the policies in place to address these variations, moving forward, the conclusions of this study suggest that horizontal imbalances must be addressed further, beyond the current FUNDEB and other funding initiatives. The statistics and field research convey that current methods require adjustments - given the variation amongst different municipalities, in students' grades and their rates of satisfaction with the resources available to them - in order to ensure more standardized and quality education, throughout the country.

It is therefore important to focus on improving *infrastructure, supplies, teacher training, and information sessions on post-graduation options* in an effective and efficient manner. In order for equal opportunity to exist throughout the country it is important the federal government assist in the process, yet each state's policies should be founded on the needs of its residents in order to reach the national goal of excellence. Given the disparity in the quality of secondary education (and consequent access to higher education) in Brazil at the current time, a needs oriented approach could produce tremendous returns. Over time, the disparities could cease and a more streamlined mechanism could be utilized.

Given the congruence amongst scholars, students, and policy makers regarding what needs to be addressed in this sector there are multiple components that fall within the government's scope to address. These are neither unmanageable nor unfounded, and should be the focus of government policies for this sector: increased investment in infrastructure, supplies, teacher training, and information sessions on post-graduation options, with proper monitoring methods in place and improved communication between stakeholders and the government.

CHARACTERISTICS OF UNIVERSITIES AND UNIVERSITY POLICIES

In the tertiary education sector, the policies implemented during the Lula administration appear to have been flawed in their *design*. To begin with, the main program put in place to facilitate public school students' access to higher education was ProUni: a policy that allows students to be admitted to *private* universities with lower pass-marks than their private school counterparts. As opposed to investing in public education, ProUni provides tax-exemptions to said private universities and, as these universities are not answerable to the federal government regarding their quality, the effects of this policy can [will likely] prove to be adverse in the long run.

As for *new* policies that can be put in place, they will not yield results to its fullest capacity until the secondary education sector is improved to properly equip students for tertiary education. However, an emphasis can and should be placed on policies that address the deficiencies in public secondary education in a more even-handed fashion. This could include policies that focus on reformulating the *vestibular* in order for it reflect more closely the topics covered in high school.³³ Moreover, if the use of social quotas prevails in the country, these should be coupled with supplementary courses once the student is admitted to university despite their lower test scores. Auxiliary courses in the areas the students did not excel in the *vestibular*, could allow them to improve their skills to a level that permits them to follow the course content of university classes without experiencing the disadvantages of a previously [high school] sub-par education.

The interview held with the Superintendent of Secondary Education in Goiás revealed that, if the goal is to increase the rates of public school students in public [federal] universities, a policy that stresses and structures *communication and interaction between the secondary and tertiary education sectors* could be very advantageous. This is said to be the case for a number of reasons. For one, increased communication would allow teachers at the HS level to have a better idea of what will be on the vestibular/what to focus on in their classes (avoiding

³³ A critique that surfaced during the field research exposed how 'distant' the *vestibular* content is at times, from what is studied in high school. An example would be the ethics and philosophy section of the vestibular; teachers and students found that this section is onerous given that in many instances, teachers must ensure students know that basics of mathematics, Portuguese, history and etc. and do not have the time to cover additional content such as ethics and philosophy.

the risks of spending too much time teaching material that is not covered). This does not necessarily mean telling teachers exactly what will be on the exams but, currently, there is no communication between these levels and so teachers are left in the dark of what the university level committees find relevant. The party who is most disadvantaged due to this current lack of communication is the students. Secondly, increased communication could allow HS teachers to voice their opinions on how exhaustive the *vestibulares* have grown to become – working together with universities to develop suitable entry exams.

The alarming picture the field research paints is that, to date, the profile of federal university students continues to be those of high-income homes, from high-income municipalities, that attended private schools and have highly educated parents. The government has turned to social quotas as an answer to this discrepancy in representation. While social quotas should not be viewed as a long-term solution, it is important to note that Brazil cannot jump-start the representation of different social groups in university without the use of some form of social quota.

Social quotas, if utilized as a tool to address unequal distribution and access to higher education in the short term, can be valuable. It can facilitate the reduction in structural discrimination such as class and race by ensuring that all groups are given the opportunity to pursue higher education. This opportunity, however, will not automatically translate into higher rates of university graduates in Brazil. If the capacity of students to follow university classes once they are admitted classes (i.e. suitable preparatory secondary education) is not addressed, then entry policies such as social quotas can only lead to limited successes. If the goal is to improve access to public higher education and increase rates of university graduates from public high schools, the quality of the secondary education throughout the country must be tackled, to ensure that students will have an equal chance once admitted. Social quotas to improve access can be viewed as a success only if coupled with improved education. Arguably, the reverse is also true - improved secondary education without social quotas as an entry policy to overcome structural discrimination, could take generations before results (real increases) are visible on the ground. In other words, both are needed to witness rapid improvement.

Please note this is not to say that social quotas are beyond reprieve, as some scholars have pointed out. There is room for improvement in the development and implementation of these social quotas in Brazil. As discussed earlier,

Cicalo (2008) states that by introducing quotas, the state is choosing a “cheap and very partial solution,” (p. 264) where no structural resource distribution is made and state responsibilities for social distribution are withdrawn. Also, many of the ‘quota seats’ have remained unfilled which suggests there are potentially more effective approaches to the social quota setup.

To determine how to address these issues and properly integrate short term (social quotas) and long term (improving public secondary education) policies, specifically, requires more detailed observation of these processes – understanding where and how to address problems of unequal distribution, as well added knowledge of Federal & state distribution of funds for education policies.

Policies that also address the matter at its core would be more effective and efficient and the long term solutions are here prioritized. Social quotas are found to be necessary to address socio-economic discrepancies that should not be an issue if all students receive quality education – be it in public or private school, regardless of the average income of their municipality. As such, the recommendation to fundamentally improve the quality of Brazilian education and the opportunities available to the Brazilian people in the long term, is to address the *structural* problems of the secondary education sector (due to years of overlooking it), understanding they will not yield tremendous short-term results but could in the long-term ‘solve’ the problem of substandard public education and lack of societal representativeness in the tertiary education sector. This is in direct contrast to the social quotas, that allow students to be admitted with lower pass-marks, as this does not address the substandard education students have received in high school and the fact they are not academically equipped, for the most part, to keep up with university-level classes (that begin with the presumption that the basics have been covered in high school).

This study illustrates how the government’s policies are not too distant from its goals of increasing access as there are many policies in the right direction, largely due to the newly developed data collection methods implemented by the Lula administration. The message is that with added communication between sectors, increased investment and adequate monitoring, the Brazilian education sector can not only increase the quality of its public secondary education, as it can also increase the rates of students capable of being admitted into university. This can ultimately improve the quality of life for many of its citizens and allow Brazil as a nation to tap into its human capital more

effectively. The intent to thrive and increase numbers in university is present. What is missing is the link that allows that will to become reality. In light of this study, the missing link appears to be, again: added communication between sectors (both within education levels and levels of government), increased investment and adequate monitoring.

The evidence reviewed indicates that to increase the number of public school students in public universities it is important to improve the quality of the education at the secondary level so as to give the students the necessary tools to pass the *vestibular* based on their own academic merit.

CONSIDERATIONS

Based on the assessments made here, it can be said that current President Dilma Rousseff who is also from the Brazilian Worker's Party (*PT – Partido Trabalhista*), is moving the secondary education sector in the right direction in some aspects but appears to be erring in others. In April 2013 Dilma announced once again that she aims to invest the petroleum royalties granted to the Brazilian government on education (CNEC, 2013). She has declared for many months that such an investment is necessary in order to witness real change and improvement in the education sector. Much like Lula, Dilma often states that quality education is necessary as Brazil aims to become a less unequal nation (CNEC, 2013). This added investment, if it passes, can be a tremendously positive move – if applied and monitored adequately – given the evident need for additional investment.

In her April appearance, she also acknowledged the current “pockets of excellence” throughout the country, and affirmed this must change in order to allow students of any and all regions of Brazil equal opportunities. This is also a positive approach, as the research here discussed has also shed light on the horizontal imbalances that occur in the provision of education.

Current Minister of Education, Fernando Haddad, expressed his enthusiasm with Rousseff's decision to follow Lula's path with a “touch of innovation” to accelerate the steps of the processes to see tangible results sooner. He also agrees with Rousseff that the secondary education sector needs an “injection that boosts drive and improvement” (CNEC, 2013). These are both aspects this paper corroborates the need for. However, the current president's

agenda is not all seamless. Despite Rousseff's pledges of additional investment, these have not occurred to the extent promised to date. Furthermore, as part of her "boost", Rousseff has encouraged (through policy) public universities to allot 50% of their seats to students from public schools, allowing them to be admitted with a lower pass-mark. While this 'social quota' can increase the rates of public school students admitted into public universities, it does not tackle the deficiencies of the public high school education sector and almost seems as if the current government aims to bypass the manifest need for significant reform in the same. Increasing access in this form does not provide students with the tools needed to succeed in university, as it lowers the requirements but does not address why requirements need to be lowered to allow access.

While Dilma's statements suggest her administration understands the needs of the Brazilian education system (i.e. added investment and monitoring), the goal of equal opportunity and access will only be achieved if more attention is paid to the secondary education sector, with the goal of tackling the inferior quality of the public high school education and the variations in quality by municipality and region. Attempts to bypass this much needed reform will lead to limited successes, if any. Much like other segments of government, the education sector works as a machine: if one piece is 'broken', the machine as a whole will not run smoothly.

Part V: CLOSING REMARKS

The scholarly works reviewed which analyze the factors that affect educational outcomes, underscore the significant interconnectedness of the main issues. The studies do not fall solely in one paradigm or another since the overall logic and assumptions are the same. Although some authors may stress the importance of socio-economic factors and others the need for high school education reforms (as well as the need for university reform), the acknowledgement of the relation between these factors exists almost across the board. Different authors utilized different methods: Anderson (2008) employed a hierarchical linear model and interviews, Mazumder (2003) a linear regression, Plank and Jordan (2001) used multinomial logistic regressions with data from the American National Education Longitudinal Study, and Mora (1997) a logit model using the Spanish Family Budget Survey, to name a few. While diverse models were employed, results were largely comparable reflecting the wide-ranging concurrence on what are the most decisive factors that affect education outcomes and university access. The general consensus in the literature regarding the importance of education and the variables that affect outcomes spotlights the advantages of more students pursuing higher education and the current limitations they face. Furthermore, the small 'n' study conducted confirm and refute the significance and effect of these factors to the Brazilian students, faced with the option (or not) of pursuing higher education.

The emphasis of the field research was to acquire insight on the students' perceptions of the policies in place, as a mechanism to evaluate their [policies] effectiveness. This method is intended to be an original contribution to the literature on factors that affect educational outcomes in Brazil as it views the debate on equality of access through a qualitative, more people-oriented lens. Brazilian policies are often criticized by the public at large for being overly reliant on quantitative figures. The field of education and education policies requires a 'human perspective' as well as a reliance on statistics, as people are the main stakeholders and beneficiaries of these endeavors. Asking students what

they believe affects their educational outcomes and the areas they believe require policy attention could lead to a shift in focus in the policy arena and could, in turn, lead to more positive and structural improvements – in comparison to policies developed solely through an analysis of students per school or grades per school, for example.

This original contribution is also, however, a limitation of this study. The analysis of the effectiveness of policies through this approach can be more subjective, less tangible in terms of evidence. Thus, statistics and facts were also reviewed to ensure a more comprehensive analysis. Yet, what is the point of providing numbers that show successes or failures in these sectors, if the people on the ground that are experiencing these ‘successes’ or ‘failures’ do not believe these statistics accurately portray their reality? Also, why should they [students] not have the right to provide the government with insight on what they need?

Although one cannot deny the significant role SES plays one must also acknowledge how challenging it can be to present policies that tackle these socio-economic inequalities straightforwardly. Policies that focus on improving the high school sector could potentially circumvent the need for social welfare and other programs of that nature. Policy attention in the secondary education sector would also help improve the conditions of a sector in much need of reform. More specifically, additional funding and policies geared towards truly facilitating the transition of students between one educational level and the next are needed, making room for individual and national growth. Providing students in public schools with quality education could safeguard them from being disadvantaged as a result of their public schooling. It would do more than bridge the gap between public and private schools; it would also allow more representativeness at the university level as more students from lower-income backgrounds would have the essential skills needed to be admitted. Ultimately, this could reduce the impact of socio-economic status on education and consequent opportunities. In other words, if the same quality education was provided in both private and public high schools, throughout municipalities, the differences in opportunity would be lessened. Restructuring the education provided at the high school level to ensure that the required quality is being offered equally at private and public institutions would already decrease the difficulties public school students face. The now critical role of SES on educational level and university access could diminish after a generation. With more equality of opportunity than the status quo and assuming that the rates of enrolment in higher education increase, the

vast inequality that exists in Brazilian society today could also be moderated. This would provide opportunities for social mobility and pave the way for the further development the Brazilian government aims to achieve. A movement to improve secondary education in Brazil could, in fact, break the intergenerational cycle poverty and open doors. Open doors for the people, for the nation, to the world, for the world.

REFERENCE LIST

- Aur, Bahij Amin; de Castro, Jane Margareth. (2012). Ensino médio:proposições para inclusão e diversidade [High school: proposals for inclusion and diversity]. Série Debates ED, UNESCO Brazil, pp. 1-23.
- Acemoglu, D.; Pischke, J. (2000). *Changes in the Wage Structure, Family Income, and Children's Education*. U.S.; Illinois.
- Alves, Fatima; Bonamino, Alicia, & Franco, Creso. (2007). Qualidade do ensino fundamental: Políticas, suas possibilidades, seus limites [Basic education quality: Policies, their possibilities and their limits]. *Educação Social*, Vol. 28, Special Issue, pp. 989-1014.
- Anderson, Joan B. (2008). Principals' Role and Public Primary Schools' Effectiveness in Four Latin American Cities, *The Elementary School Journal*, The University of Chicago Press, Vol. 109, No. 1, pp. 36-60
- Berkner, L.; Chavez, L. (1997). *Access to Postsecondary Education for the 1992 High School Graduates. Postsecondary Education Descriptive Analysis Reports. Statistical Analysis Report No. NCES98105*. U.S.; District of Columbia: U.S. Government Printing Office.
- Bird, Richard. (2001). Intergovernmental Fiscal Relations in Latin America: Policy Design and Policy Outcomes. Sustainable Development Department, Washington: Inter-American Development Bank, pp. 1-72.
- Borges; J.; Carnielli, B. (2005). Educação e estratificação social no acesso à universidade pública. *Cadernos de Pesquisa*, Vol. 35, No. 124.
- Bowen, Natasha; Lee, Jung-Sook. (2006) Parent Involvement, Cultural Capital and the Achievement Gap among Elementary School Children. University of North Carolina at Chapel Hill. *American Educational Research Journal*, Vol. 43, No. 2, pp. 193-218.
- Bradley, Robert; Corwyn, Robert.(2002).Socioeconomic status and child development, *Annual review of psychology*, Vol/Issue: 53, pp. 3 71-99.

- Brand, Jennie; Xie, Yu. (April 2010). Who Benefits Most from College? Evidence for Negative Selection in Heterogeneous Economic Returns to Higher Education, *American Sociological Review*, Vol. 75, No. 2, pp. 273-302.
- Carneiro, P. and J. Heckman (2003) 'Human Capital Policy,' forthcoming in J. Heckman, A. Krueger (eds.), *Inequality in America: What Role for Human Capital Policies*. Cambridge, MA: MIT Press.
- Cicalo, Andre. (2008) Race and Affirmative Action: The implementation of quotas for "black" students in a Brazilian University. *Revista de Antropologia y Arqueologia*, No. 16, pp. 113-133.
- Chevalier, Arnaud; Harmon, Colm; O'Sullivan, Vincent; Walker, Ian. (2002). *The Impact of Parental Income and Education on the Schooling of Their Children*. University College Dublin. Geary Institute.
- Cohen, Jonathan (2009) Social, Emotional, Ethical, and Academic Education: Creating a Climate for Learning, Participation in Democracy, and Well-Being *Harvard Educational Review*, Center for Social and Emotional Education, Vol. 76, No.2, pp. 201 -237.
- Conlon, Michael; Kirby, Dale. (2005). Comparing the Economic Experiences of Rural and Urban University Students. *Alberta Journal of Educational Research*, Vol. 51, No. 1, 4.
- Crotty, James Marshall. (2013). Report: Culture More Important Than Income In Educational Outcomes.
- Cueto, Santiago. (2005). *Empirical information and the development of educational policies in Latin America*. Prepared for the Meeting of the Regional Dialogue on Education of the Inter-American Development Bank.
- Cunha, Flavio; Heckman, James. (January 2007). *The Technology of Skill Formation*. The Institute for the Study of Labor (IZA), No. 2550, pp. 1-39.
- Das, Saswati; Mukherjee, Diganta. (November 2008). Role of Parental Education in Schooling and Child Labour Decision: Urban India in the Last Decade, *Social Indicators Research*, Vol. 89, No. 2, pp. 305-322.
- De Carvalho, Cristina Almeida. (2006). O ProUni no Governo Lula e o jogo político em torno do acesso ao ensino superior [ProUni in the Lula Government and the political game surrounding access to superior education]. *Educação Social*, Vol. 27, No. 96, pp. 979-1000.

- de Castro, Maria Helena Guimarães. (2009). Sistemas nacionais de avaliação e de informações educacionais [National systems of evaluation and educational information]. *São Paulo em Perspectiva*, Vol. 14, No. 1, pp. 121-128.
- Domingues, J.J., de Oliveira, J.F., & Toschi, N.S. (2000). A reforma do Ensino Médio: A nova formulação curricular e a realidade da escola pública [Secondary education reform: The new curricular formula and the reality of public schools]. *Educação Social*, Vol. 21, No. 70, pp. 63-79.
- Dubow, Eric F.; Boxer, Paul; Huesmann; L. Rowell. (July 2008). Long-Term Effects of Parents' Education on Children's Educational and Occupational Success: Mediation by Family Interactions, Child Aggression, and Teenage Aspirations, *Merrill-Palmer Quarterly: Journal of Developmental Psychology*, Vol. 55, No.3, pp. 224-249.
- Eng, Jonathan. (2012). The Relationship Between Childhood Family Income, Educational Attainment and Adult Outcomes. Northwestern University.
- Fan, Xitao. (2001). Parental involvement and students' academic achievement: A growth modeling analysis. *The Journal of Experimental Education*, Vol. 70, No.1, pp. 27-61.
- Felicett, Vera Lucia ; Morisini, Marília Costa. (2009). *Equidade e iniquidade no ensino superior: uma reflexão [Equity and inequity in Higher Education: a reflection]*. Ensaio: Avaliação e Políticas Públicas em Educação, Vol. 17, No. 62, pp. 9-24.
- Fernandes Jr., Ottoni. (2004). Pelo Ensino de qualidade, O reitor do ITA, uma das melhores escolas de Engenharia no país, diz que sem um bom ensino básico não há democratização do conhecimento [For Quality Learning, the dean of ITA, one of the best schools of engineering in the country, says that without high-quality basic education there is no democratization of knowledge], *Desafios IPEA*, 10th Edi.
- Fiamengue, E. C.; Whitaker, D. C. A. (2001) Ensino Médio: função do Estado ou da Empresa? Educação e Sociedade [High School: state function or the private sector? Education and Society]. Campinas, No.75, pp.200-232.

- Finnie, Ross; Mueller, Richard. (June 2008). The Effects of Family Income, Parental Education and Other Background Factors on Access to Post-Secondary Education in Canada. *Canadian Education Project*, Queen's University School of Policy Studies, Canada Millennium Scholarship Fund and Educational Policy Institute, Toronto, Canada, pp. 1-38.
- Fitzgerald, B. K. (2004). Missed Opportunities: Has College Opportunity Fallen Victim to Policy Drift? *Change*, Vol. 36, No. 4, pp. 10-19.
- Franco, Alexandre. (2008). Ensino Superior no Brasil: cenário, avanços e contradições [Higher Education in Brazil: Scenario, advancements and contradictions]. *Jornal de Políticas Educacionais*, No. 4, pp. 53-63.
- Frenette, Marc. (February 2007). Why Are Youth from Lower-income Families Less Likely to Attend University? Evidence from Academic Abilities, Parental Influences, and Financial Constraints. Business and Labour Market Analyses, *Statistics Canada*, No. 295, pp. 1-39.
- Frigotto, Gaudêncio. (2010). Projeto Societário contra - hegemônico e educação do campo: desafios de conteúdo, método e forma [Counter-Corporate Project-hegemonic and rural education: challenges of content, form and method]. *Educação do campo: reflexões e perspectivas*. Florianópolis, pp. 19-46.
- Instituto Brasileiro de Geografia e Estatística (IBGE). Retrieved from: http://www.ibge.gov.br/home/mapa_site/mapa_site.php#populacao
- Giroux, J. R. (2004). Enrolment Demand Versus Accessibility at Canada's Universities. *The Canadian Journal of Higher Education*, 34(1), 83.
- Gomes, Candido; Morgado, Patricia. (2007). Financiamento do Ensino Médio: Transparência ou Opacidade? [Secondary Education: Transparency or Opacity?]. *Avaliação de Políticas Públicas, Educ.* Vol. 15, No. 55, pp. 233-240.
- Gurin, P., Dey E.L., Hur tado, S., and Gurin, G. (2002). Diversity and higher education: Theory and Impact on Educational Outcomes. *Harvard Educational Review*, Vol. 72, No. 1, pp. 330-66.

- Harper, S. R.; Patton, L. D.; Wooden, O. S. (2009). Access and equity for African American students in higher education: A critical race historical analysis of policy efforts. *Journal of Higher Education*, Vol. 80, Issue No. 40, pp. 389-414.
- Heckman, J. (1997) 'Instrumental Variables: A Study of Implicit Behavioral Assumptions used in Making Program Evaluations,' *Journal of Human Resources* 32, 441-62.
- Hill, Elizabeth G. (2005). *High School: A Strategic Approach*, Legislative Analyst's Office, Sacramento, CA, pp. 1-76. Retrieved from: http://www.lao.ca.gov/2005/high_schools/improving_hs_050905.pdf
- Hill, M. Anne; June O'Neill. (1994). Family Endowments and the Achievement of Young Children with Special Reference to the Underclass, *Journal of Human Resources*, Vol. 29, No. 4, pp. 1,065-1,100.
- Kane, Thomas J. (1995). "Rising Public College Tuition and College Entry: How Well Do Public Subsidies Promote Access to College?" National Bureau of Economic Research Working Paper 5164.
- Lisboa, Foca. (2004). Debate sobre o acesso à universidade mobiliza setores da sociedade, unânimes apenas na defesa da democratização do Ensino Superior [Debate on Access to universities mobilizes sectors of society, unanimous only in the defense of democratizing Higher Education]. *Revista da Universidade Federal de Minas Gerais, Edição Vestibular*, Vol. 2, No. 5.
- Lindahl, M. (2004) Education for growth: why and for whom?. National Bureau of Economic Research, Mar. 2000; United Nations Millenium Project.
- Lopes, Cristiane, et.al. (2007). Identificacao das Características associadas com a aprovação de candidatos de escolas públicas e privadas [Identification of the factors associated with the approval of candidates from public and private schools, Vestibular-2004, UFMG], Vestibular - 2004, UFMG. *Educação em Revista*, Belo Horizonte: n. 46, pp. 167-194.
- Ludwig, M., et.al. (1986). *Public, Four-Year Colleges and Universities: A Healthy Enrolment Environment?* U.S.; District of Columbia: American Association of State Colleges and Universities.

- Mayer, Susan. (2010) Revisiting an old question: How much does parental income affect child outcomes? *Focus*, (27)2, pp. 21-26.
- Mayer, Susan E. (2002). *The influence of Parental Income on Children's Outcomes*. New Zealand; Ministry of Social Development.
- Mazumder, B. (2003). Family Resources and College Enrolment. *Federal Reserve Bank of Chicago Economic Perspectives*, Vol. 27, No. 4, pp. 30-41.
- Menezes-Filho, Naercio. (2006) Os Determinantes do Desempenho Escolar do Brasil [The Determinants of Educational Achievement in Brazil], Instituto Futuro Brasil, Ibmecc-SP e FEA-USP, pp. 1-33.
- Michelotto, Regina; Coelho, Rubia & Zainko, Maria. (2006). A política de expansão da educação superior e a proposta de reforma universitária do governo Lula [The higher education enlargement policy and the proposal for higher education reform for Lula's government]. *Educar, Curitiba*, No. 28, pp. 179-198.
- Ministry of Education, National Institute of Educational Research Anísio Teixeira. (2010). Resumo Técnico - Censo da Educação Superior de 2009 [Technical Report - Higher Education Census of 2009].
- Mora, J. (1997). Equity in Spanish higher education. *Higher Education*, Vol. 33, No.1, pp. 233-249.
- Nordin, Mohd Safarin. (2011). Does Parent Educational Status Matter on the Students' Achievement in Science? 2011 International Conference on Social Science and Humanity, IPEDR Vol.5, IACSIT Press, Singapore.
- Oates, Wallace E. (1999). An Essay on Fiscal Federalism, *Journal of Economic Literature*, Vol. 37, No. 3, pp. 1120-49.
- Perry, Emma; Francis, Becky. (2010). The Social Class Gap For Educational Achievement: A Review of The Literature. RSA Projects, pp. 1-21
- Pinto, José Marcelino de Rezende. (2004). Financiamento do ensino médio no Brasil: uma abordagem inicial [Financing of education in Brazil: an initial approach]. *Trabalho, Educação e Saúde*, Vol. 2, No. 1, pp. 135-152.
- Plank, S. B., & Jordan, W. J. (2001). Effects of information, guidance, and actions on postsecondary destinations: a study of talent loss. *American Educational Research Journal*, Vol. 38 No. 4, pp. 947-979.

- PNAD - Pesquisa Nacional por Amostra de Domicílios [National Survey by Household Sampling], Brazilian Institute of Geography and Statistics, retrieved from: http://www.ibge.gov.br/home/presidencia/noticias/noticia_visualiza.php?id_noticia=1708
- Rosemberg, F. (2004). O branco no IBGE continua branco na ação afirmativa? [IBGE blanking on affirmative action], *Estudos Avançados*, Vol. 18, No. 50, pp. 61-66.
- Rumberger, Russell W. (2010). Education and the reproduction of economic inequality in the United States: An empirical investigation, *Economics of Education Review*, Vol., 29, pp. 246-254.
- Schroeder, Larry; Smoke, Paul (2002). Intergovernmental Fiscal Transfers: Concepts, International Practice, and Policy Issues, pp. 20-58.
- Schwartzman, Simon. (2011, March). Admissions to higher education in Brazil. Retrieved from: <http://jorgewerthein.blogspot.com/2011/03/admissions-to-higher-education-in.html>
- Smith, Jane Graves. (2004) Parental Involvement in Education among Low-Income Families: A Case Study. *The School Community Journal*, Vol. 16, No. 1, pp. 43-56.
- Sparta, Monica; Gomes, William. (2005). Importância Atribuída ao Ingresso na Educação Superior por Alunos do Ensino Médio [Importance attributed by high school students to entering Higher Education] Universidade Federal do Rio Grande do Sul, Porto Alegre, *Revista Brasileira de Orientação Profissional*, Volume 6, No. 2, pp. 45 - 53.
- Taubman, Paul. (1989). Role of Parental Income in Educational Attainment. *The American Economic Review*, Vol. 79, No. 2, 57.
- Tessler, Leandro. (2007). Múltiplas Escolhas, Coordenador do vestibular da Unicamp defende uma nova arquitetura curricular [Multiple Choices, Coordinator of the Vestibular at Unicamp calls for new curricular arrangements], *Revista Carta na Escola from Carta Capital*.
- McCowan, Tristan. (May 2007) Expansion without Equity: An Analysis of Current Policy on Access to Higher Education in Brazil, *Higher Education*, Vol. 53, No. 5, pp. 579-598.

Whitaker, Dulce; Fiamengue, Elis. (2001). Ensino médio: Função do estado ou da empresa? [Secondary education: Responsibility of the State or of the Enterprise?]. *Educação e Sociedade*, Vol. 22, No. 75, pp. 200-232.

Zeferino, Armando. (2011). UFABC e os resultados de seu primeiro vestibular, Texto do pró-reitor de pós-graduação, Armando Zeferino Milioni, sobre os métodos de seleção aplicados pela universidade [Federal University of ABC and the results of its first entry exam -vestibular- Article written by the dean of post-graduate studies, on the selection methods applied by the university]. Retrieved from:
<http://www.jornaldaciencia.org.br/Detalhe.jsp?id=41215>

_____. (2003). Perfil socioeconômico dos estudantes de graduação das instituições federais de ensino superior 2003/2004 [Socio-economic profile of university students of federal higher education institutions].

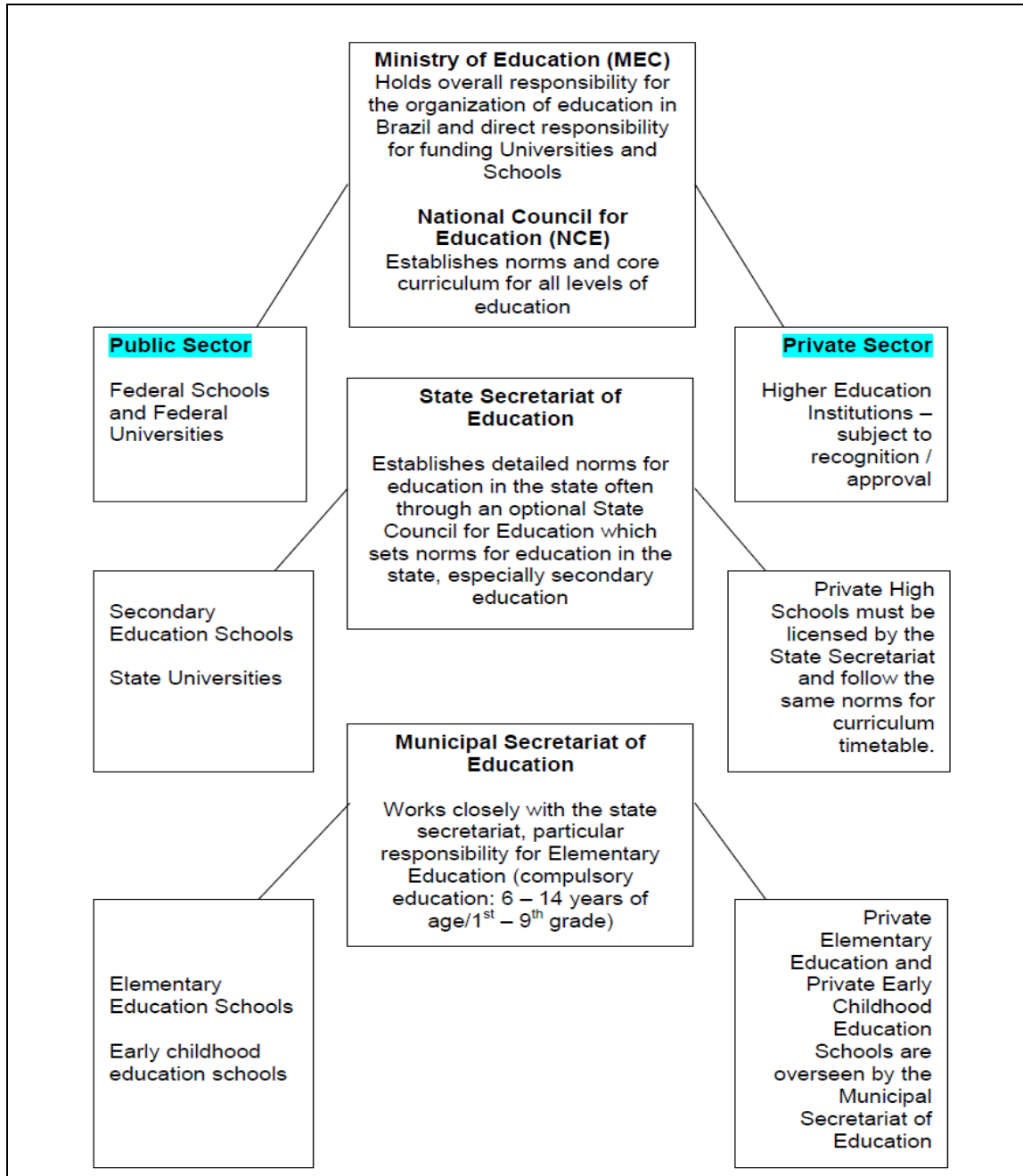
_____. (2012). Race in Brazil, Affirming a divide. *The Economist*, Retrieved from: <http://www.economist.com/node/21543494>

_____. (2007). Are Private High Schools Better Academically Than Public High Schools? *Center on Education Policy*, pp. 1-29.

ANNEX

ANNEX 1

ADMINISTRATION OF BRAZILIAN EDUCATION BY LEVELS OF GOVERNMENT



Source: Info retrieved from Ministry of Education (MEC), 2011.

ANNEX 2

VISUALIZING LITERATURE VS. POLICY DESIGN VS. EFFECTS OF IMPLEMENTATION

	Literature	Policy Design	Policy Implementation (as per Students' perspective)
SES and Family factors	<ul style="list-style-type: none"> • Parental Income • Parental Education • Other personal determinants 	No policies to address this within sphere of stated responsibilities of the government.	→ While student responses reveals that these factors do not significantly affect their interest in pursuing HE. This study verified that currently, students whose family incomes and parental education levels are high (as per responses of current university students and demographic indicators) are more often successful in being admitted to university.
Role and Impact of High Schools	<ul style="list-style-type: none"> • Infrastructure needs • Teacher Training & Salaries • Leadership and Information 	<ol style="list-style-type: none"> (1) Ample number and use of quality facilities, equipment and resources (2) Monitoring of teaching practices and student learning (3) Improved salary for teachers (4) Adequate planning (5) Provide additional and effective guidance on options after graduation (6) Acting school councils 	<p>→ Students from public schools showed dissatisfaction with most of the factors included in policy.</p> <p>→ Public school students in <u>low income</u> municipality appear to be significantly more dissatisfied with the quality of their education than other groups. Yet, this group also indicated that they believe government policies have improved access to university and conditions at their school.</p> <p>→ Proving that what literature says = what students think = what policies aimed to address, confirms empirically that literature is relatively 'up-to-date' and confirms that Lula's policies were in the right direction</p> <p><i>Note:</i> being in the right direction does not mean that his policies were seamless or else there would not be such a high % of students revealing discontent with status quo.</p>
Characteristics of Universities & University Policies	<ul style="list-style-type: none"> • Social Inclusion as a guiding principle • Social Quotas and progressive entry exams (Brazil) • Universities' Current and Future Capacity 	<ol style="list-style-type: none"> (1) ENEM (2) ProUni (3) ReUni (4) Expansion of public tertiary education system (5) Additional regional programs 	<p>→ Students stated they are not dissatisfied per se, but are in fact 'disconnected' from the policies – an indicator that students are not reaping the benefits of the same.</p> <p>→ A myriad of candidates for the ProUni scholarship cannot even meet the minimum score on Enem which is 45 points – assessment by scholars is that they are not receiving the adequate preparation for the test. Evidence of this is that in 2010 - 46,623 ProUni scholarships were not utilized due to low test scores on Enem (Inep, 2010).</p> <p>→ The policies implemented are not effective as they have not reached the ground as pervasively as expected (many scholarships not used) and they did not tend to the commitment made by president Lula to increase the rates of public school students at public universities.</p>

ANNEX 3
STUDENT SURVEYS, DEVELOPED FOR STUDY IN QUESTION –
CONDUCTED WITH *PRIVATE* AND *PUBLIC* SCHOOL STUDENTS, IN LOW
AND HIGH-INCOME MUNICIPALITIES IN THE STATE OF GOIÁS, 2012–13

Name of School:	
Age:	Grade:
A. Student Profile	
A1. How long have you lived in this city?	<input type="checkbox"/> >10 years <input type="checkbox"/> <10 years
A2. How long have you been at this school?	<input type="checkbox"/> >10 years <input type="checkbox"/> <10 years
A3. What kind of school did you go to before you came here?	<input type="checkbox"/> Public <input type="checkbox"/> Private
A3b. Why did you switch schools?	<input type="checkbox"/> Moved <input type="checkbox"/> More affordable <input type="checkbox"/> Other _____
A4. Do you work?	<input type="checkbox"/> YES <input type="checkbox"/> NO
A5. How many people live in your household?	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5+
A6. How many of them work (including yourself if app)?	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5+
A7. What level of schooling did your parents/guardians complete?	
Primary Incomplete	Mother: _____
Primary Complete	
Secondary Incomplete	Father: _____
Secondary Complete	
Undergraduate Incomplete	Guardian: _____
Undergraduate Complete	
Graduate Incomplete	
Graduate Complete	
Higher _____	
A8. Do you have access to internet at home?	<input type="checkbox"/> YES <input type="checkbox"/> NO
A9. Do you take any cursinhos?	<input type="checkbox"/> YES <input type="checkbox"/> NO
A10. Do you do other extracurricular activities?	
<input type="checkbox"/> Sports <input type="checkbox"/> Languages <input type="checkbox"/> Tutoring <input type="checkbox"/> Other _____ <input type="checkbox"/> No	
A11. What are your plans after you graduate?	
<input type="checkbox"/> Work <input type="checkbox"/> Higher Education <input type="checkbox"/> Both <input type="checkbox"/> Don't Know	
A12a. If you plan on pursuing higher education, what kind of institution do you plan on attending? (If not, proceed to A13)	
<input type="checkbox"/> In-state <input type="checkbox"/> Abroad	
A12b. If you plan on pursuing higher education, what kind of institution do you plan on attending?	
<input type="checkbox"/> Public <input type="checkbox"/> Private	
A12c. How will you pay for your studies?	
<input type="checkbox"/> Parents/Family <input type="checkbox"/> Family + Working <input type="checkbox"/> Working <input type="checkbox"/> Scholarship <input type="checkbox"/> Other _____	
A13. If you do not plan on pursuing higher education, why not?	
<input type="checkbox"/> Need to work <input type="checkbox"/> Rather work <input type="checkbox"/> Other _____	

B. About your school
B1a. How would you rate the size (no. of students) in your class? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B1b. Do you believe there is <i>too much</i> variety in your class, in terms of level of comprehension and learning? <input type="radio"/> Yes <input type="radio"/> No
B2. In terms of school supplies and general infrastructure, how would you rate this school? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B2b. Have you seen any improvement in terms of school supplies in the last five (5) years? <input type="radio"/> Yes <input type="radio"/> No If yes, did these improvements occur more than two (2) years ago? <input type="radio"/> Yes <input type="radio"/> No
B2c. Have you seen any improvement in terms of infrastructure (labs, physical space, etc.) in the last five (5) years? <input type="radio"/> Yes <input type="radio"/> No If yes, did these improvements occur more than two (2) years ago? <input type="radio"/> Yes <input type="radio"/> No
B3. What do you think about the quality of the textbooks used? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B3b. Have you seen any improvement in the textbooks in the last five (5) years? <input type="radio"/> Yes <input type="radio"/> No If yes, did these improvements occur more than two (2) years ago? <input type="radio"/> Yes <input type="radio"/> No
B4. How would you rate the amount of funds available to/at this school? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B5. How would you rate the fund-raising activities at this school? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B6. How would you rate the administrative body at this school? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B7. How would you rate the relationship between teachers and administrators? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B8. How would you rate the relationship between teachers and students? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B9. How would you rate the community's involvement in matters pertaining to the high school students here? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B10. How would you rate the relationship between teachers and parents? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA
B11. How do you feel about the information/preparation students are receiving about their options after graduation <i>at school</i> ? <input type="radio"/> 1 - Excellent <input type="radio"/> 2 - Good <input type="radio"/> 3 - Average <input type="radio"/> 4 - Poor <input type="radio"/> 5 - Terrible <input type="radio"/> 6 - Don't know/NA

C. About involvement/participation AND policies
C1. Do you participate in school programs to improve conditions at your school and opportunities for the students? <input type="radio"/> 1 – Very much so <input type="radio"/> 2 - Somewhat <input type="radio"/> 3 - Neutral <input type="radio"/> Not at all
C2. Do your parents/guardians participate in school activities? <input type="radio"/> 1 – Very much so <input type="radio"/> 2 - Somewhat <input type="radio"/> 3 - Neutral <input type="radio"/> Not at all
C2b. Do you think parents <i>should</i> participate <i>more</i> ? <input type="radio"/> Yes <input type="radio"/> No
C3. Do your parents/guardians attend parent-teacher conferences? <input type="radio"/> 1 – Very much so <input type="radio"/> 2 - Somewhat <input type="radio"/> 3 - Neutral <input type="radio"/> Not at all
C4. Do your parents/guardians encourage extracurricular activities? <input type="radio"/> 1 – Very much so <input type="radio"/> 2 - Somewhat <input type="radio"/> 3 - Neutral <input type="radio"/> Not at all
C5. Do your parents/guardians encourage you to take <i>cursinhos</i> ? <input type="radio"/> 1 – Very much so <input type="radio"/> 2 - Somewhat <input type="radio"/> 3 - Neutral <input type="radio"/> Not at all
C6. Generally speaking, are your parents/guardians involved in your studies? <input type="radio"/> 1 – Very much so <input type="radio"/> 2 - Somewhat <input type="radio"/> 3 - Neutral <input type="radio"/> Not at all
C6b. Do you think parents should be <i>more</i> involved? <input type="radio"/> Yes <input type="radio"/> No
C7. Who has influenced you more in relation to whether or not you will pursue higher education? <input type="radio"/> Parents/Family <input type="radio"/> Teachers/School <input type="radio"/> No one has influenced you <input type="radio"/> Other_____
C8. What do you think is the <i>main</i> benefit of going to university? <input type="radio"/> Developing expertise in the area <input type="radio"/> Personal fulfillment <input type="radio"/> Increasing chances of higher paying jobs <input type="radio"/> Staying in school for longer <input type="radio"/> Other_____
C9. What do you think is the <i>second</i> most important benefit of going to university? <input type="radio"/> Developing expertise in the area <input type="radio"/> Personal fulfillment <input type="radio"/> Increasing chances of higher paying jobs <input type="radio"/> Staying in school for longer <input type="radio"/> Other_____
C10. Do you think government policies have increased student’s abilities of being admitted to university? <input type="radio"/> Yes <input type="radio"/> No
C11. Do you think government policies (federal or state) have improved things in your school and/or other public high schools <input type="radio"/> Yes <input type="radio"/> No
C12. What about policies and programs at your school, have they improved things for you? <input type="radio"/> Yes <input type="radio"/> No

Socio-economic Factors
D1a. How relevant is <i>socio-economic status</i> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D1b. How relevant is <i>parental income</i> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D1c. How relevant is <i>the parents’ education</i> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important

D1d. How relevant is the <u>support for education at home</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D1e. How relevant are <u>cursinhos and other extra-curricular activities</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D1f. How relevant is <u>access to a computer/internet at home</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important

D. Determining the importance of different factors
D 1-6. How would you rate the importance of these factors in determining high school students' educational outcomes, mainly university access?
Attributes of the High School
D2a. How important is the <u>school's infrastructure</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D2b. How relevant are <u>teaching materials (i.e. books, computers, boards, labs, etc.)</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D2c. How relevant is <u>teacher training</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D2d. How relevant is the <u>availability of positive social networks [amongst students]</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D2e. How relevant is the <u>availability of information sessions on career/higher education options</u> in how well students do in high school? (Do you think you would study harder if you knew what kind of career options and requirements exist after grad?) <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D2f. How relevant is <u>parental and/ or community involvement</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
Characteristics of Universities and University Policies
D3a. How important do you think the existence of <u>progressive entry exams (ENEM)</u> are in how well students do in high school? (Do you study harder because the ENEM exists?) <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3b. How relevant is the concept of <u>social quotas for university students</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3c. How relevant is the existence of <u>PROUNI</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3d. How relevant is the existence of <u>REUNI</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3e. How relevant is the <u>capacity of universities (i.e. size, infrastructure)</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3f. How relevant is <u>availability of night courses at universities</u> in how well students do in high school? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important

University Interest and Access:
Socio-economic Factors
D3a. How relevant is <u>socio-economic status</u> in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3b. How relevant is <u>parental income</u> in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3c. How relevant is <u>the parents' education</u> in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3d. How relevant is the <u>support for education at home</u> in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3e. How relevant are <u>cursinhos and other extra-curricular activities</u> in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D3f. How relevant is <u>access to a computer/internet at home</u> in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
Attributes of the High School
D4a. How important is the <u>school's infrastructure</u> in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D4b. How relevant are <u>teaching materials (i.e. books, computers, boards, labs, etc.)</u> , at the high school level, in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D4c. How relevant is <u>teacher training</u> , at the high school level, in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D4d. How relevant is the <u>availability of positive social networks [amongst students]</u> , at the high school level, in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D4e. How relevant is the <u>availability of information sessions on career/higher education options</u> , at the high school level, in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D4f. How relevant is <u>parental and/ or community involvement</u> , at the high school level, in the students' ability to be admitted into a public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
Characteristics of Universities and University Policies
D5a. How important do you think the <u>progressive entry exam (ENEM)</u> is in the students' interest in attending public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important
D5b. How relevant is the concept of <u>social quotas for university students</u> in the students' interest in attending public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important

<p>D5c. How relevant is the existence of <u>PROUNI</u> in the students' interest in attending public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important</p>
<p>D5d. How relevant is the existence of <u>REUNI</u> in the students' interest in attending public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important</p>
<p>D5e. How relevant is the <u>capacity of universities (i.e. size, infrastructure)</u> in the students' interest in attending public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important</p>
<p>D5f. How relevant is <u>availability of night courses at universities</u> in the students' interest in attending public university? <input type="radio"/> Extremely important <input type="radio"/> Somewhat important <input type="radio"/> Neutral <input type="radio"/> Slightly important <input type="radio"/> Not important</p>

<p>E. Interview Questions</p> <p>1- What do you think students need to do/have in order to do well in high school (i.e. get good grades)?</p> <p>2- What do you think students need to do/have in order to be admitted into university (other than good grades in HS)?</p> <p>3-Do you think that going to a private high school would be very different (yes, no)? If so, how so?</p> <p>4- Are there any federal, state or school policies that you believe have made things more difficult? If so, what has become more difficult?</p> <p>5- If you could recommend to policy makers how to address any issues in terms of educational outcomes (at the high school level) and university access, what would that be?</p>
