APPROVAL SHEET

Title of Thesis: Education Decentralization Reform in Bulgaria and the Involvement of the World Bank

Name of Candidate: Nadia Dolgachev
Doctor of Philosophy, 2017

Thesis and Abstract Approved:

George R. La Noue
(Research Professor of Public Policy and
Research Professor of Political Science)
School of Public Policy

Date Approved: _____

ABSTRACT

Title of Document: EDUCATION DECENTRALIZATION REFORM IN BULGARIA AND THE INVOLVEMENT OF THE WORLD BANK.

Nadia Dolgachev, Ph.D., 2017

Directed By: Professor George R. La Noue, School of Public Policy

ABSTRACT

In this dissertation, I analyze education-decentralization reform in Bulgaria and the involvement of the World Bank (WB) in it. The WB has been promoting a decentralized approach to providing education in a number of developing and transitional economies. Bulgaria is one of the countries assisted by the Bank in adopting a decentralized education system. Insufficient public funds, a demographic crisis, inefficient use of public resources, and unskilled labor force were the main reasons that Bulgaria began reorganizing its education system and searching for outside assistance.

School reform in Bulgaria is an interesting case study of a middle-income country that had to restructure its education system to respond to the needs of a changing economy. While education experts and government authorities did not see universal access to education as an issue because most of the children had access to

basic education, the country was falling behind in its efforts to provide high-quality education appropriate for the changing needs of the labor market. This study contributes to the debate of advantages of decentralization versus centralization in education by analyzing if decentralization reform, as planned and implemented in Bulgaria, was a tool promoting efficient use of resources aimed at improved student outcomes, or increased the disparity of access and education expenditures in Bulgarian schools. The findings of the study suggest that education-decentralization reform led to a decrease in dropout rates and grade-repetition rates among students and did not worsen the equity in access to education. However, it seems that the effect of the central element of the school decentralization, the Delegated School Budgets, on student dropout and grade-repetition rates was diminished, mainly because of the simultaneous implementation of another efficiency measure, the consolidation of schools, and the lack of accountability measures at the local level of governance that would make the school director responsive to the needs of students. The research also shows that full education decentralization in Bulgaria was not achieved because even though financial decentralization was implemented, a decentralization of authority at the municipal level of governance was never adopted.

This study provides policymakers in Bulgaria and other countries in the region with similar education systems and officials in the WB with further insight on the effectiveness of decentralization and the trade-off between its achieved efficiency and perceived inequality.

EDUCATION DECENTRALIZATION REFORM IN BULGARIA AND THE INVOLVEMENT OF THE WORLD BANK.

By

Nadia Dolgachev

Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, Baltimore County, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2017

Dedication

To Denis and my mother, **Pepa.**

Acknowledgements

This project would not have been possible without the support of many people. Many thanks to my adviser, Dr. George La Noue, who was patient enough to read my numerous revisions and helped me make sense of the vast amount of materials I had researched. Also thanks to my committee members, Dave Marcotte, Tim Brennan, Brian Grodsky and Tazeen Fasih, who offered guidance and support. And finally, thanks to my husband, parents, and friends who survived this long process, always offering love, support and understanding.

Table of Contents

Dedication ii

Acknowledgements iii

Table of Contents iv

List of Tables viii

List of Figures ix

Chapter 1: Introduction 1

Reasons for Involvement of the WB in the Education Reform in Bulgaria 3

Brief History of Education Decentralization and Involvement of WB in the Education Reform in Bulgaria 10

Significance of the Topic 14

Chapter 2: Literature Review: The World Bank and its Education Policies 15

History of Education Policies at the World Bank 15

Advantages and Disadvantages of Education Decentralization as Promoted by the WB 31
Pro-Decentralization of Education Studies 31
Pro-Centralization of Education Studies 44

Chapter 3: Literature Review—Overview of the Bulgarian Education System 56

Development of Education in Bulgaria 57
Development of the Centralized Education System in Bulgaria 57
Development of the Decentralized Education System 63

Characteristics of the Bulgarian Educational Policy Decision-Making Process 75
Characteristics of the Centralized Educational Policy Decision-Making Process 75

Characteristics of the Decentralized Educational Policy Decision-Making Process 77

The Role of Stakeholders in the Bulgarian Education System 82
The Role of Stakeholders in the Centralized Education System 82
The Role of Stakeholders in the Decentralized Education System 84

The Role of the World Bank in the 2008 Education Reform in Bulgaria 86

Chapter 4: Research Methods, Design, and Questions 95

Research Questions 95
What Kind of Cooperation Existed Between the WB and the Bulgarian Officials during 2000–2010 years? 96
By Whom and How was Bulgarian Education Reform Planned and Designed? 96
How was Bulgarian Education Reform Implemented? 97
What was the Impact of the Reform on Students' Behavior Such as Dropping out of School and Repeating a Class during 2008–2014 years? 97

Research Methods 98

Research Design 99

Chapter 5: Analysis of the Qualitative Questions 101

Sample 101

Instrumentation 103
Document Analysis 104
Conducting Interviews 105

Qualitative Data Collection and Analysis 107
Document Collection 108
Interviews of Selected Participants 108

Chapter 6: Analysis of Quantitative Question 113

Empirical Approach 113

Definition of Outcome Variables 116
Dropout Rate 116
Grade-Repetition Rate 117

Definition of Treatment Variable 118

Definition of Independent Variables 118
Student-Teacher Ratio per School 119
Type of School 119
Teachers' Characteristics per School 119
Dummy Variable Indicating if the School is Located in a Rural area 121
Dummy Variables for Municipalities 121

Empirical Model 121

Sample 125

Use of Secondary Administrative Data 125

Chapter 7: Findings of the Qualitative Research Question—What kind of Cooperation Existed Between the World Bank (WB) and the Bulgarian Officials? 130

Chapter 8: Findings of the Qualitative Research Question—By Whom and How was Bulgarian Education Reform Planned and Designed? 139

First Planning Attempts for Education Decentralization (2000–2003) 140

Planning for Education Decentralization Reform (2006–2009) 145
Agencies Involved with the Planning and Implementation of Activities under SS DPL Loans 1, 2, and 3 at the Central Level of Governance 147
WB Policy Documents Modeling the Education Decentralization Reform 148
Planned Activities in the Education Sector under DPL Loan Agreements 152
Involvement of the International Monetary Fund (IMF) in Setting the Education Reform Agenda 154
MES National Program for the Development of School Education 2006–2015 156

Chapter 9: Findings of the Qualitative Research Question—How was Bulgarian Education Reform Implemented? 167

First Attempts for Implementing Education Decentralization 169

Implementation of Education Decentralization under the Social-Sector DPL Loans (2006–2009) 176
Financial Decentralization 177
Decentralization of Authority at the Local Level of Governance 208
Decentralization of School Plans and Programs 217

Consolidation of Schools as an Intervening Factor in the Education Decentralization Reform 219
Creation of Protected Schools as a Mitigating Measure 227
World Bank Supervision and Evaluation 232

Chapter 10: Results of the Quantitative Analysis 238

Descriptive Statistics 238

Comparison Between the Treatment and Control Groups of Schools 241

Dropout Rates 246

Grade-Repetition Rates 251

Chapter 11: Discussion, Limitations and Conclusion 258

Discussion 258

Limitations 270

Conclusions 273

Appendix 277

Bibliography 280

List of Tables

Table 1. Comparison Between the 2000 WB Projects in the Social Sectors in Bulgaria 89

Table 2. Prior Actions in Education: PAL 2 and 3 Loan Series 144

Table 3. Amount, Concept, Release Dates, and Time of the SIR DPL 1, 2, and 3 Loan Series 146

Table 4. Prior Actions in Education: SIR DPL 1, 2, and 3 Loan Series 152

Table 5. Closed Schools as Percentage of Total Number of Schools for Years 2005 to 2014 223

Table 6. Descriptive Statistics for School-level Panel Data in Bulgaria for years 2004 to 2014 240

Table 7. Regression Estimates for School-Level Panel Data of School Dropouts for Years 2004 to 2013 249

Table 8. Regression Estimates for School- Level Panel Data on School Dropouts by Gender and Grade Category for Years 2004 to 2013 250

Table 9. Regression Estimates for School-Level Panel Data of School Repeaters for Years 2005 to 2014 252

Table 10. Regression Estimates for School-Level Panel data of School Repeaters by Gender and Grade Category for Years 2005 to 2014 255

List of Figures

Figure 1. Public Expenditures on Education as a Percentage of GDP for Years 1993 to 2011 6

Figure 2. Proportion of Population by Age Group as a Percentage of Total Population for Years 2005 to 2014 7

Figure 3. Share of 15-year-old Students at Level One or Below in PISA Reading Literacy Scale Years 2006, 2009, & 2012 8

Figure 4. Young People Neither in Education nor Employment (Ages 15–24)—a Percentage of the Total Population in the Same Age Group for Years 2003 to 2011 .. 9

Figure 5. Literature Review–Advantages and Disadvantages of School Decentralization & Centralization 55

Figure 6. Literature Review: Focus on Development & Characteristics of the Bulgarian Education System 94

Figure 7. Total Dropout Rate in Bulgaria for Years 2004 to 2013 243

Figure 8. Total Grade-repetition Rate in Bulgaria for Years 2005 to 2014 244

Chapter 1: Introduction

Education decentralization has been widely discussed in the education literature in the past two decades. It ranges from deconcentration of administrative authority to more decentralized regulatory and financial autonomy. In this study, the term "education decentralization" is defined as the process of devolution of fiscal and decision-making authority from higher to lower levels of government and organizational units, affecting the way schools make their own decisions about resource generation, spending, an organization of instruction, and personnel management.

Many countries have decentralized their education systems to make them more efficient and responsive to the needs of the students they serve (Barrera-Osorio, Fasih, Patrinos, & Santibáñez, 2009, pp. 5–11). Global international organizations such as the World Bank (WB) have also declared that decentralization should be the standard for a reformed education system (Bruns, Filmer, & Patrinos, 2011, p. 15). The reasons for implementing decentralized education models, according to the WB, lay in the service delivery failures. These are "cases where programs and policies that increase the inputs to education fail to produce effective delivery of services where it counts—in schools and classrooms" (Bruns et al., 2011, p. 1). The quality of education influences the economic growth of a given country significantly. In a global economy, the crucial point is not learning progress measured by national standards, but education outcomes measured in comparison to the best performing education systems internationally (Bruns et al., 2011, p. 4).

Proponents of decentralization (Oates, 1999; Hoxby, 1995; Fiske, 1996) point out that decentralized education should be the norm because the decision-making at lower levels of government may translate into more effective education service delivery and improved academic outcomes. In addition, decentralization will improve accountability by providing incentives for quality performance by teachers (Hanushek & Rivkin, 2003). However, in some countries, education decentralization has produced mixed results about student outcomes and has prompted many critics to oppose any further decentralization efforts around the world. Opponents of decentralization (Elmore, Fuller, & Orfield, 1996; Godwin & Kemerer, 2002) argue that local governance of education will increase disparities in access, learning outcomes, and expenditures.

The World Bank (WB) is the major international organization that promotes a decentralized approach of providing education in many developing and transitional economies. Since 2000, Bulgaria has been one of the countries the WB targeted for assistance to reform its education sector. As a result, Bulgaria introduced reforms that had not been implemented yet in the other European Union (EU) countries, such as decentralized school management (World Bank, 2010, p. 9). The involvement of the WB in the Bulgarian education reform also offers an opportunity for an analysis of decentralization efforts in the education sector that were triggered initially by external international organizations and the central government rather than interested local stakeholders. The purpose of this research is to investigate how and by whom decentralization reform in Bulgaria was planned and implemented, and to analyze its impact on intermediate student outcomes measured by dropout and grade-repetition rates. Since the study attempts to answer both qualitative and quantitative research

questions, mixed-methods of research design, which allows for a combination of qualitative and quantitative data sources is used. The qualitative questions explore the history of decentralization reform in Bulgaria by investigating the cooperation between the WB and the Bulgarian officials regarding education reform, and the planning and implementation of education decentralization in the country. The quantitative questions examine the impact of education decentralization on students' behavior such as dropping out of school and repeating a grade. The study takes part in the debate of decentralization versus centralization in education by analyzing whether decentralization reform as planned and implemented in Bulgaria, was an effective tool that promoted efficient use of resources aimed at improved student outcomes, or increased the disparity of access and education expenditures in Bulgarian schools.

Reasons for Involvement of the WB in the Education Reform in Bulgaria

Bulgaria was undergoing massive and challenging economic changes transitioning from a planned centralized economy to a free-market economy, which culminated in the severe 1996–1997 economic crisis. As a result, the central government sought assistance from outside financial organizations such as the WB and the International Monetary Fund (IMF) to manage the necessary structural and institutional reforms. After the adoption of the IMF Arrangement in 1997, economic stability was reestablished in the country by the introduction of strict fiscal policies and austerity measures.

Bulgaria spent the next nine years preparing for membership in the EU. Supported by several WB loan agreements, the country was able to maintain an economic growth of about 6 percent during 2004–2008. The Government of Bulgaria (GOB) balanced the budget in 2003, and increased the fiscal surpluses of about 3

percent of Gross Domestic Product (GDP) during 2005–2008 (World Bank, 2010, p. 1). Social-sector reforms, however, were not a part of the EU laws, and therefore received less policy attention during the preparation for EU accession.

On January 1, 2007, Bulgaria entered the EU as one of its poorest members. Corruption was prevalent and institutionalized in all sectors of political and economic life. For example, there were "serious allegations of irregularities as well as suspicions of fraud and conflicts of interest" in the award of EU pre-accession contracts. These issues led to an investigation of the Bulgarian authorities' management of the EU financial and technical support conducted by the EU anti-fraud office (Commission of the European Communities, 2008, p. 2). As a result, the European Commission temporary suspended pre-accession funds and froze almost €460 million in farming and structural aid to Bulgaria in 2007 and 2008 (Commission of the European Communities, 2008, pp. 1–12).

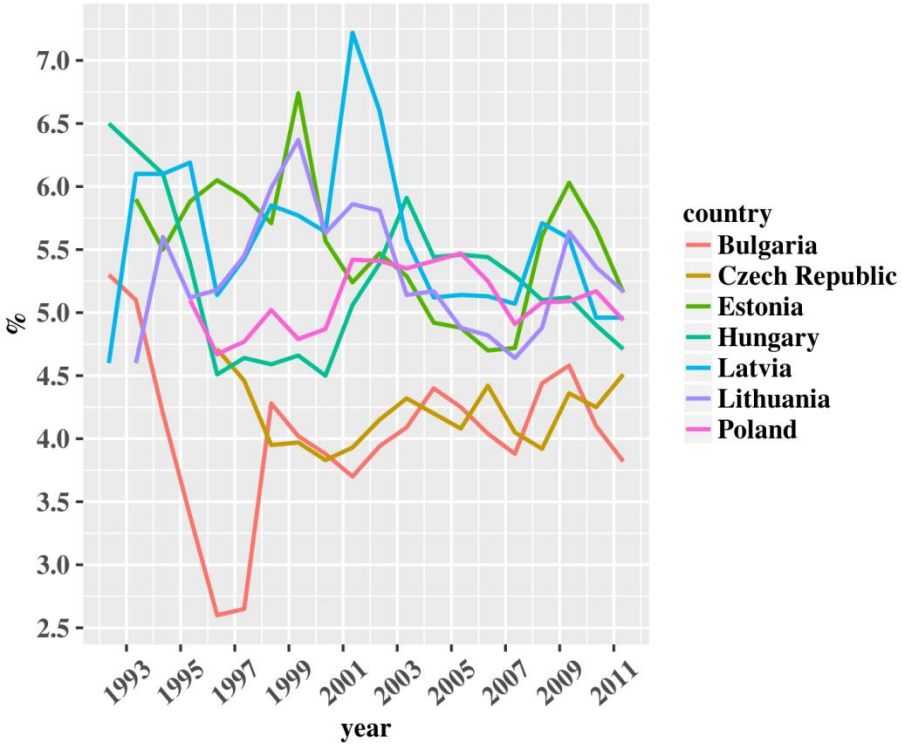
The WB loans Bulgaria received after becoming a member of the EU in 2007 were developed to respond to the central government's request for support of the country's priorities as a new EU member, with a focus on access to social services, fiscal sustainability, and transparency of public spending. The WB loan agreements also served to mitigate the impact of the 2008 global financial crisis, which would have led to the slowing of the Bulgarian economy and would have offset efforts made previously to reduce poverty. The loans offered an opportunity for the government to restructure old debts and introduce social sector reforms excluded from the EU law, particularly in education, labor, and social protection.

My focus here is the objective of the WB loan series aimed to increase the productivity of the Bulgarian economy, mainly through investments in education.

Bulgaria represented an extreme case among other similar Eastern European countries with respect to its education expenditures, demographic structure, quality of education, and outcomes for young people in the labor force. From a review of the relevant literature, it is evident that there were four broad reasons why Bulgaria had to restructure its education system and needed both financial and expert assistance from the WB and other international organizations:

Insufficient public funds. The country suffered a decline in education expenditures as a percentage of its GDP, from about 5–6 percent at the beginning of the 1990s to 3–4 percent at the end of the decade (Figure 1). There was a sharp decrease in education expenditures during 1993–1996, which was marked by extensive foreign borrowing, slow structural reforms, and political instability, and which culminated in a severe economic and financial crisis in 1996–1997, and a drastic increase in poverty. As a result, Bulgaria has lagged behind other Eastern European countries ever since in decrease in education expenditures (World Bank, 2006a, p. 2; p. 25).

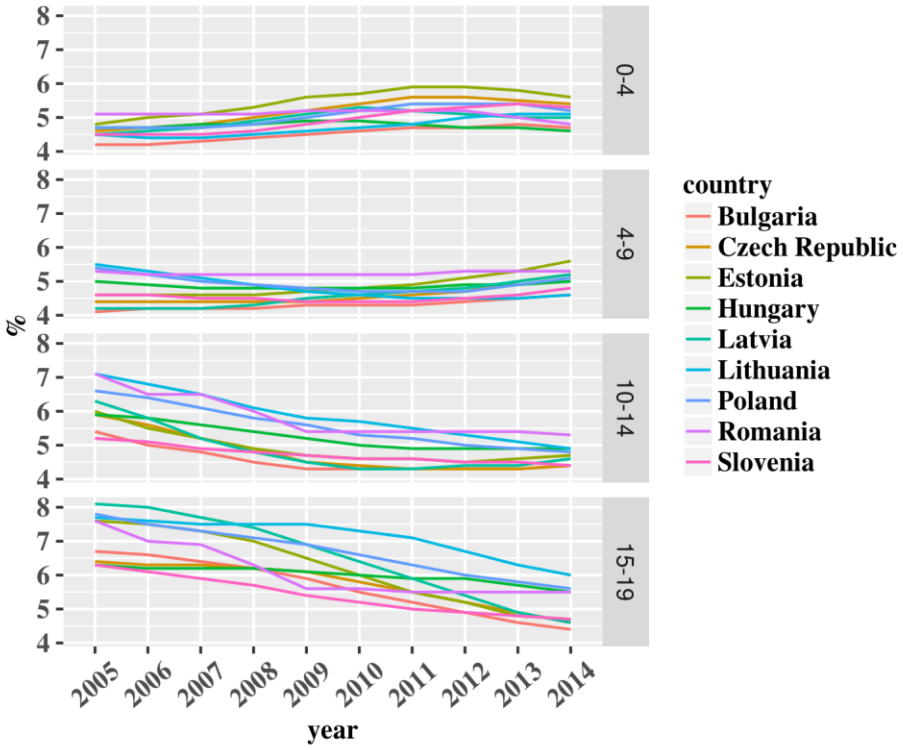
Figure 1. Public Expenditures on Education as a Percentage of GDP for Years 1993 to 2011



Source: Eurostat Table: Public Expenditure on Education (tsdsc510).

An ongoing demographic crisis. Bulgaria's working-age population, ages 0–19, was declining more rapidly than in other EU countries, which would have resulted in a greater demand for increased productivity from a shrinking skilled labor force in the near future if Bulgaria was to achieve an economic growth as a member of the competitive EU market. The expected population decline among young people posed a significant challenge to the adjustment of expenditures for physical infrastructure and human resources in schools (Figure 2) (Danchev, Guaqueta, Macdonald, Porta, Fasih, & Patrinos, 2010, p. 19).

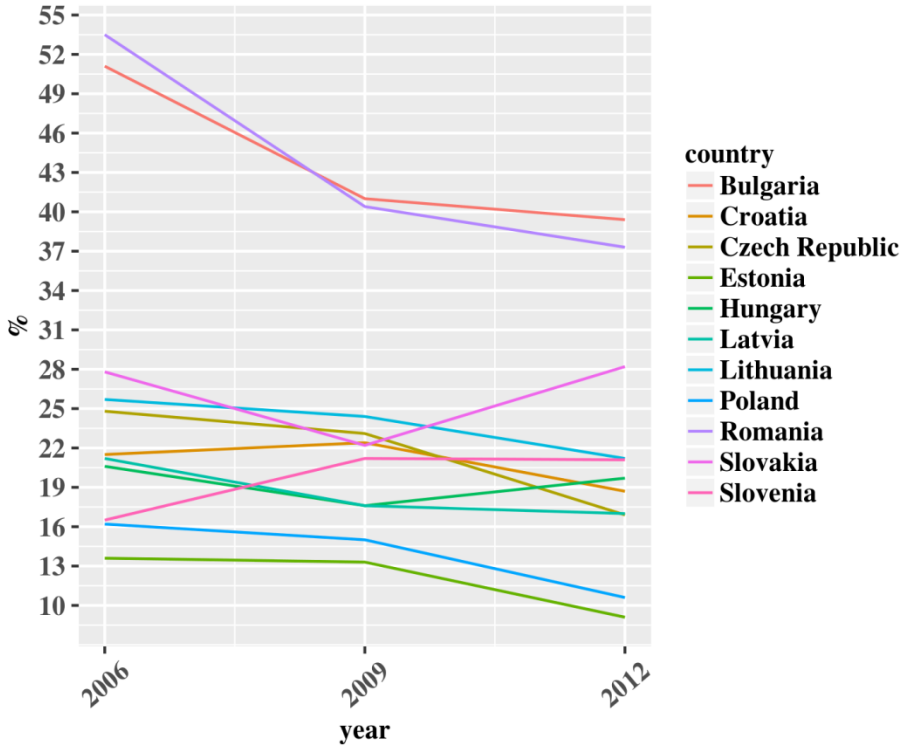
Figure 2. Proportion of Population by Age Group as a Percentage of Total Population for Years 2005 to 2014



Source: Eurostat Table: Population: Structure indicators [demo_pjanind].

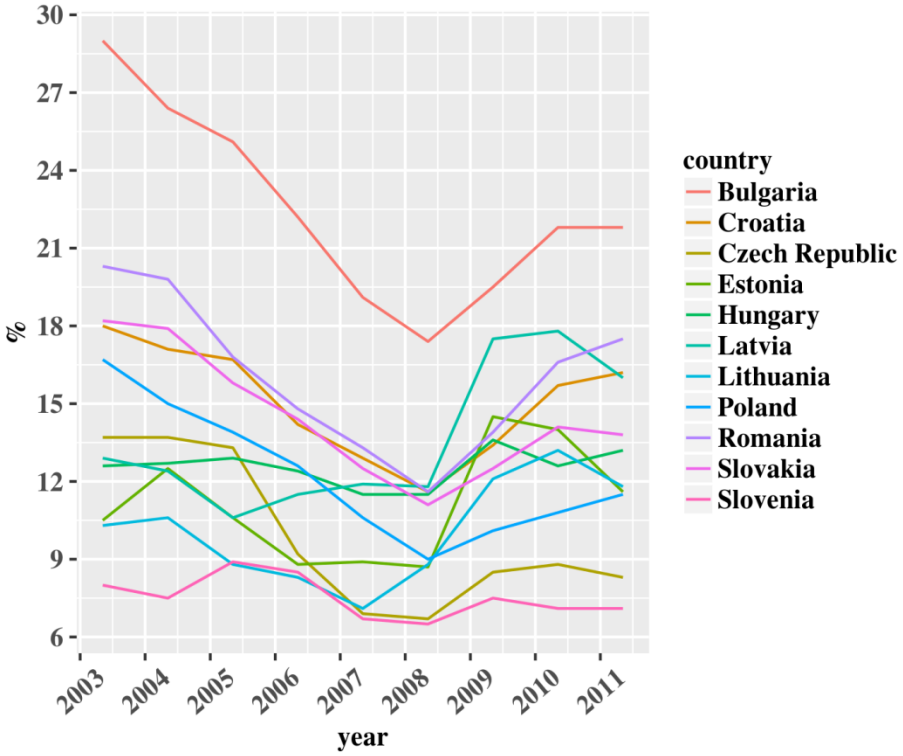
Unskilled labor force due to a low quality of schooling. In 2000, only 40 percent of 15-year-old Bulgarian students were able to reach the Organization for Economic Cooperation and Development (OECD) critical threshold of reading literacy and math competency (Figure 3). This trend continued in subsequent years. In 2006, 51 percent of the students were functionally illiterate. Bulgaria, along with Romania, showed the lowest Program for International Student Assessment (PISA) results at the reading literacy assessments among any other Eastern European country in 2006, 2009, and 2012 (Danchev, Guaqueta, Macdonald, Porta, Fasih, & Patrinos, 2010, p. 21).

Figure 3. Share of 15-year-old Students at Level One or Below in PISA Reading Literacy Scale Years 2006, 2009, & 2012



Source: OECD Table (tsdsc450): Low reading literacy performance of pupils.

Figure 4. Young People Neither in Education nor Employment (Ages 15–24)—a Percentage of the Total Population in the Same Age Group for Years 2003 to 2011



Source: Eurostat Table (tipslm90): Young people neither in education nor employment and training (15–24 years)—a percentage of the total population in the same age group.

Employers were dissatisfied with the skill level of young employees and, as a result, young people were at a greater risk of becoming permanently unemployed (Abu-Ghaida, Rutkowski, Murthi, Sondergaard, & Bodewig, 2012, p. 4). Among the Eastern European countries, Bulgaria also had the highest percentage of young people ages 15–24 neither employed nor in education (Figure 4).

Inefficient use of resources. The prevailing practice of central planning relied on inputs, not outputs, and the central authorities operated "in the dark" because they designed policies and made decisions without collecting and analyzing data on academic and employment outcomes of students and graduates (Abu-Ghaida et al., 2012, p. 7). This led to weak accountability relationships among policymakers,

education providers, students, and parents (Abu-Ghaida et al., 2012, p. 7). Education authorities were still using centralized management practices and relying on compliance with numerous regulations governing the education sector (Abu-Ghaida et al., 2012, p. 2). Moreover, there was a lack of comparable data on standardized test results and mechanism for a creation of accountability measures for the schools.

The WB saw this conduct and absence of performance-management practices and metrics as a primary reason for the inefficient use of resources in the education sector. Education authorities could not make crucial management decisions for their institutions, such as how much and what type of content students could choose and how many teachers to employ. The system proved inflexible and responded neither to labor market needs nor to changes in the number of students (World Bank, 2007a, p. 82).

Brief History of Education Decentralization and Involvement of WB in the Education Reform in Bulgaria

The first attempts to decentralize education in Bulgaria were initiated in 1996 by the European Community through the PHARE (Poland and Hungary Assistance for Reconstruction of the Economy) program and by the Open Society Institute (OSI) (Club Economica 2000 and Ministry of Education and Science, 2005, p. 7; Herczynski & Herbst, 2008, p. 11). These organizations started several targeted education projects, but most of them were limited, isolated, and not supported by any comprehensive strategy for reform.

By 2000, PHARE and OSI significantly reduced their presence in funding to the education sector. In the case of the EU, education was not seen as necessary to the expansion of membership. OSI had shifted its priorities to other countries in the

region. The WB was the only major international organization with the potential to influence Bulgarian policies in the area of education. The primary goal of the WB was to increase competition in the Bulgarian education system by allowing schools more autonomy in the management of their human, material, and financial resources.

The school autonomy model that was promoted by the WB experts was seen as the delegation of a task by the principal, namely, the government agency in charge of the school system, to its agents, the schools. In keeping with this model, agents were expected to act following the central system's major objectives, but for specific issues, autonomous decision-making, based on local knowledge was to be used to achieve superior results. School autonomy was also expected to improve the monitoring of teachers and schools by parents (Hanushek, Link, & Woessmann, 2011, p. 6). As an education-management approach, school autonomy offered a number of potential advantages, including democratization of the decision-making process, relevancy to the local needs of the population, less bureaucracy, greater accountability, and more opportunities for mobilization of resources (Dimmock 1993; Caldwell, 1994, as cited by Grauwe, 2005, pp. 274–275).

In 2000, the WB launched the Education Modernization Project, which provided a loan of $14.39 million to finance, for three years, targeted improvements mainly in the areas of school autonomy and accountability (World Bank, 2004a, p. 19). In 2004, the loan was closed, and the Bank's evaluation team announced that results in almost all of the major areas that needed improvement were unsatisfactory (World Bank, 2004a, pp. 22–23). The challenges that prevented the successful implementation of the project were numerous. At the centralized level, the Ministry of Education and Science was not committed enough to the project (World Bank, 2004a,

p. 18). At the local level, there was strong opposition from teachers and their unions, concerned that the education reform would lead to massive layoffs of teachers (World Bank, 2004a, p. 17).

In the following years, the WB provided several other loans to assist the country in its efforts to sustain economic growth and reduce poverty (World Bank, 2004b, p. i; World Bank, 2010, p. 3). The Programmatic Adjustment Loans (PAL1–PAL3) that went into effect during 2004–2006 provided $450 million ($150 million each) for five main pillars. They were as follows: sustaining structural reforms in the enterprise sector, establishing a market-friendly business environment, developing the financial sector, improving public-sector governance, investing in human capital, and strengthening social assistance programs (World Bank, 2004b, p. 2). While PAL 1 and PAL 2 were directed towards improvements mainly in the first four pillars, PAL 3 was focused primarily on the fifth pillar, investing in human capital and improving social assistance programs (World Bank, 2004b, p. 2). Education reform was a part of the fifth pillar, and approximately 10 to 12 percent of the total funded activities under the loan agreements were in the education sector (World Bank, 2005, p. 1; World Bank, 2006, p. 1).

The Social Sectors Institutional Reform Development Policy Loan series (SIR-DPL 1–SIR-DPL 3) that went into effect during 2007–2009 provided $500 million ($150 million SIR-DPL 1–2, and $200 million SIR-DPL 3) entirely for the support of reforms in the social sector. Under the loan agreements, the education activities accounted for 40 percent of the total funded activities (World Bank, 2010, pp. i–v). In the first phase, the focus was on the introduction of a new funding mechanism for schools, accompanied by actions to mitigate the impact of the change

in education financing on access to education. In the second phase, the emphasis was on full support of the new education-funding formula, an introduction of governance changes in the education sector, and improvement of the capacity of the government authorities to assess the quality of education. The third phase supported the consolidation of financing and governance reforms in the education sector, and the introduction of school-based management (SBM) (World Bank, 2007, pp. 7–8).

As a result, in 2007, the unified student standard of school financing, based on the number of students per school was introduced in Bulgaria. The term "unified standard" was used to describe the amount of money that municipalities receive per student enrolled in schools in their territories. "Unified" indicated that both salaries and benefits of school employees were combined in one amount (World Bank, 2007, p. 32). Before this reform, the majority of the municipalities were funded in a centralized way and funds were provided, based on a historic number of classes, not on the number of students. Municipalities had little incentive to make their school network more effective by closing schools and to introduce changes that could lead to improved quality of education. The unified student standard of financing was seen as a tool that would enable municipalities to make their schools more efficient and competitive.

Additionally, in 2008, the system of Delegated School Budgets (DSBs) was introduced nationwide, making it possible for school directors to manage their schools' budgets. Previously, according to the WB, the DSBs pilot program was limited to schools in only 43 municipalities, which were given the option to manage a portion of their budgets (World Bank, 2009, p. 42).

Significance of the Topic

As will be seen in the literature review section of the study, the effects of decentralization are not easily comparable because of the wide range of implemented decentralization models worldwide and the significant differences in the systems where the models have been applied. Bulgaria is an example of a country that had experienced a constant decrease of public funds, rapid demographic decline, and inefficient use of public resources due to obsolete centralized management practices. While most of the children had access to basic education, the country fell behind in its efforts to provide a higher quality of education to meet the changing needs of the labor market.

Researching education reform in Bulgaria is a valuable case study of a middle-income country that had to restructure its education system to respond to the needs of increased competitiveness as a newly accepted member of the EU. Decentralization was seen as the tool that would achieve the goal of modernizing the Bulgarian education sector. This study adds to the existing debate over the advantages of decentralization to centralization of education by analyzing both qualitatively and quantitatively the processes and the outcomes of the decentralization model adopted in Bulgaria as well as the effectiveness of some mitigating measures implemented to counteract the potential harms of education decentralization. More specifically, this research provides Bulgarian policymakers and WB officials with further insight on the impact of education decentralization as designed and implemented in Bulgaria, pointing out specifics on the trade-off between efficiency and perceived inequity in the access to education observed in Bulgaria.

Chapter 2: Literature Review: The World Bank and its Education Policies

Chapter two and three reviews the relevant literature on education decentralization to describe existing findings and detect gaps in available research, thereby demonstrating the need for this study. The literature review analyzes six main areas of research topics related to the education reform in Bulgaria. They are grouped in the following categories, starting from broad to narrow: overview of education policies and strategies of the World Bank (WB), advantages and disadvantages of education decentralization as promoted by the WB versus education centralization, development of Bulgarian education, characteristics of Bulgarian education decision-making process, role of different stakeholders in Bulgarian education reform, and the role of the WB in 2008 education reform in Bulgaria. The first chapter of the literature review starts with a brief overview of the history of education policies of the WB. Next, it explores the advantages and disadvantages of school decentralization versus school centralization by researching theoretical and empirical studies supporting and opposing decentralization.

History of Education Policies at the World Bank

During the last few decades, the WB has become the most influential source of developmental capital in the field of international education and the most potent organization influencing the global education agenda. The WB education policies and strategies serve as a policy guide for many stakeholders (donors, non-government organizations, and ministries of education), especially in developing countries (Verger & Bonal, 2012, p. 125). The WB's involvement with education policy has

grown substantially since the 1960s and has undergone several significant changes. The articles discussed below explore the history of the development of the education policies adopted by the WB and their consequences for the field of international education. The papers by Heyneman (2003) and Verger and Bonal (2012) analyze critically the history of the Bank's lending priorities along with the problems caused by the reliance on specific methodologies adopted by the Bank, whereas the article by Moony and Verger (2015) discusses how the education policies of the Bank have changed based on the interaction of different external and internal factors. Finally, Zapp's paper highlights the development of the WB's knowledge base.

In a 2003 article, Stephen Heyneman, a Professor of International Education Policy at Vanderbilt University who has worked for more than 20 years for the WB, provides an overview of the evolution of the Bank's lending for education and highlights the reasons why the Bank's policies for education have not been as effective as expected. By researching WB documents, policy notes, reports, and internal notes and by conducting informal conversations with staff members at the WB the author focuses on the methodologies used by the Bank to justify the lending for education projects and the internal procedures for appraisal of the loans. For example, the Heyneman compares the two dominant methods used for evaluation by the Bank when providing loans for education activities: manpower forecasting and rate of return on investment.[1] [2]

[1] Manpower forecasting is a planning approach under which the educational planner provides the number of skills required by the various economic sectors for the economy to be able to produce the anticipated level of output. As a result, this formula has led to recommendations for the expansion of higher level of education, primarily technical, in developing countries (Psacharopoulos, 1985, p. 3)

[2] The rate of return to education is a planning approach that estimates the return of additional schooling for an individual (usually, the return for the average person). Past average return to education estimates suggest that returns are higher in developing to developed countries, with developing countries

The method of manpower forecasting that was a standard loan-evaluation tool from 1962 to 1980 emphasized the importance of "practical employment" for technical efficiency and argued that because of the problem of "educated unemployment," lending for primary education was not economically justified. Improving the quality of education was to be achieved by making education "more practical and relevant by re-orienting its content away from academic and toward vocational purposes (World Bank, 1974, as cited by Heyneman, 2003, p. 318). At the same time, according to the author, by avoiding school tracking and insisting on the creation of comprehensive schools with diversified curricula that would combine academic with manual training, the Bank attempted to encourage social mobility, make schools more democratic, and avoid the dangers of "educated unemployment." In Heyneman's view, such an approach led the countries investing "thousands of workshops and laboratories, that, for the most part, became useless ‘white elephants' “(Heyneman, 2003, p. 333).

In contrast, the rate-of-return approach that was prevalent as an evaluation method after 1980, recommended a shift of public expenditures from vocational and higher education toward academic and primary education, an increase in the private cost of attending universities, and an installment of loan schemes to offset the financial burden on individuals (so-called "short education menu"). In this way, the Bank attempted to account for existing inequalities in many countries, which had budgets distorted in favor of higher and vocational education that served vested interests (Heyneman, 2003, p. 326). However, as the author points out, the "short education menu" was criticized externally and internally, most notably by the WB

---

showing higher returns to primary education versus developed countries exhibiting higher returns to higher education (Patrinos, Ridao-Cano, Sakellariou, 2006, p. 2)

regional staff members. They insisted that the short education menu excludes "other possible justifications for allocation of public finance: national interest, market failure, and equity (World Bank, internal note, November 18, 1994, as cited by Heyneman, 2003, p. 328). As Heyneman points out, the WB has continued to use the economic rate-of-return analytic methods, but this approach is utilized to "highlight problems rather than to determine priorities for lending" (Heyneman, 2003, p. 330). Other policies not dependent on predetermined content and allocation choices have been designed and they include an emphasis on local and international performance standards, universal access to primary education, open access to educational statistics, public debates over education choices, and transparent development of policy decisions (Heyneman, 2003, p. 330).

The article also discusses the development of internal procedures ensuring the proper balance between generating quick and efficient loans and the high technical standards of the loans. According to Heyneman, the system of checks and balances among the three sections of the WB (research, policy and lending strategy, and the regional responsibilities) established during the Robert McNamara's leadership of the Bank from 1968 to 1981 was most efficient. Under it, the research staff had the highest visibility, but little operational authority and the two other sections could veto over both lending and policy. As a result, the system guaranteed that the loans would not be "based on whims of local officials and policies based on models and paradigms of little or no relevance ‘on the ground' " (Heyneman, 2003, p. 320). The author argues that the balance of power disappeared in the 1990s, resulting in significant effects on the quality of lending and policy. More specifically, in the 1980s, regional leadership was given authority to send loans for approval to the Board without

reaching an agreement with the central policy authorities. At the same time, policies were considered to be in the domain of the central policy authority. As a result, the author claims: "There are guidelines but no common standards. Except for votes at the Board itself, there is no formal external review process in place" (Heyneman, 2003, p. 331).

The dogmatic overreliance on specific approaches (e.g., manpower forecasting and rate of return on investment) and the lack of checks and balances for the approval of the loans, according to Heyneman, has led to the distortions of the education policy and lending. The article provides an in-depth overview of the activities of the Bank and the gradual evolution of methods used to evaluate the necessity for loans in the area of education. Particularly valuable for the subject of this study is the author's critique that the policy options offered by the WB were not applicable to middle-income countries, including Bulgaria, where demands for education differed compared to lower-income countries and were focused on innovations such as voucher systems, pay-for-performance pay, and school-based management (Heyneman, 2003, p. 329). However, as the author admitted the professional experience of many Bank's education staff did not include such debates in their own countries (Heyneman, 2003, p. 327).

Finally, the solutions that Heyneman offers seem at odds with the overall development of the education policy at the Bank. First, he recommends that countries could perform analysis and the WB might provide grant monies for technical work conducted by universities and private companies. Another possibility that the author proposes is that WB might continue to sponsor analysis, but regional banks would be responsible for education lending. In this way, analytical work would be separated

from the lending program and would allow for a natural set of checks and balances. Lastly, Heyneman recommends that the education policy could be decided within the United Nations system, more specifically within UNESCO, thus avoiding the monopoly that the WB has over international education policy. While option one and two seem to overcome the problem of the inadequate system of checks and balances in the WB, option three seems to be unrealistic given the lack of lending experience and technical capacity of UNESCO. As the author admitted, UNESCO often was in a position of compromise because many of its programs were financed by the WB (Heyneman, 2003, p. 328). The views expressed by Heyneman nevertheless are valuable, not only because he seems to have inside knowledge about the workings of the WB in the last 20 years but mostly because it offers different perspectives on the reasons the methods used by the Bank did not seem to produce the expected results.

In an article published in 2012, Antony Verger, a Professor of Sociology at Universitat Autònoma de Barcelona, Spain, and Xavier Bonal, Professor in Education and International Development at the University of Amsterdam, The Netherlands, and Professor of Sociology at the Universitat Autònoma de Barcelona, Spain, present a critical discussion about the WB's most recent education sector strategy, World Bank Education Strategy 2020, Learning for All (WBES 2020). The authors admit that the WB has attempted to move the focus of education reforms away from inputs to outputs, governance and managerial solutions in education. However, according to the article, the Bank's policy options do not seem to be adequate to achieve "learning for all" (Verger & Bonal, 2012, p. 125). The researchers argue that the main weaknesses of the policy options included in the WBES 2020 are mainly three: high reliance on disciplinary and methodological approaches that are not capable to

understand what children learn and why; dominance of a pro-market ideological bias with regard to education-sector reform and new forms of education delivery; and the existence of knowledge gaps related to the complexity of the relationship between education and poverty. For example, the use of the economics-based approach to education development, according to the authors, leads the Bank into dismissing other more contextual approaches for evaluating education priorities (Verger et al., 2012, p. 130). By solely relying on regression analysis or production functions and cross-country assessments such as PISA, the WB, in the authors' view, limits the education analysis to the performance of the education system rather than its development and do not reveal "how and why children learn in different education systems" (Verger et al., 2012, p. 132).

In addition, the Bank has been promoting private-sector participation in education, not only by supporting the emergence of private providers of education but also by encouraging public schools to be managed like private providers, with the goal of making them more competitive. However, as the authors argue, many of the market solutions offered by the Bank did not seem to be feasible in many lower-income countries because they are costly and technically challenging (Verger et al., 2012, p. 134). Finally, according to the article, even though the WB insists that there is a strong relationship between equity and learning (a new element that was absent from previous strategies, and was based on latest PISA results), it ignores the evidence that explains why education systems remain unequal. Instead, the Bank targets population groups that experience learning difficulties by providing special resources to assist these groups (Verger et al., 2012, p. 136). The authors propose that the Bank should formulate the impact evaluation questions in a more specific way

(e.g., what works for whom and how) instead of attempting to come up with a universal assessment tools.

Verger et al. conclude that the WB has disregarded the effects of poverty on education, mostly because the Bank has depended on the human-capital theory, which considers education a cause of development, not an effect of social and economic policies. According to Verger at al. the education strategies adopted by the WB need the implementation of multi-sectorial approach "that acknowledges that there are non-educational factors preventing learning" and includes "both a multifaceted understanding of poverty and the use of qualitative methods able to grasp the living experiences of children in diverse social spaces" (Verger et al., 2012, pp. 137–138).

Even though the article makes a valid point that the Bank should utilize more context-specific approaches when evaluating the loan agreements with different countries, it seems that the authors do not take into account the fact that the main activities of the WB are focused on banking–providing funds to members based on their needs in the education sector. As such, it is not surprising that the WB insists on some level of uniformity when assessing the education sectors of different countries and for these purposes, the predominant use of economic analytical approaches seems justified. However, the authors' critiques are valid in one aspect; if the Bank insists on providing technical assistance and building a knowledge base in the area of international education, then it should broaden the approaches it applies when evaluating evaluation projects in different countries.

While Heyneman and Verger & Bonal focus on the history of the WB education policies (Heyneman, 2003) and a critique of the most recent education policies of the Bank (Verger & Bonal, 2012), Karen Mundy, a Professor of Research,

International and Development Innovation at the University of Toronto, Canada, and Antony Verger, a Professor of Sociology at Universitat Autònoma de Barcelona, Spain, apply a heuristic framework for understanding agenda-setting processes in the WB. More specifically the authors focus on three dynamics: political opportunities created by geopolitical and ideological shifts among the most influential member governments, the WB relationships with borrowing countries, and the internal dynamics and organizational culture of the WB bureaucracy. Mundy et al. use these dynamics to explore four key periods, from the 1960s to the beginning of the 1980s, from 1981 to mid-nineties, from mid-nineties to 2008, and from 2008 to present (Mundy & Verger, 2015, p. 9). Below is a summary of the conclusions reached by the authors when applying the three dynamic elements of the selected conceptual framework for each of the four examined periods.

From the 1960s to the beginning of the 1980s the WB education policies were dominated by the Northern countries with the United States (US) playing an important role since it holds the power of veto and appoints the Bank's president. During this period, the Bank focused on poverty reduction, especially among newly post-colonial states. Initially, education was not considered as other social sectors in the Bank's activities mostly because it was not viewed by the Bank's leadership as directly linked to improving the material assets of the poor. However, as more newly independent states joined the Bank, the demand for loans in the education sector increased, and as a result, in the 1970s, a new Department of Education was created in the Bank. Education policies were built around the concept of the manpower planning, which was endorsed by the dominant country-economics teams in the Bank. As a result, education projects were focused on developing infrastructure for

education system: building schools, laboratories, and libraries. This period saw education established as a social sector under the Bank's activities, but because the link between investing in education and economic growth was not well developed, education-sector lending remained less than 5 percent of total lending (Mundy et al., 2015, pp. 10–11).

During the 1980s and early 1980s, the WB developed a detailed policy agenda for education, with the primary focus on basic education and engagement in mitigating the debt crisis in low- and middle-income countries. Based on economic theories of human capital and rate of return on investment, the education sector within the Bank rapidly expanded the WB's lending in education. Under the Reagan administration, there was an emphasis on neoliberal economic theories and structural adjustment policies targeted at downsizing of public expenditures, liberalization of markets, and privatization of public utilities and, as a result, the Bank's focus on poverty declined.

The rate-of-return analysis, which allowed for cost-benefit estimation of the WB's investments in education, fit well in the neo-classical approach adopted by the Bank. It emphasized investments in primary education that included greater decentralization of the education system, increased parental contributions for the costs of buildings, books, and materials, and encouragement of the private provision of education. Meanwhile, the education-sector staff skillfully argued that spending on education had to be protected and refocused on services that mostly benefitted the poor. The development of primary education coupled with efficiency measures that would reduce the spending in education was seen as the appropriate tool for achieving these goals (Mundy et al., 2015, pp. 11–12).

During the 1996–2008, civil-society advocacy groups were very active in criticizing the WB's lending policies. At the same time, private financing for development increased, thus challenging the Bank's lending in middle-income countries, which in turn also rejected the Bank's emphasis on basic education and insisted on the importance of higher-level skills as most valuable for the knowledge economy. To respond to the diversified client portfolio, the Bank had to rethink its lending policies focusing more on client-driven lending and attempted to promote operations in emerging economies in Eastern Europe. Diverting from its "simplified policy menu," the Bank offered more comprehensive policy statements recognizing the need for greater spending on higher education and an emphasis on the demands and preferences of borrowing countries (Mundy et al., 2015, pp.12–14).

In addition, after the end of the Cold War in 1989, the WB's most influential member states developed a strong consensus about international development focusing on poverty and inequality, which led to the rise of grant-based financing for development, especially in lower-income countries. As a result of the geopolitical changes worldwide, the Bank's had to become more "client-centered." In this aspect, the WB's structural-adjustment lending was replaced by "poverty-reduction-strategy operations," which provided policy-based loan series for poverty-reduction strategies. These strategies combined macroeconomic neo-classical theories with enhanced attention to human development and social protection. Models grounded on public choice and the new public management such as school-based management and local accountability received greater attention. The Bank's education-sector lending led to an increase in the funds for education, both as a share of the total WB lending and in real terms, especially for basic education (Mundy et al., 2015, pp. 12–14)

From 2008 to present, the Bank has been operating in "leaderless globalization" (Rodric, 2012, as cited by Mundy et al., 2015, p. 15) where the most powerful members continue to face economic and financial problems, while rising economies in China, India, and Russia have been dissatisfied with the Bank's approaches and have begun to destabilize the Bank's hegemony as a global development center and lender. Additionally, internally, the WB under the leadership of Jim Yong Kim has been restructuring (e.g., in 2014, fourteen global practices groups were created) and has been experiencing significant cuts to staff and administrative budget. Such changes are in response to complaints from donor members that the Bank has very cumbersome, inefficient internal structure (Samerasekera, 2012 as cited by Mundy et al., 2015, p. 15) but also triggered in an attempt to reposition the Bank as a knowledge bank among increasing competition from other research organizations.

The trend of providing loans to middle-income countries has been growing, mostly because the majority of the most impoverished population lives in such countries, thus creating a demand for new Bank lending. Paradoxically, as Mundy et al. state the middle-income governments are also the most demanding and challenging clients of the Bank and they do not seem to be satisfied with uniform approaches and an emphasis primarily on basic education. To respond to the new challenges, the WB's education policies have focused on learning outcomes and on a whole-system reform allowing clients to define different subsector investments. However, as pointed by some researchers, the increasing degree of the complexity of the projects' design compared to the borrower's political commitment and capacity create significant problems in projects' implementation and delivery of desired results

(Nelson, 1999; World Bank's Independent Evaluation Group, 2011; as cited by Mundy et al., p. 16). In addition, the Bank, as a lender to governments, is not well positioned to provide intermediate solutions that could be needed for further progress in education-system reform (Pritchett, 2013, as cited by Mundy et al., 2015, p. 16). The authors conclude that the borrowing governments play an important role in influencing the Bank's activities and their preferences are to some extent responsible for the differences between the Bank's agenda-setting role and its actual engagement in education reforms around the world.

As could be seen, Mundy et al. provide a detailed overview of the activities of the WB in the context of the Bank's relationships with its clients and the changes in its organizational structure. Even though the authors base their conclusions on the theoretical work of other authors, their analysis is useful for the current study because it shows the evolution of the Bank's approaches in the education sector and how they relate to the Bulgarian education reform. As would be seen in the qualitative analysis of the study, Bulgaria fell in the category of a middle-income country where basic education was not seen as problematic. Further, the decentralization of education that was included in the overall reform of the education sector was based on the Bank's neo-classical models for education coupled with social-protection measures.

While Mundy et al. examine the WB activities in the education sector around the world focusing on the Bank's agenda-setting mechanism in education, Mike Zapp, a researcher at the Institute of Education and Society, University of Luxembourg, discusses the cognitive or epistemic role of the WB as a producer, manager, and transmitter of educational knowledge. The author hypothesizes that recently there has been an emerging focus on the "knowledge turn" within the Bank's educational work.

Empirically Zapp uses various sources of quantitative data to provide evidence supporting the study's hypothesis (Zapp, 2017, p. 2).

The author claims that the volume and impact of the WB's original research in education has been largely ignored since most research done on the WB's work in education was focused on the Bank's neoliberal approach to education (Zapp, 2017, p. 9). In addition, according to Zapp, the Bank also assembles, organizes and makes available the most recent research, and, in this way, acts as a clearinghouse that gathers and publishes scientific knowledge. Finally, the Bank spreads knowledge, more specifically quantitative data and evaluation for the education sector's country comparability with the help of different open-data approaches such as Educational Knowledge Management System (EKMS), a way of organizing, creation, and dissemination of relevant development knowledge in education, which is now fully integrated within SABER, Open Knowledge Repository and the Open Learning Campus containing numerous education-related scientific publications, Systems Approach for Better Educational Results (SABER), and Skills Toward Employment and Productivity (STEP),an analytic tool for exploring policies and identifying priorities for strengthening education systems worldwide.

The author claims that these series of measures have turned the Bank into "the global one-stop-shop for educational knowledge (Zapp, 2017, p. 5). Zapp proposes a typology of mechanisms that represents the "epistemic governance" of the Bank defined as the production, processing, diffusion, and use of policy-relevant knowledge (Zapp, 2017, p. 5). Overall, according to the empirical analysis presented in the article, between 1973 and 2009, the number of education project more than doubled (from four in 1973 to ten in 2009), while the share of projects with an

educational component remain stable at an average of 5 percent (Zapp, 2017, p. 6). Regarding publishing research, the author analyzes publications containing education-related terms in their title or keywords in the period 1977–2013. The results show that from 1992 to 2005, education-related publications increase from four to 81 publications, reaching 106 publications in 2013. In addition, educational articles are the sixth most cited articles within the WB portfolio. Compared to university departments, the WB also ranks first in education publications if the search is based on article count (Zapp, 2017, p. 6). T

The Bank via the Open Knowledge Repository, EKMS, and SABER also assembles education-related knowledge. For example, the Open Knowledge Repository contains more than 6,900 freely available scientific publications in the education area. Diagnostic tools such as EKMS and SABER are used for many aspects of education management, assessment, and planning. The Bank is involved in the creation and assembling of education-related indicators, more specifically, around 3,261 internationally comparable education indicators for a wide array of domains such as access, progression, completion, literacy, teachers, and expenditures. In 2010, the Bank launched the STEP program, which is the WB's international assessment program.

Since the early 2000s, the WB also disseminates knowledge by organizing international education conferences independently from UNESCO, OECD, or any regional international organizations, as in a typical year the Bank has up to nine regional conferences worldwide (Zapp, 2017, p. 8). The Bank has begun to be more involved in direct training and teaching as a vital role in the training plays the WB Institute. Finally, the Bank applies education knowledge directly affecting the

education systems of different countries via the education projects initiated by the Bank. Since 1947, the WB has launched more than 10,000 projects in education, as the estimated cost of the investments is about $69 billion (World Bank, 2011, as cited by Zapp, 2017, p. 9). During the period 1998-2003 alone, the WB has been active in the education-systems reforms in 110 countries (World Bank, 2014, as cited by Zapp, 2017, p. 9).

As can be seen, the author provides facts about the knowledge base developed by the WB in the last twenty years. The article departs from the traditional approach taken by most authors when discussing the activities of the Bank in the education sector. However, the paper does not offer a critical view of the WB approach when investigating education problems. For example, it does not review the advantages or disadvantages of the WB approach in education. Undoubtedly, the accumulation of publications dealing with the education sector is a considerable task accomplished of the researchers at the WB. However, the essence of the knowledge base is crucial when discussing its development.

Overall, the articles discussed above provide a comprehensive overview of the WB's activities in the education sector. The majority of them also present critiques directed at the Bank’s overreliance of single economic-driven approach when assessing education projects (Heyneman, 2003; Verger et al., 2012; Mundy et al, 2015), the lack of checks and balances in the organizational structure of the Bank (Heyneman, 2003), and the influence of powerful member states in the work of the Bank (Mundy et al., 2015). From a review of the articles, it is also evident that the WB has changed its approach in the education sector gradually and has attempted to

appeal to a broader set of stakeholders, thus accommodating the needs of many of its member states (Mundy et al., 2015; Zapp, 2017)

Advantages and Disadvantages of Education Decentralization as Promoted by the WB

The WB facilitated numerous decentralization education reforms over the past two decades, which has resulted in decentralization moving to the forefront of policy discussions in developed, developing, and transitional countries. The literature has been unable to determine the superiority of either centralized or decentralized model of education. Most of the theoretical and empirical papers researching decentralization reforms use examples of the education system in the United States, where the decentralization debate is concentrated on the devolution of power to the local governments and the ways in which market principles can be used in education (e.g., the effects of different types of vouchers or charter schools). A particular interest for this study is also a few empirical papers that examine the impact of school decentralization on student outcomes in Poland, which was one of the first Eastern European countries to implement a decentralized model of education. The discussion below starts with an examination of papers that support decentralization reforms in education. Next, it continues with evaluation of articles that favor a centralized model of education (Figure 5).

Pro-Decentralization of Education Studies

Economists defending classical liberalism in economic theory such as Friedrich Hayek (1945) believe that a decentralized system would provide a more efficient allocation of resources than a centralized system because the local governments have access to better information than any central authority (Hayek,

1945, par. 16–17). Wallace Oates, an economist who writes extensively about public finance and fiscal federalism, (1999) summarizes two major constraints, informational and political, on the effective centralized decision-making process. Local governments, according to Oates, are much closer to the people than the central jurisdictions, and therefore could better assess local needs. Political pressures and constitutional constraints also typically limit the capacity of central governments to provide a higher quality of public services, based on local needs. Oates concludes that if the costs of provision from the central authority are the same across jurisdictions, but demands differ based on local needs, then the extent of the social welfare loss from a central, uniform level of output increases (Oates, 1999, p. 1223).

The underlying assumption of proponents of decentralized education is that local governments would make better decisions for themselves than those the central government may make on their behalf. If individuals had a choice, some of them would demand low levels of education and others high levels, depending on their preferences for consumption of education. Charles Tiebout (1956) and Oates (1999) support theoretically the idea that a decentralized system provides better public services because people can choose the geographical location that delivers the optimal set of taxes and expenditures they prefer. If the services or taxes are not the preferred ones, individuals would "vote with their feet," leaving the location and choosing another one, which they prefer (Tiebout, 1956, p. 418). There is, however, a correlation between income and the selected levels of services and taxes. Higher-income families would be able to live in high-quality localities that provide better public services, compared to lower-income people (Tiebout, 1956; Oates, 1999). The

trade-off between efficiency and inequality is implicitly present in the previous argument.

The Tiebout model relies on the following strong theoretical presumptions: the individuals have perfect information, mobility is costless, public goods are provided at a minimum average cost within each jurisdiction, there are no inter-jurisdictional externalities, and there are a sufficient number of jurisdictions and a sufficient number of households that are similar in terms of tastes and incomes so that each jurisdiction is homogeneous and, therefore, new communities could be established freely. As can be seen, the Tiebout model is a demand-side model, which does not say anything about the supply side of the production of public goods or the underlying political mechanism by which levels of public goods might be chosen.

Especially vulnerable is one of the limitations of the model with regard to the fact that each community would have to produce at a minimum average cost to generate an efficient outcome. However, there may not be enough people of each type to provide the appropriate scale for production efficiency. The assumption that new communities can be developed at no cost does not hold in reality, especially in urban areas, where the number of possible communities is restricted. In the context of Eastern Europe, including Bulgaria, the presumption of "people voting with their feet" is also weakened. Due to greater income constraints and specific characteristics of the local real estate market (e.g., high levels of homeownership inherited from the era of Communism, which effectively prevent people from relocating) people in Bulgaria, as a rule, do not move as frequently as in the USA.

Decentralization is seen as a tool that provides the means for individuals to enforce the optimal provision of services, based on their collective preferences, even

if there are uncertainty and incomplete information about individual preferences. Carolyn Hoxby, an economist and a proponent of school decentralization, (1995) builds a supply-side model of a local public goods producer, the public-school district managed by a school board. The schools in the district are administered by a school board that does not directly observe their operations, but it can make decisions about optimal quality and minimization of cost in the presence of incomplete information (Hoxby, 1995, p. 2–3). Hoxby claims that when the Tiebout mechanism works, the board has more instruments to induce the outcomes desired by the community than centralized state decisions, such as imposing school-spending equalization schemes.

To test the theoretical model, Hoxby analyzes changes in the share of public funding for education within states between 1940 and 1980. The use of state-fixed effects controls for unobserved state characteristics. Applying weighted least squares and controlling for several variables at the state level (median earnings, urbanicity, and a number of school districts), Hoxby measures the effect of increased public-school spending on per-student spending and shows that it is associated with significant increases in per-student costs. She also estimates the effect of public-school spending on educational attainment of males who completed high school. The results indicate that higher state share of school funding worsens the educational attainment by a small, but significant, amount. The author concludes that losses from efficiency outweigh gains from equalization.

The disadvantage of this approach is that state-level unobservable characteristics of school costs and educational achievement could be correlated with changes in states' share of funding, thus leading to biased results. The evidence, as Hoxby points out, is "suggestive, rather than definitive" and provides primarily "a

comprehensive view of the effect of state-level funding" (Hoxby, 1995, p. 26). Nevertheless, in Hoxby's paper, the trade-off between equity and efficiency is present because school quality is greater in places where the tax base is higher, thus causing inequity. In addition, Hoxby only discusses one aspect of efficiency—productive efficiency, namely, getting education at the least cost. Similarly, she only measures horizontal equity at the state level, which implies that school districts have equal access to resources measured by per-student spending. Hoxby does not discuss dimensions of vertical equity estimated by the background features of students (race, ethnicity, income). However, policymakers are concerned not only with average learning but with the achievement distribution among students.

Decentralization processes in Eastern European countries and, more specifically, empirical analysis of devolution of power to local governments and the trade-off between equity and efficiency in Poland, one of the first Eastern European countries to adopt a decentralized education model, are discussed in the papers presented below. When compared to the Bulgarian local governments, the Polish municipalities play a greater role in the distribution of funds to schools in their territories. They also provide more local revenues for education expenditures. However, major similarities still prevail because both countries used the same funding mechanism when decentralizing their highly centralized education systems. Poland and Bulgaria replaced the school funding, based on historical costs with funding, based on the principle, "money follows the student," and provided greater autonomy to the school principals. Exploring studies examining the Polish education reform is especially relevant not only because of the similar geopolitical location of both countries but also because the Bulgarian authorities at the central level of

governance used the Polish experience and commissioned studies by Polish researchers about the Bulgarian education reform (discussed in Chapter 2 of the literature review).

Maciej Jakubowski, an Assistant Professor of Economics at University of Warsaw, Poland and Irena Topinska, a researcher at the Center for Economic and Social Research, Warsaw, Poland, (2009) examine the efficiency effects and distributional issues of education financial decentralization in Poland between 1998 and 2003. The units of analysis in the study are the Polish local governments. Two major elements of the education reform were introduced in 1999: a new funding mechanism based on the number of students, similar to education funding introduced in Bulgaria a few years later, and the establishment of lower secondary schools managed by the local governments. The idea was that lower secondary schools would guarantee a better quality of education because they were bigger and better equipped than primary schools (Jakubowski & Topinska, 2009, p. 229; p. 221).

Jakubowski et al. use trend analysis to compare the changes in average expenditures per student and the variations among students in primary and lower secondary schools during 1996–2006, for which they had available data. The authors estimate that the average education cost per student in primary and secondary schools was low, especially in lower secondary schools. Jakubowski et al. hypothesize that lower secondary schools depended more heavily on the decision-making choices of the local governments, and in a way, represented the best way to analyze the effect of local decision-making on quality of education. By using a regression analysis, the study estimates that average class size and local revenues per capita influenced the

expenditures dedicated to education by municipal governments (Jakubowski et al., 2009, pp. 240–241).

According to Jakubowski et al., financial decentralization in Poland has an equalizing effect on household budgets and diminishes the inequality among households. More specifically, by analyzing imputed income using concentration coefficients, quintile shares of public spending, and the ratio of imputed subsidy to the actual household expenditures from household surveys and education data, the authors estimate that the public expenditures for primary education go mainly to the poorest households. Poor households receive almost 30 percent of the total transfer, whereas the wealthiest households receive more than 10 percent (Jakubowski et al., 2009, p. 242).

To test the perceived higher quality of education in lower secondary schools, the researchers apply a value-added model with municipal random effects. The central empirical question is whether decentralized education expenditures affect achievement growth, which the authors assume depend solely on teaching quality (Jakubowski et al., 2009, p. 246). The study controls for intake scores of the students, which were scores obtained at the end of primary school. The scores are centered around the population mean or about the 10 percentile of the municipalities' intake-score distribution to be interpretable. In this way, results can be calculated for average the student and low achievers. Other control variables in the model are students' individual characteristics, such as gender, and presence of dyslexia. In addition, another set of covariates is used to account for specifics of the random effect model. The authors include "type of municipality" dummies to control for systematic discrepancies in the level of central funding. The study also uses the number of

students per school or municipality to control for costs of providing education, and local revenues to control for wealth effects.

The results show that the amount of the expenditures affect average students and low achievers, but its impact is minimal and not significant (Jakubowski et al., 2009, pp. 247–250). The researchers conclude that the local government expenditures do not affect teaching quality. They also claim that the local governments lack expertise in the area of teaching and often satisfy the teachers' interests over those of the students (Jakubowski et al., 2009, p. 253). Overall, apart from some methodological weaknesses such as the use of aggregated data and short time periods, the research presented by the authors makes a valid point that decentralization in education should not concentrate only on its financial aspects. Even though the study indicates that financial education decentralization does not increase inequity among students, it concludes that financial decentralization, per se, could not lead to improved academic outcomes.

Mikolaj Herbst, a Professor of Economics at the University of Warsaw, Poland, and Anna Wojciuk, a Professor of Social Science at the University of Warsaw, Poland, (2014) examine the relationship between the Polish local governments' revenues and expenditures of lower secondary schools in 2,478 Polish municipalities during 2002–2010. They hypothesize that high expenditures per school could be a result of more teaching hours, better school buildings and equipment, and higher teacher salaries, each of which could serve to promote a higher quality of education (Herbst & Wojciuk, 2014, p. 12). The control variables used in the study are the per-student education subsidy obtained from the central government, compensatory subsidy received by the municipal governments, average class size,

school size, population density, and dummy variables for the location of the municipality (urban/rural). The data used in the study are collected by public-statistics databases, and the data management system of the Polish Ministry of Education (Herbst et al., 2014, pp. 13–14). The authors use weighted least squares to estimate the effect of the local tax base on school expenditures. To account for unobserved features of the local school system that could affect the outcome variable, they apply municipality-fixed effects.

The results show that the municipality's revenue has significant and positive effects on school expenditures, as 10 percent difference in the tax base leads to a 1 percent difference in expenditures per school (Herbst et al., 2014, p. 16). When comparing the wealthiest and the poorest municipalities (the 10 decile against the 1 decile based on the local revenue per capita) for sources of inequality in expenditures, the study estimates that the average weekly teaching hours in municipalities in the lower decile is 20 percent less (48 versus 40 weekly teaching hours, mostly in foreign language and sports. Such a difference, however, is caused by dividing large classes into smaller groups that require more teachers but do not increase the instructional time for students. Schools in wealthier municipalities provide a higher number of extracurricular educational activities, individual lessons, and support activities to the students such as more consultation with school counselors and psychologists, and better access to assistant-teachers and library resources. Schools from the lowest decile offer significantly more after-school care. The average monthly pay for a teacher, including extra hours, is the same for both wealthier and poor municipalities (Herbst et al., 2014, pp. 16–19).

The authors conclude that even though more non-academic support is provided by schools located in wealthiest municipalities, the effect of the local tax base on equity is negligible because it does not directly affect the hours of teaching instruction. However, the study shows that more individual lessons and extracurricular activities are offered to students in schools in wealthier municipalities, which undoubtedly could have affected their academic performance, and thus could be a source of inequity.

The results from the study measuring the impact of the local revenue base on education equity among municipalities should be interpreted with caution because the Polish education system, similarly to the Bulgarian education system, does not depend on local revenues as its main source of education funding. As Herbst et al. point out, the education subsidy transferred from the central to local governments covers about 70 percent of the total expenditures of schools (Herbst et al., 2014, p. 11). The subsidy is calculated with the help of a complex algorithm, based primarily on estimated cost per student. However, other local factors, such as the cost of teaching various types of students (e.g., disabled students and students from ethnic minorities), and the location of the school (schools in rural areas and small towns) are also considered. Therefore, the education subsidy, which provides the largest amount of funding to schools, has been distributed in a way that takes into account differences among the municipalities that could cause inequity in education delivery.

There have also been a number of empirical studies about education decentralization in developing and transitioning countries, many of them initiated by the World Bank. Barbara Bruns, Deon Filmer, and Harry Patrinos, lead economists at the WB, (2011) examine in detail evidence from school-based management (SBM)

reforms (a form of education decentralization, where the local agent is the school). They conclude that even though there was an abundance of such reforms around the world, well-documented, rigorous impact evaluations are few. Some of the reviewed empirical studies present evidence that SBM has a positive impact on reduction of grade-repetition, failure rates and, to a lesser degree, dropout rates (Di Gropello & Marshall, 2005; Jimenez & Sawada, 2003; Gertler, Patrinos, & Rubio-Codina, 2006; Paes de Barros & Mendonca, 1998; Skoufi & Shapiro 2006, as cited by Bruns, Filmer, & Patrinos, 2011, p. 102–103). Studies that use available standardized test scores as academic outcomes present a mixed evidence. Countries such as El Salvador, Kenya, Mexico, and Nicaragua show positive results (Jimenez & Sawada, 2003; Sawada & Ragatz, 2005; Lopez-Calva & Espinosa, 2006; King & Özler 1998, as cited by Bruns et al., 2011, p. 102–103). However, school autonomy reforms do not have effects on test scores in Brazil and Honduras (Bruns et al., 2011, pp. 102–103).

The authors speculate that the mixed results of the impact of the SBM could be due to timing because "SBM reforms generally take a long time to produce their expected outcome" (Bruns et al., 2011, p. 102). There is an adjustment period during which management changes are gradually implemented and, initially, these adjustments can have a negative impact on education outcomes (Bruns et al., 2011, p. 103). The type of outcomes being estimated also play an important role when assessing the impact of the reforms. According to Bruns et al., outcomes such as attendance and grade-repetition rates could be expected to change faster than dropout rates or test scores because the incentives that drive them are easier to change (Bruns et al., 2011, p. 103).

A relevant case for this study is education reform in Brazil under which three separate elements of SBM were introduced: schools were given financial autonomy; principals were elected by school officials, parents, and students; and/or school councils were created. The financial autonomy granted to schools was similar to the financial decentralization of schools in Bulgaria, where funds were transferred directly to the schools based on different criteria (number of students, number of courses, or cost per student) (Paes de Barros & Mendonca, 1998, p. 81). The schools could allocate those resources with few restrictions. For example, funds could not be used for payroll, and a part of the funds was tied to specific projects. The education reform in Brazil started in 1982, but only a few states experimented with different forms of SBM. In the following years, more states implemented some form of SBM, which made it possible to identify the impact of each of the three innovations separately (Paes de Barros et al., 1998, p. 80).

Ricardo Paes de Barros, a researcher at the Institute of Applied Economic Research in Rio de Janeiro, Brazil and Rosane Mendonca, Professor of Economics a Universidade Federal Fluminense in Rio de Janeiro, Brazil, (1998) use various data sources (school census, household survey, and evaluation school performance data) to investigate empirically the effect of the three initial SBM innovations on students' behavior (grade-repetition rates, the proportion of children not in school, two measures of grade-level lag, and average performance in mathematics, language and science in first, third, fifth, and seventh grades in each school). They aggregate the data at the state level, as the period for the study is from 1981 to 1993. The database has 220 observations for 12 years and 18 states. The researchers compare the performance of the states' various outcomes by using the time variation in the

implementation of the innovations by each state (Paes de Barros & Mendonca, 1998, pp. 76–77). They use the mean per-capita family income, average educational attainment in the adult population, average teacher salary, and teacher schooling to control for a family environment and teacher quality (Paes de Barros et al., 1998, p. 100). To account for unobserved heterogeneity, the authors include state-fixed effects. The only outcome that appears significant is the decrease of the grade-repetition rates, as granting financial autonomy to schools has a significantly stronger effect on student outcomes than introducing school councils or electing principals (Paes de Barros et al., 1998, pp. 113–114).

In general, however, the authors conclude that the innovations have a positive but modest impact on educational performance. Paes de Barros et al. point out three main reasons for the limited impact of the innovations. First, the effect of the changes was only analyzed for state schools (around half of the total student enrollment was in state schools). Second, the nature and content of the innovations have changed over time, as the later innovations were deeper and more significant. Third, the estimated effect measures primarily only the short-term impact of these innovations (Paes de Barros et al., 1998, pp. 122–127). A weakness of the study is that the authors do not use baseline data to show pre-intervention trends that could reveal some pre-existing patterns common to all states before the innovations were implemented by various states. The analysis by Paes de Barros et al. is relevant to this study because not only it explores school autonomy reform similar to the implemented in Bulgaria reform, but also because it attempts to measure the autonomy's effect on the same outcomes used by both studies, namely, dropout and the grade-repetition rates.

In conclusion, even though the studies in this section examine the effectiveness of decentralization and attempt to prove that perceived inequity is nonexistent, it remains unclear if decentralization without accountability and mitigating measures implemented at the central level of governance would not harm some students, thus increasing inequity.

Pro-Centralization of Education Studies

Proponents of a centralized approach in education delivery claim that if efficiency is the only goal of school autonomy, it would inevitably lead to economic segregation of schools and a lack of social mobility of students. Most of the researchers use examples of the United States education system, under which in the past decades centralized financial measures (e.g., school equalization schemes) to reduce inequality among students were introduced. The studies in this section examine theoretically (Bénabou, 1995) and empirically (Guryan, 2001; Hanushek, Link, & Woessmann, 2011) the disadvantages of decentralization versus the advantages of centralization of education financing (Bénabou, 1995); the effect of specific centralized measures of school financing on academic performance (Guryan, 2001); and ways to successfully implement school autonomy reforms around the world (Hanushek et al., 2011).

The studies that analyze centralized funding of education are relevant to the topic of this paper because even though the Bulgarian decentralization model relies heavily on the financial decentralization and emphasizes the importance of autonomous decision-making by local governments when distributing funds to schools in their territories, the reformed Bulgarian education sector still retains some characteristics of the centralized education system, since most of the Bulgarian

municipal governments are not wealthy to provide sufficient funding for education and are heavily subsidized by the central authorities, which in return, retain significant control over the management of schools. The studies that are discussed below relate to the Bulgarian education system, where the debate of decentralization versus centralization education system is still present, the system of school funding still has elements of centralized decision-making, and accountability measures are not fully implemented.

Roland Bénabou, a Professor of Economics at Princeton University, who has done extensive research on the education and socioeconomic structure of US cities, (1995) explore theoretically the causes of socioeconomic stratification and the roles played in the process by local public goods, including education. More specifically, by applying a general model of community formation and human capital accumulation with social spillovers and decentralized school funding, Bénabou investigates the causes of economic segregation and its consequences for equity and efficiency (Bénabou, 1995, p. 237).

Equilibrium conditions specify the distribution of people across the city. There are two cases, a stratified equilibrium in which rich and poor individuals live in different areas, and an integrated equilibrium in which the rich and the poor live together (Bénabou, 1995, p. 242). Stratification occurs under the following conditions: complementarities between family human capital and community quality; small imperfections in the capital market, making the opportunity cost of funds for poor families greater; and small differences in lifetime resources. As a result, wealth increases in rich communities, and it decreases in poor communities causing segregation and inequality over time. Rich parents invest more in education and live

in wealthier localities, which in turn increase the human capital of the individuals. The contrary occurs in poor communities (Bénabou, 1995, pp. 242–246).

In the model developed by Bénabou, the parent's goal is to maximize his/her child's utility, which depends directly on the quality of education the child receives. A fundamental presumption is that a higher quality of education is a positive externality: the children's quality of education depends on the quality of education in the community in which their parents reside. In the model, parents decide on the location where they live, capital accumulation, and consumption of education. Bénabou makes an important caveat: sorting resulting from economic segregation not only worsens the condition of lower-income families but also diminishes the wealth growth of higher-income families. Families that cluster into communities that are more desirable can end up disposing a significant part of their savings on housing due to higher rent or property taxes, compared to the value of the human capital advantage that would be gained by their children (Bénabou, 1995, p. 247).

As a criterion for efficiency, Bénabou used the aggregate surplus: "Are the productivity gains of rich communities greater or smaller than the losses of the poor ones?" (Bénabou, 1995, p. 248). Optimal community compositions are determined by complementarities of family and community human capital and are curvature, with decreasing returns to education quality. Because mobility decisions manifest in the former, but not in the latter, the aggregate surplus is too low. Therefore, Bénabou speculates that under certain conditions, segregation could induce losses in efficiency since the losses of the poor may be greater than the gains of the rich (Bénabou, 1995, pp. 252–253).

When local school expenditures and taxes are incorporated in the analysis, the author proposes that they represent an additional segregation force. By examining the complementarity of local school expenditures and community quality, Bénabou concludes that decentralization induces inequality because rich communities spend more than poor ones. Further, he speculates that if placed in the same environment, students from poorer families would have higher marginal returns on education than would students from richer families (Bénabou, 1995, p. 251). Bénabou states that since stratification is inefficient in the presence of local externalities such as education, and decentralization may result in stratification, decentralization also would be inefficient.

However, centralization does not imply that schools would be perfectly integrated with respect to human capital. On the contrary, when there are human capital spillovers, households would sort on their demand for them, even if productive efficiency and education spending are centralized and uniform across the state. Bénabou admits that when individual human capital and the community human capital are positively related in the education production function, a move towards a more centralized system of school financing such as forced equalization of expenditures on schools may leave stratification intact while reducing wealth since equalization brings efficiency costs. In this case, the movement to a more centralized system of school financing would reduce the wealth of the rich instead of improving the status of the poor (Bénabou, 1995, p. 255). In the case where individual human capital and the community human capital level are negatively related in the production function of education, equalization of expenditures may lead to

integration, and there would be gains in efficiency and average student achievement (Bénabou, 1995, p. 257).

A weakness of the model developed by Bénabou is that even though it links centralized education finance and human capital spillovers, it does not offer a solution to the sorting and segregation that would exist in both centralized and decentralized systems. Examples of sorting that continue to operate in the Bulgarian education system and were inherited by the highly centralized education system during Communism are the profiled schools, to which students are admitted based on entrance exams.[3] In addition, Bénabou's model would not be easily tested empirically due to the existence of unobservable variables that could not be measured. For example, the claim that students with high human capital are grouped does not necessarily imply that human capital spill over from one student to another. The peer-group effect on the individual is a function of the individual's characteristics, which also affect his/her achievement. The use of control variables would be helpful, but most likely would cause biased estimates.

Jonathan Guryan, a Professor of Human Development and Social Policy at Northeastern University, (2001) studies the effectiveness of public-school spending empirically in the context of a legislative introduction of a centralized measure of school financing such as a school equalization scheme within districts in Massachusetts. Equalization funds aimed to decrease within-state inequality in student spending by providing more state-education aid to districts that historically

[3] Profiled schools are specialized foreign language, mathematical, or science schools that admit students after seventh grade, based on their rank on entrance exams in mathematics and Bulgarian Language and Literature. The preparation for the entrance exams in the profiled schools involves the practice of "private tutoring," which could last for more than a year and is quite pricey.

have spent less on education. The reform in Massachusetts redistributed funds across districts using data on past spending levels, student characteristics (regular, bilingual and special education students), property values, and per-capita income (Guryan, 2001, p. 4). The research questions in the study examine what is the amount of increases in per-student spending at the district level and the effect of additional state funding on the quality of schooling (Guryan, 2001, p. 4).

Variation in state-education aid caused by discontinuities and non-linearities in the state-equalization formulas are used as a source of exogenous variation in state aid across school districts in Massachusetts (Guryan, 2001, p. 4). The author compares school districts on both sides of the discontinuity in the state-education-aid formula under the assumption that districts close to the discontinuity are comparable. Districts on one side receive state aid for education, while those on the other side do not. The graphical analysis shows a sharp drop in per-student spending at the discontinuity of the aid formula (Guryan, 2001, p. 13).

Guryan also uses as a complementary identification strategy the variation in the state-aid formulas across districts as instruments to control for unobserved characteristics of student achievement that could have possibly understated the effect of expenditures on student test scores (Guryan, 2001, p. 9, pp. 16–17). The estimates show that about 65 to 83 cents of each dollar of all state aid are spent on educational activities (Guryan, 2001, p. 19).

To measure the effect of increased state funding on the quality of schooling, the author measures the effect of student spending on fourth- and eighth-grade test scores in the first three years after the enactment of the Massachusetts Education Reform Act of 1993. The results show that increases in per-student spending on

teacher salaries and instructional classroom activities (capital activities are excluded) lead to significant improvements in math, reading, science and social sciences test scores for fourth-grade students. The median point estimates suggest that $1,000 increase in per-student spending (about one standard variation) lead to about one-half of a standard deviation increase in average test scores across districts (Guryan, 2001, p. 21). Results for eighth graders show no evidence of the effect of spending on mean test scores, possibly because the older students spent less time being educated in well-funded schools under the school equalization scheme (Guryan, 2001, p. 25).

The available data on the proficiency levels of students taking the tests make it possible to examine the effect of an increase in per-student spending on the increase in the fraction of students scoring at each proficiency level at fourth grade. The results indicate that the increase in the mean test scores is caused by a decrease in the fraction of students scoring at level one, the lowest level of proficiency, and an increase in the fraction of students scoring at level two and three, the higher proficiency levels (Guryan, 2001, pp. 22–23).

By focusing on the experiences of individual districts in one state, Guryan claims that this is the first study exploiting exogenous variation in district-level, per-pupil spending to evaluate the effect of expenditures on student achievement. However, the aid formula seems to be a weak instrumental variable because it depends on determinants of student achievement. As noted previously, the formula was set as a discontinuous function of observable district characteristics that could be correlated with unobservable student variables. In this aspect, the aid formula violates one of the requirements for a valid instrument: the instrumental variable must be uncorrelated with unobservable determinants of test scores. Nevertheless, the study

shows that school equalization schemes, when applied properly, could decrease inequality among students and have a positive effect on their academic performance, especially that of low-achievers.

In comparison with most of the authors who explore the United States education system, Eric Hanushek, a senior fellow at the Hoover Institution of Stanford University, Suzanne Link, an economist and doctoral student at Ifo Institute, University of Munich, Germany, and Ludger Woessmann, a Professor of Economics at Ifo Institute, University of Munich, Germany, (2011) examine empirically the effect of education decentralization on student outcomes in different countries measured by the Program for International Student Assessment (PISA) test results. The study constructs an international panel dataset from four waves of PISA tests for 2000, 2003, 2006, and 2009 academic years, and analyzes school reforms in 42 countries (Hanushek, Link, & Woessmann, 2011, p. 1). The authors identify autonomy effects by estimating country-level variation over time by applying country- and year-fixed effects that control for systematic time-invariant "cultural and institutional differences at the country level" (Hanushek et al., 2011, p. 4).

A central element of the analysis is the possibility of significant interactions of autonomy factors with other institutional and country-specific elements such as a country's institutional level, school accountability systems or level of capacity, and stage of development. The researchers use the income level of a country (Gross Domestic Product per capita) as an indicator of the overall development of institutions. Since this indicator is broad and multifaceted, the study also investigates more specific aspects of educational institutions, such as variations in the development of the education system measured by higher achievement and existence

of centralized accountability measures. The key finding is that local autonomy has a significant impact on student achievement, but its direction, positive or negative, depends on the level of economic and educational development of the country (Hanushek et al., 2011, p. 4). A developed educational system and the existence of strong accountability measures through centralized examinations enhance the benefits of greater autonomy. The authors suggest that autonomy could be beneficial for student achievement in well-developed systems, but detrimental in low-performing systems that lack traditions in democratic governance, and have a weak technical capacity (Hanushek et al., 2011, p. 4).

In conclusion, Hanushek et al. call for a greater caution when comparing educational models in developed countries to those in developing countries and vice versa and warn against generalizations. As can be seen, the authors present estimates of education-specific features at the country level that might provide a more detailed and accurate look at school-autonomy reforms around the world. At the same time, their approach suffers from certain limitations, such as the use of relatively small samples of countries, and imperfect measurement of specific institutions.

The results of the study, especially the notion that autonomy without accountability would not produce the expected positive outcomes, are particularly relevant to the Bulgarian education system, where the implementation of centralized accountability measures such as the introduction of national examinations during 2000–2004 was delayed for a long time and openly opposed by a number the interested stakeholders.

From the analysis of the literature in this chapter of the literature review, three main conclusions arise:

First, the concept of local decision-making and decentralization of the education sector is multifaceted and difficult to define and measure universally. Some decentralization reforms consist of providing financial independence of schools, but not allowing them to make decisions about teachers' pay or setting outcome standards, while others make the schools fully autonomous.

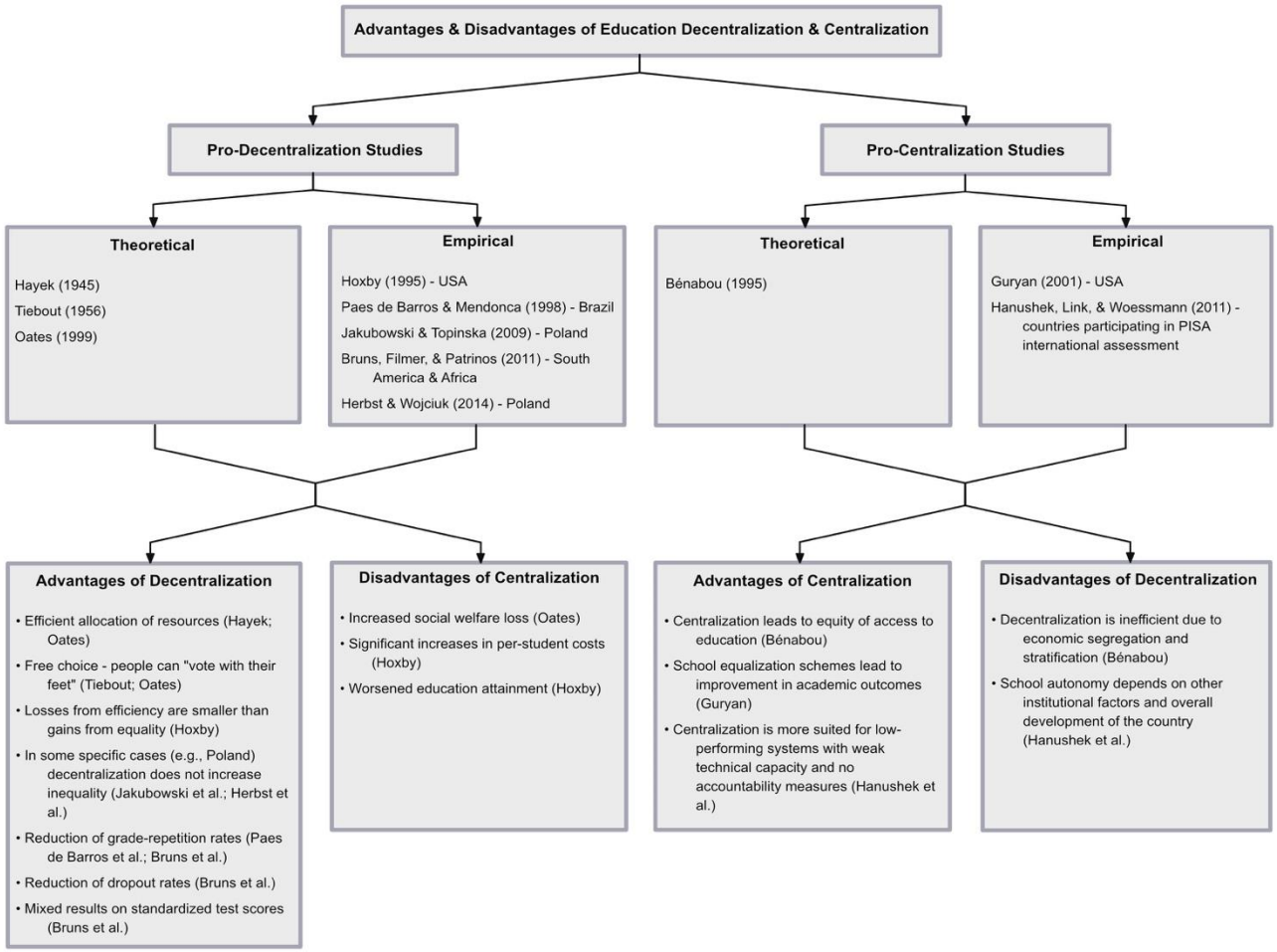
Second, the impact of autonomy depends on other elements of the education system. While local decision-making such as the hiring of teachers or budget allocation might have seemed more appropriate at the local level of governance, it also could have led to issues during implementation triggered by the lack of technical capacity on the part of the local authorities. As a result, the existence of centralized accountability mechanism can provide a way of monitoring local behavior.

Third, numerous decentralization reforms around the world have produced contradictory results. To a greater extent, their success depended on the institutional stability of the country. Therefore, there is no universal way of implementing decentralization reforms. Such conclusion is especially valid if the autonomy reforms are adopted the same way in developed and developing countries.

This study would add to the existing knowledge in the debate of decentralization versus centralization by analyzing the processes and intermediate outcomes of education decentralization in Bulgaria and by emphasizing some of the unintended consequences of its implementation. In this aspect, the study presents valuable results because it researches a decentralization reform that occurred in an ex-Communist country with a highly centralized system of education, which was not adapted to the needs of the new changing economy. By replacing the centralized system with school-based management, the country tried to correct for existing

inefficiencies and to improve the quality of education. The central authorities, to account for the potential harms of decentralization, such as disparity of access to education, implemented specific centralized mitigating measures that were intended to benefit the "losers" of decentralization. The lessons learned from the implementation of this model of education decentralization could serve as a blueprint for future decentralization efforts in other countries with similar education systems that struggle to improve the quality of education.

Figure 5. Literature Review–Advantages and Disadvantages of School Decentralization & Centralization



Chapter 3: Literature Review—Overview of the Bulgarian Education System

This chapter of the literature review starts with a presentation of theoretical and empirical papers describing the development of the Bulgarian education system in chronological order, from a highly centralized to a reformed decentralized education system. The second section reviews articles that are discussing the characteristics of the decision-making model in the Bulgarian education sector, as the focus is on studies that explore the decision-making capacities of the central and local organs of governance during the education reform. The third section describes the available relevant literature on the role of different stakeholders in the education process at the central and local levels of governance in centralized and decentralized education systems. The fourth section discusses literature about the role played by the WB in education decentralization, more specifically, the Bank's involvement in planning and implementation of the reform in Bulgaria (Figure 6).

As can be seen, all sections, except for the last one, first start with a literature review of the relevant topic in the Communist centralized education system, then follow with an analysis of the same theme in the context of a decentralized education system. Such a distinction seems proper for the current research because it highlights significant differences between both systems and distinguishes features of the centralized system that were incorporated into the reformed education system.

Development of Education in Bulgaria

The studies below examine the development of Bulgarian education in two periods, during Communism, when the education system in the country was highly centralized, and after the political changes in 1989, when the country started transitioning toward a market economy. The first subsection analyzes studies that describe issues of education centralization, while the second subsection focuses on papers on the first attempts of education decentralization. In this aspect, the subsections complement each other by highlighting some of the advantages and disadvantages of centralization versus decentralization in education.

Development of the Centralized Education System in Bulgaria

Articles about Bulgarian education published in Bulgaria during the Communist period, from 1944 to 1989, lack credibility because they were censored to comply with the ideology of the ruling Communist party. The majority of the valid research papers analyzing Bulgarian education are published in recent years. Among them are several books and articles (Chichovska, 1995; Elenkov, 2004; Bogetic & Chattophadyay, 1995; Bankov, Mikova, & Smith, 2006) that explore the history, context, efficiency, and academic outcomes of the centralized education system in Bulgaria during the Communist period.

Vesela Chichovska, a Professor of History at Sofia University Saint Clement Christi, Bulgaria, (1995) examines the first changes that occurred in Bulgarian education after the occupation of the country by the Red Army in 1944 and its sovietization (Chuchvara, 1995, p. 35). The study covers four years, from 1944 to 1948, when the first legislative education acts were approved by the National

Assembly of the Republic of Bulgaria dominated by the Communist party (Chichovska, 1995, p. 36). The author uses numerous historical documents from various state archives as well as official government sessions' minutes, and publications in different periodicals (Chichovska, 1995, p. 55–60). Chichovska focuses on the strategies used by the Communist party to silence opposition by the other parties in the National Assembly of the Republic of Bulgaria and the policies' effect on the education system.

The author concludes that because of the oppressive methods used by the Communist Party, stable educational traditions, developed for more than a century, were destroyed and replaced with a Russian model of education that affected all areas of the education sector, from the management of schools and the types of schools allowed to the content of the school curriculum. Even though this monograph covers a relatively short period, it provides rich historical material for further analysis of the education processes in the first years of the Communist regime in Bulgaria. This study also shows that the centralized model of education was not implemented in the country because of internal demands; it was imposed by outside political forces.

Ivan Elenkov, a Professor of History at Sofia University Saint Kliment Ohridski, Bulgaria, (2004) continues the discussion started by Chichovska on the development of Bulgarian education during Communism (Elenkov, 2004, p. 19). Elenkov focuses on the role of education in the developed socialist society, from 1960 to 1989, and the type of schools the authorities were attempting to establish. Schools were considered a part of the economic life of the country and priority was given to practical skills that would assist students in the fulfillment of the state five-year

economic plans (Elenkov, 2004, p. 26). As a result, in the 1970s, the general comprehensive schools were replaced with a hybrid model of schools that combined elements of comprehensive, vocational, and technical types of schools (Elenkov, 2004, p. 22). The goal of the reform was to create a "new highly qualified specialists" (Rule on the Education Reform, 1969, as cited by Elenkov, 2004, p. 21). According to the author, however, the language of the legislative education bills was contradictory and ambiguous, and as a result, higher authority education administrators did not comply entirely with them (Elenkov, 2004, pp. 27–29). Elenkov suggests that the main reason for the dysfunctional processes in the education sector was the attempt for a compromise between two opposing factions of the Communist political elite. One faction believed that education should provide practical skills to students that could be utilized in industry and agriculture, while the other faction envisioned education as a tool for the development of broadly cultured citizens.

The brief description offered by Elenkov underscores some significant developments in the education sector in Communist Bulgaria. The supporting materials that the author uses are based on earlier analysis done by other researchers (e.g., Chichovska, 1995) and, therefore, do not provide any new evidence about the education processes in Bulgaria during the Communist period. While Elenkov's article suffers from some serious weaknesses, it shows embedded contradictions of the centralized system of education, which resulted in an ineffective management of schools.

Only a few studies attempt to provide an empirical analysis of the education system in Bulgaria immediately after the changes in 1989 when the Communist Party

lost political power, but the education system was still highly centralized. For instance, Zeljko Bogetic and Sajal Chattopadhyay, economists at the World Bank, (1995) examine inefficiencies in the supply of education inherited from the centrally planned economy in Bulgaria in a 1995 study (Bogetic & Chattopadhyay, 1995, p. 1).[4]

Due to a lack of academic test scores that could be used as an appropriate measure of student outcomes, the study focuses on the relationship between the number of classrooms and classes, which captures only one of the dimensions of efficiency in Bulgarian general education. The researchers used data on general education in Bulgaria from 1994 that included most of the existing Bulgarian municipalities. They explore if it is possible to expand the number of classes in municipalities at a common rate, subject to the constraint that the number of classrooms required for such expansion is less than or equal to the existing number of classrooms in municipalities (Bogetic et al., 1995, pp. 6–7). The authors calculate the relative efficiency scores in the use of classrooms in Bulgarian schools by using a non-parametric method of data envelopment analysis (Bogetic et al., 1995, p. 3). The study shows that there is a variation in efficiency scores in the Bulgarian municipalities, with a mean efficiency ranging from 0.95 to 0.78 per municipality (Bogetic et al., 1995, p. 8).

To address the differences among municipalities, the authors regress the efficiency scores of the municipalities on several explanatory variables, such as percentage of students in the population under the age of 20, number of teachers, the

[4] The former system focused on building extensive education facilities across the country, which led to a considerable oversupply of schools and classrooms and a large number of school staff.

percentage of municipal budgets spent on education, total municipal land area in square kilometers, and percent of urbanization. All control variables are positively and significantly related to the efficiency scores. As the researchers admit, the choice of variables was severely constrained because of the lack of available municipal data (Bogetic et al., 1995, pp. 9–12). Nevertheless, their study is one of the few empirical analyses that attempt to measure differences in the provision of general education at the municipal level in Bulgaria before the decentralization reform. For this study, especially important is the conclusion of the authors that the centralized system of public education suffered from inefficiencies in the use of physical resources and needed to be changed based on the demands and specific characteristics of each municipality (Bogetic et al., 1995, p. 13).

Another study conducted by Kiril Bankov, a Professor of Mathematics and Informatics, Sofia University Saint Kliment Ohridski, Bulgaria, Dilyana Mikova, member of the Bulgarian Association for Educational Measurement and Evaluation, and Thomas Smith, Assistant Professor of Public Policy at Vanderbilt University, (2006) analyses the reasons for inequity among Bulgarian students in a centralized education system. The authors used data from a 2003 Trends in International Mathematics and Science Study (TIMSS) assessment of eighth graders in Bulgaria to analyze the level of variation in math- and science- test results among students. The following variables are used to account for differences among students: socioeconomic status (SES) of students, a region where the students attended school (urban and rural), and type of school they attend (profiled and non-profiled) (Bankov, Mikova, & Smith, 2006, p. 448).

The researchers apply hierarchical linear modeling, which allows simultaneous consideration of factors from two levels of analysis, class and student levels. Not surprisingly, the results show that eighth graders in profiled schools perform significantly better than students in non-profiled schools (one standard deviation in math, about 35 percent of standard deviation in physics, and 40 percent of standard deviation in life science) (Bankov et al., 2006, p. 468). Interestingly, students from schools in rural areas with less than 3,000 residents also tend to have higher achievement scores than students in non-profiled schools in larger cities. For example, students in rural areas score 24 percent and 38 percent of a standard deviation higher in life science and physics than students in nonrural areas (Bankov et al., 2006, p. 468).

When SES and gender variables are added in the model, the gap between profiled and non-profiled schools narrows (for example, 20 percent in average math achievement scores). The authors conclude that other unobserved factors, such as abilities, motivation, and differences in the quality of instruction and the learning environment explain a significant portion of the gap between test results in profiled and non-profiled schools. An opposite trend is observed when comparing rural and non-rural schools. After controlling for SES of students, the gap between rural and non-rural schools increases by 55 percent, showing that rural schools perform better than expected, given their limited resources (Bankov et al., 2006, p. 469).

Even though the study analyzes the disparities extensively among students based on their SES, type of school, and type of region where the school is located, it does not provide a detailed explanation of the results. For example, the authors do not

speculate why rural schools perform better compared to non-rural schools. A possible explanation could be that students in larger cities have lower test scores because of unobserved environmental factors associated with living in urban areas. The results of the study, however, provide useful information about the status of urban and rural schools before 2008 reform. The trend of rural schools performing better than urban schools is unexpected, especially when comparing this it with the declining status of rural schools after the 2008 education reform. Another interesting conclusion that the authors make is that the SES of the students in profiled and non-profiled schools does not influence the test results of students significantly. In this aspect, the widespread perception that profiled schools enrolled students with higher SES and, therefore, contributed to inequity among students is not supported by their analysis.

The studies in this subsection present useful information on the status of the education system in Bulgaria before the 2008 education reform. The analysis provided in them serves to compare the benefits and harms of centralization and decentralization. A major conclusion from the review of the literature in this section is that while centralization in education proved to be inefficient (Elenkov, 2004; Bogetic et al., 1995), it seemed that it did not increase disparity among students in Bulgarian schools based on the location of the school (rural versus urban) (Bankov et al., 2006).

Development of the Decentralized Education System

The studies listed below examine the development of Bulgarian education after the 2008 education reform. They research different aspects of the reform: the implementation of the Delegated School Budgets (DSBs) in select municipalities

(Club Economica 2000 & Ministry of Education and Science, 2005); the reasons for students dropping out of school (Nonchev, Mondon, Donkova, Milenkova, Strakova, & Ruseva, 2006); the impact of school closures on dropout rates (Danchev, Guaqueta, Macdonald, Porta, Fasih, & Patrinos, 2010); and the impact of the reform on student academic performance on international assessments (Danchev & Macdonald, 2010; Herrera-Sosa, Moreno, Kutner, Gautam, & Gortazar, 2012). Most valuable for this study is the analysis done by the researchers of the World Bank (Danchev et al., 2010; Herrera-Sosa et al., 2012) because it relates very closely to the purposes of this research by highlighting the trade-off between efficiency and inequity in access to education observed during the implementation of education decentralization in the country.

A 2005 qualitative study, conducted by Club Economica 2000 and the Bulgarian Ministry of Education and Science as part of the Program Initiative for Local Self-Governance and sponsored by the USA Agency for International Development, describes the experience of local educational authorities from 10 select municipalities in 2004 that adopted the DSBs voluntarily. The participants consist of four groups of local-level elected officials and education professionals: the mayor, the financial advisor of the municipality, the school director, and the school accountant. The authors of the study employ semi-structured interviews, and the questions are organized into the following three groups: existing problems before implementation of the DBS, perceptions of the goals and the content of the DBS and achieved results (Club Economica 2000 & Ministry of Education and Science, 2005, p. 4). According to the interviewees, the problems before the implementation of the DSBs were lack of

rules and objective mechanism for distribution of funds to schools in the municipalities; ineffective use of funds by the schools; lack of school director's authority over the school budgeting; and inconsistent and insufficient funding (Club Economica 2000 et al., 2005, pp. 5–6).

The goals of the DSBs implementation, according to the participants, were to make school funding in municipalities more transparent and objective, to provide the schools' directors with authority to manage the school budgets, and to hold them accountable for the efficient disbursement of funds (Club Economica 2000 et al., 2005, pp. 9–10). To all participants in the study, the content of the DSBs meant that the distribution of funds to schools in a municipality was done by a formula, based on the number of students per school. Other factors that were taken into account were type and size of the school building, type of school, and type of heating (Club Economica 2000 et al., 2005, pp. 11–16). The perceived results from the adoption of the DSBs were an increase in school funding, improved school effectiveness, greater independence of the schools from the municipal governments, and overall improved relationships between the municipalities and the schools (Club Economica 2000 et al., 2005, pp. 22–29).

One aspect of school effectiveness that was not given a clear answer in the study was whether the quality of schooling improved due to implementation of the DSBs, mainly because at that time, there were no test results from national exams available that could be used as an appropriate measure of outcome (Club Economica 2000 et al., 2005, p. 29). However, interviewed representatives of municipalities with implemented DSBs stated that they have searched for students who had dropped out

of school or had never attended school (Club Economica 2000 et al., 2005, p. 17). In this aspect, the mechanism of the DSBs was seen not only as a way of achieving greater efficiency in the use of school resources but also as a tool that could lead to a reduction in the number of school dropouts.

As can be seen, the study provides only descriptive information about the opinions of the local stakeholders from municipalities that have adopted the DSBs. It does not analyze in depth or test empirically any issues regarding the implementation of the DSBs in the selected municipalities. However, the qualitative analysis offers valuable background information about the DSBs, considered the central element of the education financial decentralization in Bulgaria.

In a 2006 sociological study, Andrei Nonchev, a Professor of Economics at Sofia School of Economics, Bulgaria, Pierre Mondon, a consultant at UNICEF, Maria Donkova, a director of Paideya Foundation, Valentina Milenkova, a Professor of Sociology at Sofia University Saint Kliment Ohridski, Bulgaria, Liliana Strakova, a Professor of Education at Sofia University Saint Kliment Ohridski, Bulgaria, and Ralitza Ruseva, an expert at Vitosha Research Agency, Sofia, Bulgaria, (2006) analyze in depth the issue of early leavers from Bulgarian schools. The authors interviewed a broad range of participants: 624 dropouts, ages 12–16; 672 parents of children ages six–16 who have dropped out of schools; 202 teachers and school directors at the last schools attended by the dropouts; and 100 social workers in municipalities where the students who have dropped out lived. The interviews took place in 76 select municipalities out of the existing 264. In addition, six focus groups composed of teachers and parents in three cities (Sofia, Omurtag, and Smolyan); 15

in-depth interviews with education experts; and 15 detailed case studies of typical cases of school dropouts were conducted (Nonchev, Mondon, Donkova, Milenkova, Strakova, & Ruseva, 2006, p. 8). The analysis shows that the majority of the children left school at ages 14–16 (62 percent of the interviewed children), and most of them were of Roma ethnic origin (74 percent of the interviewed children) (Nonchev et al., 2006, Table 5 & Graph 3, pp. 17–18).

The reasons for dropping out of school, according to the survey results, are grouped into the following categories: socioeconomic (poverty, unemployment, and low education of the parents); ethnocultural (traditions of early marriages and pregnancies among Roma girls, and the prevalent view that education was not a value or a way to success in the Roma community); and institutional (difficult school material and conflicts with peers and teachers). For most of the parents, poverty (lack of money for clothing, food, textbooks, and school supplies) was the main reason for not sending their children to school (Nonchev et al., 2006, p. 29). To the interviewed children ages 12–16, institutional factors, in addition to socioeconomic conditions, were the most cited reasons for dropping out of school (Nonchev et al., 2006, pp. 24–27). For example, 77 percent of the children claimed that the school material was difficult and they could not understand it (Nonchev et al., 2006, p. 44). While interviewed parents stressed socioeconomic conditions, teachers and social workers pointed out the parents' low motivation to send their children to school, mostly because they did not seem to value education highly.

The empirical study does not provide a statistical analysis of specific research questions. It attempts to measure "subjective opinions, attitudes, relations, and

expectations" of the interested stakeholders with the help of qualitative research methods, such as interviews and focus groups (Nonchev et al., 2006, p. 24). The sociological analysis, however, contains rich qualitative material that could serve as a starting point for further research on the problem of early school leavers, a topic that is also relevant to the current study.

After the 2008 reform, primarily researchers at the World Bank explored the development of Bulgarian education. For example, a team of researchers at the World Bank including Plamen Danchev, Julian Guaqueta, Kevin Macdonald, Emilio Porta, Tazeen Fasih, and Harry Patrinos prepared an extensive report titled *"A Review of the Bulgarian School Autonomy Reform."* The most relevant part of the report for this study is the analysis of the effect of school closures on equity of access to education among students (Danchev, Guaqueta, Macdonald, Porta, Fasih, & Patrinos, 2010, p. vi). Data for the study originated from the Bulgarian Ministry of Education and Science' information-management database, which provided school- and class-level data for all students in Bulgaria for 2007 and 2008 academic years (Danchev et al., 2010, p. 29). The dropout rates of closed schools are compared to dropout rates of similar schools that remained open to control for selection bias. The authors use propensity score matching method to control for observable similarities between schools. The control group consists of two types of schools: open schools with the same characteristics as closed schools, and open schools closed the following year. The inclusion of open schools closed the next year is based on the assumption that this category of schools is similar in both observable and unobservable characteristics (Danchev et al., 2010, p. 31).

To estimate the impact of school closure on dropout rates, the authors measure the difference in dropout rates of the treatment group and the control group of schools between the 2007 and 2008 academic years. The underlying assumption is that the availability of data for two consecutive time periods could control for unobservable school characteristics that do not change over time (Danchev et al., 2010, p. 31). The independent variables used in the study are school variables (school size, average class size, dummies for urban school, and type of school) and municipal variables (poverty rate, population density, share of population being Turkish or Roma, and dummies for regions of the country) (Danchev et al., 2010, Annex 3, Table 3b).

The results show that school closures caused a significant increase in dropout rates, from 8 to 12 percentage points (Danchev et al., 2010, p. 31). Follow-up interviews with parents and school directors from the consolidated schools revealed some of the reasons for the higher dropout rates of the students from closed schools such as distance to school, violence at school, lack of available free transportation, enclosed shelter for children to wait for the bus in winter, and semi-boarding facilities (Danchev et al., 2010, p. 32).[5]

Due to data limitations, such as not enough time periods and the choice of methods, such as the use of propensity scores to control for primarily observable differences between the treatment and control groups of schools, the results of the study should be interpreted with caution. The report, however, for the first time, offers a comprehensive analysis of the decentralization reform in Bulgaria, and

[5] Semi-boarding facilities were planned to be implemented because practice revealed that students from closed rural schools seemed to face knowledge gaps when they joined the larger consolidated schools and, therefore, required additional instruction (Danchev et al., 2010, p. 32).

estimates specific academic outcomes, such as dropout rates in schools that were closed due to the reform.

The researchers at the World Bank have also explored the academic performance of students by examining the change in PISA scores from 2006 to 2009 school years. An analysis performed by Plamen Danchev and Kevin Macdonald of the World Bank (2010) indicates that there were substantial increases in the average scores in math and reading and modest improvements in the average scores in science.[6] The authors conclude that the test increases were attributed to improvements in the quality of the education system, not changes in household composition, or any time trends (Danchev & Macdonald, 2010, p. 2). They, however, acknowledge that it's hard to attribute the test score improvement in 2009 entirely to the reforms in 2008 because the 15-year-old students tested in 2009 PISA received the majority of their schooling before the reform. The researchers conclude that "the assessment is not an evaluation of the impact of the specific reforms, but rather a barometer of how the system is faring a few years after the introduction of the sweeping reforms" (Danchev et al., 2010, p. 2).

The WB continued to follow the progress of Bulgarian students on PISA tests in the following years. Katia Herrera-Sosa, Martin Moreno, Daniel Kutner, Amy Gautam, and Lucas Gortazar, researchers at the WB, (2012) analyze the performance of Bulgaria in PISA 2012. In 2012, Bulgarian students scored on average 34 points more on reading and 26 points more on math than in 2006, which represented an improvement of almost one year of schooling in reading and a little more than a half

[6] Bulgaria's reading average score rose by 27 points over 2006 level, reaching 429 points in 2009; math average score increased by 15 points over 2006 level, reaching 428 points in 2009; and science average score rose by 5 points over 2006, reaching 439 points in 2009 (Danchev et al., 2010, p. 3).

of year of schooling in math.[7] However, according to the report, Bulgaria did not make significant overall progress since 2000, when the first PISA was conducted (Herrera-Sosa, Moreno, Kutner, Gautam, & Gortazar, 2012, Table 1, p. 10). In 2012, about 39 percent of the 15-year-old students in Bulgaria were considered functionally illiterate, and about 44 percent were found to be functionally innumerate (Herrera-Sosa et al., 2012, p. 10).

To better analyze the performance in PISA for different groups of students, the authors decompose the changes in PISA scores by student-achievement group: low achievers (in the 20th percentile of the distribution), middle achievers (in the 50th percentile of the distribution), and high achievers (in the 80th percentile of the distribution). Herrera-Sosa et al. apply unconditional quantile regression, which allows for the decomposition of PISA scores not only for the mean through groups but also for other statistics of the distribution. Once the regression is computed for different quintiles of the distribution, the results are decomposed following the Oaxaca-Blinder approach (Herrera-Sosa et al., 2012, Annex, p. 39).

One of the research questions in the report is whether school-autonomy reform affected students' test scores. PISA data offers an opportunity to assess the decentralization reform by linking student outcomes to school information (Herrera-Sosa et al., 2012, p. 23). More specifically, the study uses the school directors' answers to a PISA questionnaire about the organization of the school and their responsibility for the management of the school budget, teachers' salaries, student assessment and admission, textbook use, and development of course content. The authors disaggregate the overall impact of the reform by a degree of autonomy. The

[7] Forty points in PISA are equivalent to what students learn in one year of schooling.

decomposition is expressed by an interaction of autonomy indexes with a rural dummy variable to allow the impact of the reform on rural and urban schools to be disentangled.

The results show that the autonomy over the use of resources (teachers' salaries and budget allocation) has a positive and significant impact on all students' scores (six points on average), and in particular on those of low achievers (11 points on average). The study concludes that the greater autonomy allowed school directors and teachers to focus on those students who lagged behind or who needed more support (Herrera-Sosa et al., 2012, p. 25). The impact is also stronger for urban than for rural schools. A possible reason, according to the authors, is the presence of better and more accountable school administration in urban areas. However, the responsibility of the school director over the development of the school curriculum and assessment of students' performance is slightly and significantly negative, outweighing the gains made from greater autonomy in resource allocation. Thus, according to the study, the overall effect of the school autonomy reform is not statistically significant (Herrera-Sosa et al., 2012, p. 24).

Nevertheless, the analysis shows that there is a positive link between school autonomy over the use of school resources and academic achievement. For this study, the finding that the low achievers benefit most from the reform is an important indication that school decentralization has a positive impact on the behavior of the students who are at the margin of dropping out of school or repeating a class.

Student outcomes, such as graduation and dropout rates of Bulgarian students, have received attention in the international media as well. An article published in The

Economist (2015) discusses the status of the Roma population in six central and Eastern European countries, including Bulgaria briefly. The authors employ data from 2011 Regional Roma Survey, and WB reports on Roma population to show the lack of equality of opportunity for the Roma ethnic group. As an example, the article uses the high dropout rates among 14–16 years old Roma students in Bulgaria, which has reached 80 percent, as many students drop out of school to get married or to help their families (The Economist, 2015, par. 3).

The article also claims that successful Roma people prefer not to reveal their origin because of stigma and prejudice, thus leaving the Roma community without examples of role models (The Economist, 2015, par. 7). An issue not discussed by the authors, but closely connected with the notion of stigmatization, is that analysis of Roma's student behavior based on administrative data is not possible because the Bulgarian Ministry of Education and Science is not allowed to collect data on students' ethnicity. As a result, studies that use administrative school data to construct panel datasets (as it is the case with the current study) are not able to differentiate the impact of any changes in the education system based on students' ethnicity.

The articles discussed in this section of the literature-review chapter focus on different aspects of the development of the Bulgarian education. While some of them analyze the historical context of the education sector, a few articles attempt to investigate empirically such issues as the efficiency of schools, reasons for dropping out of schools, and inequity of access to education among students. The studies conducted by experts at the World Bank provide the most comprehensive research of decentralization reform in Bulgaria. As can be seen from the analysis, the school

autonomy reform generated contradictory results: while students' dropout rates increased due to the closure of schools, the PISA test results increased moderately as the greatest impact was on the academic performance of low achievers.

Characteristics of the Bulgarian Educational Policy Decision-Making Process

The studies below focus on the decision-making process in the Bulgarian education system. The first subsection analyzes a study that describes the specifics of the decision-making processes in the centralized education system (Rado, 2010). The second subsection examines studies on the decentralized decision-making in the reformed education system, more specifically, the consequences of centrally developed policies on school funding at the local level of governance (Herczynski & Herbst, 2008; 2011).

Characteristics of the Centralized Educational Policy Decision-Making Process

A detailed analysis of the centralized education decision-making process in Bulgaria before the 2008 decentralization education reform is scarce. Peter Rado, an expert on education decentralization in Eastern Europe and Central Asia, (2010) describes the logic of a centralized governance system in the education sector briefly. The central government's underlying assumption was that objectives should be set primarily at the national level and then translated to prescriptive regulations that guide the activities of all members at the lower levels of governance (Rado, 2010, p. 9). As such, Rado points out, a centralized decision-making approach could have potential benefits, from modernizing of the education process and building the national identity to promoting egalitarian social engineering, integrity, and unity (Rado, 2010, pp. 12–13).

However, according to the author, centralized decision-making suffered from two main disadvantages: a weak capacity to absorb the interests and views of stakeholders that were external to the bureaucratic process and poor implementation potential. Rado claims that the implementation of the formal/informal use of certain mitigating factors to alleviate the rigidity of centralized management practices proved ineffective. For example, the researcher describes the strong influence of the teachers' unions on the Bulgarian education policymaking. However, as Rado states, such an exclusive participation in the power-sharing mechanism, in fact, weakened the position of other stakeholders (Rado, 2010, p. 10). Another informal mitigating strategy outlined by Rado was the so-called "conspiracy of silence," under which local decision-making actors deviated from centrally prescribed regulations without openly opposing them. This practice of disobedience at times of oppressive regimes was considered a safeguarding measure that protected the education sector from the ideologically-driven centralized authority. However, after the changes in 1989, such behavior of the local stakeholders obstructed the successful implementation of necessary reforms in the education sector (Rado, 2010, p. 10).

Unfortunately, the author does not analyze further the decision-making structure of the education process under centralized management because the focus of the study is on the decentralization processes in education occurring in South Eastern Europe, including Bulgaria. The study, however, is relevant to the current research because it discusses particular characteristics of the decision-making process in the education sector that were persistent not only under the centralized education system but also under the decentralized school-management model.

Characteristics of the Decentralized Educational Policy Decision-Making Process

The studies below focus on the features of the decision-making process in the education sector after the 2008 education reform. They analyze sources of inequity among schools, resulting from the new way of school financing developed by the central authorities. In this aspect, their findings relate to the research topic in this paper and the debate on the advantages of decentralization versus centralization of education by pointing out the failure of centrally developed policies to account for local specifics, thus leading to disparities in access to education.

Jan Herczynski and Mikolaj Herbst, Polish education experts, (2008) explore the effect of the 2008 school financial decentralization on the educational decision-making mechanism empirically. More specifically, they analyze whether the education system in Bulgaria after the decentralization reform was underfunded. Their study investigates the decision-making process regarding school funding, which is based on the system of unified student standards that are seen as an important part of the decentralization reform.[8] The unified student standards were developed by the Government of Bulgaria (GOB) with the active assistance of the WB and included more than 30 separate standards applicable to different types of schools in four groups of municipalities determined by the central authorities (Herczynski & Herbst, 2008, p. 34).

The authors analyze empirically whether the division of the municipalities into four groups corresponded to the average class size in their territories. They

[8] The unified student standard as a new financing mechanism that was implemented in 2007 meant that the municipal governments received all funds from the central authorities to cover both salary and non-salary expenditures for education in municipal schools on a per-student basis.

compare descriptive statistics (average and standard deviation values) of classes for the four groups of municipalities. The researchers conclude that even though the values the unified student standards could take on were carefully defined and took into consideration average class size, the groups of municipalities were too heterogeneous with regard to class size, especially groups three and four, which had the largest standard deviations in class size (Herczynski et al., 2008, p. 7). As a result, according to the study, some municipalities were underfunded, while others were overfunded. Most of the municipalities also decided not to accept their formulas for the distribution of funds among schools in their territories. Instead, they used the number of students in the schools as a criterion. Such a solution, according to the authors, harmed some schools, particularly small schools and schools in remote areas (Herczynski et al., 2008, p. 7).

Even though the study does not use sophisticated statistical methods, it provides useful descriptive statistics that show that decisions taken at the central level of governance regarding funding of education considered the heterogeneity of the municipalities, based primarily on average class size in schools in their territories. The lack of initiative of the municipal governments to create effective funding formulae that would take into account the local characteristics of the schools also did not provide for a fair distribution of funds among schools. The findings of the study are valuable because they indicate the lack of a consistent decision-making process in the education sector and point out some existing barriers to an effective policy implementation. The findings also highlight the constraints of centralized decision-making in the Bulgarian context, such as lack of sufficient information for local needs

and lack of accountability measures, which in effect harmed certain schools (e.g., small schools in rural areas).

Herczynski and Herbst, (2011) continued to investigate the financial aspects of education reform in Bulgaria, more specifically, the equity ramifications of the reform. The focus of their next study is the horizontal financial equity among municipalities after the 2008 education decentralization reform. The authors define horizontal equity as a process under which the education funding from the central government to municipalities is done in accordance with the specific local needs of the schools in their territories (Herczynski & Herbst, 2011, p. 3).

Herczynski et al. perform regression analysis to determine the effect of specific local characteristics on the expenditures per student in the Bulgarian municipalities in the 2008 academic year. In the conceptual model that the authors develop, the expectation is that wealthier local governments with higher tax bases may spend more on education per student because they had available revenue. Municipal governments with smaller classes and smaller schools would also spend more per student because smaller schools have a higher share of fixed budgetary costs, and smaller classes result in lower student-teacher ratio. Next, municipal governments with more qualified school staffs, measured by average teacher's salary, are expected to spend more per student due to higher wages they have to pay teachers. Finally, the authors hypothesize that municipalities receiving higher transfers from the central government would spend more per student. Herczynski et al. apply the model separately for the four groups of municipalities as the independent variables included local tax bases, average class size, qualification of the teachers (measured by

average teachers' salary), and transfer of funds from the central government (Herczynski et al., 2011, pp. 16–17).

The results show that for the first group of municipalities (large urban municipalities), the variable average class size has a significant and negative effect on the expenditures per student. As the average class size decreases by 10 percent, the expenditures per student increase by 8.7 percent (Herczynski et al., 2011, p. 19). For the second group, the variables that influence significantly and positively the dependent variable are average teachers' salary and local tax bases. As the average teachers' salary increases by 10 percent, the spending per student rises by 3.6 percent. A 10 percent change in local revenues is associated with only a 0.5 percent difference of the expenses per student, which is statistically significant, but negligible in magnitude result. For the third group of municipalities, the effect of average teachers' salary is with the same sign and magnitude as the one for the second group of municipalities. The impact of average class size on expenditures is positive, but rather weak, as a 10 percent decrease in class size results in a 2 percent increase in student spending. For the fourth group, the model could not establish any significant effect of the selected variables on the dependent variable (Herczynski et al., 2011, p. 20).

When an additional variable, average number of teachers per class, is added to the model to show the teachers' workload, the effect of the average class on the students' expenditures becomes significant and negative for the four groups of municipalities. The authors claim that certain cost-saving strategies of the municipalities trigger the result. Ideally, smaller classes should lead to greater expenditures, but if municipalities with smaller classes reduce the number of teaching

hours, the effect of average class size on students' spending would be neutral (Herczynski et al., 2011, pp. 20–21). The study concludes that municipalities with the optimal school system and larger classes spend more on additional school resources and in this way, could influence the quality of education directly, compared to municipalities with smaller schools and classes.

The regression analysis in the study does not guard against potential biases due to omitted variables. However, it indicates that the existing system of school financial decentralization has led to inequities in the supply of education among different municipalities. The analysis shows that the Bulgarian education system suffers from inequities in the provision of education at the municipal level, caused primarily by reducing the number of teachers per class. As a result, students in rural areas receive a lower quality of education than students in urban areas do, mainly because they are not taught additional subjects, or because they are provided with a limited number of hours for the core subjects (Herczynski et al., 2011, p. 21).

In their investigation of the structure of the decision-making process in the supply of education in Bulgaria, the studies discussed above reveal that the central authorities, when exercising their primary decision-making functions, distribution of education funds to the local governments, did not provide adequate funding to municipalities based on their specific needs. Such inequity in the supply of education among different municipalities led to a decreased quality of education in municipalities with smaller schools, since they provided education at lower cost by reducing the number of teachers per class. The studies in this section offer useful

analysis for the specific ways education decision-making policies designed at the central level of governance could lead to inequity in the supply of education.

The Role of Stakeholders in the Bulgarian Education System

This subsection of the literature review discusses the literature on the role of stakeholders at the central and local levels of governance in the Bulgarian education sector. The study in the first subsection examines the roles of stakeholders in the highly centralized education system before 2008 (Mihnev, Sinidtchiev, Atanassov, & Voikova, 2001), and the report in the second subsection analyzes the functions of stakeholders in the education process after the 2008 reform (Rado, 2009). A review of the available literature about the roles of the stakeholders at the central and local levels of governance is pertinent to the current study because it outlines the positions of the participants in the education policymaking process, and how their responsibilities have changed because of education decentralization. The literature review also assists in the correct identification and selection of the participants for the elite interviews as a method of qualitative data collection in the current study.

The Role of Stakeholders in the Centralized Education System

Pencho Mihnev, head of Analysis, Planning, in-service Teacher Training Unit, Ministry of Education and Science, Bulgaria, Georgi Sinidtchiev, director of National Unit for Assessment in School Education, Ministry of Education and Science, Bulgaria, Vladimir Atanassov, a university lecturer, faculty of Slavonic Philology, Sofia University Saint Kliment Ohridski, Bulgaria, and Antoaneta Voikova, head of Policy of Vocational Education and Training Unit, Ministry of Education and

Science, Bulgaria, (2001) under an initiative of the World Bank Institute, study intergovernmental roles in the delivery of education in Bulgaria. More specifically, they provide qualitative analysis of the different stakeholders' roles in the education process in Bulgaria before the 2008 education reform. The authors describe the roles played by various actors in the education sector, analyze the contradictions embedded in the system, and recommend a set of proposals for solving the problems. The study's goal is to investigate these types of problems systematically by performing an institutional analysis to understand why the stakeholders participating in the education process (teachers, school directors, local governments, and ministry officials) acted the way they did (Mihnev et al., 2001, p. 3). The authors interviewed 22 school directors, ten heads of municipal education departments, and seven heads of education inspectorates from 30 schools in 10 municipalities. The greatest problem, according to the researchers, was the lack of coordination between the political actors in the education process, where "each considers themselves a starting point in decision-making, rather than a link" (Mihnev et al., 2001, p. 37).

Another issue that the authors discuss was the lack of parental participation in school life, largely due to the prevailing public view that the school was solely responsible for educating children. School boards, where parents could participate in the decision-making process, were mandatory but school directors were not sanctioned for failing to institute them. Even existing school boards had only advisory functions. The decision-making capacities at the school level were usually divided between the school director and the school pedagogical council, composed mostly of teachers, and acting like a self-interested union (Mihnev et al., 2001, p. 37–39). The

authors propose greater managerial power to the school directors and school boards and limitation to the decision-making capacity of the pedagogical councils, primarily on issues concerning the curricula (Mihnev et al., 2001, p. 39).

The study presents primarily descriptive information, based on interviews with education stakeholders at the local level of governance. It does not research the role played in the education process by stakeholders at the central level of governance, who at that time influenced the educational policies in the country. The report, however, is the first attempt initiated by an outside international organization, the World Bank, to investigate critically the role of the local stakeholders in the education decision-making process and the contradictions embedded in the centralized system of education provision.

The Role of Stakeholders in the Decentralized Education System

Peter Rado (2009) collaborating with a local team of education experts in Bulgaria, analyzes the roles of different actors in the education process and their vested interests in education decentralization briefly. The author discusses the conflicting interests of the most important political players at the central and local levels of governance. Rado's primary goal, however, is not to describe the roles of the different stakeholders at the central and local levels of education governance. Instead, the author provides a snapshot of the education sector in Bulgaria by exploring the processes of education decentralization.

At the central level of governance, the report focuses on the role of the Ministry of Education and Science during education decentralization**.** Rado investigates the relationships between the regional inspectorates of education (the

local structures of the Ministry of Education and Science), the local municipal governments in charge of school financing, maintenance, and infrastructure, and the school directors responsible for the management of the schools' budgets (a duty delegated to them from the local municipal governments) (Rado, 2009, pp. 26–28).

Rado concludes that the roles and responsibilities of the different actors in the education process are not transparently outlined since they are not regulated legislatively. As a result, the chain of delegation diminishes the stability in the education sector even more, as the general impression of the participants in the education process is that the delegated authority could be taken back from the higher organs of governance (Rado, 2009, p. 35).

The report presents a concept for education decentralization, identifies primary challenges in the existing system of education, and develops strategies for successful education reform in the country. The author, however, is primarily focused on making recommendations for improvement of the whole education sector and, therefore, does not analyze the characteristics of the stakeholders in education reform in Bulgaria thoroughly.

As can be seen, the studies discussed above offer an overview of the roles of the different stakeholders at the central and local levels of governance before and after the decentralization reform. The 2001 report prepared with the active assistance of the WB focuses on the role of the local stakeholders in a highly centralized education system. The Rado's report, on the other hand, explores the functions and the duties of the stakeholders at both the central and local level of governance by

emphasizing the contradictions that continued to exist in the education sector after the 2008 decentralization reform.

The Role of the World Bank in the 2008 Education Reform in Bulgaria

This section of the literature review chapter explores the involvement of the WB in education reform in Bulgaria, starting with a review of the literature on the first unsuccessful attempt of the WB to reform the education sector. The 2000 Education Modernization Project, financed by the WB, is investigated in a 2004 book titled "*The State against the Reform*." In it, a group of researchers analyzes the reasons for the unsuccessful education project by looking at political, legal, institutional, and financial obstacles that were inherited by the centralized education system. The book offers a detailed explanation of the education reform's failure under the guidance of the WB and attempts to find the causes for the delayed reform by employing multiple approaches: sociological, legal, and political.

Among the articles in the book, especially extensive is the research-project report by the Association for Social Investigations and Applied Research Practices (2004). The study attempts to answer the question of how the reform was driven to a failure by revealing "fundamental mechanisms that State institutions in post-communist societies employ to neutralize 'externally imposed reforms' without risking being charged with open sabotage" (Association for Social Investigations and Applied Research Practices, 2004, p. 268). According to the authors, the first important reason for the anti-reform lay in the legacy of tradition in the education sector. As a result, the education system was transformed into a capsulated system under which the academic outcomes were based on national standards developed

internally by the Ministry of Education and Science (MES) and not controlled by any labor and market conditions. Hence, the WB involvement was presented as “some foreign transgression against national tradition” (Association for Social Investigations and Applied Research Practices, 2004, p. 270). Another equally important reason for resisting the reform was that governments in Bulgaria, as a rule, did not perceive education to be a political priority and an element of overall societal transformation, but a sectorial issue that would not serve as an instrument for winning votes. Finally, the project was not based on comprehensive analysis of the role of stakeholders during the reform. For example, no specific actions were planned to mobilize the beneficiaries of the reform against its opponents. According to the study, successful reform in education could have been achieved if the reasons for the failure of the project had been taken into consideration. The authors conclude that the reasons that led to the failure of the project were triggered by historical development and an attempt to keep the current status quo rather than any structural necessity (Association for Social Investigations and Applied Research Practices, 2004, p. 270).

The study offers in-depth research employing multiple approaches, which leads to significant findings on identifying strategies used by bureaucrats to resist a reform driven by external factors. The report provides a useful analysis of the failed education project, but it also presents a challenge for the policymakers to identify the most valuable lessons from the research. Overall, it seems that the study's goals were numerous, from analyzing factors contributing to the slow progress in reforming the Bulgarian education system and examining reasons for the failure of the 2000 WB project, to exploring broad causes for the inability of the MES to accomplish the

reforms. As a result, the report investigates several independent research questions requiring different approaches, which could lead to various policy recommendations.

Useful practical guidance in the book is presented by Tanya Kabakchieva, a Professor of Sociology at Sofia University Saint Kliment Ohridski, Bulgaria, (2004) who compares briefly two projects in the social sector supported by the WB in Bulgaria in 2000, the Modernization of Education Project and the Child Welfare Reform Project. The author highlights the major differences between both projects regarding the design, management, and implementation. Below is a table that summarizes the finding of Kabakchieva (Table 1).

Table 1. Comparison between the 2000 WB Projects in the Social Sectors in Bulgaria

Elements of the Project	**Name of the Project**	
	Child-Welfare Reform	**Modernization of Education**
Design	The project was multi-sectorial and with a goal that is generally formulated: the welfare of the children (Kabakchieva, 2004, p. 66); The project was oriented toward partnerships and coordination of activities between different institutions (ministries, WB, European Commission (EC), non-profit organizations, private businesses, and municipal governments) (Kabakchieva, 2004, p. 66); An emphasis was placed on the development of a national program for protection of children (Kabakchieva, 2004, p. 66); The specific tasks of the project were developed in detail (Kabakchieva, 2004, pp. 66–67); Particular attention was paid to activities of monitoring and assessment of the project (Kabakchieva, 2004, p. 67).	The project was built on a specific strategy for reform in the education sector, without connecting it to a broader social context and setting up institutional links with other sectors, such as labor and economics (Kabakchieva, 2004, pp. 67–68); There was a lack of coordination between the central and local levels of governance (Kabakchieva, 2004, p. 68); The tasks of the project were formulated broadly without being operationalized (Kabakchieva, 2004, p. 70); Monitoring and assessment of the project were not listed as specific tasks (Kabakchieva, 2004, p. 69).
Management	There was a definite organizational structure—the newly created Unit for Management of the Project, with employed consultants that were selected, based on approved by the WB resumes, overseeing the project (Kabakchieva, 2004, p. 71; p. 73)	There was a contradictory organizational structure, with many units in charge of the same activities: Project Coordination Unit, Project Board, and working groups, which created a possibility for delegation of tasks between them, and ultimately resulted in a lack of responsibility (Kabakchieva, 2004, pp. 71–72).
Implementation	The normative base for the project was created in advance along with a national program for deinstitutionalization of children (Kabakchieva, 2004, p. 73); The project was monitored and assessed by the EC (Kabakchieva, 2004, p. 74); There was a developed system of indicators controlling the implementation of the project (e.g., every three months, there were reports on the implementation activities) (Kabakchieva, 2004; p. 74); There were many methodological documents, on which several standards, programs and strategies protecting the children were created (Kabakchieva, 2004, pp. 74–75).	The project depended on the existing outdated normative base from 1991 and amendments to existing laws and regulations; for a number of components, there was a lack of legislative basis (Kabakchieva, 2004, pp. 75–77); The project was not monitored by the EC because education was considered a national priority (Kabakchieva, 2004, p. 83).

Source: The State against the Reform (2004).

The author concludes that for a successful reform the following conditions must be present: powerful external pressure, such as pressure from lenders, in this case, the WB and the EC; internal realization that a reform is necessary, and there is no alternative; dominant majority of stakeholders that have vested interests in the reform; public consensus for a change; and strong political will that can transform the consensus for a reform into an operative program (Kabakchieva, 2004, p. 82). Overall, the Kabakchieva's article points out the most striking differences between both projects but does not explore in depth the weaknesses of the WB project for the modernization of Bulgarian education and the role of the different stakeholders in resisting the reform.

Another article presented in the book is by Valentin Danchev, an Associate Professor of Sociology at Sofia University Saint Kliment Ohridski, Bulgaria, (2004) who explores the role of the MES in the failure of the education reform in Bulgaria thoroughly. The author analyzes and categorizes the different administrative practices of the MES to impede the reform by "reconstruction of the internal coordination of the conceptual base, institutional behavior, and the effects triggered by such behavior" (Danchev, 2004, p. 42). Danchev's initial focus is on the modified project plan aimed at introducing the original WB project to the MES' experts. As the author points out, the revised project plan missed certain important elements of the original document. For example, there was no description of the problems in Bulgarian education, the goal of the project, namely, achieving a better quality of education, was replaced with activities that should have served as instruments for achieving the primary goal. In addition, certain components were entirely omitted, such as

strengthening of the managerial capacity of the MES (Danchev, 2004, pp. 43–45). Finally, several institutional practices contradicting the original project aimed to create a disintegrated environment. Among them, the author discusses the incomplete implementation of a data-management information system; the ineffective functioning of the management bodies and the working groups, which were not selected or appointed in accordance the original WB's prescriptions; the lack of communication with stakeholders; and the absence of external monitoring and control. As a result, the project's activities lost their direction and seemed to be limited only to procurement actions that were not coherently connected, and did have any impact on the status quo in the education sector (Danchev, 2004, pp. 47–53). Danchev's article explores in detail the role of the MES in obstructing the reform and is especially valuable when comparing the planning and implementation phases of 2000 Modernization Education Project with later educational activities in Bulgaria under the guidance of the World Bank.

Antoaneta Dimitrova, a Professor of Public Administration at Leiden University, Netherlands, whose primary research interests is the institutional and political transformation of post-communist Eastern European countries, (2004) summarizes the conclusions reached by exploring the failure of the Education Modernization project. The author highlights the importance of four factors related to the failure of the project: first, lack of political will and ownership of the reform; second, administrative-managerial issues, related to weaknesses of the project's management and monitoring, and insufficient coordination in the MES; third, the lack of a broader participation in the reform by all stakeholders; and fourth, the WB's

inexperience with investment projects in the social area (Dimitrova, 2004, p. 260). Overall, the case study in the book provides useful qualitative information about the roles of different stakeholders involved in the planning and implementation of the Education Modernization Project. Especially valuable is the analysis of the implementation of the project, and, more specifically, the steps taken by different stakeholders, in particular by the MES, to prevent and obstruct the success of the project, which ultimately led to its failure.

Except for the two reports authored by the WB and discussed in the first section of this literature review chapter, there is no specific research about the efforts of the WB in the Bulgarian education system after 2004, when the Education Modernization Project was closed. Only a few authors mentioned the role of the WB in education reform in Bulgaria. For example, Herczynski and Herbst (2008) acknowledge the efforts of the Bank in the initial decentralization reform in Bulgaria, mainly as advisors of the Bulgarian government (Herczynski & Herbst, 2008, p. 11). Rado (2010) discusses briefly the role of the WB in the education-reform agenda of the countries in South Eastern Europe, including Bulgaria, by pointing out that the WB decentralization agenda in education was similar in the cases of Croatia, Romania, Serbia, and Bulgaria (Rado, 2010, p. 18). According to the author, the influence of the WB was strengthened by the fact that due to the scarcity of resources to promote large-scale reforms, the governments in the region depended on the availability of funds by the WB. However, as will be seen in the analysis of the qualitative research questions in this study, Bulgaria did not seem to experience

budgetary constraints to implement the education reform but needed mostly technical expertise and coordination assistance.

From a review of the literature, it is evident that there were only a few attempts for comprehensive analysis of the WB efforts to decentralize the Bulgarian education sector after the failure of the Modernization project in 2004. The WB and the researchers evaluating the school decentralization reform in Bulgaria were mainly interested in an analysis of the efficiency gains from the reform, the consequences from the underfunding of education, and the lack of clearly defined responsibilities of different stakeholders. The long-term effects of the reform on students' behavior (dropout, grade-repetition rates, and test scores) were not measured in detail, mainly because of two reasons: they were not seen as a central part of the reform, and there were no available data on academic achievement of students. The interactions between different political actors at the central and local levels of governance were also not investigated systematically.

The goal of this research is to provide local policymakers and WB education experts with specific knowledge about the effectiveness of the decentralization reform in Bulgaria. The study contributes to the debate on the advantages of decentralization versus centralization by analyzing both the processes during the preparation and the implementation of the reform, and the impact on students' behavior, such as dropping out of school and repeating a grade, which has a direct effect on the equal access to education.

Figure 6. Literature Review: Focus on Development & Characteristics of the Bulgarian Education System

Chapter 4: Research Methods, Design, and Questions

Despite the plethora of theoretical and empirical literature about decentralization efforts in the education sector worldwide, there are not many studies about the education reforms in post-Communist Eastern European countries. Research analyzing the decentralization reform in Bulgaria and the involvement of the World Bank (WB) is also rare. This study investigates how and by whom the decentralization reform in Bulgaria was planned and implemented and analyzes its impact on students' behavior, such as dropping out of school and repeating a grade. Its purpose is to research the advantages and disadvantages of decentralization versus centralization in education and, more specifically, to add more knowledge to the debate over the trade-off between efficiency and inequity resulting from decentralization.

Research Questions

The qualitative questions explore the processes related to school decentralization reform in Bulgaria and its implementation. The quantitative question examines if the implementation of the Delegated School Budgets (DSBs) affected dropout and grade-repetition rates of students in public municipal schools. Below is a brief description of the questions and the data sources that are used.

What Kind of Cooperation Existed Between the WB and the Bulgarian Officials during 2000–2010 years?

This general question serves to set up the context of the current research and to outline the major activities performed by the Bank in the education sector. It also introduces and discusses the interactions of the Bank with the major stakeholders at the central and local levels of governance briefly. A brief analysis of the coordination activities of the WB is necessary because it serves contextual purposes for the current study. It also helps in distinguishing how the WB relationships with other interested stakeholders have changed before and after the acceptance of Bulgaria as a member of the European Union (EU). The data sources that are used to research this question are a review of documents and interviews with representatives of the Bulgarian government and the WB.

By Whom and How was Bulgarian Education Reform Planned and Designed?

This research question investigates who were the primary stakeholders involved in the planning activities during the education decentralization reform, what were their primary decision-making functions, what was the goal of the proposed school autonomy reform, and what were the reform's key elements. This question is relevant to the current study because it shows the specifics of the top-down approach of planning for education decentralization reform by the central authorities and international organizations, such as the Government of Bulgaria (GOB), the World Bank (WB) and the International Monetary Fund (IMF). The study attempts to answer this question by examining WB loan-agreement documents, revisions of

education laws, policy papers, and media sources, and by conducting interviews with the major stakeholders.

How was Bulgarian Education Reform Implemented?

The study examines the implementation of the school autonomy reform at both the macro (central government and international organizations) and micro (local governments and schools) levels. This question is important for this study because it shows how the implementation of the education decentralization model could lead to inequity of access in the provision of education. The primary goal is to investigate how a government program designed by actors at the central level of governance was adapted to the needs of actors at the local level of governance. Next, the study explores the obstacles during the implementation phase of the reform. The data sources are documents originated from the WB and the central organs of governance (National Assembly of the Republic of Bulgaria, Ministry of Education and Science, and Ministry of Finance), articles in different media sources and interviews with actors at both the central and local level of governance.

What was the Impact of the Reform on Students' Behavior Such as Dropping out of School and Repeating a Class during 2008–2014 years?

This question estimates the impact of the reform on students' behavior, such as dropping out of school or repeating a grade. The question is relevant for the current research because it estimates the equity implications of the decentralization reform quantitatively. Administrative secondary data aggregated at the school level by the Ministry of Education and Science (MES) and population and school-location data

collected by the Ministry of Regional Development are used for the analysis of the quantitative question.

Research Methods

To analyze the research questions, I use both quantitative and qualitative research methods. The premise for the use of both methods of inquiry is that "a single data set is not sufficient, that different questions need to be answered and that each type of question requires different types of data" (Creswell & Clark, 2007, p. 67). Furthermore, the use of both quantitative and qualitative methods brings greater insight than would be obtained by using either method separately and reinforces the study's findings. Where possible, I employ qualitative-quantitative methodological triangulation.[9]

The strengths and weaknesses of each approach complement one another and allow the researcher the opportunity to triangulate data that is different, yet complementary, whenever possible (Morse, 1991, p. 122). The benefit of using both qualitative and quantitative research methods is that they both could be quite useful in providing a fuller understanding of the study's results. The limitations of using this approach are that two distinct phases are required to conduct this research, and, therefore, more resources are needed for the two different kinds of data collection and analysis.

[9] Methodological triangulation is the use of at least two methods (quantitative and qualitative) to address the same research problem. It is "a method of obtaining complementary findings that strengthen the research results and contribute to theory and knowledge development" (Morse, 1991, p. 122).

Research Design

This study utilizes an embedded case-study design. The case-study method is described in the literature as a strategy of inquiry in which the researcher explores in-depth a program, event, activity, process, or one or more individuals (Stake, 1995, p. 2). Case-study researchers collect detailed information using a variety of data-collection procedures over a sustained period. The embedded case-study type of design is used when the researcher analyzes specific subunits within a single case (Yin, 2009, p. 50). The identification of subunits allows for a more detailed level of inquiry.

For this study, the phenomenon under investigation is the education decentralization reform in Bulgaria and the involvement of the World Bank in it. The study focuses on the design, processes, and outcomes of education decentralization in the country. Even though the subject of the research is the decentralization reform implemented in Bulgaria, the impact questions provide information about specific decentralization outcomes for the schools in the country. Therefore, the school is the unit of analysis embedded in the case study for the decentralization reform in Bulgaria. Analysis at the school level offers a better and more detailed understanding of the impact of education reform at the local level of governance. The case-study design relies on "multiple sources of evidence with data needing to converge in triangulation fashion" (Yin, 2009, p. 18). As a result, the embedded case-study method integrates quantitative and qualitative methods into a single research study.

Data are collected from a variety of sources: a review of documents, conducting interviews with the major stakeholders, and analysis of secondary

administrative data. To achieve objective and systematic results when investigating the impact research question, I employ mixed methods (qualitative and quantitative) of data collection. I use qualitative data in the first phase of the study to examine the planning and implementation phase of the education reform in Bulgaria. The qualitative data also serve to confirm the results of the quantitative analysis of administrative data that measure the impact of the decentralization reform on students' behavior.

Chapter 5: Analysis of the Qualitative Questions

The qualitative questions investigate the planning and implementation phase of the education reform in Bulgaria. For this purpose, I created a sample of elite participants in the education reform and reviewed documents about education decentralization.

Sample

For the qualitative questions, I conducted elite interviews with representatives of organizations that were involved in the school autonomy reform. The goal when the sample was drawn was to ensure that the most important and influential actors were included, and key players of the education reform were interviewed. I attempted to reach at least one representative of each organization. As a rule, "If the number of interviewed people is larger, the amount of the detail typically emerging from any one participant is less" (Creswell et al., 2007, p. 112). The usual practice is for the number of participants to be between four and ten (Creswell et al., 2007, p. 112).

Since random sampling undoubtedly would have risked excluding important participants from the sample, I applied a non-probability sampling approach as most appropriate. This sampling method has been widely used by researchers when selecting participants for interviews among political elites (Richardson, 2013, p. 182; Tansey, 2007, p. 19). I used a mixture of two criteria to identify desirable informants. Under the first criterion, in the initial research, I specified a set of positions of key elites in the education sector, based on preliminary knowledge from the document review. Researchers have often used the position of potential participants in the

interviews as a criterion for selection of the most appropriate informants (Denitch, 1972, p. 148; Rivera, Kozyreva, & Sarovskii, 2003, p. 683). Most of the potential informants for this study were publicly known and easily identifiable. I purposely selected individuals that represented all categories of stakeholders that took part or were directly affected by the school autonomy reform, and who hold different perspectives on the research topic. Elite interviews, as a rule, target people who are directly involved in the political process and who "may have special insight into the causal processes of politics and interviewing those permits in-depth exploration of specific policies and political issues" (Beamer, 2002, p. 87). The select elite for the study was composed of people with not necessarily high social or economic standing; individuals were chosen for this research because of the position they occupy (Hochschild, 2009, par. 1). The goals of the interviews were to collect in-depth information and to provide detailed views of the participants about the education reform.

Next, under the second criterion, I included informants according to the extent to which they were considered influential by their peers. In the selection process, researchers often have used this approach usually coupled with a snowball sampling (Farquharson, 2005, p. 347; Richardson, 2013, p. 182). In this study, I also used a snowball sampling method, since it was impossible to know before consulting an initial set of elites, which individuals would be viewed as having the greatest influence in the education reform in Bulgaria.[10] First, I interviewed an initial set of political actors selected by purposeful sampling based on their positions. Second, I

[10] Snowball sampling (or chain-referral sampling) is a nonprobability sampling method under which new participants in the study are recruited when current participants refer them to the researcher (e.g., as they are members of the same group or share similar interests that are relevant to the study).

started a chain-referral process by asking the participants to provide a list of people they felt were influential in the field of education. By applying this approach, I ensured that the views of influential stakeholders that could have been omitted in the initial research were not ignored.

I intended to interview the following groups of people: representatives of political actors at the macro (central) level of governance and representatives of political actors at the micro (local) level of governance. The first group included representatives of organizations at the central level of governance: the World Bank, organs of central government (the National Assembly of Republic of Bulgaria, the Ministry of Education and Science (MES), and the Ministry of Finance (MOF)), and non-profit organizations involved with education-decentralization projects (the Open Society Institute, Paideya Foundation, and America for Bulgaria Foundation). The second group consisted of representatives of organizations at the local level of governance: local governments (the National Association of Municipalities in Republic of Bulgaria), school directors (Association of Employers in Bulgarian Education and Association of School Directors in the Republic of Bulgaria) teachers' unions, (Union of Bulgarian Teachers, Teachers' Union "Education", and Independent Teachers' Union) and parents ("Parents" Association).

Instrumentation

The qualitative research instruments are document analysis and interviews with the major stakeholders involved with education decentralization reform in Bulgaria

Document Analysis

The document analysis is a systematic procedure of reviewing and evaluating documents. It includes finding, selecting, evaluating, and synthesizing data in documents (Bowen, 2009, p. 27). In this study, document analysis is used in combination with other qualitative (interviews) and quantitative (analysis of secondary data) instruments as means to triangulate the results of the study. Document analysis in conjunction with other instruments, most often interviews, has been widely used by qualitative researchers to collect relevant data (Rossman & Wilson, 1985, p. 636; Bowen, 2009, p. 28; Owen, 2014, p. 8). By examining evidence from different data sources, the study attempts to increase its validity and to reduce the size of potential bias that may have existed in a single instrument.

The document analysis provides information on the history, goals, and objectives of the education decentralization reform in Bulgaria. It also outlines the roles of major stakeholders in education as well as the context in which each participant in the reform operated. The study uses information drawn from the documents to place the data collected during interviews into a particular context. The review of documents, more specifically, the amendments to legislative acts, provides means of tracking the development of the education reform. The document analysis also assists in the preparation phase of the interview process by helping to generate interview questions.

When analyzing the documents, I primarily applied a thematic research method, a form of pattern recognition within the data, with emerging themes becoming the categories for analysis (for the use of this approach, see Fereday &

Muir-Cochrane, 2006, p. 4; Bowen, 2009, p. 32). I performed category construction to identify overarching themes that were subject to the study. For that purpose, I reviewed the following categories of documents: WB project/loan documents related to education reform in Bulgaria; bills, rules, regulations, orders, instructions, and programs originated by the Bulgarian government; and media sources that carried information on how the reform was perceived by the public and which of its key elements received more public attention. Some of the reviewed documents are only indirectly related to school autonomy, but they show how the financial decentralization of the local municipal governments was designed, and indicate how prepared the municipalities were to start implementing school decentralization.

Conducting Interviews

The interviews were the source of information about the planning, implementation and, to some extent, the impact research questions. I conducted semi-structured elite interviews with representatives/participants in education reform in Bulgaria. Elite interviews as an instrument for data collection have been used extensively by researchers, most often to conduct interviews with political elites (Denitch, 1972, p. 148; Rivera, Kozyreva, & Sarovskii, 2003, p. 683; Farquharson, 2005 p. 347; Richardson, 2013, p. 182). Semi-structured interviewing provides not only for a consistent investigation of particular topics with the interviewees but also affords flexibility to engage in conversations that reveal a deeper insight into the subject.

Before the interviews took place, I developed an interview guide as an instrument to ensure that none of the critical issues to be discussed was left out of the

conversation. The interviews included four main topics, outlined below. For each of them, I formulated a suggested opening question and a list of sub-topics. I used the guide in the following way:

Main themes: I covered all three main topics, as most of the time I followed the outlined order. The main topics were as follows:

Preparation for the reform. Under this topic, the questions were about the necessity of education reform in Bulgaria, elements of the reform, the participation of different organizations in it, and the communication between the various organizations regarding the reform.

Implementation of the reform. Under this topic, the questions were focused on the role of municipalities and school directors in the education reform. For example, the questions asked how prepared the municipalities and school directors were to start implementing the reform, and whether they received any assistance from other organizations at the central level of governance. Additional questions were about the most/least successful parts of the reform, elements of the reform that were not implemented, cooperation activities between the different organizations, an opposition of certain organizations to the reform, other obstacles to the reform, and unintended consequences of the reform.

Impact of the reform. Under this topic, the questions were about the expected increase in the quality of education due to the reform. For example, there were questions about the impact of the reform on particular groups of students, e.g., lower-income students, minority students, girls versus boys, and students in rural areas.

Another question was about the impact of the reform on students' dropout and grade-repetition rates.

Subtopics: The subtopics were suggestions, but not a compulsory list. The order of the subtopics was flexible, as whenever possible, I added subtopics related to the responses of the informant. The subtopics were not just a list of themes; they also suggested perspectives on the subjects that were discussed, e.g., changes over time, implications for the reform, and planning for future interventions.

Most of the questions were open-ended. It is advisable to avoid asking elites closed-ended questions because they do not like to be limited to a restricted set of answers, and prefer to articulate and explain their views (Aberbach & Rockman, 2002, p. 674). The interview technique in the study included three types of questions: main questions, follow-up questions, and probes. The main questions focused on the substance of the research problem. The follow-up and probe questions helped ensure that depth and detail were achieved while the informants were interviewed. Each interview was categorized by participant's name, the organization he/she works(ed) for, years worked for the organization, organization's location (central or local level of governance), and the participant's position in the administrative structure of the organization. See the Appendix for an example of the Interview Guide.

Qualitative Data Collection and Analysis

The qualitative data collection included of review of relevant documents and media sources and conduction of elite interviews with selected participants.

Document Collection

I conducted the document collection by researching the following documents: WB loan documents published on the WB website (the 2000–2004 Education Modernization Project, 2004–2006 Program Development Policy Loan, and 2006–2009 Social Sector Program Development Policy Loan); 2005–2010 minutes from the sessions of the Standing Committee on Education and Science (SCES) at the National Assembly of the Republic of Bulgaria available on the Bulgarian National Assembly of the Republic of Bulgaria website; bills, rules, regulations and instructions pertaining to the decentralization reform available on the State Journal website and the Department of Education and Science website; and media sources, mostly articles discussing decentralization reform in the country, published in the following newspapers and accessible online: "Capital", "Dnevnik," "Sega," and "Mediapool.bg."

Data triangulation from several sources (documents, interviews, and quantitative analysis of administrative data) was used to validate the findings of the qualitative phase of the study. For example, newspaper articles or legislative acts provided a supportive or contradictory evidence of the interviewees' accounts of events. I also attempted to get feedback from the participants on the accuracy of the identified categories and emerging themes.

Interviews of Selected Participants

A primary data source for the qualitative analysis were elite interviews with representatives of different government and non-government organizations who were involved or affected by education reform in Bulgaria. My goal was not to draw a

representative sample of a larger population of political figures to generalize about the full population, but to create a sample that included prominent political players who took part in decentralization reform in Bulgaria. To protect the interview participants' confidentiality and privacy, I obtained an approval of the University of Maryland Baltimore County Institutional Review Board (UMBC IRB).[11] As a result, it was possible to obtain a formal consent to conduct the interviews (and use real names with professional titles) of the following participants, who were selected by using preliminary document and media-sources analysis and recommendations of some of the interviewees:

Professor Igor Damyanov, an ex-minister of the MES, from 2003 to 2005;

Professor Daniel Valtchev, an ex-minister of the MES, from 2005 to 2009;

Dr. Tatyana Kalkanova, a representative in the 39th and 40th National Assembly of the Republic of Bulgaria, from 2001 to 2009. She was a member of the Standing Committee on Education and Science at the National Assembly of the Republic of Bulgaria. Kalkanova has worked as a consultant on several education projects at the MES, the WB, and the European Union (EU). Currently, she is Executive Director of the Center for Development of Human Resource, national agency for Erasmus + (EU Program for Education);

Krasimir Valtchev, a principal secretary of the MES from 2009 to 2017, and currently, Minister of Education and Science. During 2002–2009, he worked as a senior education expert at the MOF, actively participating in the design of the

[11] Since the interviews were intended to be conducted in normal social setting, their topic was not considered sensitive, and the subject population was over 18 years old, the research fell under the category of "exempt" review and was granted an exemption from the IRB review.

education subsidy. Valtchev was involved in the preparation activities for implementation of the unified student standard, DSBs, and distribution of funds in the education sector;

Yanka Takeva, a leader of the Union of Bulgarian Teachers since 1994;

Julian Petrov, a leader of the Teachers' Union "Education" since 2011. Petrov started working for the Union "Education" in 1991;

Nadezhda Nikolcheva, a chair of the Association of Employers in Bulgarian Education since 2014. She has previously been a chair of a committee at the Association of Employers in Bulgarian Education. Nikolcheva is also a director of one of the largest schools in Bulgaria (31st Comprehensive School "Ivan Vazov," Sofia);

Teodora Dacheva, a deputy director of the National Association of Municipalities in the Republic of Bulgaria since 1997;

Boyan Zahariev, a program director of Social Policies at the Open Society Institute, Sofia since 2007;

Nataliya Miteva, a program director of Education and Library Department, America for Bulgaria Foundation since 2011. Her related experience included work on a variety of United States Agency for International Development's programs in Washington, D.C, and Serbia. Miteva was also involved with several United Nations' projects in Bulgaria and served as a strategy expert for the promotion of the EU local development opportunities by evaluating an EU-funded program related to labor-market policies and education;

Zeni Bumbarova-Nacheva, Director of Finances of Municipalities' Department at the Ministry of Finance since 2010. She has worked for four years in the Commission for Financial Control and ten years in the National Health Insurance Fund;

Eva Borisova, co-founder and member of the Board of Directors of "Parents" Association since 2001;

Stefanka Baleva, a chair of the Association of School Directors in the Republic of Bulgaria since 2002; and

Aneliya Andreeva, a director of the National Institute for Training of School Directors from 2006 to 2013. Andreeva has had over 30 years of experience in the education sector as a teacher, assistant school director, and school director. Currently, Andreeva is director of 20th primary school "Todor Minkov," and a chair of the Association for Education Leadership.

First, I sent an official recruitment e-mail to selected informants with an invitation to participate in the interviews. I also sent an official identical recruitment letter via regular mail. After two weeks, I sent a reminder via e-mail to the individuals that did not respond to the first e-mail or letter. I could not interview representatives of the following organizations, the Independent Teachers' Union, Paideya Foundation, and the World Bank. Asparuh Tomov, a leader of the Independent Teachers' Union, refused to be interviewed. I was not able to locate Maria Donkova of Paideya Foundation and send her an invitation for an interview. Three representatives of the World Bank at the local office of the WB in Sofia, Bulgaria either did not respond to the emails or refused to be interviewed and requested their

names not be disclosed. Three WB international experts who were involved in the education reform in Bulgaria also did not respond to the invitation to be interviewed.

The interviews with the participants lasted approximately one hour and 30 minutes. The themes that were developed by analyzing the interview notes were "the findings or results that provide answers to the qualitative research questions" (Creswell & Clark, 2007, p. 132). All written interview notes were examined for either common or opposing thematic statements to help summarize the content of the data by level of governance: central or local. This method helped to analyze more thoroughly the political actors' accounts of the planning, implementation, and impact phases of the decentralization reform. This differentiation also allowed for the correct identification of contextual and organizational factors that played a role during education decentralization.

Chapter 6: Analysis of Quantitative Question

The quantitative research question investigates the effectiveness of the school education reform by measuring whether there was a change in students' behavior due to the school decentralization. More specifically, the quantitative question in the study researches the impact of the Delegated School Budgets (DSBs) on students' behavior, such as dropping out of school and repeating a grade.

Empirical Approach

One of the first components of school autonomy implemented in Bulgaria was the financial decentralization of schools. The school financial reform started with the introduction of the DSBs in 1996 as a pilot project in schools in four Bulgarian municipalities, with the intention to be implemented gradually in the rest of the municipalities. Over the course of 11 years, from 1996 to 2007, the DSBs were adopted by schools in 43 municipalities. On January 1, 2008, the DSBs became mandatory nationwide. However, schools started implementing the DSBs in the 2009–2010 school years. As of the 2008 school year, 608 out of 2,092 public municipal schools took part in the DSBs pilot. These schools adopted the DSBs in the following chronological order (number of schools in parenthesis): 1996 (60), 1999 (2), 2000 (38), 2001 (188), 2002 (68), 2003 (5), 2004 (72), 2005 (53), 2006 (38), 2007 (84). As of 2009, all municipal public schools in Bulgaria were working under the DSBs financial management.

The main idea behind the DSBs was improved efficiency in the use of school resources. Ultimately, the goal of the DSBs was to achieve a higher quality of

education by increasing the funds budgeted for school materials and additional qualification of teachers. School directors were given managerial and financial authority over the use of school resources. They prepared their budgets and could keep any previous year's surpluses. The school directors could also generate extra income by offering additional services or renting buildings and land. It was a responsibility of the school directors, along with the municipal governments, to create a funding formula for the schools' budgets and submit it for approval to the local organs of governance (Order No. 30 of the Council of Ministers of the Republic of Bulgaria, 1998, Article 3). The instructions of the central government were that the formula had to include the following elements: number of enrolled students, type of school building, size of the school building, and other local factors.

In 2004, Bulgaria was one of the European countries with the highest number of school dropouts, with a dropout rate of 21.4 percent, compared to an average student dropout rate of 14.9 percent for 30 other European countries (Eurostat, (*edat_ifse_14*, 2017).[12] To achieve efficiency in the education sector, the central government also started a process of consolidation of the school network by closing schools, a policy that may have eventually led to even more students dropping out of school. Ideally, schools that adopted DSBs were expected to keep and further increase their student bodies, since their budgets were prepared and distributed, based on a formula that took into account the number of students the schools served.

[12] Eurostat reports status (prevalence) rates of school dropouts, which typically are larger than event (incidence) rates. The status rates measure the proportion of students who had not completed high school and are not enrolled at any point in time, regardless of when they dropped out. The event rate measures the proportion of students who drop out in a single year without completing school (Thurlow, Sinclair, & Johnson, 2002).

Grade repetition occurs when students are held in the same grade for an extra year rather than being promoted to a higher grade along with their peers. In some school systems, grade repetition is a corrective measure in cases of academic failure. In other school systems, grade repetition is not allowed. Instead, all students pass automatically to the next grade and struggling students with lower academic performance receive remedial academic assistance during the summer (Brophy, 2006, p. II). Research has shown that grade repetition usually imposes costs for society and negative academic and social consequences for the repeaters (Brophy, 2006, p. II). Grade repeaters trigger additional costs for the schools as well. Schooling is most efficient if every student progresses through grades without repeating any of them. Each repeater adds a new student at that grade and subsequent grades, which translates into larger classes and the need for additional desks and supplies. In this aspect, school directors responsible for managing the school budgets were expected not to hold back students because of the expenses involved. Also, classes that include a significant number of repeaters would be more challenging to manage from a teachers' perspective.

The implementation of DSBs in Bulgaria offers an opportunity for an application of a quasi-experimental design that used an identification strategy based on exogenous variation in their adoption. The identification strategy arises from a change in the law in 2008 that stipulated the mandatory implementation of DSBs nationwide. As a result, in 2009, 2,092 schools in 221 municipalities were forced to adopt the DSBs (treatment group), while 608 schools in 43 municipalities that had taken part in the DSBs pilot and already had adopted the delegated budgets continued

to use it (control group). This strategy addresses the endogeneity problem because the timing and magnitude of the one-time change in the law are exogenous to any school-specific trends or policy changes.

Definition of Outcome Variables

The outcome variables of the model are dropout rates and grade-repetition rates that are aggregated at the school level for each year. The dropout rate is an indicator of the intermediate quality of education outcomes, especially as perceived by parents (Murnane, Willett, & Cardenas, 2006, p. 15). The students' grade-repetition rates, along with dropout rates and test scores, are considered one of the essential indicators of children's progress through the education system (Warren & Saliba, 2010, p. 1).

Dropout Rate

The annual dropout rate in each school is the percentage of students in a particular grade that is not enrolled at a school in the following year. The information management system of the MES reports event dropout rates of students who leave school in a single year without completing a grade. The definition for a school dropout used by the MES is "a student without completed final grades at the end of the current school year, or a student without an issued record for relocation to another school, or a student with an issued record for relocation to another school but not enrolled at that school during the same school year" (Nonchev, Mondon, Donkova, Milenkova, Strakova, & Ruseva, 2006, p. 14).

Event dropout rates are not a perfect measure because it is possible that students who leave school one year may return to school at later years and graduate. The annual event dropout rates compared to more frequently reported cohort dropout rates that use the ratio of graduates to enrollees, however, are more suitable for the study because they capture the timing of the dropout event before and after the change in the law. The event dropout rates also allowed for observation of differential effects by grade.

Grade-Repetition Rate

The grade-repetition rate in each school is the percentage of students that repeat the same grade. According to the law, grade repeaters are students that have failed a subject in a grade and the exams at the regular and additional remedial sessions (Rule on the Implementation of the Bill of Public Education, 1991, Article 111, (1–4)). An important caveat for this study is that after 2009 based on a change in the law, students in first through fourth grades cannot repeat grades. They automatically pass a grade but have to attend summer sessions and/or additional classes during the following school year (Rule on the Implementation of the Bill of Public Education, 1991, Article 112, (1–2)). As a result, data on repeaters are only used for students in grades fifth to twelfth for 2010–2014.

Definition of Treatment Variable

T_{treat} is a dummy variable equal to 1 if the school is forced to adopt the DSBs in 2009, and 0, if the school is not affected by the law because it had already adopted the DSBs before 2009.

$$T_{treat} = \begin{cases} 0 & \text{schools that were not affected by the policy change (control group)} \\ 1 & \text{schools affected by the policy change (treatment group)} \end{cases}$$

T_{enf} is a dummy variable equal to 1 if the year is in the mandatory enforcement period, and 0 otherwise.

1 if $2009 \leq \text{year} \leq 2014$

0 Otherwise

The effect of treatment is estimated by the interaction of T_{treat} and T_{enf} (T_{treat} X T_{enf}), which measures the change in outcomes over time for schools forced to adopt the DSBs (treatment group) over schools that had already implemented the policy change (control group).

Definition of Independent Variables

The independent variables control for factors that are thought to affect the outcome variables, dropout rates, and grade-repetition rates. The following independent variables are used:

Student-Teacher Ratio per School

The student-teacher ratio per school is the ratio of the number of students per school in each year to the total number of teachers in it in the same year. The expectation is that schools with a higher student-teacher ratio would have greater dropout and grade-repetition rates. Studies that examined the effect of class size on student behavior show that students attending schools with a higher student-teacher ratio have higher odds of dropping out (Rumberger, 1995; Rumberger & Thomas, 2000; Dustmann, Rajah, & Soest, 2003; McNeal, 1997).

Type of School

To construct the type of school variable, I used the following six categories of schools: primary (1–4 grades); primary and lower secondary combined (1–8 grades); lower secondary (5–8 grades); high school (10–12 grades); profiled schools (7–12 grades); and schools of general education (1–12 grades). The expectation, based on earlier research is that most of the dropouts and repeaters would be from lower secondary schools, high schools, and schools of general education as well as small schools in rural areas (Nonchev, Mondon, Donkova, Milenkova, Strakova, & Ruseva, 2006; Danchev, Guaqueta, Macdonald, Porta, Fasih, & Patrinos, 2010).

Teachers' Characteristics per School

The following teachers' characteristics aggregated at school level serve as proxies for quality of teaching staff: the proportion of teachers with masters' degree; the proportion of teachers with a level of professional qualification (first to fifth); and average teachers' experience per school. The expectation is that schools with greater

numbers of teachers with higher education, more experience, and higher professional qualification would be negatively correlated with the students' dropout and grade-repetition rates. Below is a summary of the three teachers' quality variables:

Percentage of Teachers with Master's Degree per School

Research has suggested that students exposed to more educated teachers are more likely to graduate (Fetler, 2001, p. 164; Koedel, 2008, p. 25). However, recent studies have shown no significant association between possession of graduate degrees by teachers and the academic achievement of their students (Rivkin, Hanushek, & Kain, 2005, p. 449; Harris & Saas, 2011, p. 799).

Percentage of Teachers with a Level of Professional Qualification (First to Fifth) per School

Studies have produced mixed results on the effect of teachers' professional development on students' academic outcomes. Authors investigating teachers' professional development on students' achievement gains in USA schools do not find any significant relationship (Jacob & Lefgren, 2001, p. 17; Harris & Sass, 2011, p. 804). Research by Angrist & Lavy, however, shows that in-service teacher training has significant positive effect on students' test scores in elementary schools in Jerusalem, Israel (Angrist & Levy, 1998, p. 11). In Bulgaria, even though there is no mandatory requirement for teachers to improve their professional development, the teachers' salaries are raised based on the level of the professional qualification they have acquired.[13]

[13] The ways teachers can improve their professional qualification are specified in a 1996 Regulation No. 5 for the Professional Qualifications of Teachers (last changed in 1999). The highest professional qualification is first, and the lowest is fifth.

Average Teaching Experience of Teachers per School

Research has been consistent in finding a positive impact of teachers' experience on student achievement (Rivkin, Hanushek, & Kain, 2005, p. 448). For example, an analysis of dropout rates in a sample of California high schools indicates that schools with the highest dropout rates also have a greater number of new teachers (Fetler, 2001, p. 164).

Dummy Variable Indicating if the School is Located in a Rural area

Based on previous research, it is expected that schools in rural areas would have higher dropout and grade-repetition rates (Danchev, Guaqueta, Maconald, Fasih, & Patrinos, 2010; Herrera-Sosa, Moreno, Kutner, Gautam, & Gortazar, 2012; Herczynski & Herbst, 2008; 2011).

Dummy Variables for Municipalities

The dummy variables for the 264 municipalities serve as a proxy for unmeasured characteristics at the municipal level that could bias the estimated effect of the treatment variable.

Empirical Model

The change in the law makes it possible to compare schools that adopted the DSBs before 2009 (control group) to schools that implemented the DSBs in 2009 (treatment group). A similar strategy is employed by Heckman, Humphries, LaFontaine, and Rodriguez (2008) to estimate the effect of General Education Development (GED) on dropout rates. Heckman et al. use an identification strategy, based on a nationally mandated change in GED passing standards, as a result of

which all states were required to meet the new higher minimum and mean score requirements. This change forced some states to raise passing standards (treatment group), while other states were not affected (control group) because they already had implemented the higher score requirements (Heckman et al., 2008, p. 4).

In the model for this study, the student's behavior measured by dropout and grade-repetition rates is estimated in the following way: there are two groups of schools indexed by treatment status T = 0, 1 where 0 indicates schools that were not affected by the policy change in 2009 because they had already adopted the DSBs, i.e., the control group, and 1 indicated schools that had to adopt DSB in 2009, i.e., the treatment group. The schools are observed in two years, t = 0, 1, where 0 indicates a year before the treatment group received treatment, i.e., pre-enforcement years 2004, 2005, 2006 and 2007 and 2008, and 1 indicates a year after the treatment group of schools was forced to adopt the DSBs, i.e., mandatory enforcement years, 2009, 2010, 2011, 2012, 2013 and 2014.

The outcome Yi is modeled by the following equation estimated with weighted least squares with enrollments per school used as weights:

Model 1

$$\log Y_{it} = g_i + g_t + \beta X_{it} + \delta\,(T_{i(treat)} x\, T_{t(enf)}) + T_{t(enf)} + \varepsilon_{it}\ ,$$

where Y is the outcome for a school i in a year t, T_{treat} is an indicator of whether the school has been forced to adopt the DSBs, and the T_{enf} is an indicator of whether the period is a mandatory enforcement period, and Xs are other control variables. The interaction term, $T_{treat}\ x\ T_{enf}$ is the effect on the schools that had to adopt the DSBs in the mandatory enforcement period. The model also includes a

separate intercept term, so-called “fixed effect,” for each schools g_i to account for the influence of any time-invariant unmeasured factors that cause some schools to have higher dropout or grate-repetition rates than other schools, and separate indicator variables for each year g_t to account for changes in the outcome variables over time that are common for all schools in the sample. The coefficients given by the letters β and δ are all unknown parameters, and εi is a random, unobserved "error" term that contains all determinants of Y_i omitted by the model.

The equation is estimated using weighted least squares to adjust for heteroscedasticity in the stochastic error term ε_i using the student enrollment per school as the weight. The standard errors are clustered at the school level to control for possible serial correlation in the error term because they allow for an arbitrary pattern of autocorrelation within schools over time. Since dropout and grade-repetition rates are bounded around zero and skewed positively, the natural log form is used. The percentage of teachers with a level of professional qualification is also transformed in the natural log form because it is bounded around zero and skewed positively. Since there were no data on the teachers’ levels of professional qualification for 2004, the rates of the teachers’ levels of professional qualification for this year are set equal to log(0.01) to account for the fact that the natural log of zero is undefined.

To allow for the possibility that the acceptance of Bulgaria into the European Union (EU) could have affected students’ behavior such as dropping out of schools or repeating a grade due to the implementation of certain laws and policies in the

education sector that are mandatory for all members of the EU, the following indicator variable is used in model 2 below:

Y_{EU} was a dummy variable equal to 1, if the year is after the acceptance of Bulgaria in the EU, and 0 otherwise.

1 if $2007 \leq \text{year} \leq 2014$

0 Otherwise

Model 2

$$\log Y_{it} = g_i + Y_{EU} + \beta X_{it} + \delta\,(T_{i(treat)} x\, T_{t(enf)}) + T_{t(enf)} + \varepsilon_{it}$$

The model equations are also re-estimated for different gender (boys and girls) and school grades' groups (1–4 grades, 5–8 grades, and 9–12 grades) to analyze if the impact of DSBs on students' behavior varied along these dimensions too.

For the analysis, the following statistical analysis package is used: Stata/SE 12.1 for Mac (64-bit Intel), Revision 23 Jan 2014.

The proposed model estimates the impact of the DSBs on students' behavior measured by dropout rates and grade-repetition rates. The change in the law in 2008 allows for comparison of schools that adopted the DSBs before 2009 (control group) to schools that implemented the DSBs in 2009 (treatment group). The inclusion in the model of several covariates at the school level, such as a type of school, location of a school, student-teacher ratio, and teachers' characteristics control for specific characteristics of the schools that could affect the outcome variables. The inclusion of school-fixed effects controls for factors that could cause some schools to have persistently higher or lower dropout or grade-repetition rates than others. The year-

fixed effects aim to control for other unmeasured factors that change over time and are common across schools. The municipality-fixed effects control for factors that are unique for municipalities and are common to all schools located in their territories.

Sample

For the quantitative research question, the units of analysis are the public municipal schools in Bulgaria. Excluded from the analysis are private schools; state public schools (for example, art schools, schools for children with special needs, and some sports schools); and evening schools for individuals 16 years old or older. Private schools are excluded because even though they were created as a result of the education reform and the transitioning of the country to a free-market economy, they did not receive public funds and, therefore, one of the major elements of reform, the implementation of the DSBs, did not apply to them. State public schools are financed from the state budget through a centralized formula, and DSBs do not affect them. Evening schools are not included because of the particular student population they serve, people over the age of 16 who have left school before graduating, and have returned to school to graduate.

Use of Secondary Administrative Data

To examine the impact of the DSBs on dropout and grade-repetition rates, I constructed school-year panel dataset using administrative data. The dataset is built on data on the number of enrolled students from 2004 to 2014, dropouts from 2004 to 2013, and repeaters from 2005 to 2014 per grade and gender in Bulgarian municipal public schools. I also added school-level measures of teachers' characteristics such as

the percentage of teachers with masters' degrees, years of teaching experience, and the percentage of teachers with a level of professional qualification (first to fifth). In addition, I included the following covariates: type of school (primary, primary and lower secondary combined, lower secondary, high, profiled, and general education school) and student-teacher ratio.

I used cross-sectional pooled data, which allow observing changes in the outcome variables over time. The data were aggregated at the school level, but there was a disaggregation by grade and sex of the students. The data were extracted from ADMIN, an information management system that collects data on all students and teachers in the country. The ADMIN was implemented in 2004 and is maintained by the Center for Access to Education Information at the Bulgarian Ministry of Education and Science. The ADMIN data have been used previously by researchers to estimate the equity impact of the school closures on students' dropout rates (Danchev et al., 2010), and to create an interview sample of students who have dropped out of school (Nonchev et al., 2006).[14]

Data for the years used in the study are collected three times in each school year, in February, September, and December. For this research, I used data gathered in February for 2004–2014 school years.[15] To these data, I added school-level measures

[14] Before requesting the data, I obtained the approval of the University of Maryland Baltimore County Institutional Review Board. Since the quantitative research involved collecting pre-existing public data aggregated at the school level and without any identifiable personal information, the research fell under the category of "exempt" review and was granted an exemption from the IRB review.

[15] The database contains information about schools, students, and teachers for all schools in Bulgaria. The necessary data elements that have to be entered in the system are specified in Article 63 and Addendum 1 of Regulation No. 4 about the Documents in the System of Public Education from 2003 issued by the Minister of Education and Science (Regulation No. 4, 2003, article 63; Addendum 1). The data are collected by the school director and verified by the local regional structures of the MES electronically. Then, the data are sent to the Center for Access to Education Information, which uses

indicating the implementation of the DSBs by the control group of schools from 1996 to 2008. To see which municipalities took part in the DSBs pilot and adopted the DSBs before 2008, I requested information on the names of the municipalities and the years they adopted the DSBs from the MES. By researching the relevant literature (club Economica 2000 & MES, 2006), it became apparent that municipalities participating in the pilot project have adopted the DSBs in different years, from 1996 to 2007. The MES provided information on the participating municipalities and the number of schools in each municipality that adopted the DSBs before 2008.

Since the study focused on school-level analysis, I also requested the names of the schools in the municipalities and the years they adopted the DSBs. The MES, however, had information only on the names of participating schools for the first four municipalities that implemented the DSBs in 1996. For the schools in the rest of the municipalities I collected information from the municipal governments via e-mails in a few cases, or by completing disclosure of public information forms (in the majority of the cases, when the e-mails were not answered in a reasonable amount of time).

When there was a discrepancy between the data provided by the MES and the municipal governments regarding the year of DSBs' implementation by the schools in their territories, then the information was requested from the school directors (five municipalities) via e-mail, phone, or by letter. For four schools in Ruse municipality, information on the year they adopted the DSBs could not be accessed because they were closed. As a result, those schools were excluded from the analysis.

---

them to verify if the organization of the school activities is in accordance with the prescribed legal requirements. The collected data serve the informational needs not only of the MES, but also the municipal governments, and other organs of educational funding, such as the Ministry of Finance.

To indicate if the schools were located in a city or a village, I created a school-level dummy variable. The data for the location of the schools (city or village) were extracted from the population registration files (Archived Annual Tables of the Population by Permanent and Current Address and by Regions, Municipalities, and Populated Places for Calendar Years 2004–2014) maintained by the Direction of Civil Registration and Administrative Services at the Ministry of Regional Development and Public Works. The files were accessible online in a text format. I used the name of the populated place in the ADMIN data files and the population registration files as a unique key for merging the school and population data.

The use of secondary administrative data is a relatively quick and low-cost method of examining the effect of school decentralization reform on students' outcomes. The advantage of using administrative data extends beyond efficiency because it encompasses all schools, which represent the whole population of the study, and could be easily divided into treatment and control groups as specified in the research model. However, secondary data typically collected by government agencies are not for research purposes, but for record keeping, and often do not include all variables that the researcher wishes to include in the model. For example, in this study, I intended to use a measure of poverty by including in the model a school-level control variable estimating the proportion of lower-income students that receive social security stipend. Unfortunately, it was not possible to construct such a variable because the Center for Access to Education Information started collecting relevant data only in the 2008 school year. Attempts to find the government agency responsible for managing and keeping such data before the 2008 school year were not

successful. Another control variable omitted from the model is the ethnicity of students, which could have been used to measure the proportion of minority students attending a given school. The Center for Access to Education Information is not allowed to collect such data, reportedly due to concerns for stigmatization of the students. Also, because of confidentiality and protection of human subjects' concerns, the provided data are aggregated at the school level, thus leading to loss of information.

As is evident, the use of administrative data allows for the construction a model that could estimate the effect of the DSBs on students' intermediate outcomes, such as dropout and grade-repetition rates. However, the model is based on administrative data collected for the needs of the government agencies managing the education sector, and thus lacks data on specific variables, such as socioeconomic status and ethnicity of students that could serve as control variables.

Chapter 7: Findings of the Qualitative Research Question—What kind of Cooperation Existed Between the World Bank (WB) and the Bulgarian Officials?

The qualitative research questions start with an analysis of the general question about the cooperation activities between the WB and the Bulgarian officials at the central and local level of governance. It is expected that after the unsuccessful implementation of 2000 Education Modernization project, the WB would attempt to interact more closely with a broad spectrum of stakeholders participating in the education sector activities, as its primary goal would be to promote a model of a decentralized education system with schools being the main autonomous units. It is also assumed that the Bank would face strong opposition from the teachers' unions, which would fight the reduction in teachers' staff, and possibly, the municipal governments, which would resist the greater autonomy of the schools.

The WB interactions with Bulgarian officials regarding activities in the education sector started at the end of the 1990s. The Bank assisted the Government of Bulgaria (GOB) in preparing a broad, ambitious program for the modernization of the education sector that was intended to be implemented in three phases over a period of nine years, from 2001 to 2010. After the failure of the first phase of the loan, the 2004 Education Modernization Project, the Bank's interactions with the GOB in the education sector continued. Under the umbrella of the Programmatic Adjustment Loans (PAL) 2 and 3 during 2004–2006, the condition for development and approval of an initial education reform strategy of the GOB was added on PAL 2 as a Board requirement for approval of the loan. Next, under the Social Sector Developmental

Policy Loans (SIR DPL) 1, 2 and 3 during 2006–2009 the education reform was implemented.

The PAL agreements were designed as adjustable loans that were provided under the condition that the GOB will start reforms in all major economic and social sectors with two primary goals: sustaining economic growth and reducing poverty by creating employment. Those goals were seen as key factors to European Union (EU) membership. Given the drive of the GOB for EU accession, the Bank saw an opportunity to push for reforms, rather than serve as "the original catalyst for change" (World Bank 2005b, p. 13). The WB envisioned its involvement not just as a mere coordinator, but also as an active participant in the preparation and supervision of each operation by a large and continuous team. The PAL program covered a broad range of topics ranging from infrastructure and financial sectors to social services, including education.

While under the PAL program of 2004–2006, there were only a few education-related triggers and some modest achievements in education, the WB and the GOB had more intense interactions concerning the education sector under the Social Sector Developmental Policy Loans (DPL) 1, 2, and 3, from 2006 to 2009. Following the completion of the PAL program and during the preparation of the Country Partnership Strategy with the Bank, the GOB requested assistance to continue supporting reforms in the social sectors. It was agreed that the DPL series would focus on these sectors exclusively, as the principal goal was proving assistance to Bulgaria in meeting the challenges associated with EU accession in the case of DPL 1 and post-accession in the case of DPL 2 and DPL 3.

All these social-sector reforms could have been implemented within Bulgaria's projected budgets for 2007–2009 and could have been self-financed with efficiency gains and grant funds available from the EU. In the budgetary area, the Bank had little leverage in a middle-income country with a fiscal surplus exceeding 3 percent per year from 2005 to 2008 (World Bank, 2009 p. 58). In addition, under DPL 2 and DPL 3, as a member of the EU, Bulgaria had outside options for borrowing. In fact, Bulgaria was the only EU member with a DPL program (World Bank, 2008b, par. 3). The WB involvement, however, seemed to be mainly necessary because of the technical support and coordination activities regarding collaboration among social-sector reforms within the GOB. As such, the focus of the WB was not only providing funding through the loans but also high-level policy advice and technical assistance in the education sector (World Bank, 2008a, p. 8).

According to loan documents originated by the WB, the SIR DPL 1 was approved because the GOB considered it politically more feasible to implement reforms in the social sectors, such as education and health, under a policy-lending program to ensure coordination of reform efforts across agencies (World Bank, 2010, p. 28). In short, the DPL loans were seen as budget support and as tools to coordinate reforms across line ministries without increasing their budget allocation. In addition, findings from the analytical work completed by the Bank were instrumental "in making GOB getting on board for a rather far-reaching education reform agenda" (World Bank, 2010, p. 29). For example, the DPL 1 preparation phase served to set up a school database on costs in education. The Ministry of Finance (MOF) and the Ministry of Education and Science (MES), in collaboration with the WB education

team, conducted projections on future education costs that convinced the GOB to implement education reforms (World Bank, 2010, p. 30). As a result, the MES took strong ownership of the education reform once it saw its education program reflected in the DPL agenda (World Bank, 2010, p. 30). In fact, Daniel Valtchev, minister of education and science at that time, was perceived as "a change maker" in the coalition of the GOB with different parties in charge of different ministries. This was especially important in the case of a coalition government, which, as a rule, makes it more difficult to move ahead with comprehensive reform.

In the case of DPL 2 and DPL 3, since education policies were considered national affairs, they could differ among members of the EU. In this aspect, the assistance provided by the WB proved to be especially influential in shaping the policy agenda in the education sector. The goal of the post-EU accession policies supported by the Bank's funding and technical assistance was to align both the outcomes and the standards of the social sector in the country with the rest of the EU. Bulgaria's EU membership changed the nature of its relationship with the WB. The expectation was that the Bank would not only provide budget support for the implementation of reforms, but would also assist the GOB to define its strategies for achieving critical reforms in the social sectors, including education, provide technical assistance, engage needed stakeholders, and establish a time frame for the reform process. The central premise was that the WB would focus on a few significant policies, while at the same time strengthen the implementation capacity of the GOB to support its strategies (World Bank, 2008a, p. 8). In addition, the Bank was willing

to assist the GOB in designing policies that could be financed from EU structural funds (World Bank, 2008a, p. 19).

According to WB documents, the DPL education program was discussed with the main stakeholders: the MES, the MOF, the members of the Standing Committee on Education and Science (SCES) at the National Assembly of the Republic of Bulgaria, the Association of Employers in Bulgarian Education, the teachers' unions, and the National Association of Municipalities in the Republic of Bulgaria (NAMRB) (World Bank, 2007, p. 60). The Bank also maintained working relationships with donor partners, such as the Open Society Institute (education decentralization) and the EU (absorption of structural funds) (World Bank, 2007b, p. 41).

Krasimir Valtchev of MES summarized the type of support provided to the GOB by the WB as methodical, analytical, and to some degree, political:

> The WB experts helped in the creation of a favorable context for implementation of the reform by removing many obstacles. In the most decisive moment, they offered the greatest support. Regarding the WB loan agreements, the need for more budgetary funds was not the leading criterion for the involvement of the Bank. There was a realization at the political level for the necessity of implementing financial decentralization in the education sector. When there was a window of opportunity, the GOB started the reform supported by the Bank (Krasimir Valtchev, MES, 01/30/2017).

As can be seen, apart from the funding for educational activities, the Bank's even greater role in the education reform was in the technical and coordination activities provided by its experts. Most of the interviewees agreed that the WB team prepared the blueprint for education decentralization in the country (Boyan Zahariev, Open Society Institute, 09/07/2016; Natalya Miteva, America for Bulgaria Foundation, 09/08/2016; Eva Borisova, "Parents" Association, 09/08/2016; Zeni Bumbarova-Nacheva, MOF, 09/07/2016; Krasimir Valtchev, MES, 01/30/2017). For

example, Nataliya Miteva of America for Bulgaria Foundation pointed out that "the World Bank was the only meaningful external factor; the EU was not influential in the education sector" (Nataliya Miteva, America for Bulgaria Foundation, 09/08/2016). In addition, Tatyana Kalkanova of the National Assembly of the Republic of Bulgaria stated that the WB was seen as a source of valuable analytical work (Tatyana Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016).

Daniel Valtchev was more reserved when describing his relationship with the WB as a minister of education and science during the reform. He claimed that the Bank offered "a working model of education decentralization, but it could not apply it because it would make the politicians that embrace the model unelectable (Daniel Valtchev, MES, 09/10/2016). Valtchev insisted that his team had good working relations with the representatives of the Bank, and the MES used the WB analysis to formulate policies (Daniel Valtchev, MES, 09/10/2016). For example, according to him, the Bank was the institution that analyzed and assisted in the implementation of the criteria of school financing, based on the principle "money follows the student." (Daniel Valtchev, MES, 09/10/2016).

According to Kalkanova of the National Assembly of the Republic of Bulgaria, the Bank was the only institution that performed a comprehensive analysis of the problems of Bulgarian education, and, in a way, it was the single think tank that focused on education analysis in Bulgaria" (Tatyana Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016). Interestingly, she emphasized the reluctance of the MES to use quantitative data. According to Kalkanova, even though

the MES had access to raw data collected by its information management system, the ministry did not make use of it because "MES did not value such data and the potential benefits of the quantitative analysis" (Tatyana Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016). In this aspect, it was apparent why the MES had to seek and utilize the analytical work done by the Bank's experts.

To Borisova of "Parents" Association, the MES was not prepared to implement reforms in the education sector because the minister and his team, who were not education experts, did not understand the relationships between the different elements of the education system. The WB's recommendations, in Borisova's view, were also not very helpful because "the World Bank asks questions, but does not offer decisions" (Eva Borisova, "Parents" Association, 09/10/2016). As a result, Borisova stated that the GOB was left alone to decide how to implement the reform, but its decisions were based on archaic models of education reform (Eva Borisova, "Parents" Association, 09/08/2016).

Dacheva of the National Association of Municipalities in the Republic of Bulgaria (NAMRB), agreed that the WB prepared an education model that was implemented in Bulgaria and provided funds and technical expertise. She, however, did not value the model offered by the WB highly, mainly because "at meetings with the WB experts, it was obvious that they did not know the context of the Bulgarian education system. However, the WB did not force its model of education reform. The GOB made the mistake of adopting it" (Teodora Dacheva, NAMRB, 02/01/2017).

Takeva of the Union of Bulgarian Teachers was the most critical when evaluating the analytical work done by the experts of the WB. "Their proposals

obstructed and did not help the education sector. Their model of education decentralization had negative consequences for the Bulgarian education, especially the process of massive closure of schools, where whole groups of children were left out of the education system" (Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016).

Zahariev of the Open Society Institute provided the most comprehensive view of the work done by the WB experts regarding the activities under the education reform. He stated that the Bank had worked intensively in the education sector in Bulgaria until 2010. According to Zahariev:

> Overall, the WB played a huge role in the reform through analysis (its templates and worksheets were essential work instruments) and expert opinion. The Bank's most important influence, however, was through expertise. The WB's model of education decentralization (e.g., the unified student standard, the categories of municipalities, and the redefined role of the local authorities as intermediaries between the GOB and the schools), along with the mechanism for the closure of schools, and the proposed criteria for defining schools as protected and regional shaped the education agenda (Boyan Zahariev, Open Society Institute, 09/07/2016).

As can be seen, the WB maintained strong working relationships with the central organs of authority, the MES, and the MOF, by providing them with analytical and coordination assistance. Even though the MES was proclaimed the change maker during the reform, the model it implemented was considered by most of the interviewees to be developed with the active guidance of experts of the WB and to be focused primarily on achieving efficiency in the education sector.

It was also apparent that decisions such as the closure of schools or limiting the authority of the municipal governments would be opposed by the teachers' unions and the local authorities. From a review of documents and interviews with

participants in the school decentralization, it is evident that representatives of the local stakeholders (teachers' unions and the Association of Municipalities in the Republic of Bulgaria) participated in the discussions for education reform. However, even though they did not approve the major efficiency activities, the WB and the GOB succeeded in adopting them. This outcome indicated that the WB had sufficient leverage to implement its model of a reformed education system and that the local stakeholders were not strong enough to influence the education-reform agenda proposed by the central authorities.

Chapter 8: Findings of the Qualitative Research Question—By Whom and How was Bulgarian Education Reform Planned and Designed?

This question starts with a brief overview of the World Bank (WB) preparation activities under the 2000 Education Modernization Project and the 2004–2006 PAL 2 and 3 loan agreements. The main focus, however, is on the planning for education decentralization under the 2006–2009 Social-Sector DPL loans. The question attempts to analyze the planning for education decentralization by highlighting a few major themes: the involvement of different agencies at the central level of governance; the preparation of policy documents originated by the WB that outlined the road for successful education reform; the planned education activities under the social-sector loan series; the involvement of other international organizations such as the International Monetary Fund (IMF) in the planning decision-making process; and the preparation agenda of the Government of Bulgaria (GOB) expressed in the creation in 2006 of the National Program for the Development of School Education, 2006–2015.

It is expected that the activities supported by the Bank would be two kinds: promotional (introducing a decentralized model of education) and supportive (providing budgetary funds and technical assistance). Given the fact that the GOB had sufficient fiscal means to accomplish the reform, the primary role that the WB was anticipated to play was providing technical assistance. It is also assumed that in the planning phases for education decentralization, a top-down approach of decision-making would be employed under which the central government would play an active

role in shaping the education decentralization agenda, whereas the local stakeholders would provide minimal, if any input, in the planning for education decentralization.

First Planning Attempts for Education Decentralization (2000–2003)

Decentralization of education was seen as consistent with the overall public-sector decentralization and the shift of the role of the central GOB "from a norm-based control to an institution-based control with local fiscal responsibility and accountability" (World Bank, 2004a p. 5). At the end of the 1990s, the GOB signed a project loan for modernization of the education sector that was to be implemented in three phases over a period of nine years, from 2000 to 2009. The total amount of the loan was planned to be $62.39 million (World Bank, 2004a, p. 30). The Bank intended to support the program with a flexible, three-phase Adaptable Program Loan (APL), rather than the complex, multi-component investment project that was originally proposed. The APL was considered more flexible and able to provide a comprehensive range of Bank resources consistent with the nature and pace of the sector-wide reform (World Bank, 2004a, p. 6).

The project's purpose was to improve the overall resource management and quality of education (teaching and learning) in Bulgarian general and higher education institutions while maintaining the existing levels of access. The project consisted of six components, of which, three were related to the area of general education. The first component focused on improvement of the quality of teaching and learning and had three distinctive sub-components, an introduction of a standards-based curriculum, creation of a student assessment and evaluation system,

and development of a system of in-service teacher training. The second component's goal was to create conditions for the efficient use of school-resource management, and also had three subcomponents, extension of the existing Delegated School Budgets (DSBs)' pilot project, strengthening the MES capacity to assist municipalities in consolidating their school networks, and establishing a new education information-management system. The third component aimed to enhance the capacity of the Ministry of Education and Science (MES) for project management and communication by establishing a Project Coordination Unit to monitor and support the MES (World Bank, 2000, pp. 48–52).

The Bank, however, later concluded that the project design was too complex and, thus, it was quite challenging for the MES, which had no prior experience in implementing WB-financed projects (World Bank, 2004, p. 4). Only phase one was designed and implemented, namely the Education Modernization Project (September 2000–March 2004) (World Bank, 2004a, p. 2). The project was the first Bank-financed education initiative in Bulgaria, which was planned to provide $14.39 million as a loan toward reforming the education system in Bulgaria after the Communist rule ended in 1989. The project's objectives with regard to the general education were as follows: strengthening the MES management and technical capacity; introducing a new education standards-curriculum and student evaluation and assessment; implementing initial training to inspectors, school directors and teachers on the newly introduced standards and curriculum; expansion of the DSBs' pilot program; and development of a methodology to support the local governments in consolidating their school networks (World Bank, 2000, p. 3). The DSBs' pilot and

the consolidation of school networks were expected to generate considerable savings. However, it was assumed that the GOB would need to make a total investment of approximately $69 million during the next years, specifically for the introduction of new curriculum and student evaluation and assessment (World Bank, 2000, p. 24).

As can be seen, education decentralization was included in the planning for modernization of Bulgarian education initiated by the WB. The Education Modernization Project contained a component of education decentralization under the provision for the creation of conditions for improving the overall resource management in primary and secondary schools ($6.13 million planned, $0.88 million actual), namely, the extension of the DSBs' pilot program. The objectives of the subcomponent were to create and develop a decentralized management of fiscal resources in the schools and to establish their financial independence. The project's goal was that 30 municipalities, in addition to the original 24 under the Poland and Hungary Assistance for Reconstruction of Economy (PHARE) program, would implement the DSBs. In fact, the Bank claimed that the experience from the EU-PHARE project was incorporated into the design of the project (World Bank, 2004a, p. 4).

From a review of the planning activities under the project is evident that the Education Modernization Project was only concentrated on the education sector. It did not plan to involve any other agencies at the central or local levels of governance that could have been affected by the education activities in the project (e.g., the Ministry of Finance, the Ministry of Economics, or the Ministry of Labor). The overall management responsibility for the project was to be held by the minister of

education and science, and the responsibilities for the different components were to be held by designated managers who worked at the MES. The major coordination body, the Project Coordination Unit, was envisioned not as an external body, but as a part of the MES, and under the direct control of the minister of education and science (World Bank, 2000, p. 26). Except for the WB's supervision, no external body's oversight was planned to control the implementation activities of the MES.

Given the intensive work that the MES had to perform to modernize the education system, based on the activities outlined in the project document, it seemed that as an implementing agency it was not prepared to start any major reform in the education sector. For example, the MES did not have any program or strategy document outlining its vision for a reformed education system that could be distributed to the public or other stakeholders. There was no a comprehensive plan on how the legislative basis would be amended to incorporate the intended changes as well. The Bank itself rated the overall project as substantially risky. The perceived threats to the implementation of the project were as follows: opposition of key stakeholders, weak MES-implementation capacity, insufficient government funds, and the absence of incentives to encourage local governments to participate in the DSBs' pilot and the school consolidation program (World Bank, 2000, pp. 28–29).

The World Bank continued to support education through Programmatic Adjustment Loans (PAL) 2 and 3 during 2004–2006. PAL 2 (March 2004–June 2005; $150 million) and DPL 3 (March 2005–June 2006; $150 million) were designed as adjustable loans (World Bank, 2006a, p. 3). Funds disbursed under the proposed PAL 2 and PAL 3 loans were released against satisfactory progress in the reforms outlined

in the loans (World Bank, 2006a, p. 44). The GOB intended to use the loan proceeds for servicing the country's foreign currency debt. In the education sector, the loans focused on ensuring the equal access to education for children from lower-income families and ethnic minorities and the integration of disadvantaged groups (particularly Roma children) into primary and secondary education. The planned activities under the project were as follows: provision of free textbooks to all primary-school children, introducing school feeding in primary schools, and providing transportation to enable children from remote rural areas to attend school (World Bank, 2006a, p.14; p. 24) (Table 2).

Table 2. Prior Actions in Education: PAL 2 and 3 Loan Series

Loan	No.	List of prior actions (triggers) under PAL 2 and 3
PAL 2	1	The Council for Economic Policy approved a concept for the education-reform strategy together with an action plan.
	2	The GOB introduced changes in financing the education responsibilities delegated to the municipal governments. The reform involved moving from funding for inputs to funding based on a number of students.
	3	The GOB began to develop measures for evaluating quality in Bulgarian education, at the system, school, and student levels.
	4	The GOB introduced an obligatory pre-primary school year to improve access to education of minority children and to help in the preparation of children for primary school.
	5	The GOB approved an action plan for protection against discrimination against minorities in the education system.
	6	The GOB aligned the MES legislation for placement of children in residential care with the Child Protection Act.
	7	The GOB approved a plan for integration of children with special educational needs into the mainstream school system and for a reduction in the number of children in MES' managed institutions.
PAL 3	1	The GOB adopted an updated a strategy and action plan that supports desegregation of schools to enable children of minority groups to attend better schools.
	2	The GOB earmarked funds in the 2005 budget and established Educational Integration of Ethnic Minorities Children and Pupils Fund to channel funds to government and non-government programs supporting educational integration, with the primary focus on the desegregation of Roma schools.
	3	The GOB introduced changes to the children-allowance program to provide incentives for increasing school attendance among children from low-income families by making the monthly child allowance conditional on school attendance for all school-age children.
	4	The GOB introduced an additional cash allowance at the beginning of the school year to enable low-income children in the first grade to purchase educational materials.

Loan	No.	List of prior actions (triggers) under PAL 2 and 3
	5	The GOB adopted a program to provide free textbooks to all children in primary schools, to introduce school feeding, and to provide transportation to children in remote rural areas.

Sources: The World Bank (2004c). Bulgaria–Second Programmatic Adjustment Loan Project.
The World Bank. (2005c). Bulgaria–Third Programmatic Adjustment Loan Project.

To continue to upgrade the education system, the GOB also aimed at a gradual increase in the share of public resources devoted to education, from 4.1 percent of Gross Domestic Product (GDP) in 2002 to levels of expenditures closer to those in the Organization for Economic Cooperation and Development (OECD) countries (5.6 percent of GDP) (World Bank, 2006a, p. 42).

The design of the PAL program was complex and multi-sectorial. Across the three-year program, there were 31 triggers, and the number of benchmarks went from 162 in the PAL 1 Program Document up to 244 in the PAL 2 Program Document, and down to 234 in the PAL 3 Program Document (World Bank, 2006a, p. 32). In each loan of the PAL series, the most important actions completed were either board conditions or triggers for the next PALs (World Bank, 2006a, p. 33). The education-related activities under the three PAL agreements, however, were not a part of a comprehensive plan for education decentralization. In fact, the education activities, overall, were minimal and consisted of about 11 percent of all activities under the loans (World Bank, 2006a, p. 1)

Planning for Education Decentralization Reform (2006–2009)

The education decentralization reform was designed and implemented under the social-sector DPL 1, 2, and 3 loan series. They were provided to assist the country in meeting some of the challenges associated with EU accession in the case of DPL 1

(May 2006–June 2007), and post-accession in the case of DPL 2 (September 2007–March 2009) and DPL 3 (January 2009–June 2009), for a total of $499 million (World Bank, 2007, p. 40). Education activities under the social-sector DPL series accounted for about 40 percent of the total funded activities (World Bank, 2010, pp. i–v).

Education reform was one of the priorities of the Bank under the DPL loans. Within short time frames, the GOB had to accomplish numerous tasks to make the education sector more efficient. Prior actions had to be met before negotiations for each DPL to be released. The Bank's average time for preparing the DPLs from concept-note review to Board approval was 12.23 months. It ranged from 6.2 months for DPL 3 to 18 months for DPL 2 (World Bank, 2010, p. 6), as there was a substantial time overlap from DPL 2 to DPL 3 (Table 3).

Table 3. Amount, Concept, Release Dates, and Time of the SIR DPL 1, 2, and 3 Loan Series

DPL No.	Amount (US$ million)	Concept-Note Date	Release Date	Release	Time (months)
DPL 1	$153.2	05/31/2006	06/15/2007	Regular	12.5
DPL 2	$137.6	09/17/2007	03/16/2009	Regular	18.0
DPL 3	$208.4	01/22/2009	06/05/2009	Regular	6.2
Total	$499.20				12.23

Source: The World Bank. (2010). Bulgaria—First, Second and Third Social Sectors Institutional Reform Development Policy Loan Projects.

The previous PAL program covered a broad range of topics, ranging from infrastructure and financial sectors to social services. Following completion of the PAL program and during the preparation of the Country Partnership Strategy (CPS), the GOB and the World Bank agreed that the DPL series would focus on the social

sectors (education and health) exclusively, where reforms lagged behind those in the other public sectors (Word Bank, 2006b, par. 5; World Bank, 2010, p. 30). As a lesson learned from the failure of the 2000 Education Modernization project, the essential elements that were missing in the initial push for reform were present in the plan for reform. For example, there was external control over the implementation activities, with several organs at the central level of government involved. In addition to the WB, another influential international organization, the IMF, participated in setting the agenda in the education sector as well. Furthermore, the WB team prepared a number of technical documents to support the interventions in the education sector, the recommendations in which were turned into specific implementation activities with the primary goal to make the education sector more efficient. Finally, the creation of a program for development of education by the GOB finalized the agenda for the education reform.

Agencies Involved with the Planning and Implementation of Activities under SS DPL Loans 1, 2, and 3 at the Central Level of Governance

During the planning and implementation phases of the loan agreements, the GOB was represented at the operational decision-making level by the Council for Economic Policy under the Council of Ministers, with the representation of all the ministries involved with the reform, including the MES. The Council for Economic Policy was created with Ordinance 58/2002 of the Council of Ministers. It was authorized to formulate policies for country economic strategies and coordinate the actions of line ministries regarding the economic policy and donor operations. The Council of Economic Policy also monitored the implementation of all projects with international financing, including all GOB commitments to the WB and the IMF as

well as other international financial institutions (World Bank, 2010, p. 45). It reviewed and approved on a regular basis the WB portfolio including the DPL program. The final decisions for the DPL program were taken by the Council of Ministers, as the National Assembly of the Republic of Bulgaria ratified the loan agreements.

The program was coordinated and managed by the Directorate for European Integration and Relations with the International Financial Institutions at the Council of Ministers of the Republic of Bulgaria, acting both as an intermediary between the GOB and the Bank, and between the line ministries, and the agencies and the GOB itself. More specifically, the Directorate was responsible for monitoring and controlling of the implementation of the DPL agenda, respectively, and for assessing the ministries' progress in fulfilling the obligations set in the loan agreements.

The financial conditions of the loans were negotiated by the Ministry of Finance (MOF) upon appropriate authorization by the Council of Ministers and the National Assembly of the Republic of Bulgaria. The MOF was also in charge of the loan planning, disbursement, and servicing as well as of the financial management of the respective loan accounts. The line ministries, Ministry of Labor and Social Policy, Ministry of Health, MES, and National Health Insurance Fund, participated in all stages of planning and implementation of the appropriate for their domain measures in the three loan series (World Bank, 2010, pp. 45–46).

WB Policy Documents Modeling the Education Decentralization Reform

As part of the preparation activities for the DPL 1, the Bank team prepared policy notes on education providing overview of the sector, pointing out the main

problems, and identifying the key areas where the Bank intervention would be needed. When discussed in the media, more specifically, in an article by Julian Petrov, an education expert, who has worked on a number of projects in Bulgaria and other countries, some of the WB reports' advantages were highlighted. More specifically, according to the author, the Bank correctly outlined the weaknesses of the Bulgarian education system. However, the article criticized the WB proposals for changes of the education system because, it claimed that they were based on flawed premises for reforms in education in accordance with non-existent EU standards (Petrov, 2006, par. 5). Another critique was that "the WB makes some misleading recommendations," such as the consolidation of the school network by closing schools, ending the practice of early selection of students in profiled schools, and improving the lower qualification of the teachers (Petrov, 2006, pars. 8–16). Overall, according to Petrov, the WB recommendations were "a rather stimulating reading and the best critical summary of the education system published so far" (Petrov, 2006, par. 19). As can be seen, the article precisely underscored the recommendations of the Bank that were most disputed and opposed during the implementation of the reform in the years to come.

The report discussed in Petrov's article was a 2005 WB policy note titled "*Bulgaria—Education and Skills for the Knowledge Economy,"* which presented a blueprint for a successful decentralization reform. For the first time, the WB recommended as a policy option a move toward school decentralization and the creation of a link between decentralized school management and student outcomes. For example, the Bank proposed mechanisms for improved education quality and

equity to be implemented in select municipalities (World Bank, 2005a, p. 3). More specifically, the WB recommended setting different types of targets directed at the improved quality of education (using existing indicators, such as dropout rates and PISA scores), greater participation, completion, and transition between basic and secondary education, with a focus on outcomes among disadvantaged groups, and consolidation of schools. Next, the Bank proposed signing performance contracts with all or a portion of the municipalities (10 percent) participating in the DSBs pilot (World Bank, 2005a, p. 5; p. 19).[16]

Most of the WB policy notes, however, focused on the most disputed and publicly opposed recommendations, such as achieving greater efficiencies in the education sector by closing schools and reducing school personnel. For example, as part of the preparation of the DPL1, the WB education team worked closely with the MES and the MOF in compiling a school-level expenditure database and investigating the drivers of the costs of education. As a result, the WB researchers prepared an analytical note on teacher and non-teacher compensation and maintenance costs in a chapter for the 2006 Public Finance Policy Review estimating the impact of the education reforms (World Bank, 2007b, p. 43).

The Bank's experts provided preliminary projections of the possible costs and savings of moving municipal schools in Bulgaria to a per-capita financing scheme. The estimates were used by the Bulgarian government to predict savings that could be achieved by the reform. The savings were intended to finance education quality and efficiency improvements (e.g., renovation of regional schools to accommodate the

[16] Such contracts, however, were never signed with the municipal governments that implemented the DSBs.

larger number of students transferred from closed schools) (World Bank, 2007, p.14). The WB presented different scenarios for the future development of education expenditures, depending on the implementation of the reform.[17]

According to the Bank's estimates, the school-level data showed that 794 schools or about 30 percent of all municipal schools, operated at student-teacher ratios below 11. If schools were consolidated to 400, operating at ratios just above 11, this could yield savings of over BGN 80 million ($60 million) per year.[18] [19] In addition, a parallel reduction of non-teaching staff by 30 percent (7,000 people) could yield additional savings of about BGN 20 million ($15 million). The demographic dividend grows per year, since the school-age population shrinks every year, and, in 2009, was estimated at about BGN 60 million ($45 million). The cost of mitigating measures was estimated at BGN 35 million ($26 million) annually.

The Bank and the GOB agreed that total education spending would be retained at the baseline (World Bank, 2007b, pp. 55–57).[20] The WB recommended that expenditures on education should fluctuate between 4.2 and 4.4 percent of GDP (World Bank, 2007b, p. 14). This advisement contradicted the Bank's previous guidance under the PAL agreements that Bulgaria should increase education spending

[17] The WB scenarios assumed that the total savings and costs were as follows: efficiency gains (estimated when setting the initial funding rates and resulting from consolidating schools and reducing non-teaching staff); "demographic dividend" (the savings associated with the fact that the student population is declining); and expenditures on mitigating measures.

[18] BGN levas is the national currency.

[19] All conversions into USA currency were calculated by using the conversion rate as of 01/01/2008.

[20] The three possible scenarios that the Bank considered were as follows: base scenario, where education spending grows at the rate of the GDP; MOF proposal, where spending as percentage of GDP goes down if there is a full transition to the per-capita funding rates, and "losing" schools are compensated for two years; and the MOF proposal without unaccounted administrative expenses, under which additional savings would be achieved by cutting all currently unallocated administrative expenditures (World Bank, 2007, pp. 55–57).

and reach about 5 percent of the GDP in accordance with spending for education in the rest of the EU countries. As a result, the education-sectorial spending as a percentage of GDP was agreed to decrease in 2006, and remain constant after that. However, the WB stated that due to the high projected GDP growth, expenditures on education were expected to increase by about BGN 180–250 million per year ($134–187 million per year) (World Bank, 2007, p. 53). Most of the Bank policy recommendations were turned into planned activities under the 2006–2009 DPL loan agreements.

Planned Activities in the Education Sector under DPL Loan Agreements

The DPL series focused on fewer actions than PAL series and insisted on a flexible approach to adjust to the changing environment. The need for flexibility was incorporated in the project design, which, according to documents originated by the Bank, relied heavily on the GOB strategies and programs. "The DPL series contribution to the GOB program laid in the provision of concrete action plans in the education sector together with technical assistance and specific monitoring indicators of progress. The DPL series are helping to transform ideas into actions within a time frame" (World Bank, 2007b, p. 45). Each DPL contained prior actions in education, which were all to be met before release (Table 4).

Table 4. Prior Actions in Education: SIR DPL 1, 2, and 3 Loan Series

Loan	No.	List of prior actions (triggers) under DPL 1, 2, and 3
DPL 1	1	The GOB approved the 2007–2009 program of activities to be implemented by the Center for Assessment of Quality of Education (CKOKO), and CKOKO implemented a pilot-sample national assessment of student performance in seventh grade.
	2	The GOB approved an action plan for the implementation of the National Strategy for the Introduction of Information Technologies in Bulgarian Schools and started to implement such action plan.

Loan	No.	List of prior actions (triggers) under DPL 1, 2, and 3
	3	The GOB approved a new financing formula ("unified student standard") for allocating funds to municipalities based on the number of enrolled students and a plan for a phased introduction of the new financing formula.
	4	The GOB approved a package of measures and incentives to support the introduction of the unified standard of school financing.
DPL 2	1	The GOB took part in international assessment tests such as PISA 2006, PIRLS 2006, and TIMSS 2007; it administered sample testing of Matura (national secondary school-leaving certification test) in Bulgarian language and literature, math, and foreign languages, new national placement tests for seventh graders, and a new census-based test for fourth graders.
	2	The GOB trained 50 percent of school directors through the newly created National Institute for Training of School Directors.
	3	The GOB maintained the unified student standard and DSBs as national policy.
	4	The GOB approved a package of measures and incentives to support the continued implementation of unified student standard and school consolidation.
DPL 3	1	The GOB implemented, at the national level, the Matura examination in all subjects.
	2	The GOB strengthened school-based management by providing school directors with increased authority over school budgeting, teachers' workload and salaries, and school staffing for the 2009 budget year.
	3	The GOB maintained the package of measures and incentives to support the implementation of the unified student standard and closed down, and transferred state schools to municipalities.

Source: The World Bank. (2010). Bulgaria—First, Second and third Social Sectors Institutional Reform Development Policy Loan Project.

The triggers were defined in broad terms to allow the GOB to modify its agenda and to allow for more time to determine specific actions, especially after the acceptance of the country in the EU. The Bank anticipated that changes would be triggered by demands from the teachers' unions for salary increases as well as opposition from the municipal governments that would resist the loss of resources for education (World Bank, 2008a, p. 28).

The triggers were accompanied by actions to mitigate the impact of the changes in education financing on access to education and improve the institutional capacity in the education sector. The initial mitigating measures envisioned by the WB were also set in general terms. They ranged from involving all parties in the coalition through work with their representatives in the GOB and devising mitigation

measures to counteract the potential negative impact of the change in the education financial formula to building a relationship with the EU teams supervising Bulgaria's early EU-membership process. The Bank also recommended using other Bank's instruments, such as investment loans and grants to build capacity at the MES as well as increasing the Bank's surveillance once the IMF moves from monitoring to surveillance (World Bank, 2007b, p. 4).

It seemed that the final goal of the education reform was the implementation of school-based management (SBM) and greater independence of the schools. At the same time, the Bank focused on building institutional capacity for completion of the reform by creating the National Institute for Training of School Directors and the CKOKO as an institution that would set up and implement students' assessment tests nationwide. It was not clear, however, how the GOB would build a link between the academic assessments and the envisioned greater independence of the schools, which would ultimately have made schools more competitive and accountable to students and parents. In addition, the role of the municipal governments was not defined, which would, undoubtedly, have led to their reluctance to start implementing decentralization education reform.

Involvement of the International Monetary Fund (IMF) in Setting the Education Reform Agenda

The difference in the advisement of the Bank expressed in earlier loan agreements regarding the future funds budgeted for education as a percentage of GDP could be partially explained by the fact that the Bank was not the only international financial institution that influenced the political agenda in the country. The IMF had been supporting Bulgaria in maintaining macroeconomic stability by providing two

types of lending instruments: a three-year Extended Fund Facility Arrangement and two, two-year Stand-By Arrangements (International Monetary Fund, 2006, p. 53).

The consensus was that the Bank had the leading role in the structural aspects of the reforms, while the IMF had the lead in the macroeconomic, typically fiscal, aspects of the reforms (International Monetary Fund, 2006, p. 53). In the education sector, this meant, according to the Board, that "the Bank had taken the lead, and its analysis and policy recommendations served as inputs into the IMF's policy advice on the fiscal aspects of education reform" (International Monetary Fund, 2006, p. 57). In 2004, the IMF approved a 25-month, $100 million Stand-By Arrangement of a precautionary nature, which was reviewed every year (International Monetary Fund, 2006, p. 6). Its goal was to achieve sustainable high growth through continued tight fiscal policy and structural reforms. One of the related structural benchmarks included in the proposed by the WB DPL program pertained to the submission of an education-sector reform strategy to the National Assembly of the Republic of Bulgaria and reduction in the number of redundant teaching positions. In its third annual review, the IMF "encouraged the authorities to make headway in these difficult areas—with the assistance of the World Bank—following years of disappointing progress" (International Monetary Fund, 2006, p. 14).

The pressure from the IMF regarding achieved efficiencies in the education sector was reported by Daniel Valtchev, the minister of education and science at that time. He explicitly stated during discussions with members of the Standing Committee on Education and Science (SCES) at the National Assembly of the Republic of Bulgaria in 2005 that the IMF had insisted on the consolidation of the

school network by closing more schools. As Valtchev pointed out, initially, the MES's budget forecast for 2006 was for 4.90–4.98 percent of the GDP, including funds for special programs such as free transportation for students from closed schools, free meals, and free textbooks for students in primary schools. In this aspect, the MES was planning to come close to the recommended in the PAL 3, 5.60–5.70 percent of the GDP dedicated to education (SCES, Minutes, 09/01/2005, p. 4).

However, the allocated funds for education in the approved consolidated budget for 2006 comprised 4.16 percent of the GDP, a level lower than that of 2002 (SCES, Minutes, 11/09/2005, p. 2). The GOB pinpointed two main reasons for the decrease in the education funds: the financial arrangements associated with the integration of the country into the EU and the fiscal discipline that the government was attempting to achieve by introducing a balanced budget plan for 2006 (SCES, Minutes, 11/09/2005, p. 2).

It is evident that decentralization was not considered a priority when actors at the central level were setting the agenda for education reform under the social-sector DPL loan series. Upon recalling the planning for education reform, Aneliya Andreeva, the first director of the National Institute for Training of School Directors, also confirmed that the idea of education decentralization was met with open resistance by the organs of the central government (Aneliya Andreeva, National Institute for Training of School Directors, 02/10/17).

MES National Program for the Development of School Education 2006–2015

Regardless of the reluctance of the central authorities to start implementing education decentralization, a plan for it was included in the National Program for the

Development of School Education 2006–2015, (the Program). The Program was prepared by the new Government, which won the Parliamentary elections in June 2005. The mandate for its formulation was built legislatively, and the Program was approved by the National Assembly of the Republic of Bulgaria in mid-2006. It was decided that by October of each year the MES had to report to the National Assembly of the Republic of Bulgaria what has been accomplished in the education sector the previous year and what was planned to be achieved the next year.

According to Kalkanova of the National Assembly of the Republic of Bulgaria, the government presented a carefully designed program to the National Assembly of the Republic of Bulgaria in 2006, which served as a blueprint for implementing the reform. She pointed out that the initiative came entirely from the GOB and, more specifically, from the minister of education and science, Daniel Valtchev and his team. Kalkanova confirmed that until then the reform was delayed but the political will of the executive branch and the support of the National Assembly of the Republic of Bulgaria made the reform possible (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016).

It remains unclear if other stakeholders influenced the development of the Program, especially stakeholders at the local level of governance. The municipalities, according to Kalkanova, were against the reforms in Bulgarian education including decentralization, and the primary reason was that the local authorities did not have the capacity to manage the education sector. The deputy mayors were in charge of the schools solely as properties of the municipality. The regional inspectorates of education, which represented the central government at the local level of governance,

however, were responsible for the implementation of the national education policies at the local level (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016). Krasimir Valtchev of the MES and Aneliya Andreeva of the National Institute for Training of School Directors, however, pointed out that the municipalities insisted on a financial decentralization at the municipal level, with the municipal governments solely in charge of the education subsidy (Krasimir Valtchev, MES, 01/30/2017; Aneliya Andreeva, National Institute for Training of School Directors, 02/10/2017).

The Program was the first document at the national level that defined the parameters of education decentralization in Bulgaria: financial decentralization and decentralization of authority. Decentralization was envisioned predominantly at the school level, with an active participation and civil control by parents and teachers. The financial decentralization consisted of the implementation of DSBs at the school level nationwide. The school directors were seen as managers that would have authority to prepare, approve school budgets, choose school staff, and be more flexible regarding the number of teachers they hire and the teachers' workload (National Program for the Development of School Education 2006–2015, 2006, pp. 30–32).

According to the Program, the school directors were to be accountable to the local authorities and the parents. It planned the implementation in the school year 2006–2007 of a pilot project in 10 municipalities in which decisions for appointing/firing of directors would be taken by the local authorities and the parents, who would be members of a new school organ, the school advisory board. It was

envisioned that if the pilot were successful, the new system for appointment/firing of school directors would be implemented nationwide.

However, it was not clear from the Program who would be in charge of making the final decision for appointment/firing the school directors (National Program for the Development of School Education 2006–2015, 2006, pp. 31–32). Interestingly, interviewees expressed different opinions about the idea of accountability of school directors to the municipal governments. Kalkanova of the National Assembly of the Republic of Bulgaria supported the appointment/firing of school directors by the local governments. She claimed that the original idea of the pilot project for the local accountability of school directors was that the school director had to be appointed/fired by representatives of the parents, teachers' unions, and the municipal governments (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016). Daniel Valtchev of MES, on the contrary, insisted that such a proposition was never discussed since the municipalities had long been considered as not capable of being impartial from local political influence (Daniel Valtchev, MES, 09/10/2016).

A review of the minutes of 2006 sessions of the Standing Committee on Education and Science at the 40th National Assembly of the Republic of Bulgaria reveals that the draft of the Program emphasized that the decisions for appointment/firing of school directors should be taken by representatives of the parents, teachers, municipal government, and the regional inspectorate of education in each municipality. The representatives of the locality were envisioned to play a decisive role, and the minister of education and science and the director of the

regional inspectorates of education would only be responsible for the final confirmation of the decisions. However, this proposition was opposed by the National Assembly of the Republic of Bulgaria, with the main argument being that municipalities were not well prepared to make such decisions (SCES, Minutes, 05/17/2006, p. 12). The final version of the Program that was approved by the National Assembly of the Republic of Bulgaria replaced the word "decisive" with "important," when defining the role of the local stakeholders in the process of appointment/firing of school directors. In this way, the ambiguity in the process of selection of school directors under the pilot project was reinforced (SCES, Minutes, 05/31/2006, p. 4).

Concerning the school directors, the following additional measures were also to be taken as planned in the Program: unlimited mandate of the directors' positions and mandatory evaluation of the school directors (National Program for the Development of School Education 2006–2015, 2006, pp. 33–34). Daniel Valtchev, as minister of education and science at that time, supported the idea that the position of the directors should be mandated. According to him, the teachers' unions and the teachers themselves also supported it but the school directors rejected it. This measure was never approved because, according to Daniel Valtchev, it was rejected by the majority of the representatives in the National Assembly of the Republic of Bulgaria (Daniel Valtchev, MES, 09/10/2016).

Another measure that was intended to be implemented was the establishment of the National Institute for Training of the School Directors in 2007 (National Program for the Development of School Education 2006–2015, 2006., p. 34). Its

primary goal was to prepare candidates for school directors' positions and to train the existing school directors to work with DSBs and EU funds.

The parents' involvement was seen in their greater participation in the school board, more specifically, in taking an active role in the preparation of the school budget and the program for development of the school, the appointment/firing of school directors, and the selection of school staff. The goal was for every school to have an active school board with real and effective authority regarding school finances and management. Another planned form of parents' control over the school management was the parents' participation in the school advisory board. It was intended to include representatives of parents, teachers, and municipal governments who would act as collective organs of school management (National Program for the Development of School Education 2006–2015, 2006, p. 33).

At the local level, municipal governments were seen as responsible for the appointment/firing of school directors, along with representatives of the parents and teachers participating in the school advisory board. The local authorities were to open/close schools since they were familiar with the local specifics and needs. With regard to the financing of schools, the local governments were intended to act primarily as organs coordinating funding. However, since they were familiar with the schools in their territories and the differences among them, it was planned that the municipal governments could keep some of the education subsidies. The expectation was that the municipal government would redistribute the part of the subsidy they retain among schools in their territories to compensate for inequities among them

(National Program for the Development of School Education 2006–2015, 2006, pp. 31–32).

The Program also contained a plan for consolidation of the school network. It was based on the following strategy: consolidating the school network would be achieved via a funding formula that would allocate funds to municipalities by a unified standard per student for both salary and non-salary expenditures (National Program for the Development of School Education 2006–2015, 2006, pp. 28–30). Mitigating measures to reduce the number of dropouts resulting from school consolidation were also included in the program. They focused on the provision of free textbooks and free lunches for students in primary education and continuation of the provision of free transportation to students (National Program for the Development of School Education 2006–2015, 2006, pp. 22–23).

In its policy notes from 2007, the Bank also envisioned the Bulgarian schools as self-managing institutions. It prescribed three detailed steps for the successful transformation of the education system. They were as follows: the introduction of a unified standard per student, adoption of the DSBs to all municipalities and establishing SBM. The experts of the Bank insisted that all three elements needed to be implemented entirely to achieve the full effects of greater autonomy. Ultimately, the goal was expanding the decision-making at the school level and freedom of resource use by the school directors carried out by relaxing the regulations about school size and teachers' workload (World Bank, 2007a, p. 83–85). The minister of education and science at that time, Daniel Valchev, shared the same view at discussions with members of the Standing Committee for Education and Science at

the National Assembly of the Republic of Bulgaria. He stated that "The new model of school funding would not be complete if all of the following three elements are not implemented: the unified student standard, DSBs and gradual deregulation of other parameters in the system" (Daniel Valtchev, SCES Minutes, 10/17/2007, p. 1).

The National Program for the Development of the School Education, 2006–2015 received coverage in the media too. For example, in a 2006 article in Capital newspaper, education experts expressed opinions about the education decentralization. They raised concerns about the readiness of the municipal governments to start education decentralization, the accountability of the school director, and the local control over school budgets' expenditures (Capital, 2006, par. 6). Another critique of the Program was that there were no established time frames for accomplishing its primary goals and an overall lack of concrete actions (Capital, 2006, par. 6). Julian Petrov in a 2006 article published in "Dnevnik" newspaper claimed that the Program "looks more like a diagnosis than a program" (Petrov, Dnevnik, 2006, par. 17). The author pointed out that there were many missing elements in it. For example, the decentralization of authority was only briefly mentioned, the role of the school directors was not clarified, and the Program was not publicly discussed before it was approved (Petrov, Dnevnik, 2006; pars. 17–18; par. 27). Another article by Maria Donkova of Paideya Foundation published in "Dnevnik" newspaper, doubted if the Program was simply "a program document not guaranteed with any resources or a part of the PR of the new government" (Donkova, Dnevnik, 2007, par. 25). However, the majority of the articles agreed that the

Program was the first long-term strategy for reform in education built on relatively broad public consensus (Capital, 2006, par. 7)

Regarding education decentralization, it seems that the Program did not develop a detailed model for the adoption of DSBs, which would have led to slowing down the effective implementation of the DSBs nationwide. Such a lack of systematic approach was evident when looking at one of the dilemmas present in the Program: whether to follow the national standards of financing universally across all schools or to allow the local authorities to define their own rules of financing based on the specifics of the schools located in their territories. The inclusion of such detail in the model described in the Program would have been particularly necessary for its successful implementation because as seen in the implementation phase of the reform, the mechanism of DSBs based solely on the unified national standard of financing harmed small schools and, eventually, led to their closure.

There was also vagueness in the Program regarding the legally undetermined status of the school director, who was seen formally as a managing organ of the school but did not have the necessary authority to manage. Such an opinion was also shared by Eva Borisova, of "Parents" Association, who stated that even though the MES as a central organ of government appointed the school directors and insisted on keeping this authority, the municipal governments were the owners of the schools. As a result, it was not clear who was responsible for the education at the local level (Eva Borisova, "Parents" Association, 09/08/2016).

It also seemed logical that clarification and revision of legal contradictions in the laws regulating the Bulgarian education sector should have been the necessary

condition for the successful education decentralization. In this aspect, the formulation of a comprehensive regulatory framework dealing with the financing of education, ownership of schools, management of school property, status of the school as an autonomous entity, and position of the school director as the school organ of authority would have been the precursor for the successful implementation of the school-decentralization reform.

As can be seen, the planning for education decentralization was done at the central level of governance with the active participation of international organizations such as the WB and the IMF. Even though the GOB had sufficient budgetary funds at its disposal, greater emphasis was placed on efficiency measures, such as the closure of schools, which were supported by both the IMF and the WB. In fact, education decentralization was seen as the primary tool to accomplish the school consolidation process. As a result, the long-expected increase in education funds as a percent of GDP was never achieved, mainly due to pressure from the IMF to consolidate the school system.

The GOB also did not have plans to link the academic outcomes with decentralization activities, thus making schools more accountable, a necessary condition for a successful reform. The only attempt to include outcome measures in the plan for decentralization by introducing performance contracts with 10 percent of the schools that adopted the DSBs before 2008 was briefly outlined by the WB in one of its policy notes but it was never implemented (for more details, see the 2005 WB policy note titled *"Bulgaria—Education and Skills for the Knowledge Economy*"). Undoubtedly, the most significant success of the GOB was the creation of the

National Program for the Development of School Education 2006–2015, which for the first time outlined the model of school decentralization with its two essential elements: financial decentralization and decentralization of authority.

Chapter 9: Findings of the Qualitative Research Question—How was Bulgarian Education Reform Implemented?

The first steps toward the implementation of education decentralization started in 2000 with the introduction of the Education Modernization Project. The most intense decentralization activities occurred during 2007–2008 when a new system of school financing was introduced coinciding with the 2007 teachers' strike and the demands of teachers for higher salaries. The analysis of this question starts with a brief overview of the initial education-decentralization steps under the 2000 Education Modernization Project, and the 2004–2006 PAL 2 and 3 agreements. The primary focus, however, is on the education decentralization activities under the 2006–2009 social-sector DPL loan agreements, which closed at the same time when new elections for the 41st National Assembly of the Republic of Bulgaria were conducted, and a new government was appointed.

The education activities to be analyzed are the preparation for the introduction of the Delegated School Budgets (DSBs), the adoption of the DSBs as a mechanism of school financial decentralization, decentralization of school authority, decentralization of school plans and programs, and supervision and evaluation activities of the WB when assessing the education decentralization reform. Two topics narrowly intertwined with the decentralization activities also are investigated, the consolidation of schools as a process that affected the education decentralization and the creation of protected schools as a mitigating mechanism to the school consolidation process.

The preparation activities consisted of the implementation of the unified student standard of school financing; the creation of a school directors' training body, the National Institute for Training of School Directors; and relaxing the central-authority regulations governing the education sector, which provided greater independence to the school directors when managing the schools. It was expected that the unified student standard of school financing would focus on increased efficiency of expenditures in the education system. The DSBs were seen as the central element of financial decentralization that would make education spending efficient. It was assumed that the implementation of the DSBs would lead to an increase in teachers' motivation and improved quality of education, while at the same time it might result in the closure of schools, thus increasing inequity with regard to access to education.

Under the decentralization of school authority at the local level of governance, four main actions were planned: greater authority of the municipal governments over the school management, appointment and control of the school directors from the local authorities, establishment of mandated school director positions, and increased authority of the school boards over the administration of schools. All these measures were directed toward greater decision-making authority at the local level of governance and accountability to the local stakeholders.

As for the decentralization of education plans and programs, even though such a form of school autonomy was not designed explicitly in the Program for the Development of School Education 2006–2015, it was expected that the schools would have obtained some authority to define the school plans independently. Finally, the

Bank's supervision and evaluation provided critical feedback on the outputs, processes and, wherever possible, the outcomes of the reform.

First Attempts for Implementing Education Decentralization

The first project entirely focused on reforms in the education sector in Bulgaria was the 2000 Education Modernization Project. During the three years of the project, a clarification of the model of education decentralization, however, was not completed. The primary component of education financial decentralization, the extension of the DSBs, was rated unsatisfactory by the Bank evaluation team. The reason for the low rating was mostly because of the slow implementation of DSBs by the municipal governments, e.g., by the end of the project, only 13 municipalities participated in the program (World Bank, 2004a, p. 20).

The evaluation performed by the National Audit Office of the Republic of Bulgaria also revealed that the project experienced numerous difficulties but it rated the extension of the DSBs high. According to the evaluation report, the actions in this component were implemented timely and professionally, and the manager responsible for this element of the project was not replaced. The component was also relatively autonomous and did not depend on the implementation of the rest of the project's components (National Audit Office of the Republic of Bulgaria, 2002, p. 34).

At the beginning of 2004, the whole project was closed, and alternative options of either its extension or restructuring were not pursued (World Bank, 2004a, p. 20). All components of the project in the area of general education were rated unsatisfactory by the Bank’s evaluation team (World Bank, 2004a, pp. 7–17). The public impression according to Igor Damyanov, a minister of education and science

from 2003 to 2005, when the project was terminated, was that the loan was not needed for the Bulgarian education system in the way it was proposed. The biggest mistake, according to Damyanov, was that the Bulgarian government approved such a loan, where the priorities were imposed from outside and were not developed internally. Hence, the government did not know how to spend the money appropriately. As an example, he pointed out that one of the project's components involved deliveries of computers for technical modernization of the schools but the majority of the schools lacked the infrastructure to use them because they did not have access to Internet services (Igor Damyanov, MES, 02/09/2017). However, the review of the literature revealed that the reasons for the unsuccessful implementation of the Education Modernization project were numerous and could not be explained by the WB's pressure in setting the agenda for education reform or the existence of inappropriate procurement practices.

The Bank's performance during the preparation and implementation phases of the project was rated satisfactory by the Bank's evaluation team. However, even though the WB made an effort to assure that a wider representation of stakeholders was consulted, there was no involvement of senior management and staff outside the education sector as well as a wider variety of stakeholders, which affected the credibility of the project with the GOB. Besides, there was no consideration of findings of consultant reports through the Bank-executed Policy and Human Resources Development (PHRD) Grant, the European Union-Poland and Hungary Assistance for Reconstruction of Economy (EU-PHARE) program, and the Open Society Institute. In addition, the completion of the necessary amendments to the

legislative acts governing the education sector in advance of any reform activities would have served as a guarantee for the continuity of the project, given the frequent changes in the MES leadership. Finally, according to the Bank, a simpler design with fewer components, and focusing on single components would have been more feasible (World Bank, 2004a, pp. 21–22)

The Bank’s performance during supervision was rated unsatisfactory by the Bank’s evaluation team. The Bank's presence was reduced during the implementation phase, which caused enormous delays in implementation given the fact that the MES did not have experience with project management and the Bank's procedures and it did not have technical assistance. Even though the Bank’s supervision missions accurately identified implementation issues, they did not follow through with further support to the MES to ensure that the recommendations were completed (World Bank, 2004a, p. 22). In addition, the Bank’s supervision teams also changed frequently. The WB's field office also did not take an active role in the monitoring of the implementation activities. The overall performance of the Bank was rated unsatisfactory, mostly due to inadequate supervision from the Bank (World Bank, 2004, pp. 22- 23).

The overall performance of the GOB was rated unsatisfactory. Even though its performance during the preparation phase was satisfactory, mainly because senior officials at the MES and other ministries were involved and collaborated with the Bank to define the project’s objectives, the performance of the government during the implementation phase was rated unsatisfactory by the WB evaluation team.

There were several reasons for the GOB's poor performance during the implementation phase. Among them, the frequent changes in the implementing agency's leadership and the MES' failure to prepare a communication campaign aimed at explaining the education reform to the public and the stakeholders played a significant role in the project's failure.

The high turnover of members of the management bodies and working groups created under the project and their dysfunctional operations also made it very difficult for any activities to be completed. For example, the Project Board chaired by the minister of education and science and established to monitor the progress of the project did not function regularly, and when it convened, no minutes of its sessions were kept. Several other committees and boards that were established to support the project did not function regularly, mostly due to the frequent changes of their members. The members of the working groups were frequently changed as well. The high staff turnover could be explained by the fact that during the preparation and implementation of the project, there were four ministerial changes, as "each change brought its own high ranking official cadre, which destabilized the project and delayed implementation (World Bank, 2004a, p. 18).

As for the Project Coordinator Unit, its performance was affected by the frequent changes of its director. For the duration of the project (three years), three different directors were appointed, and each of them, according to the Bank "brought a new style of project management, which has made an adverse effect and delayed day-to-day project implementation" (World Bank, 2004a, p. 24). There were also

minimum coordination, cooperation, and information sharing within and between the Project Coordination Unit and the working groups.

Moreover, one of the significant findings made by the WB evaluators was that the MES did not assign defined responsibilities to participants in the project; thus "it became impossible to hold accountable anybody for delays and mistakes" (World Bank, 2004a, p. 18). The Bank also declared misprocurement for three procurement activities and the GOB had the repay the funds to the Bank (World Bank, 2004, p. 24)

Overall, a few major factors contributed to the failure of the project. Key players from the MES, who initially supported and participated actively in the project design, were removed. There was also a lack of active stakeholders' participation in introducing the education reform. Besides, the overly complex project design and the lack of binding legislative basis for the planned changes complicated and delayed the planned implementation.

Under the 2004–2006 PAL 2 and PAL 3 agreements designed to support the Medium-Term Reform Program of the GOB, the Bank rated as moderately satisfactory the investment in human capital and the strengthening of the social-protection pillar, mainly because the gains in reforming the education system were relatively modest (World Bank, 2006a, p. 24). The major achievements regarding education decentralization were the declared readiness of the Bulgarian government to start reforms in education, an intent that was expressed in the creation of a concept for education-reform strategy, along with an action plan, and the fiscal decentralization of municipalities with regard to education expenditures.

The strategy for the development of the education system in Bulgaria was initiated by the Curriculum Council, an advisory board to the MES under the 2000 Education Modernization project (World Bank, 2004a, p. 7). As a planning mechanism, the strategy outlined all the key activities that were originally intended to be achieved under the Education Modernization project, such as consolidation of the school network, decentralization of the management of education, better qualification of teachers and directors, and broader participation of parents and businesses in the education process. The primary goal of the education reform, according to the strategy, was to improve the quality of education and to make Bulgarian students more competitive to their counterparts in the EU (Strategy for Development of the Education System in the Republic of Bulgaria, 2004, p. 1). The strategy for the first time highlighted the significant problems of Bulgarian education as well as the inadequacy of the legal basis for the intended changes (e.g., education decentralization, academic assessments, and status of profiled schools). It also pointed out the lack of consistency between the organization and the content of the education process (Strategy for Development of the Education System in the Republic of Bulgaria, 2004, p. 3).

In 2003, the GOB also started an overall fiscal decentralization reform that directly affected the financing of schools in the education sector. The reform made a legal distinction between responsibilities delegated to municipalities by the central authorities and the municipalities' responsibilities. Education was considered a delegated responsibility to the municipal governments (World Bank, 2004b, p. 15). At that time, the GOB, for the first time, initiated a new financing of the schools based

partially on the number of students enrolled in them. More specifically, it started a process of recalculating the general education subsidy, an action that was part of the fiscal decentralization of the municipalities. For education, the new formula made a separate calculation for staff salaries and non-staff expenditures. The calculation of staff-salary costs depended on the teacher-student ratios for five categories of municipalities according to their average classroom size.[21] For the first time, the formula to calculate the non-salary costs of education was based on aggregate per-student, non-salary expenditures (World Bank, 2004b, p. 16).

The GOB also planned to develop the funding method further, to link it to education quality, and to introduce a competitive element (World Bank, 2004b, p. 43). Regulatory constraints, however, limited the ability of local authorities or schools to respond to incentives for reduction of overstaffing adequately. The Bank also expressed concerns that the new way of school financing did not have much impact on the level of salary funding in municipalities and did not increase incentives to reduce staff in under-enrolled schools (World Bank, 2004b, pp. 19–20).

It can be concluded that the principle "money follows the student" was incorporated in the formula for calculating non-salary costs of education, such as heating, electricity, water usage, and other non-personnel expenses. The formula for calculating salary costs of education was based partially on the number of students, but the number of classes per school was the most important element in it. In that respect, small schools felt protected from threats of potential closure. School directors

[21] A "desired" number of school staff in each municipality was calculated. Then, these numbers were multiplied by the average teachers' salary in each municipality to estimate the wage expenditures for school-staff expenses (World Bank, 2004b, p. 16)

in larger schools also had little incentive to consolidate classes and to fill them to their maximum capacity.

Overall, the education-sector actions under the PAL loan agreements were not sufficient to improve the efficiency and quality of the education system. Public expenditures for education also did not show improvement over their 2002 levels (i.e., 4.1 percent of GDP), despite the GOB's goal to close the gap with the OECD average of 5.6 percent (World Bank, 2006a, pp. 24–25).

Implementation of Education Decentralization under the Social-Sector DPL Loans (2006–2009)

The implementation of education decentralization envisioned as financial decentralization at the school level via the introduction of the DSBs and decentralization of authority at the local level, was one of the major actions under the social-sector DPL loan series. The activities supported by the social-sector DPL series were expected to have a positive impact on student academic achievement due to a better quality of education and student participation and completion rates because of the stronger incentives for schools to take/retain and graduate students. It was also envisioned that the differentiated funding for several types of municipalities would allow for recognition of marginalized students and would provide incentives for their enrollment and school retention (World Bank, 2007b, p. 57).

Financial Decentralization

The precursors of the financial decentralization were the implementation of the unified student standard of school financing and the establishment of an institution that would actively train the school directors to manage the school funds.

Unified Student Standard as a New Method of School Financing

The unified standard per student based on an agreement between the Ministry of Finances (MOF), the MES, and the National Association of Municipalities in the Republic of Bulgaria (NAMRB), was the first significant action implemented by the GOB with the active participation of the WB team. The Bank provided technical assistance directly participating in discussions with the joint working group responsible for the design of the funding formula (World Bank, 2007b, p. 64). All of the interviewed participants were in agreement that the WB has been involved actively in the creation of the unified student standards (Zeni Bumbarova-Nacheva, MOF, 09/07/2016; Daniel Valtchev, MES, 09/10/2016; Krasimir Valtchev, MES, 01/30/2017; Boyan Zahariev, Open Society Institute, 09/07/2016).[22] As part of the preparation of the DPL 1 loan agreement, the WB education team worked closely with the MES and the MOF on compiling a school-level expenditure database and investigating the drivers of the costs of education. This database continued to serve as the basis for developing the system of per-capita financing in public municipal schools (World Bank, 2009, p. 20).

[22] For example, Krasimir Valtchev of MES recalled that the WB team ran about 120 simulations to categorize the municipalities into four groups for the purpose of differential funding (Krasimir Valtchev, MES, 01/30/2017).

The decision on the new financing method was approved by the GOB and submitted to the National Assembly of the Republic of Bulgaria at the end of 2006. On January 1, 2007, all municipalities started to receive all funds to cover both salary and non-salary expenditures for education in municipal schools on a per-student basis (so-called "unified standard"). This meant that all recurring costs associated with educating a child (excluding capital costs) would be met by the subsidy grant received by the municipal governments (Bill of the Public Budget, 2007, §66 (1)). Municipal governments could provide additional funds for education as well.

The unified standard was not uniform across all municipalities and depended on their type and other structural factors that influenced the cost per student. For example, municipalities in more rural, less densely populated areas, which, as a rule, were also poorer, received higher per-capita funding. The new way of school financing set four financing standards for four types of municipalities based primarily on the density of the population (World Bank, 2008a, p. 57). However, even though the unified student standard accounted for differences among municipalities based on population density, it was not intended to differentiate among the size of schools in the territory of a given municipality. As a result, it did not provide additional protection for small schools that would have received smaller subsidies than larger schools located in the same municipality. The Bank recommended that additional time is provided to municipalities to adapt to the new method of education funding since reallocation of resources could create substantial differences between the current and the revised allocations among them (World Bank, 2007, p. 8). As a result, during a transition period of two years, municipalities losing out under the

arrangement received the nominally frozen amount of their 2006 funding (Bill of the Public Budget, 2007 §66 (2)).

The rationale behind letting "money follows the student" was to set incentives for the local authorities to align infrastructure and staff levels with current student numbers, decrease the share of spending on salaries, and increase the expenditures related directly to the higher quality of education. Even if "losing" municipalities continued receiving the 2006 funding allocation, the expectation was that there would still be a financial pressure, as wages were to increase by approximately 5–10 percent a year. Thus, the only way for the “losing” municipalities to be financially stable under the per-capita scheme was to consolidate their school network by closing schools (World Bank, 2007, pp. 30–31). The “unified standard” amounts were also set low relative to estimates of underlying costs per year, which in effect forced a large number of municipalities to close schools to bring costs in line with the education subsidy received from the central government (World Bank, 2009, p. 43). According to the Bank's estimates, presented at a joint MES/WB workshop in February 2008, the low amounts of unified standard implied that half of Bulgaria's municipalities would be financially distressed unless they consolidate their school networks (World Bank, 2009, p. 43).

The MES collected preliminary quantitative and qualitative data on school closures before the introduction of the new funding formula in four municipalities to estimate the potential adverse effect of school closures on student outcomes such as dropout rates. However, it could not reach a definite conclusion because both the quantitative and the qualitative data differed widely across the sampled cases and a

common theme could not be observed. The only conclusion, according to the MES, was that existing issues and trends (not specified) in the municipalities were the primary drivers of dropout rates, without school closures making any difference (World Bank, 2007, pp. 58–59). The Bank warned that the introduction of per-capita funding in various countries had not nearly led to the number of closures already observed and expected in Bulgaria, and could not be used as a good benchmark (World Bank, 2007, p. 59).

Equally important were the Bank's recommendations about mitigation measures directed at "losing municipalities" (88) in 2007 that received less under the per-capita funding than in 2006. There was a risk that instead of closing schools and re-allocating the resources to improve the quality of education in the remaining schools, funds might be spread even more thinly across existing schools, with detrimental effects on education quality and participation rates. The mitigating measures that were offered to these municipalities included advice on managing the process of school consolidation, funding for parent-outreach work, and transport and physical adjustments to school buildings to accommodate students from closed schools (World Bank, 2007, p. 59).

However, the Bank acknowledged that there was a risk that school closures could lead to increased dropout rates, especially among marginalized groups of students and in schools in rural areas. Close monitoring of the new funding mechanism on a quarterly basis was expected, and it was recommended that, if necessary, the funding would be revised to account for adverse impacts (World Bank, 2007, p. 59). A monitoring of a Guarantee Fund to support school consolidations also

was created. A steering group with the MES, the MOF, and the NAMRB representatives was established to control the disbursement from the fund and the development of the activities financed by the fund. The Bank also pointed out that it would be desirable to combine the routine financial reporting of municipal governments to the central government with some results indicators such as "number of students transported to consolidated schools" (World Bank, 2007, p. 60).

When the unified student standards were introduced, the teachers' unions were dissatisfied with their low amounts. They expressed concerns that only the larger schools with 1,200–1,300 students and an average class size of 26 students would be in advantageous position by being able to keep their teaching staff and pay them higher salaries. For schools with less than 800 students, the directors had to make difficult decisions: keeping lower salaries or reducing school staff (Yanka Takeva, SCES, Minutes, 11/14/2007, p. 6). According to estimates of the teachers' union presented in a 2008 article published in Dnevnik newspaper, in 2008, 38 percent of the schools could not increase the teachers' salaries due to the lower amounts of the unified student standard (Zornitza Lateva, Dnevnik, 01/16/2008, par. 2). Most of the interviewed participants also agreed that the unified student standard was and continue to be too low (Julian Petrov, Teachers' Union "Education," 09/07/2016; Daniel Valtchev, MES, 09/10/2016; Boyan Zahariev, Open Society Institute, 09/07/2016; Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016).

According to Bumbarova-Nacheva of MOF, however, the unified student standard was "more efficient than the old archaic model of financing" (Zeni

Bumbarova-Nacheva, MOF, 09/07/2016). She pointed out that the MES, the MOF, and the NAMRB were responsible for updating and modifying the standards. The MES, however, played an active role in revising them, primarily because of demands for their increase, due to the raising of the minimum salary in the country since the standards redistributed funds to the municipalities mostly for teachers' salaries. The MOF, on the other hand, observed the natural elements (e.g., number of students) at the macro level: "what were the funds requested for and could the central government afford to provide the funds, as corrections were made every three months" (Zeni Bumbarova-Nacheva, MOF, 09/07/2016).

From a review of the tables of the standards and the instructions for the distribution of funds based on the standards, published annually on the MES website, it can be seen that the standards were gradually modified throughout the years. In 2010, standards were added for the improvement of the school infrastructure and for children with special education needs who attend regular public schools (MES Instruction for Implementation of the DSBs for 2010, 2010, p. 6.) In 2011, a standard for lunches of students in 1–4 grades was introduced (MES Instruction for Implementation of the DSBs for 2011, 2011, p. 5). In 2013, a standard was added for children in preschool groups located in public schools (MES Instruction for Implementation of the DSBs for 2013, 2013, p. 6). Besides, in 2012, the categories of the municipalities were revised, and they were divided into seven groups (MES Instruction for the Implementation of the DSBs for 2012, 2012, p. 5).

The amounts of the standards, however, were not linked to any student outcomes. According to Bumbarova-Nacheva of MOF, it would have been useful to

design the standards on the basis of different academic outcomes (e.g., better test results, lower unemployment rates of recent graduates, and continuation of education beyond high school). She also stated that the standards could be used to encourage a particular policy; for example, implementing a program for recruitment of young qualified teachers (Zeni Bumbarova-Nacheva, MOF, 09/07/2016).

Most of the interviewees agreed that the standards should be updated and modified. The Teachers' Unions and the NAMRB proposed a standard for a school environment, a maximum number of students and one-shift school organization; work with students from the minority ethnicities; and additional pay for teachers who work in challenging conditions (Julian Petrov, Teachers' Union "Education," 09/07/2016).[23] Petrov of the Teacher's Union "Education," however, stated that the idea of standards' modification to attract younger teachers expressed by Bumbarova-Nacheva of MOF is "populism." According to him, not the MES, but the MOF played a significant role in defining the standards by determining the allowed amounts of funds, as undoubtedly there was an unwillingness on the side of the MOF to declare education a priority (Julian Petrov, Teachers' Union "Education," 09/07/2016). Dacheva of NAMRB also stated that the MES only redistributed the funds for education, but it did not play an active role in modifying and updating the standards. As a result, Dacheva claimed that the unified student standard was not realistic, and it was not based on any forecasts, goals, and long-term policies:

> We [NAMRB] call it "looking at the ceiling," the way the MES updates the standards. The MES announces that there is so much money for education,

[23] Most of the Bulgarian schools with a larger number of students operate under a two-shift model where students from specific grades attend school in the morning, whereas students from other grades attend it in the afternoon.

> and by dividing it by the number of students, it gets the amount of the standards. The main principle under which the MES calculates the amount of the standards is based on the availability of funds. In this amount, the MES includes everything (personnel salaries, school-maintenance costs, etc.). That is why there is a constant disagreement over what is included in the standards" (Teodora Dacheva, NAMRB, 02/01/2017).

To most of the interviewees, who considered the unified student standards to be too low, the education system was permanently underfunded, which eventually harmed the reform activities. Borisova of "Parents" Association and Zahariev of Open Society Institute claimed that the reform could not achieve the expected results because its primary focus was on the accumulation of savings. According to Borisova: "The reform requires resources and investment, not savings. As a result, it was not synonymous with improvement" (Eva Borisova, "Parents" Association, 09/08/2016). A similar view was expressed by Zahariev of Open Society Institute: "The reforms should not be implemented with the primary goal to achieve savings, but to introduce innovations" (Boyan Zahariev, Open Society Institute, 09/07/2016).

As can be seen, the unified student standard was implemented by the GOB to achieve greater efficiencies in the education sector. The principle "money follows the student" on which it was based provided for increased competition among schools, which attempted to attract more students to receive larger education funds. At the same time, the unified student standard was set at levels that were too low, according to the majority of the interviewed participants. As a result, many municipal governments were forced to start consolidating their school networks at a faster rate by closing small schools, which could have led eventually to increase in students dropping out of school.

National Institute for Training of School Directors

Another measure that was envisioned under the Bank's loan agreements (PAL 2) was the establishment of the National Institute for Training of School Directors (Institute) in 2007. For this purpose, during PAL 2, a Policy and Human Resources Development (PHRD) Grant in the amount of $708,000 was in effect. Its primary goal was to support capacity building in the MES through the strengthening of the Center for Assessment of Quality of Education (SKOKO), the National Institute for Training of School Directors, and the MES department in charge of developing programs aimed at absorbing EU Social Funds (World Bank, 2008a, p. 41). The PHRD grant also provided substantial additional funds to finance consultants' analytical work and design of DPL 2 and DPL 3 (World Bank, 2010, p. 29).

The National Institute for Training of School Directors aimed to prepare candidates for school directors' positions and to train the existing school directors to work with the DSBs and EU funds. The school directors' initial training was planned to last 3–4 days, with lecturers from the MOF (SCES, Minutes, 10/18/2006, p. 2). In eight months (from November 2006 to June 2007), all school directors were trained to improve their management skills including training on the DSBs (Report on the Implementation of the National Program for the Development of School Education 2006–2015, 2006–2007, p. 23). The school directors' training continued in the following year: from September 2007 to June 2008, 2,336 school directors and 67 new directors were trained. In 2009, the Institute also started training teachers, and since 2013, it has been operating under the MES operative program for qualification of teachers, as its name has changed to Center for Improving the Qualification of

Teachers (Aneliya Andreeva, National Institute for Training of School Directors, 02/10/2017).

Aneliya Andreeva, a long-term school director herself, was the first Director of the National Institute for Training of School Directors, from 2007 to 2013. She participated in the preparation activities for the creation of the Institute and shared her experience working with the WB experts. According to Andreeva, the WB provided significant assistance, both with the financing (through the PHRD grant) and the technical expertise during the initial functioning of the Institute. Andreeva stated that: “The WB experts opened the WB database and shared with us comparative data, so we can see how school directors in other countries were trained and synchronize our programs. We implemented several training programs, for example, the CIDO online program for training of the school directors" (Aneliya Andreeva, National Institute for Training of School Directors, 02/10/17). She further explained that the training of school directors consisted of two main elements, preparation to work with the DSBs and management of school human resources.

A persistent weakness, as Andreeva pointed out, was that the school directors did not know how to work with the school teams, mainly to delegate some of their duties to the teachers in their school (e.g., senior teachers and assistant directors). To overcome this problem, the Institute also trained 960 future school directors, who learned how to assist in the management of schools (Aneliya Andreeva, National Institute for Training of School Directors, 02/10/2017).

Some of the interviewees, however, criticized the work of the Institute. For example, Kalkanova of the National Assembly of the Republic of Bulgaria and

Nikolcheva, a chair of the Association of Employers in Bulgarian Education, claimed that the Institute did not fully accomplish its primary function to train the school directors. The main reason according to them was that the Institute did not have the necessary capacity to perform its training functions. For example, there were no permanent lecturers and trainers, and temporary staff did the training (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016; Nadezhda Nikolcheva, Association of Employers in Bulgarian Education, 09/08/2016). Takeva of the Union of Bulgarian Teachers also considered that the Institute did not work professionally. For example, she pointed out that the trainers showed the school directors how to violate the DSBs purposefully by instructing them to accumulate surplus at the end of each year (Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016).

It seems that the National Institute for Training of School Directors was established by the MES as a temporary organization whose primary function was to train the school directors at the beginning of the process of school financial decentralization. Without any permanent staff members (as stated by Kalkanova and Nikolcheva), and experiencing frequent turnover in directors, who often terminated some of the previous training programs (as pointed out by Andreeva), the Institute had lost its main purpose to offer relevant training to current and future school directors.

Revision of Centralized Norms for Teachers' Salaries, Workload, and Number of Students per Class

The decentralization of authority as envisioned by the Bank was focused on providing the school director with more freedom regarding decisions about school

personnel and organization of the school process. As a result, at the beginning of 2008, the authority of the director regarding school personnel was strengthened by revising the two existing MES instructions and creating a new MES instruction on the individual teachers' salaries.

Greater School Director Authority Over Individual School Personnel Salaries

The limitation that the salaries of the school staff should be based on the average monthly personnel salaries was removed, and the teachers' salaries were defined at three levels. At the central level, the 2008 *Instruction on the Salaries of the Personnel in the Education System* established the general rules for the structure of the personnel salaries in the schools and the minimum salaries by professional classification level. At the school level, the collective bargaining and internal rules specified the mechanisms for calculating the individual teachers' salaries. At the individual level, the school director was authorized to determine the individual teachers' salaries (Report on the Implementation of the National Program for the Development of School Education 2006–2015, 2007–2008, pp. 25–26).

Greater School Director Authority Over the Number of Teachers and the Teachers' Workload

Until 2008, the number of teachers was based on the number of distinct classes offered. More specifically, the number of classes via a system of coefficients defined the number of school staff, and secondary schools were assigned more teachers. As a result, it was possible for two schools with the same number of students to have different number of classes and teachers; hence they received different subsidy amounts for education from the municipal governments. In 2008,

the MES *Instruction No. 3 for the Norms of the Teachers' Workload and the Number of Personnel in the Education System* was amended to postulate that the school director must define the number of personnel. A priority was to be given to the number of teachers (Instruction No. 3 for the Norms of the Teachers' Workload and the Number of Personnel in the Education System, Article 12 (1–2), 2008).

Greater School Director Authority Over the Number and Size of the School Classes

The 2001 *Instruction No. 7 on the Number and Size of the School Classes* was revised at the beginning of 2008, and the limitations on the number and size of the school classes were relaxed. The minimum and maximum limitations on the number of students in classes were left unchanged. The director, however, could go up to 10 percent beyond the maximum number of classes and number of students per class (MES Instruction No. 7 on the Number and Size of the School Classes, 2001, article 3 (1–4)). If the municipal government was willing to keep classes under the minimum number of students per class, it could do so, but it had to provide additional funds to support this decision (MES Instruction No. 7 on the Number and Size of the School Classes, 2001, article 11).

The legislative changes made it possible for the school directors to manage school funds more efficiently. Even though there were remaining legal and collective agreements' restrictions, the school directors had greater freedom in the management of human resources and the organization of the school process. Within the DSBs framework, they could make changes in the number of teachers, the number of classes, class sizes, and individual teacher's salaries. In this aspect, the

decentralization of authority was implemented at the school level by empowering the school director to manage school resources independently.

Delegated School Budgets as Main Elements of School Decentralization

The DSBs were seen as the central component of the financial decentralization at the school level. The GOB planned to implement the extension of the DSBs nationwide only after the unified student standards had been adopted, the Institute for Training of School Directors had trained school directors, and the legislation on centralized staff appointment had been amended. Bulgaria began implementing DSBs in the late 1990s, supported by the European Commission-PHARE program. By 2006, schools in around 40 municipalities had delegated budgets. The school director had discretion over all or parts of the non-staff budget, but the number of teaching staff was still determined by the MES regulations. In 2008, after a six-week strike of teachers demanding higher salaries, the GOB implemented the expansion of the DSBs to all municipal schools as mandated by the National Budget Act of 2008 (Bill of the Public Budget, 2008, §70 (1)). The implementation of the DSBs coincided with the mayoral campaigning for municipal elections, which dominated the local political arena. In addition, the education teams of the municipal governments were still learning how to operate within the new funding system of the unified student standards (World Bank, 2009, p. 42).

The DSBs meant that the school receives a single lump sum, with no indication of allocation between salaries and other expenses. The decision on how to spend the funds was to be left to the school authorities. The school budget was determined by a formula, which would apply to all schools in the municipality, and

whose primary element was the number of students (Bill of the Public Budget, 2008, §70, (2-3)). The purpose was to delegate more decisions about education to the people knowledgeable about the local educational needs. It also served to preclude municipal governments to reallocate funds to schools on an uneven basis. The school director could manage the school funds, to make changes in the plan for revenues and expenses, and to define individual salaries, teachers' workload, the number of students in grades and classes, and the number of school personnel. Besides, the school directors could keep and include in the next year budget the funds that were not exhausted from the previous year (Report on the Implementation of the National Program for the Development of the School Education 2006–2015, 2007–2008, p. 27). It was expected that the local management of school funds would provide more incentives for the school directors to attract and retain students.

Local Formulas of School Financing

According to the 2008 Bill of the Public Budget, the allocation rule was to be based on municipal formulae with two main elements, the unified standard and the number of students in schools (Bill of the Public Budget, 2008, §70 (2) & (4)). The formulae did not include the additional standards as well funds for other programs (e.g., scholarships, free transportation, and free textbooks) that were distributed to municipalities (MES Instruction for Implementation of the DSBs for 2011, 2011, p. 2).

Special circumstances, however, would make necessary some modifications. Additional components of the formula could be objective geographic and demographic factors that define differences in education expenditures (e.g., increased

number of lower-income students and ethnic minority students) or factors that reflect national or local education policy (e.g., keeping the existing school network or consolidating the schools). The number of staff and number of classes could not be used in the formula (Bill of the Public Budget, 2008, §70 (4–5)).

In several instructions, the MOF clarified and recommended how the local governments should develop the formulae, from collecting information on the number of students and gathering data on possible additional components, to an analysis of alternative variations of the formulae. More specifically, the central authorities recommended that municipal governments analyze possible formulae using as a primary leading method "the normative expenses approach" when comparing different scenarios (MOF Instruction-Formulae for Distribution of Funds in the Public Education, 2009, p. 23).[24] The MOF instructions provided useful information on the way municipal governments should define the local formula for distribution of education funds to the schools. The recommendations were based on the premise that the local governments had access to more detailed data for the schools in their territories and would be able to specify the different elements of the formula in correspondence with the local specifics and policies. The instructions also presumed that the municipal governments had sufficient financial knowledge and capacity to prepare the formula.

[24] Under this approach, the "municipal governments in advance define the amounts of the expenses for a given school" by using different values of the expenditures, for example, their averages (MOF Instruction—Formulae for Distribution of Funds in the Public Education, 2009, p. 26). Most of the municipalities had relatively small number of schools in their territories, which made challenging the calculation of representative local averages of the expenditures. Because of that, MOF proposed the use of average national values of expenditures adapted for the specifics of a given municipality (MOF Instruction—Formulae for Distribution of Funds in the Public Education, 2008, p. 26).

According to the majority of the interviewees, however, the municipal governments and the school directors were not ready to implement the DSBs, especially the part of formulating local formulae for distribution of funds among the schools located in the territory of a given municipality. Krasimir Valtchev of MES who directly participated in activities related to the implementation of DSBs as a senior education specialist at the MOF pointed out some specific formulae problems. In his view, the DSBs relieved the municipal governments of some of their responsibilities, such as the calculation of the number of school staff and amount of average salaries. However, the local authorities had to prepare formulae; even though there were two directives of MOF from 2008 and 2009, clarifying how the local formulae should be developed, in the beginning, the majority of the local governments did not come up with specific formula corresponding to the needs of the schools in their territories. Instead, they distributed the funds based solely on the number of students without defining any additional elements in the formulae. As a result, larger schools ended with a surplus, whereas small schools did not have sufficient funds to operate.[25]

Besides, in 2009, the second year of implementation of the DSBs, the education sector operated with only 90 percent of the funds of the unified student standard, which was caused by budget-tightening measures imposed by the GOB because of the world financial crisis. All this, in Valtchev's opinion, created an

[25] Valtchev pointed out that this inequity among schools continued for about six years after the adoption of the DSBs. In 2014, with the revision of the Bill of Public Education, it became mandatory for the municipal governments to provide additional funds for permanent expenditures of schools (so-called "conditionally permanent expenditures"). The amount of the funds was defined annually in the Bill of the Public Budget, and the goal was to guarantee the minimum financial stability of the schools (Bill of Public Education, 2014, Article 41a (6)).

additional burden for the municipal governments and caused some shocks in the education system (Krasimir Valtchev, MES, 01/30/2017).

Zahariev of the Open Society Institute pointed out another weakness of the municipal formulae: often, they were not a result of explicit, transparent policies. He observed that in many cases one part of the formula aimed to assist smaller schools, whereas other elements of the formulae benefitted larger schools; as a result, the positive effect for small schools canceled out. Zahariev pointed out that when formulating the most appropriate formula, the municipal governments developed mechanisms for unfair distribution of education funds. The local authorities seemingly attempted to help smaller schools, but in reality, the municipal governments protected the “elite” profiled schools and punished the smaller schools, primarily because the mayor was influenced by powerful actors at the local level, such as wealthy parents and directors of the larger or profiled schools. As a result, the Bulgarian education system proved to be extremely elitist.

In Zahariev’s view, there was a direct link between the formulae by which the education funds were distributed among schools in the territory of a given municipality, the consolidation of the school network, and the closure of schools. In his opinion, the DSBs did not necessarily have to be based on formulae, which in practice had two main elements—financial (decrease in the expenses for the municipal governments) and consolidating (forcing municipal governments to close schools). According to Zahariev, the implementation of the DSB in this way led to the closure of schools by municipal governments (Boyan Zahariev, Open Society Institute, 09/07/2016). Petrov of the Teachers' Union "Education" was in agreement

with Zahariev: to him, the local formulae were not objective, and their "making" was heavily influenced by local politics, as the victims were smaller schools (Julian Petrov, Teachers' Union "Education," 09/07/2016). Dacheva of the NAMRB pointed out that the DSBs were based on formulae that were primarily defined at the central level of governance, and were not designed to work for every municipality, especially for municipalities with various size schools. The formulae, according to Dacheva, had to be entirely defined at the local level of governance and in accordance with the specifics of the municipalities (Teodora Dacheva, NAMRB, 02/01/2017).

Perceptions of the DSBs as an Element of School Decentralization

Most of the interviewees approved the delegated budgets, at least to some degree (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016; Boyan Zahariev, Open Society Institute, 09/07/2016; Daniel Valtchev, MES, 09/10/2016; Krasimir Valtchev, MES, 01/30/2017; Nadezhda Nikolcheva, Association of Employers in Bulgarian Education, 09/08/2016; Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016; Julian Petrov, Teachers' Union "Education," 09/07/2016). They saw the DSBs as the first step toward full autonomy of the schools and a logical element of the education decentralization process.

To the majority of the interviewees, the municipalities and the school directors, however, were not prepared to start implementing the DSBs (Krasimir Valtchev, MES, 01/30/2017; Aneliya Andreeva, National Institute for Training of School Directors, 02/10/2017; Nadezhda Nikolcheva, Association of Employers in Bulgarian Education 09/08/2016; Teodora Dacheva, NAMRB, 02/01/2017).

Nikolcheva of the Association of Employers in Bulgarian Education stated: "We [the school directors] were learning as we were implementing the DSBs. For example, a lot of schools did not have accountants, and many schools shared one accountant assigned to them by the municipal government" (Nadezhda Nikolcheva, Association of Employers in Bulgarian Education, 09/08/2016).

Dacheva of NAMRB considered that the implementation of the DSBs was prematurely enforced on all municipalities in 2008. During 1996–2007, when the DSBs pilot was implemented in select municipalities “there was a gradual process of implementation, with the active involvement of the municipalities, as the specifics of the DSBs and the formulae were defined by both the municipal governments and the MES" (Theodora Dacheva, NAMRB, 02/01/2017). However, Dacheva claimed that the pretext for the implementation of the DSBs nationwide in 2008 was the teachers strike at the end of 2007. There were complaints about abuse of education funds from the municipalities and as a promise to the teachers, the MES declared that with the implementation of the DSBs the funds would go directly to the schools. Dacheva considered such a decision done at the central level of authority to be a political maneuver of the GOB not only to appease the teachers and end the strike but also to hide the fact that the funds dedicated to education were not sufficient (Teodora Dacheva, NAMRB, 02/01/2017).

Maria Donkova of Paideya Foundation, who has worked on a number of projects in the area of education, in a 2007 interview for Dnevnik newspaper stated that the "Delegated budgets are not the logical end of the teachers' strike." According

to Donkova, the DSBs were implemented prematurely, as other measures associated with them were delayed. In her view:

> It is surprising that the implementation of the DSBs had to be included in the project for the strike agreement between the GOB and the teachers given the fact that the majority of the teachers did not know what the DSBs were and did not have any authorities and competencies regarding the DSBs. Instead of asking this clause of the agreement to be removed, the teachers' unions attempted to participate in the redistribution of DSBs. Many teachers felt betrayed and used (Mariya Donkova, Paideya Foundation, Dnevnik, 11/06/2007, par. 9; par. 12).

Rumen Valtchev, a director of the Open Education Center, in an article published in Dnevnik newspaper, also pointed out that the leaders of the teachers' unions did not express and protect the interests of the teachers. Besides, Rumen Valtchev stated that "The MES is a disaster" and as a result, "the education policy is done at the MOF" (Rumen Valtchev, Dnevnik, 10/30/2007, par. 2; par. 10).

When interviewed, most of the participants expressed different opinions about the essence of the DSBs as a mechanism of school financial decentralization. Their views could be categorized into the following themes: DSBs were financial tools for managing school resources; DSBs could stimulate the teachers' motivation; DSBs were mechanisms that could lead to improved quality of education; DSBs were major contributors for closure of schools and increased inequality in the education system; and the DSBs were used as tools to diminish the authority of the local governments in the education process.

DSBs as a tool for managing school resources. To the majority of the representatives, the DSBs were tools to impose greater fiscal discipline on the municipal governments and the school directors when managing the school resources. For example, Daniel Valtchev, minister of education and science during the reform,

saw them as "critical means for imposing a fiscal discipline in the system. The DSBs would detect serious resources in the sector without affecting the number of personnel or class size directly" (Daniel Valtchev, Minutes, CES, 10/17/2007, p. 1). The DSBs, according to Petrov of the Teachers' Union "Education," stopped the diversion of funds dedicated to education by the municipalities (Julian Petrov, Teachers' Union "Education," 09/07/2016).

Most of the interviewees also agreed that the DSBs had a positive impact on the school management. Zahariev of Open Society Institute stated: “The DSBs taught the school directors how to be more responsible when dealing with the school funds. In addition, the DSBs created transparency and predictability, since there was a formula that was known to all local stakeholders in the education process" (Boayn Zahariev, Open Society Institute, 09/07/2016). Baleva of the Association of School Directors in the Republic of Bulgaria also noted: “We observe the current expenditures very strictly and choose to purchase the most appropriate” (Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016). Some of the interviewed participants disagreed that the DSBs as a mechanism fully assisted the school directors to be independent managers of the schools. According to Borisova of “Parents” Association, there was no a bottom-top approach when planning the school budget” (Eva Borisova, “Parents” Association, 09/08/2016). For example, the school directors did not perform a consolidating process of budgeting, and they did not have any vision of the amount of funds they could receive from the DBSs, the municipal governments, and different projects and programs. Furthermore, Borisova stated: "The school did not negotiate with the authorities at the central and

local level of governance to maximize its resources" (Eva Borisova, “Parents” Association, 2016). “The schools did not develop any long-term strategies; they simply worked with funds provided by different national programs,” claimed Petrov of the Teachers’ Union “Education” (Julian Petrov, Teachers’ Union “Education,” 09/07/2016).

Krasimir Valtchev of MES, however, did not think that, as a rule, the school directors were given much authority to formulate school policies. He concluded that "the directors could not perform a broad spectrum of possible actions being managers of public organizations and working in an intricate system with numerous legislative limitations and restrictions imposed by the collective agreements with the teachers' unions" (Krasimir Valtchev, MES, 01/30/2017). In addition, Dacheva of NAMRB pointed out that the school directors were not trained to be managers. Dacheva used as an example the existing practice many schools to end the school year with a budget surplus, mostly due to fear of the directors that they would not be able to have sufficient funds next year. She stated: "This practice, according to the MES, benefits the schools because savings are achieved, but to the municipal governments, it is a negative trend because it shows the inability of the school director to work with money and manage the budget" (Teodora Dacheva, NAMRB, 02/01/2017).

DSBs as a tool for the motivation of teachers. To the representatives of the school directors, the DSBs increased the possibilities for the motivation of the school staff (Nadezhda Nikolcheva, Association of Employers in Bulgarian Education, 09/08/2016; Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016). To the representatives of the teachers’ unions, however, the

school director was the sole organ of authority without any participation of the teachers in the decision-making process (Yanka Takeva, Union of Bulgarian Teachers, 09/06/ 2016; Julian Petrov, Teachers' Union "Education, 09/07/2016).

According to Baleva of the Association of School Directors in the Republic of Bulgaria, "The school director turned into a real leader of the school" (Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016). In her view, with the opportunity given to the school director to keep the funds that were not exhausted the previous year, it was possible to start formulating long-term decisions for improvements of the physical infrastructure of the schools and the academic process. "In short, we can create our priorities, whereas before the implementation of the DSBs these decisions were taken at the central level. The DSBs allowed for formulating priorities and developing different strategies for the academic process at the school level" (Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016).

Takeva of the Teacher's Union pointed out that often the directors used the DSBs' funds for capital expenses (a duty of the municipal governments) instead for salaries and qualification of the teachers. She also confirmed that the school directors were "encouraged by the central authorities to have more surplus at the end of the year, as all this affected the teachers by decreasing their motivation (Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016). According to Petrov of the Teachers' Union "Education," "the school directors develop financial skills but not managerial competency" (Julian Petrov, Teachers' Union "Education," 09/07/2016).

Regarding the professional development of the teachers as a potential source of increased motivation, Petrov pointed out that the funds for the teachers' professional development were a part of the DSBs, but there was not a defined ratio by which the directors should abide when allocating these funds. Besides, the existing levels of professional qualification as a source of professional development were not included in DSBs, and the pursuit of a given level of professional qualification depended entirely on the individual motivation of the teachers.

Petrov also believed that it was a common practice for school directors to decrease teachers' salaries to accumulate funds for capital expenses. "Even if the school attracts many students, and, therefore, receives more funds in accordance with the unified student standard, the director is not obliged to increase the teachers' salaries" (Julian Petrov, Teachers' Union "Education," 09/07/2016). The opposite perspective, however, was expressed by Bumbarova-Nacheva of MOF, who admitted that it would be possible for the school director to decrease the teachers' salaries and to spend the funds on other school activities. However, "if the school director attracts better teachers with higher salaries, then the school would have more enrolled students. Ultimately, when a school attempts to attract students, the most important factor is the quality of education offered at this school" (Zeni Bumbarova-Nacheva, MOF, 09/07/2016).

DSBs as a tool for improving education quality. The interviewees expressed contradictory opinions regarding the effect of DSBs on the quality of education (e.g., better academic outcomes and intermediate students' outcomes, such as reducing grade-repetition or dropout rates). Takeva of the Teacher's Union pointed out that the

DSBs led to a decrease in the quality of education because the students lost motivation to study hard, since “they were aware that they bring money to the school” (Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016).

Krasimir Valtchev of MES pointed out that the DSBs were not planned to have a direct effect on the quality of education. The DSBs served as a primary distributional mechanism among schools in each municipality; “However, they are not the panacea for all problems of the Bulgarian schools" (Krasimir Valtchev, MES, 01/30/2017). He did not agree with the critiques of the representatives of the teachers’ unions that the education quality has decreased. “The DSBs help retaining students at school; often the school search for students and, in a way, performs social activities. As a result, the DSBs could lead to an increase in the quality of education because the longer a child spends at school, the more he/she would learn” (Krasimir Valtchev, MES, 01/30/2017). Valtchev also stated that with the implementation of the DSBs the salaries of the teachers were raised, which should have increased their motivation and indirectly impacted the academic performance of students (Krasimir Valtchev, MES, 01/30/2017).

Kalkanova of the National Assembly of the Republic of Bulgaria stated that the delegated budgets created conditions for improved quality of education. However, a connection between the financial decentralization of schools and the quality of education to consider schools fully accountable for their results was never developed and implemented. As an example of such link between the DSBs and the academic outcomes, she pointed out that a portion of the teachers' salary could be defined based

on the performance of students on national tests (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016).

To Zahariev of Open Society Institute, keeping students at risk of dropping out, attracting dropouts, or students who have never been at school was not a goal of the DSBs (Boyan Zahariev, Open Society Institute, 09/07/2016). Petrov of the Teachers' Union "Education," however, stated the opposite: the school directors and teachers had interest in keeping students at school; there was "a fight for students," especially in the regions with Roma students (Julian Petrov, Teachers' Union, "Education," 09/07/2016).

Interestingly, to the representatives of the school directors, there was not a direct relationship between the DSBs and the quality of education. "The quality of education is a direct result of concrete policies," stated Nikolcheva of the Association of Employers in Bulgarian Education (Nadezhda Nikolcheva, Association of Employers in Bulgarian Education, 09/08/2016). Baleva of the Association of School Directors in the Republic of Bulgaria also pointed out that the DSBs did not have a direct effect on students dropping out of school. However, she clarified further: "If the school director hires additional personnel (psychologist or speech pathologist) and pays their salaries out of the DSBs, then the DSBs can play a role in retaining students at risk of dropping out of school" (Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016).

DSBs as a contributing factor leading to the closure of schools and inequality among schools. To the majority of the representatives working for organizations outside of the state education system, DSBs contributed to the closure of schools.

According to Zahariev of Open Society Institute, "not the DSBs themselves but the way they were implemented led to the closure of schools" (Boyan Zahariev, Open Society Institute, 09/08/2016). In his view, the direct effect of the DSBs was the competition for students among schools, as the "profiled" schools had an advantage because they attracted students as early as fourth grade, but mostly after seventh grade (Boyan Zahariev, Open Society Institute, 09/08/2016). Dacheva of NAMRB agreed that the DSBs were the main reason for the closure of schools, especially in the regions with ethnic minorities (Teodora Dacheva, NAMRB, 02/01/2017). Borisova of "Parents" Association also concurred that the mechanism of the delegated budgets, undoubtedly, had led to the closure of schools and an increase in the number of dropouts, as the mega schools had benefitted from it (Eva Borisova, "Parents" Association, 09/08/2016). DSBs, according to Miteva of America for Bulgaria Foundation, created inequality among the schools, as bigger schools in the major cities were in advantageous position. Miteva concluded that "There is an element of luck—the success of the school directors depends on the location of the school" (Nataliya Miteva, America for Bulgaria Foundation, 09/08/2016). Baleva of the Association of School Directors in the Republic of Bulgaria also confirmed that there was an inequity among schools based on their size and location:

> If the school is large, it would have sufficient funds depending on the number of students but the small schools, especially in the rural areas, are faced with difficulties. In Bulgaria, there is a preference toward particular types of schools. The DSBs should be tied up with a value-added analysis of the academic outcomes of each school; small schools should be able to breathe (Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016).

In the press, it was also widely discussed one of the perceived negative consequences of the DSBs, namely, the pressure under which schools with less than 800 students had to operate upon the implementation of the DSBs. At a minimum, they could not increase the teachers' salaries and had to lay-off personnel to continue functioning as stated in a 2008 article titled *"Three Months after the Teachers' Strike-more Layoffs instead of Higher Salaries"* (Zornitza Lateva, Dnevnik, 01/23/2008, par. 10).

DSBs as a mechanism diminishing the functions of municipalities in the education sector. Most of the representatives agreed that the roles of the municipal governments in the management of schools decreased due to the implementation of the DSBs. To some of the interviewees, the local authorities were not active and served as "a transit point for distribution of education funds from the central level to the schools" (Eva Borisova, "Parents" Association, 09/08/2016). Miteva of America for Bulgaria Foundation also stated that the municipal governments did not have financial authority over the school budgets—they only distributed the school funds and, in this aspect, the local authorities were not needed (Natalya Miteva, America for Bulgaria Foundation 09/08/2016). According to Dacheva of NAMRB, even though the municipal governments were not given any real financial authority, they were left in the financial decentralization process because it was expected that the local authorities would provide additional funds to the schools (Teodora Dacheva, NAMRB, 02/01/2017).

Since the municipal governments owned the school property the local policies were focused on capital expenses. As a result, the school directors were dependent on

both the regional inspectorates of education as organs representing the central authorities at the local level and the municipal governments for capital expenses (Nataliya Miteva, America for Bulgaria Foundation, 09/08/2016). Petrov of Teachers' Union "Education," however, claimed that “according to the municipal governments, the delegated budget should include all school expenses. It was rare that the municipal government covered capital costs. The local authorities financed the schools only during emergency situations, from the so-called ‘emergency funds’ of the municipality" (Julian Petrov, Teachers' Union, "Education, 2016). Borisova of “Parents” Association agreed with Petrov regarding the capital expenses for the schools, adding "that capital expenses were not regular and planned. If funds were disbursed to schools for capital improvements, it was done for political reasons and, usually, such funds were provided to schools that are influential in the region" (Eva Borisova, “Parents” Association, 2016).

Petrov of the Teachers’ Union “Education” also described the contradictory practices existing at the local level between the schools and the municipal governments concerning efforts to prevent students from dropping out of school. More specifically, he questioned the effectiveness of a policy that has been in place since the beginning of 2000, and for which the municipal governments have been responsible, namely, making the allowance of the social benefits conditional on school attendance. Petrov claimed that even though the schools were trying to keep students, the municipalities have abdicated from enforcing the rules. Often, if the social benefit stopped because the student did not attend school, the municipal authority provided the family of the student with some other form of social aid. In

other words, Petrov stated: “education was not considered a priority by the local authorities" (Julian Petrov, Teachers’ Union “Education,” 09/07/2016).

According to Krasimir Valtchev of MES, the way municipal governments were involved with the educational policies in the schools in their territories depended on the size of the municipality. The expectations based on the theoretical premise that the smaller the locality, the closer to the needs of the people it serves, was that the small- and medium-sized municipalities would perform better. In practice, however, they turned to be “little kingdoms, in which the local governance was heavily influenced by political interests, and many people were dependent on the municipal government. As a result, there was a diversion of funds from the education system” (Krasimir Valtchev, MES, 01/30/2017). Valtchev’s view was that in Bulgaria, larger municipalities manage the education system better, whereas smaller municipalities (which are the majority of the municipalities in the country) do not have such capacity and are dependent on numerous political and other local factors (Krasimir Valtchev, MES, 01/30/2017). To him, the DSBs as a financial type of school management at the local level was successful; “it is a working model, which needs to be developed and modified further” (Krasimir Valtchev, MES, 01/30/2017).

As evident the DSBs were seen as an effective distributional model by the majority of the participants in the education process, especially the school directors. Primarily considered an efficiency measure, the DSBs provided transparency and predictability in the process of school financing. Their weakest element, according to some interviewees, was the local formula by which the funds were redistributed among schools. It seemed that the municipal governments not being able to operate

the central-government subsidy for education independently did not analyze the specifics of the schools in their territories thoroughly and, as a result, based the formula for distribution of funds among schools almost entirely on the number of students, thus benefiting larger schools. Seen mostly as passive participants in the process of school financial decentralization, whose primary function was to transfer funds from the central government to the schools in their territories, the local authorities were not given any real power regarding the development of education policies for schools. There was also a general mistrust on the larger part of the interviewees in the capacity and the political maturity of the municipal governments to manage the education process in their territories efficiently and fairly.

Decentralization of Authority at the Local Level of Governance

The decentralization of authority at the local level of governance did not only imply that the school directors were able to operate the school independently, but it also meant that the local governments would have greater freedom to formulate local education policies for the schools in their territories and to appoint school directors. It also envisioned that other school organs, composed of representatives of teachers, parents, and municipal governments, would have greater influence over the school management, and would be able to control the school budgets. As such, four main actions were announced in the Program for the Development of School Education, 2006-2015: the greater authority of the municipal governments over the school management, local appointment and control of the school directors, establishment of a mandated school director positions, and increased authority of the school boards over the administration of schools. These actions were directed toward creating

accountability measures to hold the director responsible to the community he/she served.

Authority of the Municipal Governments Over the School Management

As discussed in the subsection on the DSBs as the main element of school decentralization, the municipal governments' role in the financial decentralization process was seen mainly as transferring the education subsidy from the central government to the schools located in their territories. The interviewed participants expressed opposing opinions about the possibility of providing municipalities with more authority over the management of schools.

According to Kalkanova of the National Assembly of the Republic of Bulgaria, the functions and responsibilities of the municipal governments were blurred. For example, the local authorities considered schools to be their property, but did not interfere and did not influence the education policies (for example, by including local education goals and objectives in the school academic plans). According to Kalkanova, a decentralization reform developed at the central level of governance would not be implemented successfully if the municipal governments did not have the maximum freedom to develop priorities at the local level. She pointed out that "the real decentralization has to happen at the local level and the municipal governments have to establish local educational priorities. For this to occur, financial decentralization would not be sufficient; there must be decentralization of authority at the local level of governance as well" (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016). Dacheva of NAMRB stated that education decentralization of authority at the local level of governance was not adopted, mainly

because the local governments were not trusted by the central government with greater control over the schools in their territories (Teodora Dacheva, NAMRB, 02/01/2017).

To Petrov of the Teachers' Union "Education," the education decentralization in Bulgaria happened only with regard to the financial independence of schools. He agreed that the decentralization of authority at the local level of governance does not exist and insisted that the real decentralization meant school autonomy that accounts for specific characteristics of the schools (Julian Petrov, Teachers' Union "Education," 09/07/2016).

According to Zahariev of Open Society Institute, however, the municipal governments were not well prepared to start education decentralization, not only because they lacked capacity but also because they were politically immature. As he concluded, "broad political changes at the local level are needed" (Boyan Zahariev, Open Society Institute, 09/07/2016). Overall, Zahariev considered the problems that were observed during the decentralization reform to be those of local democracy.

Bumbarova-Nacheva of MOF also agreed that it was more appropriate to have a division of control over the school from the mayor (local authority) and the regional inspectorate (central authority), so they could control each other. In her view, education was a national priority and, therefore, the control of the MES was justifiable and needed (Zeni Bumbarova-Nacheva, MOF, 09/07/2016). Valtchev of MES also stated that the lack of capacity and the influence of other factors at the local level of governance "make us very cautious to trust municipalities with the management of schools" (Krasimir Valtchev, MES, 01/30/2017).

Local Control Over the School Director

Two forms of local control over the school director were envisioned during the planning phases of the education reform: the requirement for a mandated position of the school director, and the decentralized appointment of the school director.

Mandated Position of the School Director

The requirement for a mandated position of the school director was announced as an element of the reformed education system in the Program for the Development of School Education, 2006–2015 and proposed to be included in the draft of the new Bill of Bulgarian Education. However, it was never implemented (SCES, Minutes, 04/29/2009, p. 3). The opinions of the interviewed representatives about the proposal for a mandated position of the school director differed. Nikolcheva of the National Association of Employers in Bulgarian Education was against the implementation of such a measure because a four-year mandate means "wasting human resources. The school director is only learning how to be a leader for so many years" (Nadezhda Nikolcheva, National Association of Employers in Bulgarian Education, 09/08/2016). To Baleva of the Association of School Directors in the Republic of Bulgaria, the requirement for a mandated position of the school director was not appropriate, mostly because of the essence of the profession of the school director, "who as a leader with pedagogical functions manages the school directly without a team assigned to him. Comparing it to the mandate of the mayoral position is not appropriate because the mayor has a team, which assists in the managing of the municipality, and this team can be very stable over the years" (Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016).

On the other hand, the representatives of the teachers' unions were in favor of such a measure because they saw it as a tool that could limit the authority of the school directors. For example, Takeva of the Union of Bulgarian Teachers favored the proposal for a mandated position of the school director. According to her, the proposal was never approved by the National Assembly of the Republic of Bulgaria because it was repudiated by the lobby of school directors (Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016). Petrov of the Teachers' Union "Education" also supported the idea for a mandated position of the school director (even with an unlimited number of mandates), but stated that it was not backed by the central authorities, the Council of Ministers and the National Assembly of the Republic of Bulgaria. As a result, according to Petrov, "the school directors are influenced in their decisions by the MES as their employer. They are not interested in appealing to the local stakeholders–parents, students, and teachers" (Julian Petrov, Teachers' Union "Education, 09/07/2016).[26]

Decentralized Appointment of School Directors

The decentralized appointment of the school directors was another measure that was envisioned to make them more accountable to the local stakeholders. As the

[26] In 2008, the MES, supported by the teachers' unions, attempted to make the school director more accountable to the local organ of financing, the municipal government, by adding a special clause in the Bill of Public Education. It declared that if the school director were to spend more than 20 percent of the delegated funds, the minister of education and science by request of the municipal government would fire him/her. When discussed with the Standing Committee on Education and Science at the National Assembly of the Republic of Bulgaria, however, the text was modified. It stated, "The director may be sanctioned by request made by the organ of financing if the school spends more than 20 percent of delegated funds" (Bill of Public Education, 2008 Article 44(9)). It seemed that the members of the National Assembly of the Republic of Bulgaria were concerned that providing more authority to the municipal governments could result in terminating school directors in particular regions based on political factors (SCES, Minutes, 04/16/2008, p. 10)

first step, in 2007, the MES was planning to implement a pilot project for the decentralized appointment of school directors in ten municipalities. At the end of 2006, the MES and the National Association of Municipalities in the Republic of Bulgaria (NAMRB) signed an *Agreement for the Implementation of a Pilot Project for Decentralized Management of the System of Education.* The intent was in ten municipalities with already implemented DSBs to be established a school advisory board, composed of representatives of the municipal governments and regional inspectorates of education, teachers, and parents, who would play a major role in the management of the school including appointment, evaluating, and firing the school director.

The MES and the NAMRB created rules for the establishment and activities of the school advisory board and criteria for the evaluation of the professional skills of the school director. It was planned that within six months of their creation, the school advisory boards would evaluate the school directors and would make proposals for their rewards/sanctions. The intent was that after a year of implementation, an analysis of the results would be conducted and school advisory boards would be eventually created in all municipalities (Report on the Implementation of the Program for Development of School Education 2006–2015, 2006–2007, pp. 22–23).

All interviewees agreed that the pilot project was not successful. According to the ex-minister of education and science, Daniel Valtchev, the pilot failed because some of the local stakeholders lost interest (municipal governments and school directors), whereas the parents differed slightly in their interests and actions and could

not unite to express their interests (Daniel Valtchev, MES, 09/10/2016). As Valtchev pointed out at a session of the Standing Committee on Education and Science at the National Assembly of the Republic of Bulgaria "it is a serious issue that is not developing quite all right. There were high expectations from the local authorities up to the moment when they realized that the mayors would not be able solely to appoint the school directors" (Daniel Valtchev, SCES, Minutes, 04/29/2009, p. 3).

Borisova of “Parents” Association stated that there were numerous reasons why the pilot project failed. First, there was no a concept of the way representatives participating on the school advisory board would be selected. Second, there was no external control. Borisova claimed that “the MES contributed significantly to its failure due to the lack of monitoring and support" (Eva Borisova, “Parents” Association, 09/08/2016). Third, the school advisory boards did not have relevant experience at the operational level (e.g., they lacked experience regarding establishing protocols, reports, minutes, etc.) (Eva Borisova, “Parents” Association, 09/08/2016). Dacheva of NAMRB concluded that the whole process of implementing the decentralized appointment of school directors was chaotic, leading to panic among the stakeholders. In her view, the advisory boards also duplicated the school boards in many of their assigned functions (Teodora Dacheva, NAMRB, 02/01/2017).

The interviewed representatives of the school directors did not support the idea for the decentralized appointment of school directors. Baleva of the Association of School Directors in the Republic of Bulgaria stated that there was opposition to the appointment of school directors from the municipal governments, mainly because there was a perception that the local organs of governance were not “politically

mature.” According to Baleva, the regional inspectorates of education were more independent when making decisions for appointment/firing of school directors (Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016). The teachers’ unions were also against the decentralized appointment of school directors. For example, Takeva of the Union of Bulgarian Teachers pointed out that political motives at the local level of governance would have interfered with the fair choice of school directors (Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016).

As could be seen, there were some activities directed toward greater decentralization of school authority but they were not supported by the most influential stakeholders at the central level of governance. Regarding the proposal for a mandated position of the school director, the school directors opposed such a measure and were supported by the central government. Another action, the decentralized appointment of school directors, was not only opposed by the school directors and the central government but also by the teachers' unions. As a result, the school director was only monitored by the MES at the central level of governance. However, as Andreeva of the National Institute for Training of School Directors stated, such a lack of control at the local level have led some school directors "to behave like landlords," which in some extreme cases destroyed entire schools (Aneliya Andreeva, National Institute for Training of School Directors, 02/10/2017).

Role of the School Board

Another organ of local school management was the school board. It was legislatively defined in the Bill of Public Education as an independent, voluntary

body for local control and support of the school with a broad range of responsibilities, from providing financial means and participation in the selection of textbooks to a training of parents (Bill of Public Education, Article 46, 1991). To some of the interviewees, even though the school boards had many functions, they did not operate efficiently (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016; Eva Borisova, “Parents” Association, 09/08/2016). Petrov of the Teachers’ Union “Education” claimed that “the school boards assist in the management of the schools but their functions are blurred" (Julian Petrov, Teachers' Union "Education," 09/07/2016). Zahariev of Open Society Institute stated that even though the school board's primary function was the accumulation of school funds, in reality, it was used by influential local groups to apply pressure to the school (Boyan Zahariev, Open Society Institute, 09/08/2016).

The representatives of the school directors and the teachers' unions, however, considered the school boards active participants in the education process. For example, Baleva of the Association of School Directors in the Republic of Bulgaria stated that the school boards participated in activities associated with the financing of schools, and she did not think of them as passive participants in the school process. However, "the role of the school director in initiating an active partnership between the school board and the parents is crucial" (Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016). Takeva of the Union of Bulgarian Teachers claimed that the school boards were working with the teachers' unions effectively. To her, "the school boards are not very vocal (they do not have an

association or lobby) and, as a result, they have been pushed aside from the center of debates and decisions" (Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016).

As can be seen, the local control over the school management was rather limited and not supported by the central level of government. Even though measures of such control were planned and discussed, they were opposed by influential stakeholders such as the school directors (e.g., the mandated position and the decentralized appointment of the school director). In addition, the school boards were not perceived as an important factor influencing the decision-making process at schools.

Decentralization of School Plans and Programs

Interestingly, in the discussions about the education-decentralization reform, only a few interviewees mentioned that decentralization at the school level should involve freedom of the schools to develop their academic plans and programs. For example, Kalkanova of the National Assembly of the Republic of Bulgaria claimed that the Bulgarian students score lower on PISA tests, mainly because of the existing archaic and conservative academic plans and programs. However, according to Kalkanova "neither the WB nor the MES comprehended this issue" (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016).

Another participant, Daniel Valtchev of MES stated that while he was a minister of education and science, some measures that were implemented could be considered as actions directed toward greater autonomy of the schools regarding the academic process (Daniel Valtchev, MES, 2016). More specifically, the teachers had freedom related to the selection of teaching materials (70 percent of their lessons had

to be in accordance with the nationally approved school plans, and for the remaining 30 percent, they could choose what to teach). The teachers also started playing a significant role in the selection of textbooks by casting votes. The three winning proposals based on the majority vote were approved by the minister of education and science (MES Regulation No. 5 for the Assessment and Approval of School Textbooks from 05/15/2003, changed 06/16/2006). However, I could not confirm that the first measure, freedom of teachers in determining what to teach, was ever officially implemented since no official document or other interviewee confirmed or was aware of it. As for the second measure, selection of textbooks, even though the teachers could cast their votes for their preferred choice, this hardly was a decision taken at the local level because the minister of education and science had to approve the vote and select only the three winning proposals.

Aneliya Andreeva of the National Institute for Training of School Directors explained that the ability of a school to select elective classes was rather limited because there was "still a pre-approved list with classes from which we [the school directors] could choose" (Aneliya Andreeva, National Institute for Training of School Directors, 02/10/2017).As she pointed out: "education decentralization should have involved freedom of schools to modify their curriculums based on local specifics, especially in regions with predominantly Roma and Turkish population" (Aneliya Andreeva, National Institute for Training of School Directors, 02/10/2017).

It seems that school authority regarding the freedom of schools to develop academic programs and plans was not discussed during the planning for education decentralization. For example, the National Program for the Development of School

Education 2006–2015 only briefly mentioned that the school plans had to be updated by emphasizing an increase in the amount of information-technology and foreign-language classes (National Program for the Development of School Education 2006–2015, 2006, p. 9). I can be concluded that decentralization of the development of school academic plans was never in the focus of the political actors who planned and implemented the education-decentralization reform in Bulgaria.

Consolidation of Schools as an Intervening Factor in the Education Decentralization Reform

The primary actions under the DPL loan series were focused on school decentralization (e.g., unified student standard, DSBs, and the training of school directors). The Bank, however, also supported a measure such as the consolidation of the school network that seemed to contradict one of the WB's main objectives, reducing the number of students dropping out of school. Under the Bank's model, the unified student standard and the DSBs were seen as tools for making schools more competitive by striving to keep and attract more students. In this aspect, these elements of the decentralization reform were considered effective actions toward reducing the number of dropouts. However, their effectiveness was undermined by another policy recommended by the Bank, which focused on the consolidation of schools.

The Bank's premise for implementing the consolidation of schools was the slower rate at which municipal governments were closing down schools in response to a decrease in the school-age population and the lack of a systematic plan of doing it. (World Bank, 2008a, p. 16). In theory, according to the Bank, a school closure could either raise or lower dropout rates. The WB experts expected that an efficiency

measure, such as the closure of schools, would lead to a decrease in dropout rates because it would free up additional resources that could be used for improvements in the remaining schools, helping to lower the risk of students leaving the school system.

Preliminary evidence for 2006 and 2007 years suggested that municipal governments were responding to the incentives embedded in the new financing system by closing schools at a faster rate than in previous years. Local authorities, however, were encouraged to continue closing schools and were provided with funds for reinvesting in education (World Bank, 2008a, p. 80). Under DPL 2, during 2007–2008, a new action item was added to the decentralization agenda: an incentive mechanism for school consolidation and reduction of school classes, as a priority was given to school closures (National Program for Consolidation of the School Network, 2007, p. 5)

A budget allocation of BGN 36 million ($27 million) was introduced in the 2007 public budget for a package of measures to support municipal governments in the process of consolidating schools (National Program for Consolidation of the School Network, 2007, p. 1).[27] The municipal governments had to build safeguarding measures into their proposals for consolidation of the school networks to receive the funds in 2007. For example, they had to show plans for the creation and renovation of regional schools and present evidence that the school closures were discussed and explained to the affected communities (National Program for Consolidation of the School Network, 2007, p. 2; Report on the Implementation of the National Program

[27] In the first phase of the program, 50 percent of the funds were provided in advance to the municipal governments after approval of their proposals for consolidation. In the second phase, after the measures in the plans for consolidation were implemented, reported, and approved, the remaining 50 percent of the funds were provided to the municipal governments (National Program for Consolidation of the School Network, 2007, p. 2).

for the Development of School Education 2006–2015, 2006–2007, pp. 19–20). The Ministry of Finance (MOF) was also considering requiring municipal governments to demonstrate that measures have been taken to protect vulnerable groups (World Bank, 2008a, p. 58).

Funding for school consolidation was awarded to municipal governments based on the number of students and reduced number of classes. For every closed class, which led to an increase in average class size, the municipal government received BGN 12,000 ($9,000). For every closed school, the municipal government received between BGN 80,000 ($60,000) for a closed school with enrolled 20 students and BGN 250,000 ($187,000) for a closed school with more than 44 enrolled students (World Bank, 2008a, p. 57; Report on the Implementation of the Program for Development of School Education 2006–2015, 2006–2007, p. 20).

In 2007, 64 municipal governments with 78 projects participated, of which 69 projects were approved, worth approximately BGN 14.5 million ($11 million) (Report on the Implementation of the Program for Development of School Education 2006–2015, 2006–2007, p. 20). As a result, 90 schools, or 3.6 percent of the total number of schools in 2006, were closed (National Program for Consolidation of the School Network, 2007, p. 5; ADMIN database; & Table 5).

The slow start of the program, according to Daniel Valtchev, minister of education and science at that time, was due to the fact that the mayors were reluctant to implement unpopular measures such as closure of schools before the local elections scheduled for the end of 2007 (Daniel Valtchev, SCES, Minutes, 10/17/2007, p. 5). In 2008, the program for consolidation of schools continued, as the funds for its support

were increased to BGN 67 million ($50 million). The funds were almost entirely absorbed: approved were 128 municipal projects for consolidation, worth of BGN 60,4 ($45 million) (Report on the Implementation of the National Program for the Development of School Education 2006–2015, 2007–2008, p. 23). In 2008, the number of closed schools was 301, or 12.6 percent of the total number of schools in 2007, the greatest number throughout the existence of the program, which is currently still operating (National Program for Consolidation of the School Network, 2008, p. 7; ADMIN database; & Table 5). In 2009, the funds for the program were BGN 55 million ($41 million), and the approved projects for consolidation of the school network were 45, as 55 schools, or 2.6 percent of the total number of schools in 2008 were closed (National Program for Consolidation of the School Network, 2009, p. 1; p. 17; ADMIN database; & Table 5). In 2010, the funds were significantly less, BGN 16.3 million ($12 million), as 28 schools, or 1.4 percent of the total number of schools in 2009 were closed (National Program for Consolidation of the School Network, 2010, p. 1; p. 15; ADMIN database; & Table 5).

The closure of schools has continued after 2010 but at a slower rate. For example, in 2011, 48 schools were closed; in 2012, there were no closed schools; in 2013, 12 schools were closed; and in 2014, nine schools were closed (Table 5). Overall, during 2005–2014, 667 public municipal schools were closed, which represents 25 percent of the total number of schools in 2004 (Table 5).

Table 5. Closed Schools as Percentage of Total Number of Schools for Years 2005 to 2014

Year	Total Number of Schools	Number of Closed Schools	Closed Schools as a % of Total Schools
2004	2,594	-	
2005	2,561	34	1.31
2006	2,477	90	3.51
2007	2,387	90	3.63
2008	2,092	301	12.61
2009	2,040	55	2.63
2010	2,012	28	1.37
2011	1,970	48	2.39
2012	1,970	0	0.00
2013	1,958	12	0.61
2014	1,950	9	0.46
Total		667	25.71*

**The total percentage of closed schools is based on the total number of schools in 2004.*

Source: ADMIN database (2004–2014).

During the initial discussions on the consolidation of schools at the Standing Committee on Education and Science at the National Assembly of the Republic of Bulgaria, there were concerns among its members and the teachers' unions that such a measure should not be applied automatically and local characteristics of the municipalities must be considered (SCES, Minutes, 11/09/2005, p. 6). The intent of the MES, however, was not to interfere with the decisions of the municipal governments regarding their choices to close schools (Daniel Valtchev, SCES, Minutes, 11/14/2007, p. 6).

The Bank acknowledged that the primary potential social impact of the education reform was the increase in dropout rates as a result of school closures. For

that purpose a dataset was created by the WB team combining two household surveys, one from 2003 and one from 2007, covering more than 20,000 individuals with information on schools obtained from the National Statistical Institute's annual census of schools. The data were used to examine whether districts that had closed down a higher number of schools were also more likely to have a larger proportion of the sampled population in the age group 10–16 not in school. A multivariate OLS regression was performed with the share of the 10–16-year-olds not in school as a dependent variable and the change in the number of schools as an independent variable. In addition, the following districts' characteristics were included as control variables: a share of the population living in municipal centers, a share of the population being Roma, a share of the population being Turkish, change in the population size of a district, district poverty rate, number of settlements, population density, and average student-teacher ratio.

The results from the analysis suggested that other factors besides school closures, such as ethnicity and poverty, had a greater impact on dropout rates (World Bank, 2008a, pp. 80–81). Further, the Bank stated that the education officials at both the central and municipal levels of governance had gained significant experience from school closures during the past decade and could handle additional closures. The Bank also relied on the education information management system that allowed the central authorities to track the enrollment of students (World Bank, 2008a, pp. 82–83). Reassured that the government had put in place a series of safeguarding policies to prevent an increase in school dropouts in municipalities where school closures

were taking place, the WB claimed that there was no risk for increased numbers of students dropping out of schools due to school closures (World Bank, 2008a, p. 30).

However, some of the interviewees stated that the closure of schools led to increased number of dropouts (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/102016; Boyan Zahariev, Open Society Institute, 09/07/2016; Eva Borisova, “Parents” Association, 09/08/2016; Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016). According to Kalkanova of the National Assembly of the Republic of Bulgaria, in theory, the reform should have led to increased access to education but the data showed the opposite. The number of children who have never attended school or have dropped out of school, primarily children of Roma origin and children from lower-income families had increased. Kalkanova pointed out that one of the reasons for the increased dropout rates due to school closures was that families living in smaller localities did not let their children attend schools in larger cities, mainly because they were accustomed to the smaller schools in their areas. She further explained: "Smaller schools create comfort and are considered safe for their children. The increase in the school dropouts was the unintended consequence of the reform” (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016).

Zahariev of Open Society Institute admitted that even though, theoretically, students from closed schools should have attended better schools after the closure of the small schools, the effect was the opposite because there was not a clear concept of how the consolidation of schools should be conducted.[28] In Zahariev’s view, “the

[28] Zahariev also pointed out that while there was an analysis of the effects of the school closures on dropouts from closed schools, there was no research on other effects of school closures on the

closure of schools was extreme. The process of closure of schools should have followed the natural demographic changes in the population but, in fact, it was enforced by the central authorities by offering incentives to the municipal governments to consolidate their school networks" (Boyan Zahariev, Open Society Institute, 09/07/2016).

Zahariev concluded that the MES should have participated more actively and directly in monitoring the activities of the local authorities regarding the closure of schools. However, according to him, it seemed that the MES was not experienced enough to know which buffers to use and how to use them (Boyan Zahariev, Open Society Institute, 09/07/2016).

Petrov of the Teacher's Union "Education" agreed that the closure of schools was extreme, stressing that the consolidation of schools forced students to move from smaller to larger schools (Julian Petrov, Teachers, Union "Education," 09/07/2016). Borisova of "Parents" Association pointed out that one of the implemented safeguarding measures, the creation of regional schools, led to the depopulation of certain localities (e.g., populated places where schools were closed and children were transferred to the regional schools) (Eva Borisova, "Parents" Association, 09/08/2016). Nikolcheva of the Association of Employers in Bulgarian Education offered a different perspective on the process of school consolidation. In her view, closed schools provided a low-quality education via the mechanisms of merged and small classes. She emphasized that if the local authorities insisted on having merged/small classes, they should be able to provide additional financing from their

---

education system. For example, the impact of the school closures on the students at schools where the children from closed schools were enrolled was never analyzed (Boyan Zahariev, Open Society Institute, 09/07/2016).

budget (Nadezhda Nikolcheva, Association of Employers in Bulgarian Education, 09/08/2016).

As can be seen, to the majority of the interviewees, the closure of schools in Bulgaria has led to some unexpected consequences of the reform, namely, an increase in the number of students who dropped out or never attended school. The mechanism of the DSBs alone could have led to an increase in the number of closed schools but, at the same time, it was considered an effective tool for attraction and retention of students. The incentives offered by the GOB to the local authorities to start consolidating their school networks at a faster rate resulted in an even higher number of school closures, which, undoubtedly, would have led to an increase in the number of students dropping out of school. However, from the reviews of the documents and interviews with representatives of different organizations participating in the education reform, it remains unclear if the DSBs significantly counteracted the negative consequences of the school-consolidation measures or reinforced them.

Creation of Protected Schools as a Mitigating Measure

The protected schools were established as a mitigating measure to account for unique characteristics of the schools located in a given municipality. The idea for the creation of protected schools was discussed in the National Assembly of the Republic of Bulgaria as early as the introduction in 2006 of the Program for Development of School Education 2006-2016. However, a plan for their creation was not included in the Program (SCES, Minutes, 05/17/2006, p. 3; SCES, Minutes, 10/18/2006, p. 3). After the teachers' strike in 2007, the MES, along with experts from the WB, started developing a concept for protected schools. It was presented to the National

Assembly of the Republic of Bulgaria for discussion before the end of 2007 (Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016; Daniel Valtchev, SCES, Minutes, 1/14.2007, p. 6). As a result, there was a line item for funding of protected schools added into the 2008 Bill of the Public Budget (Bill of the Public Budget, 2008, §70(7)).

The GOB also started to develop a database with the geographic mapping of settlements and schools in the country to determine which schools were too far away from other schools to ask students to travel, namely, schools that needed to be protected. Next, the minister of education and science, Daniel Valtchev, presented the concept of protected schools developed by the MES, the MOF, and the WB at a special session of the National Assembly of the Republic of Bulgaria.

The protected schools were envisioned as a necessary compromise between the two principles embedded in the reformed education system: equal access to education for all students and higher-quality education. The creation of the protected schools stemmed from some limitations of the new system of school financing, more specifically, the division of the municipalities into four separate categories. The amounts of the unified student standard for municipalities differed, depending on which group the municipality was placed. Such a differentiation, however, did not account adequately for the differences between schools in the same municipality and the unique characteristics of some particular schools.

As a mitigating measure, the protected schools were intended to be a buffer against the uneven distribution of funds among schools in the same municipality (Daniel Valtchev, SCES, Minutes, 01/30/2008, pp. 1–2). The criteria that would be

used to determine if a school was a protected school were two: the distance of the school to the next closest school and the number of students who would travel to the nearest school (Daniel Valtchev, SCES, Minutes, 01/30/2008, p. 2).Based on observations of experts of the MES, the MOF, and the WB, the majority of the protected schools fell into the following groups: schools in municipalities with already consolidated school networks, schools in regions with lower-population density, schools in areas in close proximity to the boundaries of the country with the neighboring countries, and schools in mountainous regions (Daniel Valtchev, Minutes, SCES, Minutes, 01/30/2008, p. 2). The initial forecast for the number of protected schools was about 70, with the expectation that they would increase gradually. The reason for the low number of schools initially, as Daniel Valtchev pointed out, was due to the incomplete consolidation of the school network. For example, when two schools were located close to each other, each of them prevented the other from being classified as protected (Daniel Valtchev, SCES, Minutes, 01/30/2008, p. 4).

The concept of the protected schools was legislatively defined in the existing Bill of Public Education on 05/30/2008. The criteria for determining the schools as protected and their funding were additionally regulated by the *Council of Ministers Order No. 212 for Accepting of Criteria for Defining Protected Schools in Bulgaria and the Way of their Financing* from 09/12/2008. In short, protected schools were schools that, if closed, had at least ten students who would be traveling no less than 20 km using the existing transport network to the closest school.[29] Protected schools

[29] The distance in the mountainous regions was calculated by using an equalizing coefficient accounting for specific characteristics of the area.

could also be schools that, if closed, their students would not be able to be enrolled in the nearest school due to the school's lack of capacity and inability to comply with hygienic and health requirements (Bill of Public Education, 2008, §6e (5)). The protected schools were to receive additional funds for permanent expenses and an equalizing subsidy—the difference between the current and the previous year budget (Council of Ministers Order No. 212 for Accepting of Criteria for Defining Protected Schools in Bulgaria and the Way for their Financing, 2008, Article 1, 2 and 3).[30] Initially, the protected schools were about 74, but by the end of 2008, additional 17 schools were added, totaling 91 protected schools (SCES, Minutes, 11/26/2008, p. 1).

Even though the majority of the interviewees considered the establishment of protected schools as a necessary measure, they admitted that it proved to be an insufficient mechanism for reducing the number of school dropouts (Boyan Zahariev, Open Society Institute, 09/07/2016; Julian Petrov, Teachers' Union "Education," 09/07/2016; Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016). Interestingly, many of the interviewees considered that the closure of schools during 2007–2008 coincided with the creation of protected schools (Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016; Daniel Valtchev, MES, 09/10/2016).

---

[30] The request for inclusion of a school on the list of protected schools had to be done by the mayor of the municipality, and it had to be accompanied by an opinion of the regional inspectorate of education. Then, it had to be evaluated by a committee composed of members of different ministries and organizations (the MES, the MOF, the Ministry of Regional Development, the Ministry of Health, and the National Association of Municipalities in the Republic of Bulgaria). Finally, the proposal had to be sent by the minister of education and science to the Council of Ministers for approval (Council of Ministers Order No. 212 for Accepting of Criteria for Defining Protected Schools in Bulgaria and the Way for their Financing, 2008, Article 5 & 6).

However, as Zahariev of Open Society Institute stated, the protected schools were established after the school consolidation process started as a buffer to protect some vulnerable schools from closure. He pointed out that to be an effective mitigating measure of the school consolidation process; protected schools should have been defined and announced before the incentives for the closure of schools were implemented (Boyan Zahariev, Open Society Institute, 09/10/2016). Valtchev of MES opposed this view, claiming that creating a list of protected schools before the closure of schools started would have contradicted the whole process of school consolidation. In Valtchev's opinion, the protected schools served as a limit to the consolidation of the school system:

> Without school consolidation, there would be too many schools that would fall into the category of protected schools and, therefore, would prevent each other from getting the status of a protected school. The consolidation of schools led to the closure of many schools, which made it possible for schools that needed to be included on the list of protected schools to be distinguished clearly (Krasimir Valtchev, MES, 01/30/2017).[31]

As can be seen, the protected schools were implemented later than the incentives for consolidation of schools, which, in effect, forced municipal governments to close schools when faced with a dilemma to keep them open without being able to ensure funding. The school consolidation process, undoubtedly, affected many schools that could have been included in the category of protected school, thus preventing children from attending schools in their localities. However, it seems that the GOB was focused mostly on achieving efficiency and, therefore, slowed down the

[31] In addition, Valtchev recalled that in 2007, when the school consolidation started, most schools that needed to be included in the protected-school category were known to the municipal governments and the regional inspectorates of education and, therefore, were not closed (Krasimir Valtchev, MES, 01/30/2017).

implementation of measures that would have been directed toward ensuring equal access of all children to education.

World Bank Supervision and Evaluation

The supervision and evaluation activities by the WB started immediately after the DPL loan series was opened. For example, during DPL 1 loan agreement, the Bank completed frequent visits through the Bank's field-based sector manager, located in Croatia. At the same time, a WB's team member also moved to Bulgaria and focused on developing a policy dialogue in the area of education and social inclusion. The WB country office in Sofia, Bulgaria also provided significant support during the program. As a result, the Bank's evaluation team gave a satisfactory rating for the overall supervision of the program (World Bank, 2010, p. 29).

The evaluation activities under the DPL loan series started as early as the preparation for the reform. During the DPL 1 loan agreement, policy notes on education were prepared that "identified a number of key outcome indicators and milestones for the program to be monitored over time" (World Bank, 2010, p. 11). However, DPL 1 did not specify the results framework including the methodology, indicators, baseline values, and approach measuring the DPL effect.

The Bank provided technical assistance on impact evaluation under DPL 2 and DPL 3 loan agreements as well. More specifically, the WB conducted several training activities and a programmatic, technical assistance program. As a result, the GOB instituted an Impact Evaluation Task Force in 2008 (overlapping with DPL 2 and DPL 3). Under the technical assistance program, the Bank provided capacity-building workshops for the Task Force at the end of DPL 2 on the impact of school

closures on student dropout rates in 2009 (World Bank, 2010, p. 12). The DPL 2 and 3 also benefited from a project-preparation grant (PHRD) that produced analytical work and "proved to be critical for successful operations" (World Bank, 2010, p. 10; p. 46). In fact, DPL 2 PHRD absorption rate was above 90 percent, and in interviews, representatives of the line ministries stated that the preparation grant was vital for the successful design and implementation of all measures (World Bank, 2010, p. 46). This was also confirmed by Andreeva, who as the first director of the National Institute for Training of School Directors, worked directly with the experts of the WB and utilized the technical assistance under the PHRD grant (Aneliya Andreeva, National Institute for Training of School Directors, 02/10/2017).

The DPL 2 and 3 loan agreements also included an evaluation framework coupled with an analytical work that was partially developed with the support of the PHRD grant. The policy matrix in DPL 3 tracked indicators based on administrative data, which were used by the GOB and the Bank to identify progress made in the education reform. They consisted of indicators utilized by the GOB for internal and EU reporting purposes; specific output and outcome indicators; and process indicators. However, mostly process indicators and a few output indicators were used (World Bank, 2010, p. 11). The key outcome indicators were improved completion rate, better quality of education, and more efficient spending (World Bank, 2010, p. 18). The Bank, however, stated that the major outcomes such as higher completion rates and better quality of education, were longer term and, therefore, not possible to be fully assessed, given the short time frame of the program and the absence of more rigorous evaluation data (World Bank, 2010, p. 14).

Most of the activities under PAL1, 2, and 3 loans had as a primary goal the achievement of greater efficiency in the management of school resources and personnel. Nevertheless, the Bank insisted that the impact of the reforms was not centered on fiscal savings because the government kept overall spending on education constant at about 4.0–4.2 percent of GDP. The WB's premise was that the reform contributed to the more desirable reallocation of resources from wage to non-wage spending, such as spending to refurbish schools, supply schools with computers, and pay for the free provision of textbooks and free meals.[32]

The WB concluded that the reallocation of resources from wage to non-wage spending was likely to be desirable for the educational outcomes of students. The municipal governments and school directors had the ability to shift resources from wage to non-wage expenditure, to retain savings from one year to the next, and to decide to close one school and move the savings to the consolidated schools. As a result, the spending on education became more flexible. With fewer resources tied up in salaries and costs related to maintaining buildings, local authorities and school directors could start each fiscal year with more room to target resources to where they were likely to have the greatest impact. The Bank acknowledged that flexibility, per se, would not automatically lead to better educational outcomes and insisted on combining it with "rigorous approach to analyze weaknesses in the learning process, and evaluate existing programs" (World Bank, 2009, p. 46). An example of such a

[32] The estimates presented by the Bank showed that this reallocation would amount to more than 0.3 percent of GDP or about BGN 215 million ($160 million) in 2009, and even more in 2010. This shift in the composition of spending was done by comparing the spending on wages between 2005 and 2009. In 2005, according to the Bank's analysis, more than 70 percent of the municipal schools' expenditures was for wages, whereas in 2009, this percentage dropped to around 50 percent (World Bank, 2009, p. 45)

weakness resulting from the reform and widely discussed was that the bigger school classes, seen as a positive impact of the reform by the experts of the WB, were perceived as a disadvantage by the teachers. The educators claimed that they had problems managing and working effectively with students in such classes (Luba Yordanova, Kapital, 09/12/2008, par. 19).

Some indicators, however, were completely missing from the evaluation activities (e.g., indicators measuring inequality in access to education). Although originally planned, no follow-up household survey was conducted to assess the reforms against the 2007 baseline, thus not tracking any inequality indicators in education (World Bank, 2010, p. 25). As one of the lessons learned during the evaluation process, the WB experts pointed out that when designing the program, the Bank could have done better in defining the "objective-action-indicator" chain. The WB acknowledged that another approach taking into account the relevance of confounding factors should have been applied on the feasibility of reaching objectives. For example, since Bulgaria was for few years in a row in a strong fiscal position, fiscal sustainability should not have been a relevant objective. Instead, improving the quality of education might have been a more appropriate objective (World Bank, 2010, p. 33).

Overall, however, the evaluation concluded that the education reform was successful because of the financial decentralization of the education system and the efficiencies achieved by the increased student/teacher ratios and average school size due to school closures. The Bank acknowledged that even though the reforms were “impressive,” they still “need some refinement” (World Bank, 2010, p. 19). For

example, an impact evaluation conducted by the WB indicated that students from closed schools might have had significantly higher dropout rates after one year (5–8 percent) and after two years (3 percent), especially among Roma students. Another negative externality on access to education was the decrease in the net enrollment rates in primary schools (World Bank, 2010, p. 20). A concern was also that the accountability measures were not yet defined to make schools responsive to parents and the community regarding learning outcomes (World Bank, 2010, p. 20).

The education part of the loan program was rated to be the most successful of all DPL components (World Bank, 2010, p. 25). In fact, the education reform was the key institutional change achieved under the DPL program (World Bank, 2010, p. 26). The Bank stated that the MES became a “reform champion,” succeeding in the implementation of painful reforms despite strong opposition from the teachers' unions (World Bank, 2010, p. 29). In media coverage, such as the article titled *"Good +*," the education reform was proclaimed the only achievement of the government during 2005–2009 (Luba Yordanova, Kapital, 09/12/2008, par. 2). Undoubtedly, as highlighted by Igor Damyanov of MES, a huge factor for the successful implementation of the reforms was the fact that Daniel Valtchev, as a minister of education and science during 2005–2009 was not replaced for the whole mandate of the GOB (Igor Damyanov, MES, 02/10/2017)**.**

As has been established, education decentralization in Bulgaria was implemented with the active involvement of the WB. However, the DSBs as financial mechanisms were developed under the EU-PHARE program back in 1996. In this aspect, the Bank did not impose its model of financial decentralization but guided the

GOB by ensuring financial and technical expertise during the planning and implementation phases of the school decentralization. The DPL loan series served multiple functions: they provided a complete framework for implementation of the government's strategy in the education sector; facilitated the coordination between line ministries, such as the MOF and the MES; and established a time frame for reforms by external monitoring and supervision to evaluate their success.

The critiques of the work done by the Bank during the implementation phase of the loans were based on the fact that the WB was pushing for implementation of primarily efficiency measures such as consolidation of the school network, without measuring in advance the effect of school closures on the equal access to education. In addition, the decentralization of school authority was never completed, and the Bank did not provide any guidance on its successful implementation and the role of the municipal governments in the process of decentralization. Finally, it seems that the quality of education was not seen as a primary objective of the reform. At the end the DPL series, the Bank was in the process of preparing an investment loan of $300 million directed at improving the performance of the education system, more specifically, school accountability, school leadership, and school performance (World Bank, 2009b, p. 2). Even though the loan was dropped, it showed that the WB did not consider education decentralization complete and attempted to develop performance indicators to measure academic outcomes in Bulgarian schools.

Chapter 10: Results of the Quantitative Analysis

This chapter shows the results of the qualitative analysis that examines the effect of the Delegated School Budgets (DSBs) on intermediate student outcomes, such as dropping out of school and repeating a grade. The chapter starts with descriptive statistics of the variables included in the empirical model. Next, it provides comparisons between the treatment and control group of schools. Finally, it presents the results from the models that estimate the effect of the DSBs on dropout and grade-repetition rates.

Descriptive Statistics

Table 6 contains the descriptive statistics for the sample of Bulgarian public municipal schools for years 2004 to 2014. There are a total of 21,823 school-year cells in the panel for dropout rates and 19,393 school-year cells in the panel for grade-repetition rates. The sample sizes for school dropout and school repeaters differ because dropout rates are for years 2004 to 2013 and grade repetition rates are for years 2005 to 2014. In addition, for grades 1–4 grade-repetition rates are only available for years 2004–2008 and, therefore, primary schools that offer basic education for students in these grades are excluded from the analysis. Overall, the average dropout rate for all students is 4.76%, and it is higher for girls (4.81%) than for boys (4.75%). Dropout rates decrease from elementary school (3.63%) to middle school (2.71%) and increase in high school (4.23%). The average grade-repetition rate follows the following pattern: it is 1.15% for all students but it is greater for boys

(1.32%) than for girls (0.97%). It increases from elementary school (0.62%) to middle school (0.81%) and decreases for high school (0.61%).

About two-thirds (70%) of the schools implemented the DSBs after 2008. Regarding the teachers' characteristics, more than two thirds (72%) of teachers have masters' degree, their average teaching experience is about 19 years, and about 30 percent of teachers in a given school have a level of professional qualification. The mean student-teacher ratio is 12.3 students per teacher, and the majority of the schools are located in cities (75%).

Table 6. Descriptive Statistics for School-level Panel Data in Bulgaria for years 2004 to 2014

	Dropout rates sample*		Grade-repetition rates sample**	
Variable	Mean	Standard deviation	Mean	Standard deviation
Average experience of teachers (years)	19.541	2.966	19.935	2.854
Dropout rates per 100				
Total	4.764	5.477		
Boys	4.752	5.709		
Girls	4.807	6.097		
Grades 1–4	3.629	4.138		
Grades 5–8	2.714	3.649		
Grades 9–12	4.232	8.362		
Grade-repetition rates per 100				
Total			1.151	2.639
Boys			1.322	3.004
Girls			0.970	2.537
Grades 1–4***			0.619	2.409
Grades 5–8			0.807	1.994
Grades 9–12			0.605	1.875
Percentage of teachers with a level of professional qualification	30.387	20.263	34.479	17.725
Percentage of teachers with master's degree	72.095	19.159	72.654	18.385
School location-city/village (0/1)	0.745	0.436	0.747	0.435
Student-teacher ratio	12.310	2.427	12.259	2.443
School type (1–6)	3.934	1.964	3.057	1.912
Treatment schools (0/1)	0.704	0.457	0.689	0.463

n = 21,823 (dropout rates)

n = 19,393 (grade-repetition rates)

** Dropout rates are for years 2004 to 2013.*

*** Grade-repetition rates are not available for the 2004 year.*

****Grade-repetition rates are only available for years 2004 to 2008.*

Note: Source: ADMIN school database (2004–2014). Calculations are weighted by students' enrollments per school.

Comparison Between the Treatment and Control Groups of Schools

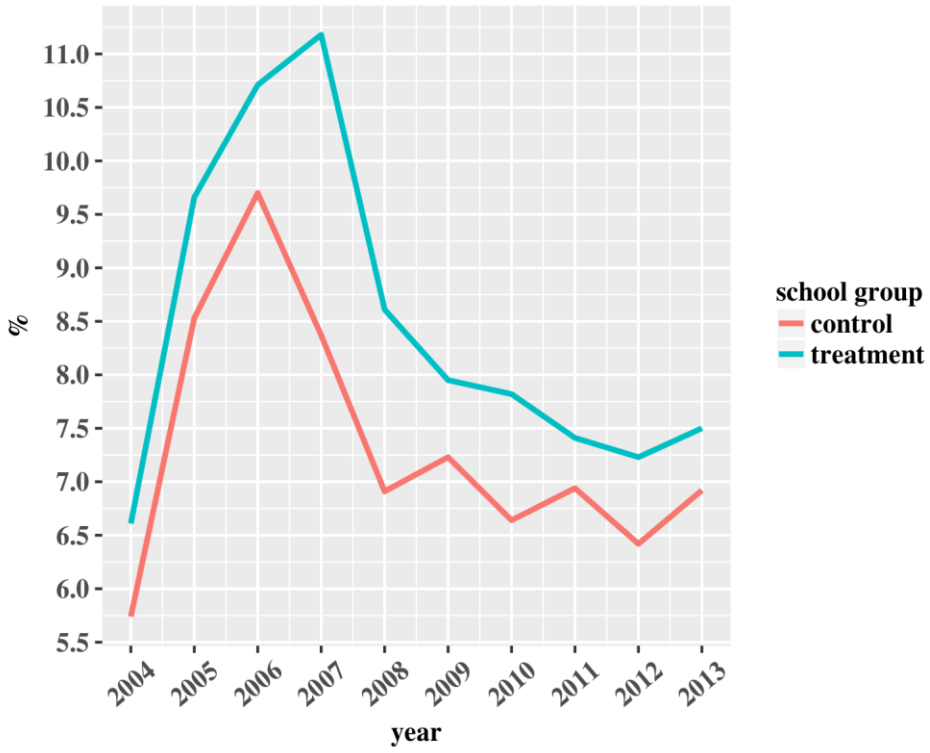
Figures 7 and 8 illustrate the total dropout and grade-repetition rates for the control and treatment groups of public schools. Figure 7 shows a downward trend of dropout rates for both the treatment and control groups in 2004–2013. The control group of schools that implemented the DSBs before 2008 has lower dropout rates, although the trend seems to be non-linear before 2008. The same pattern is observed for the treatment group of schools. Interestingly, both groups of schools experience a peak in dropout rates in 2006 (about 9.75% for the control group of schools) and 2007 (about 11.75% for the treatment group of schools). Such an abrupt increase in the dropout rates could be explained by the process of school consolidation initiated by the central government, which involved a massive closure of schools in this period.

As is evident from the graph, after 2008 both groups of school exhibit a decrease in dropout rates, although the control group of schools shows more clearly expressed fluctuations compared to the trend observed for the treatment groups of schools. Overall, the trend line for the treatment group of schools is not as steep as this for the control group of schools, which indicates that the introduction of the DSBs in 2008 probably had a more significant effect on the dropout rates for the treatment group of schools.

Figure 8 illustrates the grade-repetition trend for the treatment and control groups of schools in 2005-2014. As can be seen, overall, the control group of schools has lower grade-repetition rates compared to the treatment group of schools; the only exception is for 2010 and 2011 when the grade-repetition rates are higher for the control groups of schools. The trend is non-linear for both groups of schools; it shows

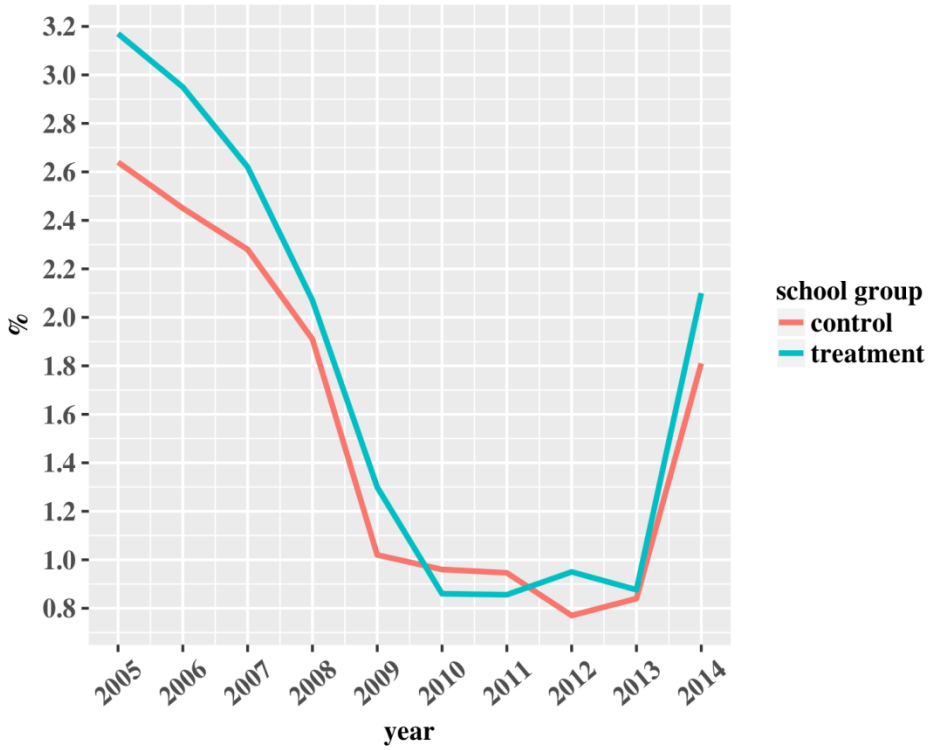
a gradual decrease in grade-repetition rates from 2005 to 2008, with a sharp drop in 2009 and 2012 for the control group of schools (with grade-repetition rates of about 1% and 0.8%) and in 2010 for the treatment group of schools (with grade-repetition rates of about 0.9%), peaking up for both groups after 2013 and reaching 2.1% for the treatment group and 1.8% for the control group of schools.

Figure 7. Total Dropout Rate in Bulgaria for Years 2004 to 2013



Source: ADMIN data: 2004–2013.

Figure 8. Total Grade-repetition Rate in Bulgaria for Years 2005 to 2014



Source: ADMIN data:2005–2013

The unadjusted effect of the DSBs on student dropout and grade-repetition rates is also examined. This analysis is conducted by inspecting the descriptive statistical measures (mean and standard deviation) of the outcome variables (dropout and grade-repetition rates) over the group of schools (treatment versus control) and observation years (pre-enforcement versus enforcement). A factorial one-way analysis of variance (ANOVA) is conducted to determine the significance of patterns in the outcome variables between the treatment and control groups of schools and between pre-enforcement and enforcement years. There is a significant effect of being either in the treatment or control group of schools on the outcome variable dropout rate at the $p<.001$ level of significance [$F(1, 21{,}823) = 35.41$, $p = 0.000$]. The mean

score of schools in the control group (M = 4.42, SD = 5.43) is significantly different than that of the schools in the treatment group (M = 4.91, SD = 5.49). There is also a significant effect of pre-enforcement and enforcement years on the dropout rates at the p<0. 05 level of significance [F(1, 21,823) = 6.93, p = 0.008], as the mean score of the observations in the pre-enforcement years (M = 4.86, SD = 5.86) is significantly different than that of the observations in the enforcement years (M = 4.66, SD = 5.01).

The ANOVA analysis also indicates that there is a significant effect of being in the treatment or control group of schools on the grade-repetition at the p< 0.001 level of significance [F(1, 19,393) = 25.29, p = 0.000], as the mean score of schools in the control group (M = 1.01, SD = 2.46) is significantly different than that of the schools in the treatment group (M = 1.22, SD = 2.71). There is also a significant effect of pre-enforcement and enforcement years on the grade-repetition rate at the p<0.001 level of significance [F(1, 19,393) = 292.39, p = 0.000], as the mean score of the observations in the pre-enforcement years (M = 1.53, SD = 3.19) is significantly different than that of the observations in the enforcement years (M = 0.88, SD = 2.10).

These results suggest that the DSBs affected students' behavior such as dropping out of school or repeating a grade. More specifically, the analysis indicates that upon adoption of DSBs by the public schools before 2008, there was a decrease in the dropout and grade-repetition rates. The comparison between the pre-enforcement and the enforcement time periods also shows that the dropout and grade-repetition rates declined in the enforcement period when all public schools adopted the DSBs.

Dropout Rates

Estimates of the models analyzing the relationship between dropout rates and the implementation of the DSBs are presented in Tables 7 and 8. School dropout results for all students are shown in Table 7 and school dropout rates by sex and grade groups are in Table 8. In the second column of Table 7, difference-in-difference estimates of a parsimonious regression are exhibited. In the next set of columns, the results of Model 1 and 2 are presented. Model 1 includes covariates, such as a type of school (with primary schools as a reference category), a location of school, student-teacher ratio, and characteristics of teachers.

To check if the control variables are correlated with each other and with the variable of interest, the DSBs, I applied the most widely-used diagnostic for multicollinearity, the variance inflation factor (VIF). It estimates how much the variance of a coefficient is "inflated" because of linear dependence with other predictors. The consensus is that if the VIF is higher than 2.50, this could be a problem. However, if the variables with high VIF are all control variables and the variable of interest does not have high VIFs, it is generally accepted that the problem of multicollinearity could be safely ignored. The consequence of multicollinearity is that the standard errors of the coefficients of the control variables that are collinear are increased, and as a result, these coefficients are unstable. But as long as the control variables are only used as control variables, this should not present a problem because the coefficients of the variable of interest are not affected (Allison, 2012). The VIF of the control variables (student-teacher ratio, the proportion of teachers with master's degree, the level of professional qualification and the average teaching

experience are high, but the VIF of the variable of interest, the DSB, is 1.61, which indicates that its coefficient is not affected by multicollinearity.

In Model 2, an additional dummy variable replaced the year-fixed effect to account for the possibility that the acceptance of Bulgaria in the European Union (EU) could have significant impact on dropout and grade-repetition rates. All models contain school and year-fixed effects, except Model 2 where the year-fixed effects were replaced with the indicator variable $g_{EU.}$

The results from the parsimonious regression suggest that the implementation of DSBs had a significant statistical impact on dropout rates. Overall, the adoption of DSBs by the treatment group of schools is associated with about 11 percent decrease in dropout rates at the $p<0.05$ level of significance (Table 7). The effect is larger for students in high school (12%) compared to students in elementary school (11%) and middle school (8%), as all estimates are statistically significant at the $p<0.05$ level of significance (Table 8). Regarding differences between boys and girls, the implementation of the DSBs had statistically significant negative effect on boys (11%) compared to girls (9%) at the $p<0.05$ level of significance (Table 8). The results in Model 2 also show an overall, statistically significant decrease in dropout rates (10%) at the $p<0.05$ level of significance indicating that the acceptance of the country in the EU did have some impact on students' outcomes (Table 7).

The other covariates that have a statistically significant association with the school dropout rates at the $p<0.05$ level of significance in Model 1 are the student-teacher ratio, the log of a percentage of teachers with a level of professional qualification, and the lower secondary, high, profiled, and general education school

category of the type of school variable. The magnitude of the impact of the DSBs on dropout rates, however, measured by Cohen's d corrected for uneven groups is small, based on Cohen's conventions (Cohen, 1988). It shows that the average dropout rates between the treatment and control group of schools differ by approximately -.23 standard deviations (d_s = -.225).

As already discussed in the qualitative analysis of the study, the DSBs designed as an efficiency measure, did not target specifically an intermediate student outcome, such as retaining of students at school. However, the way the DSBs were implemented implicitly implied that schools will attempt to attract and retain more students to maximize their budgets. The small effect of the DSBs on the dropout rates, however, is not surprising because of the implementation at the same time of a national policy targeting the closure of schools, under which significant monetary incentives to the local authorities to start consolidating their school networks at a faster rate were provided by the central government. The closure of schools led to an increase in dropout rates as shown by the WB research (for more details, see Chapter 3 of the current study) and, thus, diminished the expected positive effect of the DSBs on retention of students.

Table 7. Regression Estimates for School-Level Panel Data of School Dropouts for Years 2004 to 2013

	Outcome Measure = Log(Dropouts /100)			Outcome Measure = Log(Dropouts/100)			Outcome Measure = Log(Dropouts/100)		
Difference-in-Difference Estimator (DiD)	-0.106	(0.025)	**	-0.105	(0.022)	**	-0.103	(0.022)	**
Average experience of teachers (years)				0.003	(0.003)		0.006	(0.002)	**
Log(percentage of teachers with a level professional qualification)				-0.009	(0.003)	**	0.035	(0.002)	**
Percentage of teachers with masters' degree				0.001	(0.001)		0.001	(0.001)	
School type									
Primary									
Primary and lower secondary				0.179	(0.121)		0.121	(0.413)	
Lower secondary				0.581	(0.135)	**	0.595	(0.172)	**
High school				0.512	(0.234)	**	0.445	(0.246)	
Profiled				0.410	(0.153)	**	0.335	(0.162)	**
General Education School				0.399	(0.136)	**	0.354	(0.150)	**
School location–city/village				-0.039	(0.109)		-0.021	(0.109)	
Student-teacher ratio				-0.11	(0.005)	**	-0.020	(0.004)	**
Year indicators?	Yes			Yes			No		
Municipality indicators?	Yes			Yes			Yes		
School indicators?	Yes			Yes			Yes		
EU year indicators?	No			No			Yes		
Estimator	Weighted LS			Weighted LS			Weighted LS		
Sample (N)	21,302			21,302			21,302		
Adj. R-squared	0.849			0.849			0.846		

*Note: Table reports least squares regression coefficients. Standard errors clustered at the school level in parenthesis. Enrolled students per school used as weights. ** Significant at < 5% level.*

Table 8. Regression Estimates for School- Level Panel Data on School Dropouts by Gender and Grade Category for Years 2004 to 2013

	Log dropout rate, Boys			Log dropout rate, Girls			Log dropout rate, Grade category 1–4			Log dropout rate, Grade category 5–8			Log dropout rate, Grade category 9–12		
Difference-in-Difference Estimator (DiD)															
Model as in column 3 of Table 7	-0.105	(0.028)	**	-0.089	(0.028)	**	-0.105	(0.032)	**	-0.082	(0.029)	**	-0.121	(0.044)	**
Model as in column 4 of Table 7	-0.103	(0.028)	**	-0.088	(0.028)	**	-0.105	(0.032)	**	-0.050	(0.024)	**	-0.119	(0.045)	**
Sample (N)	20,410			20,146			17,862			18,959			5,260		
Adj. R-squared															
as in column 3 of Table 7	0.763			0.788			0.651			0.855			0.804		
as in column 4 of Table 7	0.761			0.786			0.645			0.854			0.802		

Note: Table reports least squares regression coefficients. Standard errors clustered at the school level in parenthesis. Enrolled students per school used as weights.
*** Significant at < 5% level.*

Grade-Repetition Rates

The estimates of the models measuring the relationship between grade-repetition rates and the implementation of DSBs are presented in Tables 9 and 10. Grade-repetition results for all students are provided in Table 9. Grade-repetition rates by sex and school grade-groups are shown in Table 10. Similarly to the tables of the dropout rates, in the second column of Table 9, difference-in-difference estimates of a parsimonious regression are exhibited. In the next set of columns, the results of Model 1 and 2 are presented. Model 1 includes covariates, such as a type of school (with primary and lower secondary as a reference category), location of school, student-teacher ratio, and characteristics of teachers. To check if the control variables are correlated with each other and with the variable of interest, the DSBs, I applied VIF. The VIF of the control variables (student-teacher ratio, the proportion of teachers with master's degree, the level of professional qualification and the average teaching experience are high, but the VIF of the variable of interest, the DSB, is 1.72, which indicates that its coefficient is not affected by multicollinearity (for more details on the VIF, see the previous subsection on dropout rates).

In Model 2, an additional dummy variable replaced the year-fixed effect to account for the possibility that the acceptance of Bulgaria in the EU could have had a significant impact on the grade-repetition rates. All models contain school- and year-fixed effects, except Model 2, where the year-fixed effects are replaced with the indicator variable $g_{EU.}$

Table 9. Regression Estimates for School-Level Panel Data of School Repeaters for Years 2005 to 2014

	Outcome Measure = Log(Repeaters /100)			Outcome Measure = Log(Repeaters/100)			Outcome Measure = Log(Repeaters/100)		
Difference-in-Difference Estimator (DiD)	-0.118	(0.057)	**	-0.120	(0.057)	**	-0.105	(0.057)	
Average experience of teachers (years)				0.006	(0.006)		0.015	(0.006)	**
Log(Percentage of teachers with a level professional qualification)				-0.025	(0.009)	**	-0.019	(0.009)	**
Percentage of teachers with masters' degree				0.002	(0.002)		0.011	(0.002)	
School type									
Primary	-	-		-	-		-	-	
Primary and lower secondary									
Lower secondary				1.140	(0.405)	**	1.022	(0.368)	**
High school				2.698	(0.133)	**	2.633	(0.126)	**
Profiled				0.671	(0.131)	**	0.532	(0.124)	**
General education school				0.244	(0.130)		0.231	(0.124)	
School location–city/village				-0.736	(0.275)	**	-0.825	(0.263)	**
Student-teacher ratio				-0.007	(0.011)		-0.045	(0.010)	**
Year indicators?	Yes			Yes			No		
Municipality indicators?	Yes			Yes			Yes		
School indicators?	Yes			Yes			No		
EU year indicators?	No			No			Yes		
Estimator	Weighted LS			Weighted LS			Weighted LS		
Sample (N)	9,706			9,706			9,706		
Adj. R-squared	0.711			0.712			0.710		

Note: Table reports least squares regression coefficients. Standard errors clustered at the school level in parenthesis. Enrolled students per school used as weights.

*** Significant at < 5% level.*

The results from the parsimonious regression suggest that the implementation of DSBs had a significant statistical impact on grade-repetition rates. Overall, the adoption of DSBs is associated with a statistically significant decrease in grade-repetition rates (11%) at the $p<0.05$ level of significance. The results from Model 1 also find a significant negative effect (12%) of DSBs on grade-repetition rates at the $p<0.05$ level of significance. The results in Model 2 also show an overall significant negative effect (11%) of DSBs on the grade-repetition rates at the $p<0.05$ level of significance, indicating that the acceptance of the country as a member of the EU did have some impact on students' grade-repetition rates.

The other covariates that have a statistically significant association with the grade-repetition rates at the $p<0.05$ level of significance are the school location, the lower secondary, profile, and high school category of the type of school, and the log of a percentage of teachers with a level professional qualification. The results from Model 1 are also statistically significant for girls, showing about 17 percent decrease in grade-repetition rates associated with the implementation of the DSBs at the $p<0.05$ level of significance (Table 10). The results for boys and school grades are not statistically significant. The magnitude of the impact of the DSBs on the grade-repetition rates measured by Cohen's d corrected for uneven groups is small, based on Cohen's conventions (Cohen, 1988). It estimates that the average grade-repetition rates between the treatment and control group of schools differ by approximately -.21 standard deviations (d_s = -.208).

As can be seen, the DSB did have a negative, albeit small in magnitude, effect on the grade-repetition rates among students. It was expected that the financial

decentralization would make the management of schools more efficient. The grade repetition was never considered a students' outcome that the DSBs would attempt to influence. Ideally, it was assumed that to achieve efficiency in the academic process students would progress from one grade to another without repeating a grade. However, the opposite could also be true: in small schools, directors to keep students at school longer might not be inclined to push students into another grade, since graduating students would leave, and the school would receive smaller education funds. As shown in the quantitative analysis, the DSBs undoubtedly affected the grade repetitions among students by leading to their decrease, which supports the hypothesis that the school directors were aligning the management of the DSBs with the academic school process.

Table 10. Regression Estimates for School-Level Panel data of School Repeaters by Gender and Grade Category for Years 2005 to 2014

	Log repeat rate, Boys		Log repeat rate, Girls			Log repeat rate, Grade category 5–8		Log repeat rate, Grade category 9–12	
Difference-in-Difference Estimator (DiD)									
Model as in column 3 of Table 9	-0.081	(0.055)	-0.170	(0.072)	**	-0.092	(0.056)	0.011	(0.106)
Model as in column 4 of Table 9	-0.072	(0.055)	-0.144	(0.074)	**	-0.082	(0.056)	0.032	(0.110)
Sample (N)	8,473		6,838			8,299		1,673	
Adj. R-squared									
Model as in column 3 of Table 9	0.691		0.690			0.701		0.592	
Model as in column 4 of Table 9	0.678		0.679			0.691		0.569	

Note: Table reports least squares regression coefficients. Standard errors in parenthesis are clustered at the school level. Enrolled students per school used as weights.

*** Significant at < 5% level.*

The analysis of the data suggests that the implementation of the DSBs had significant negative effect on students' outcomes such as dropping out of school and grade-repetition rates. The inclusion in the models of several covariates at the school level, such as a type of school, a location of school, student-teacher ratio, and teachers' characteristics controls for specific features of the schools that could affect the outcome variables. The estimates are also robust to bias from confounding factors that cause some schools to have persistently higher or lower dropout/grade-repetition rates than others because the models control for school-fixed effects. The inclusion of year-fixed effects means that the estimates are not susceptible to bias from other unmeasured factors that change over time and are common across schools. Finally, the municipality-fixed effects control for other factors that are common to all schools located in the territory of a given municipality.

The identifying assumption in Models 1 and 2 is that the implementation of the DSBs by schools was not related to any underlying school characteristics that might be associated with students' dropout and grade-repetition rates. The issue, however, remains of whether it is possible to separate the effects of the implementation of the DSBs, per se, from impacts due to other omitted variables, which might have affect the outcome variables.

The findings of the study, as in all nonexperimental research, are susceptible to bias from omitted variables. This underscores the need to exercise caution in attributing the effects observed in Models 1 and 2 to the implementation of the DSBs, as opposed to interactions of omitted variables with the implementation of the DSBs, such as other school policies affecting school dropouts and grade repeaters. For

example, education-related policies implemented at the same time as the DSBs, such as the consolidation of the school networks in different municipalities and the resulting massive closure of schools could have affected the education outcomes significantly during the sampled period, particularly the retention of students from marginalized groups.

As such, it is not surprising that even though the estimates show a statistical significance of the results, the magnitude of the impact of the DSBs on the outcome variables indicates that the practical significance of the differences between the treatment and control groups is small. Also, while the models provide statistical evidence of the impacts of the DSBs on dropout and grade-repetition rates, they all require strong assumptions and could not be interpreted as causal, but correlational.

Chapter 11: Discussion, Limitations and Conclusion

This part of the study starts with a discussion summarizing and highlighting some of the policy implications stemming from the implementation of school decentralization reform in Bulgaria. Further, it attempts to incorporate and explain the results from the analysis of the quantitative question with the findings of the qualitative questions. It also compares its analysis and results with a study conducted by the World Bank (WB) in 2010, titled "*Review of the School Autonomy Reform in Bulgaria,"* that is closest in intent and design to what this study has attempted to achieve. Next, it points out some of the limitations of the analysis of both the qualitative and the quantitative questions. Finally, it ends with a conclusion and recommendations for future research.

Discussion

Education decentralization in Bulgaria was envisioned as financial decentralization of the schools and decentralization of authority where the director would manage the school and would be accountable to the local stakeholders. However, only education financial decentralization was fully adopted with the implementation of the Delegated School Budgets (DSBs) and the unified student standards. The decentralization of authority at the local level of governance was not completed because even though the school director became independent when managing the school budget, there were no other organs at the local level of governance that could control his/her actions. For example, there was not a school

advisory board composed of different local stakeholders; the director's position was not mandated; the municipal governments' role was slightly diminished (they served mainly as transit points for the distribution of the central education subsidy); and the authority of the school board was limited.

From interviews with representatives of organizations involved with the school decentralization reform and a review of relevant documents is evident that education decentralization was planned as a top-down approach, where the organs of the central government played a leading role in shaping the education agenda. Even though representatives of the municipal governments and the teachers' unions participated in the discussions on the planning of the education reform, they seemed to lack the experience and the leverage to define the policy agenda. An example of such a lack of agenda on the part of the teachers' unions were their actions during the teachers' strike in 2007 when they agreed to the conditions set by the central authorities without taking into account the interests of their members. The inability of the municipal governments to adjust the composition of the local formulae for distribution of funds based on the needs of the schools in their territories also left them out of the education process (Nataliya Miteva, America for Bulgaria Foundation, 09/08/2016; Teodora Dacheva, NAMRB, 02/01/2017; Eva Borisova, "Parents" Association, 09/08/2016; Julian Petrov, Teacher's Union "Education," 09/07/2016).

Given the lack of expertise and experience from both the central and local organs of authority, the influence of outside international organizations such as the World Bank, the International Monetary Fund (IMF) and the European Union (EU)

became especially critical. The WB was the leading institution among these organizations that shaped the education agenda in the country. The analysis of the interview transcripts and the relevant documents reveals that most of the interviewed representatives at the central and local level of government and non-profit organizations considered the WB to be an active participant in the education reform process in Bulgaria during 2000–2010.

A review of the WB policy-loan documents shows that the Government of Bulgaria (GOB) asked for the Bank's assistance and expertise because it lacked experience performing analytical work to support the need for reforms. It also needed an instrument that would ensure the coordination of reform activities across agencies in charge of the social sectors (World Bank, 2010, p. 29). The recommendations and data analysis provided by the WB served as the framework for the actions completed by the GOB regarding education reform in the country. By providing technical expertise, policy advice, and budgetary funds, the Bank was able to implement its model of decentralized education system with schools being the central autonomous units (Krasimir Valtchev, MES, 01/30/2017; Boyan Zahariev, Open Society Institute, 09/07/2016; Nataliya Miteva, America for Bulgaria Foundation, 09/08/2016; Eva Borisova, “Parents” Association, 09/08/2016; Zeni Bumbarova-Nacheva, MOF, 09/07/2016; Tatyana Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016; Teodora Dacheva, NAMRB, 02/01/2017; Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016).

The Bank was an influential key player that provided advice on the significant elements of school decentralization, such as the unified student standard,

the DSBs, the school consolidations, and the creation of protected schools. However, it evaluated them mainly as efficiency measures, without analyzing thoroughly in advance their social and equity impact on the students. The two mitigating actions that were adopted by advice of the Bank were either implemented late (providing schools with the status of protected schools) or not monitored by the central government to ensure their proper implementation by the local organs of governance (the authority of the municipal governments to modify the local formulae for distribution of funds).

The WB was not the sole international organization that influenced the education area. The IMF played an active role in promoting greater efficiency in the education sector by recommending a decrease in the number of schools and teachers' positions. The EU did not actively participate in the implementation of the education reform, mainly because education was considered a national affair. However, EU influenced the education decentralization reform by supporting financially, through the Poland and Hungary Assistance for Reconstruction of Economy (PHARE) program, the implementation of the DSBs in 1996, a model that was recommended by the WB in the subsequent expansion of the DSBs nationwide.

At the central level of governance, two ministries were active during the implementation of education decentralization reform, the Ministry of Education and Science (MES) and the Ministry of Finances (MOF). While the MES was considered the principal implementation agency, the MOF played an active role in the financing for school education reform by observing the natural elements in the system, such as the number of students and teachers, and by providing funds for the education sector.

Some interviewed participants, however, considered the MOF more influential than the MES in shaping the education-sector-reform agenda mostly because the MOF was able to determine and modify the amounts of the unified student standards (Julian Petrov, Teachers' Union "Education," 09/07/2016; Teodora Dacheva, NAMRB, 02/01/2017).

The municipal governments were the organs of the local authority that were responsible for the education sector in their territories. In theory, they should have been entitled to manage the schools, being closer to the needs of the people they serve. However, the local authorities were not granted significant power to shape the education agenda. For example, they could not appoint/fire the school director (such authority had the regional inspectorates for education as local representatives of the MES), or participate actively in the management of the schools.

The municipal governments could only redistribute small part of the state subsidy (20 percent), while the rest of it was transferred to schools based on the number of students. In this aspect, it is evident that the municipal governments served predominantly as a transit point for the education subsidy provided by the central government. In fact, there was a widespread perception shared by the majority of the interviewed participants that the local authorities were incapable of being entirely responsible for the education sector. The reviews of documents and interviews with the participants in the education decentralization process at the central level of governance reveal that to the central authorities (the National Assembly of the Republic of Bulgaria and the executive branch of the government) the local authorities were not prepared to manage the schools in their territories due to lack of

resources and experience (SCES, Minutes, 05/17/2006, p. 12; Daniel Valtchev, MES, 09/10/2016; Krasimir Valtchev, MES, 01/30/2017). Interviews with representatives of the teachers' unions, school directors and non-profit organizations engaged in the education sector indicate that if municipal governments had greater authority over school management, their decisions would have been biased due to the interference of powerful political actors at the local level (Julian Petrov, Education Teacher's Union, 09/07/2016; Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016; Boayn Zahariev, Open Society Institute, 09/07/2016; Nadezhda Nikolcheva, Association of Employers in Bulgarian Education, 09/08/2016).

As can be seen, to most of the interviewees, it was questionable if municipal governments would be objective and would be able to protect the interests of the local communities. Evidence that such perceptions were justifiable could be found in the massive closure of schools in 2007–2009 when the municipal governments were encouraged by the central authorities to consolidate their school networks. According to interviewed participants from non-profit organizations working in the education sector, representatives of the teachers' unions, and school directors, the municipal governments incentivized financially by the central government, closed many small schools, thus not taking into account the interests of the local communities (Boyan Zahariev, Open Society Institute, 09/07/2016; Eva Borisova, "Parents" Association, 09/08/2016; Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016; Julian Petrov, Teacher's Union "Education," 09/07/2016; Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016;).

The program for consolidation of school networks along with the implementation of the unified student standards of school financing, set intentionally at lower levels to force municipal governments to start a process of school consolidation (World Bank, 2009, p. 43), and the adoption of the DSBs, planned mostly as an efficiency measure, led to an intense process of school closures during 2007–2009 (World Bank, 2009, p. 43). In 2008 alone, 301 public municipal schools were closed, coinciding with the national implementation of the DSBs. It was evident why some of the interviewees perceived the DSBs designed to keep more students at schools and make schools more competitive, to be the main culprits for the school closures and the increased number of dropouts (Boayn Zahariev, Open Society Institute, 09/07/2016; Eva Borisova, "Parents" Association ,09/08/2016; Yanka Takeva, Union of Bulgarian Teachers, 09/06/2016, Teodora Dacheva, NAMRB, 02/01/2017; Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016).

According to the interviewed representative of NAMRB, however, the local authorities did not seem to have been provided with extensive training on education financial decentralization (Teodora Dacheva NAMRB, 02/01/2017). As such, local authorities became passive participants in the education sector, solely responsible for the capital expenses of the schools, since they were legally considered owners of the school buildings. However, most of the interviewed participants believed that the local governments have abdicated from their responsibility for the education sector because they did not even provide funds for capital expenses, thus making schools entirely dependent on the education subsidy by the central government.

The teachers' interests were represented by the teachers' unions, which played an active role during the discussions about the implementation of school decentralization reform. However, the teachers' unions did not oppose the adoption of the main elements of the reform, such as the unified student standard and the DSBs, even though they were aware that it would lead to massive layoffs of teachers. In addition, the unions were not active in pushing for measures that would limit the authority of the school director, or in promoting the motivation of teachers, by insisting on linking the unified student standard with some indicators, such as improvement of the teachers' professional qualification. In fact, the professional qualification of the teachers depended to the greatest degree of their ambition and motivation.

The only winners in the whole process of school decentralization were the school directors, who could manage the schools independently from the local authorities by being solely accountable to the MES that, in turn, was responsible for their appointment/firing. In this aspect, the decentralization of authority occurred at the school level, but no accountability measures, which were seen as essential components of school-based management, were incorporated. For example, the proposals for adoption of mandated positions and a decentralized appointment of school directors, even though initially announced by the GOB, were never adopted. The other local organs that could have been able to control the school directors, such as the municipal governments, school boards, and parents lacked sufficient authority (municipal governments), were not organized (parents), or had limited functions (school boards).

It is not surprising that even though the quantitative analysis shows a statistically significant effect of the DSBs on the dropout/grade-repetition rates, the impact was small in practical terms. Other specific policies adopted at the local level of governance could have affected the dropout/grade-repetition rates, such as the consolidation of the school networks by the municipal governments, or the attempt to keep the existing networks by providing certain schools with the status of protected schools. Given the fact that the protected schools were on average no more than 6 percent of all available schools for 2010–2014 based on ADMIN data, their creation could not have affected the process of retaining students at schools significantly.

The consolidation of the school networks, however, included the closure of 667 schools from 2005 to 2014 and represented 25 percent of the total number of schools nationwide as of 2004 (Table 5). Such a large decrease in the number of schools could have had a notable impact on the dropout/grade-repetition rates by causing their increase in municipalities that had the greatest number of closures. The closure of schools significantly exceeded the initial WB's estimates, which called for the closure of 394 schools (see the subsection titled "*WB Policy Documents Modeling Education Decentralization Reform*" in Chapter 8) and, undoubtedly, was the unexpected consequence of the education reform in Bulgaria.

The impact of the school closures on dropout rates was analyzed by the experts of the WB, who concluded that the school closures have led to significant increase of students dropping out of schools (Danchev et al., 2010, p. 31). As such, school closures were a factor that decreased the impact of the DSBs on the dropout and grade-repetition rates. As indicated by the qualitative and quantitative analysis,

the DSBs, designed initially as efficiency measures that would make schools strive to keep and attract more students, were not very effective in retaining students at schools, mainly because of local education policies implemented at the same time.

In addition, it seemed that the way the DSBs were implemented led to preferential treatment of larger schools (Boyan Zahariev, Open Society Institute, 09/07/2016; Nataliya Miteva, America for Bulgaria Foundation, 09/08/2016; Eva Borisova, “Parents” Association, 09/08/2016; Krasimir Valtchev, MES, 01/30/2017; Stefanka Baleva, Association of School Directors in the Republic of Bulgaria, 09/08/2016; Elena Kalkanova, National Assembly of the Republic of Bulgaria, 09/10/2016). As pointed out in interviews with representatives of different organizations participating in the school decentralization reform, during the first years of the existence of the DSBs, the local authorities did not distribute the funds to the schools according to their local needs (Boyan Zahariev, Open Society Institute, 09/07/2016; Stefanka Baleva, Association of School Directors in the Republic of Bulgaria; Krasimir Valtchev, MES, 01/30/2017). The municipal governments could distribute 20 percent of the state subsidy based not only on the number of students but also according to other local factors. However, most of the local authorities allocated funds among schools entirely based on the number of students, thus harming small schools, which, as a result, had a difficult time operating only with the funds from the central subsidy. These practices were changed after six years, in 2014, with the implementation of the "conditionally permanent expenses" (an annual budgetary subsidy for permanent school expenses provided to every school). Until then, however, larger schools benefitted by the inability or unwillingness of local

authorities to modify the formula according to the local needs of the schools in their territory.

The creation of the protected schools in 2008 was seen as a mitigating measure that would preserve some small schools, and as a necessary compromise between the two leading principles in education: equity of access and quality of education. It allowed small schools to receive a status of "protected schools" and to continue to exist, even though they did not have the necessary number of students. However, to be effective, such a measure should have been implemented before the consolidation of the school networks started. Closing a school or providing a school with a status of a protected school had to be done by the request of the municipal governments and, therefore, both options should have been available to them at the same time. In this way, the local authorities could have made the best choice about the consolidation of their networks. It is not surprising why the protected schools, even though approved by all of the interviewed participants, were seen as not sufficient buffers to counteract the effects of the school closures (Boyan Zahariev, Open Society Institute, 09/07/2016; Eva Borisova, "Parents" Association, 09/08/2016; Yanka Takeva, Union of Bulgarian Teachers, 09/06/16). The fact that the protected schools were implemented after the largest school consolidation in 2008 took place, could explain to some degree why they were perceived as an ineffective measure.

This study analyzes the education-decentralization reform and the involvement of the WB by researching qualitatively and quantitatively the processes and the impact of the reform. As such, it comes close and updates the 2010 WB report

reviewing the school autonomy in Bulgaria, discussed in the second chapter of the literature review. What this study adds to the existing knowledge is an analysis of the main elements of the school decentralization by investigating the opinions of different stakeholders. The WB report focuses exclusively on the perspectives offered by the players at the central level of governance, the MES, and the MOF, without exploring the perceptions of other stakeholders who were involved in the decentralization process, the municipal governments, teachers, and parents. Further, the influence of the WB and other international organizations such as the IMF is not analyzed.

As for the quantitative research, both studies have attempted to examine the impact of the reform on dropout rates, but this study uses different time periods, a new treatment variable (DSBs), and a different design approach, and model. The analysis presented in this paper also investigates the impact of the DSBs on another measure of intermediate student outcomes, the grade-repetition rates. Both studies use secondary administrative data extracted from ADMIN, the information management system of the MES, to investigate the impact of the reform on dropout rates. The WB report analyzes the impact of school closures on dropout rates, which were expected to lead to an increase in the number of students dropping out of school.

This study explores the impact of the DSBs on the dropout rates, as the expectation is that the DSBs could result in a decrease in the number of students dropping out of school. The WB's findings show that there was a significant and positive impact of school closures on dropout rates (Danchev et al., 2010, p. 31), and the analysis in this paper finds a statistically significant negative impact of the DSBs on dropout rates and grade-repetition rates. However, the possibility that the process

of retaining students at schools might not be influenced only by the DSBs, per se, but by other school policies at the local level remains to be investigated.

Limitations

When researchers try to bring together data collected by using two or more methods, questions usually arise about the consistency of the research assumptions and the clarity of the study claims. Critics often argue that within the social sciences it is unfeasible to bring together data derived from different methods because they would point to conflicting explanations of the research questions. Another implication of using both qualitative and quantitative methods of data collection and analysis is that the researcher may not always be able to achieve either a unified research design or mixing different types of data in a meaningful way. Also, when embedded case-study design is utilized, scholars sometimes focus their attention exclusively to the subunits of analyses, thus ignoring the overall goals of the study. Apart from these general limitations that could occur when combining both qualitative and quantitative methods in one study, there are also limitations that the researcher may encounter when using each of them alone.

The constraints of conducting interviews as a qualitative data-collection method are well described in the relevant literature. Among them, the most important for this study were difficulties in gaining access to people reluctant to participate and problems with establishing a balance between the researcher and the participants due to respondents' tendency to control the agenda. In the process of interviewing, there

was a dependence on the cooperation of a relatively small number of people with specialized knowledge.

Some of the participants refused to be interviewed officially (e.g., Asparuh Tomov, a leader of the Teachers' Independent Union and the representatives of the WB), or could not be located (e.g., Maria Donkova, a program director of Paideya Foundation). However, the leaders of the other two teachers' unions and representatives of two other non-profit organizations that have focused their activities on the education sector agreed to participate and were interviewed.

The greatest challenge remained the interviews with representatives of the WB, which I could not conduct. It would have been desirable if a representative of the WB, who had participated in the education decentralization reform in Bulgaria, had agreed to be interviewed. However, the document analysis was almost entirely focused on loan agreements and policy documents originated by the WB that in detail described the work done by the Bank in the education sector in Bulgaria and to greater extent substituted for the lack of an interview with a representative of the WB. Further, there were substantial costs in time spent on scheduling and conducting the interviews (it took two trips to Bulgaria, totaling a month and a half). The process of transcribing and analyzing the interview notes was also rather lengthy.

The available data used for the analysis of the quantitative question suffers from some limitations as well. In the empirical model utilized by the study, the control group of schools adopted the DSBs in different years, starting in 1996 but the available data were for 2004–2014. As a result, in the model, some of the schools in the control group are exposed to the DSBs for a longer period. In addition, it would

have been preferable for this study if there were data for 1996 to 2014, as well as pre-1996 data, to observe pretreatment trends in the outcome variables. The lack of data listed above is because the information management system of the MES was implemented in 2004 when, for the first time, data on students and teachers began to be collected systematically. Finally, no data on the ethnicity of students or their socioeconomic status at the school level could be found and used in the model.

The empirical model utilized in the quantitative part of the study suffers from some limitations as well based on the quasi-experimental nature of the difference-in-difference approach and the lack of true randomization. One possible threat to the model stems from the fact that schools were not randomly assigned to the control group. As a result, it is possible that the control group of schools that had participated in the DSBs pilot were on an upward or downward trajectory with regard to the investigated outcome variables, which may have biased the difference-in-difference estimates.

Finally, ideally, standardized test scores would be the most appropriate outcome to measure the effect of the school decentralization reform on academic achievement. However, in Bulgaria, test scores became available in 2008 when the GOB introduced national, census-based assessments after elementary (fourth grade), primary (seventh grade), and upper-secondary (twelfth grade) school levels. In addition, concerns about the supervision of the test-taking process and the lack of appropriate measures to counteract gaming in test taking as well as the quality of the test instruments and the sensibility of the testing scale make these assessments not very objective and valid during the first few years of their implementation (Danchev

et al., 2013, p. 6; p.20). As such, the dropout and grade-repetition rates remain the only reliable student outcomes that could be measured and used in the empirical model employed in this study.

Conclusions

One of the contributions of the study to the debate on the advantages of decentralization to centralization of education is the research of the effect of specific decentralization measures, such as the DSBs on intermediate student outcomes, dropout rates and grade-repetition rates. As can be seen from the quantitative analysis, the DSBs designed mainly as efficiency measures did not lead to an increase in dropout and grade-repetition rates, and therefore, per se, did not contribute to a rise in inequity of access to education among Bulgarian students. As such, the quantitative analysis reinforces the results of the WB report, discussed in the third chapter of this study, that analyzes the PISA tests scores among Bulgarian students in 2012, and more specifically, the finding that school autonomy of the use of school resources (teachers' salaries and budget allocation) has a positive and significant effect on students' scores, and, in particular, on those of low achievers (Herrera-Sosa, Moreno, Kutner, Gautam, & Gortazar, 2012, p. 25). The results of WB analysis that the low achievers benefit most from the reform confirm the conclusions of this study that decentralization has a positive impact on the behavior of the students who are at the margin of dropping out of school or repeating a class. The current quantitative analysis also confirms the general conclusions reached by the Bank's researchers that the school decentralization has a positive effect on the decrease in dropout and grade-

repetition rates among students in a number of countries that have implemented decentralization measures (Brun, Filmer, & Patrinos, 2011, pp. 102-103).

However, the implementation at the same time of an efficiency measure, such as the closure of schools, undermined the effect on the DSBs on the students' outcomes. The research performed by the Bank also confirmed that the school closures led to an increase in dropout rates among students from closed schools (Danchev, Guaqueta, Macdonald, Porta, Fasih, & Patrinos, 2010, p. 31). The general conclusion reached by the majority of the interviewed participants was that education decentralization and, more specifically, the DSBs were significant factors contributing to educational disparities and worsened education quality. It seems that the effect of the DSBs on students' outcomes was diminished, mainly because of the simultaneous implementation of another efficiency measure, the consolidation of schools and the lack of accountability measures that would make the school director responsive to the needs of students.

As can also be seen from the qualitative analysis, full education decentralization in Bulgaria was also never achieved because even though financial decentralization was implemented, a decentralization of authority at the municipal level of governance was not adopted. The school directors had greater freedom in the use and management of schools resources and the selection of school staff, but they were still subordinated to the central organs of governance. The municipal authorities did not have any significant impact on the management of schools. Further, there was a lack of objective indicators, such as reliable standardized test scores to show the positive effect of the decentralization on students' outcomes. From a review of the

relevant documents, it is evident that an established link between students' outcomes and the labor market was missing. In this aspect, the lack of active participation of the municipal governments in the education-agenda setting was especially noticeable.

The lesson drawn from the education-decentralization reform in Bulgaria is that an effective reform should not focus primarily on efficiency measures but should develop external accountability mechanisms at the central and local levels of governance linked to precisely determined student outcomes, to hold schools accountable for their performance. Further, other efficiency measures, such as the massive closure of schools should not be adopted at the same time as the implementation of decentralization because they could reinforce and deepen the consequences from the trade-off between efficiency and equal access to education frequently observed in the process of decentralization. Finally, the approach adopted by the Bank when introducing the education-decentralization reform should have been more customized in accordance with the specifics of the education sector in Bulgaria as a client country. With an economy attempting to enter the competitive EU market, Bulgaria needed to introduce changes in the education sector that would not merely achieve efficiency, but it would improve the academic outcomes of students. In this aspect, the Bank when assisting the central authorities in the country, still relied on the neo-liberal methods of education provision and did not push for other intervention measures that would provide a better education for all students.

As discussed in the qualitative analysis, the DSBs and the unified student standards, the main elements of the education decentralization model adopted by the GOB, were seen primarily as tools for promoting greater efficiency in the use of resources, not as

mechanisms for providing better access to education. The results of the quantitative analysis in the study, however, show that the DSBs did not lead to an increased inequity of access to education. It seems that since schools, in general, remained underfunded, especially small schools, they were more interested in attracting and keeping students to stay open, which in effect decreased the dropout and the grade-repetition rates.

As is evident by recently planned activates, the involvement of the WB in the education sector is not completed. In 2013, the Bulgarian authorities implemented a pilot supported by the WB that estimated the "value-added" performance of schools, with the primary objective to make them more accountable. It remains to be seen, however, how the GOB would implement such a measure nationwide, and connect it to the unified student standards and the DSBs as the central pieces of the school decentralization.

Appendix

Interview Guide

Introduction to the interview: I am interested in the education decentralization reform in Bulgaria and the involvement of the World Bank in it. I have the following groups of questions regarding the planning, implementation and the impact of the education reform that I would like to discuss with you. The questions below are just a guide for the topics of the interview. They by no means limit you, in case you wish to share something else about the education reform in Bulgaria.

I. Background questions

1. What is your name?
2. What is your education?
3. What is the name of the organization you are working for?
4. What is your position?
5. How many years have you worked for it?
6. Were you directly involved in the process of education decentralization in Bulgaria?

II. Planning Questions

1. In your opinion, was education decentralization reform important for the education sector in Bulgaria?
2. Who was insisting for such reform?
3. What does education decentralization mean for you and for the WB?
4. Was there any proposed time-table for completion of the reform?
5. Where did the funds for the completion of the reform come from?
6. How did the WB determine the amount of the social-sector DPL loan agreements?
7. How did the WB participate in the planning for education decentralization reform?

III. Implementation Questions

1. Do you think the municipal governments and school directors were prepared to start implementing the reform?

2. What made some municipal governments and school directors more successful than others in implementing the school decentralization reform?

3. Did the WB participate in cooperation activities with other organization at the central or local level of governance during the implementation or the reform?

4. Which parts of the reform were the most successful/least successful? Could you explain why?

5. What supervisory activities related to the completion of the education-related actions under the social-sector DPL loan agreements were performed by the WB team?

6. Could you describe some of the obstacles that were encountered during the reform?

7. Which element of the reform was not implemented? Could you explain why?

8. What were some of the unintended consequences of the reform?

IV. Impact Questions

1. Do you think that the decentralization reform had an impact on the quality of education?

2. Do you think the reform had a greater impact on particular groups of students (lower-income students, minority students, students in rural areas, girls versus boys)?

3. If the answer to the previous question is yes, can you explain what actions were initiated and implemented to correct for the equity implications?

4. Do you think that the decentralization reform had an impact on the student dropout and grade-repetition rates?

5. What actions should have been implemented to improve the outcomes of the school education decentralization reform?

6. What should be the next steps towards improving the Bulgarian education system?

7. What should be the role of the WB in future projects in the Bulgarian education?

Bibliography

Aberbach, J., & Rockman, B. (2002). Conducting and Coding Elite Interviews. *Political Science and Politics*, *35*(4), 673–676. Retrieved on 04/23/2014, from http://www.jstor.org/stable/1554807.

Abu-Ghaida, D., Rutkowski, J., Murthi, M., Sondergaard, L., & Bodewig, C. (2012). *Overview Skills, not Just Diplomas: Managing Education for Results in Eastern Europe and Central Asia* (No. 64852) (pp. 1–36). The World Bank. Retrieved on 04/12/2013, from http://documents.worldbank.org/curated/en/2011/01/15234825/overview-skills-not-just-diplomas-managing-education-results-eastern-europe-central-asia.

Allison, P. (September 10, 2012). *When Can You Safely Ignore Multicollinearity?* Retrieved on 10/10/2017, from https://statisticalhorizons.com/multicollinearity.

Angrist, J. D., & Lavy, V. (1998). *Does Teacher Training Affect Pupil Learning? Evidence from Matched Comparisons in Jerusalem Public Schools* (Working Paper No. 6781). National Bureau of Economic Research. Retrieved on 04/20/2015, from http://www.nber.org/papers/w6781.

Association for Social Investigations and Applied Research Practices (2004). Doklad za resultatite ot izsledovatelski proekt Institutuzionalni resursi za (ne)osashestvyavane na sotzialni reformi: izsledave na sluchaya s MON i proekt “Modernizatziya na obrazovanieto” [Report for the Results of Research

Project “Institutional Resources for the (Non)Implementation of Social Reforms: A Case Study of the Ministry of Education and the Reform Project “Modernization of Education”]. In Dimitrov, G. (Ed.). *Darzavata sreshu Reformite [The State against the Reform*] (pp. 167–257). Sofia: Iztok–Zapad.

Bankov, K., Mikova, D., & Smith, T. (2006). Assessing Between-School Variation in Educational Resources and Mathematics and Science Achievement in Bulgaria. *Prospects: Quarterly Review of Comparative Education*, *36*(4), 447–473. Retrieved on 04/21/2015, from http://doi.org/10.1007/s11125-006-9005-7.

Barrera-Osorio, F., Fasih, T., Patrinos, H., & Santibáñez, L. (2009). *Decentralized Decision-Making in Schools: The Theory and Evidence on School-Based Management.* Washington, D.C.: The World Bank.

Beamer, G. (2002). The Practical Researcher: Elite Interviews and State Politics Research. *State Politics and Policy Quarterly*, *2*(1), 86–96. Retrieved on 03/12/2015, from http://www.jstor.org/stable/40421450.

Bénabou, R. (1996). Equity and Efficiency in Human Capital Investment: The Local Connection. *The Review of Economic Studies*, *63*, 237–264. Retrieved on 03/20/2013, from http://proxy-bc.researchport.umd.edu/login?.

Bogetic, Z., & Chattopadhyay, S. K. (1995). *Efficiency in Bulgaria’s Schools: A Nonparametric Study* (SSRN Scholarly Paper No. 569260). Rochester, NY: Social Science Research Network. Retrieved on 03/12/2015, from http://papers.ssrn.com/abstract=569260.

Bowen, G.A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, *9*(2), 27–40.

Brophy, J. (2006). *Grade-Repetition*. Retrieved on 09/12/2013, from http://www.unesco.org/iiep/PDF/Edpol6.pdf.

Bruns, B., Filmer, D., & Patrinos, H. (2011). *Making Schools Work: New Evidence on Accountability Reforms.* Washington, D.C.: The World Bank.

Chichovska, V. (2011). *Politikata sreshu Prosvetnata Tradizia [The Politics against the Educational Tradition]*. Sofia, Bulgaria: Gutenberg.

Club Economika 2000, and Ministry of Education and Science. (2005*). Analiz i Ozenka na Prilozenieto na Delegiranite Budzeti v Obrazovanieto [Analysis and Evaluation of the Application of the Delegated Budgets in Education.]*. Retrieved on 06/10/13, from http://www.teacher.bg/document/details/1728.

Cohen, J. (1988). *Statisitical Power Analysis for the Behavioral Sciences*. Hillsdale, N.J.: Lawrence Erlbaum Associates.

Commission of the European Communities. (2008). *Report from the Commission to the European National Assembly of the Republic of Bulgaria and the Council on the Management of EU-funds in Bulgaria* (pp. 1-12). Retrieved on March 15, 2016, from http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52008DC0496.

Creswell, J., & Clark, V. (2007). *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: Sage Publications.

Danchev, P., Guaqueta, J., Macdonald, K., Porta, E., Fasih, T., & Patrinos, H.A. (2010). *Bulgaria–Review of the Bulgaria School Autonomy Reforms* (No.

54890) (pp.1–89). Washington, D.C.: The World Bank. Retrieved on 03/30/2015, from http://documents.worldbank.org/curated/en/2010/06/16334491/bulgaria-review-bulgaria-school-autonomy -reforms.

Danchev, P., & Macdonald, K. (2010). *Bulgaria–Assessing the Quality of Education in Bulgaria using PISA 2009* (No. 70247) (pp.1–10). Washington, D.C: The World Bank. Retrieved on 03/30/2015, from http://documents/worldbank.org/curated/en/2010/06/16434608/bulgaria-assessing-quality-education-bulgaria-using-pisa-2009.

Danchev, P., Bankov, K., Stoimenova, V., & Atanassov, D. (2013.) *Bulgaria–Pilot Implementation of Statistical Models for Estimation of the Value-added of Bulgarian Schools Using National Student Assessment Data: Key Results and Findings*. Washington, D.C.: World Bank Group. Retrieved on 10/12/2016, from http://documents.worldbank.org/curated/en/396321467991918254/Bulgaria-Pilot-implementation-of-statistical-models-for-estimation-of-the-value-added-of-Bulgarian-schools-using-national-student-assessment-data-key-results-and-findings

Danchev, V. (2004). MES e varha" ili "MES Rules:" Obsht model na institutzionalna saprotiva sreshu reformata w obrazovatelniya sector ["MES is the top" or "MES Rules:" A General Model of Institutional Opposition against the Reform in the Education Sector]. In Dimitrov, G. (Ed.). *Darzavata sreshu Reformite* [*The State against the Reform*] (pp. 41–58). Sofia: Iztok–Zapad.

Denitch, B. (1972). Elite Interviewing and Social Structure: An Example from Yugoslavia. *The Public Opinion Quarterly*, *36*(2), 143–158.

Dimitrova, A. (2004). Commentary on the Research Project "Institutional Resources for the (Non)Implementation of Social Reforms: A Case Study of the Ministry of Education and the Reform Project "Modernization of Education." In Dimitrov, G. (Ed.). *Darzavata sreshu Reformite* [*The State against the Reform*] (pp. 258–267). Sofia: Iztok–Zapad.

Direktziya za Grazdanska Registratziya i Administrativno Obsluzvane na Naselenieto. *Arhivni godishini tablitzi na naselenieto po postoyanen nastoyasht adres (po oblasti, obshini i naseleni mesta (2004–2014) [Direction for Civil Registration and Administrative Services Archived Annual Tables of the Population by Permanent and Current Address (by Regions, Municipalities and Populated Places (2004–2014)]*. Retrieved on 04/04/2015, from http://www.grao.bg/tables.html.

Donkova, M. (2007, June 20). Informatzia, komunikatziya ili prosto PR [Information, Communication or Simply PR]. *Dnevnik.* Retrieved on 05/11/2016, from http://www.dnevnik.bg/analizi/2007/06/20/351393_/.

Donkova, M. (2007, November 7). Delegiranite budzheti sa nelogichen krai na stachkata [The Delegated Budgets are not the Logical End of the Teachers' Strike]. *Dnevnik*. Retrieved on 05/06/2016, from http://www.dnevnik.bg/intervju/2007/11/06/395062_/.

Dustmann, C., Rajah, N., & Soest, A. (2003). Class Size, Education, and Wages. *The Economic Journal*, *113*(485), F99–F120. Retrieved on 10/05/13, from http://www.jstor.org/stable/3590140.

Elenkov, I. (2004). Reformite v Obrazovanieto i Tehnia Smisal v Konteksta na Balgarskite Modernizazionni Proekti do Kraya na 80te Godini na XX Vek [Educational Reforms and their Meaning in the Context of the Bulgarian Modernization Projects at the End of the XX Century]. In Dimitrov, G. (Ed.). *Darzavata sreshu reformite* [*The State against the Reforms*] (pp. 13–29). Sofia, Bulgaria: Iztok–Zapad.

Elmore, R., Fuller, & Orfield, G.(Eds.). (1996). *Who Chooses, Who Looses? Culture, Institutions, and the Unequal Effects of School Choice*. New York: Teacher's College Press, Columbia University.

Eurostat (2015). *Population: Structure indicators (demo_pjanind).* [Table]. Retrieved on 03/11/2016, from http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjanind&lang=en.

Eurostat (2016). *Public Expenditures on Education (tsdsc 510)* [Table]. Retrieved on 03/01/2016, from http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdsc510&plugin=1.

Eurostat (2016). *Young people neither in employment nor in education and training (15–24 years)–% of the total population in the same age group (tipslm90)* [Table]. Retrieved on 06/30/2016, from

http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tipslm90&plugin=1.

Eurostat (2017). *Early Leavers from Education and Training by Sex and Employment Status (edat_ifse_14).* [Table]. Retrieved on 04/27/2017, from http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=edat_lfse_14&lang=en.

Farquharson, K. (2005). A Different Kind of Snowball: Identifying Key Policymakers. *International Journal of Social Research Methodology, 8*(4), 345–353.

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. *International Journal of Qualitative Methods*, *5*(1), 80–92.

Fetler, M. (2001). Student Mathematics Achievement Test Scores, Dropout Rates, and Teacher Characteristics. *Teacher Education Quarterly*, *28*(1), 151–68.

Fiske, E. (1996). *Decentralization of Education: Politics and Consensus*. Washington, D.C.: World Bank.

Godwin, K., & Kemerer, F. (2002). *School Choice Tradeoffs: Liberty, Equity, and Diversity*. Austin: University of Texas Press.

Grauwe, A. (2005). Improving the Quality of Education through School-Based Management: Learning from International Experiences. *International Review of Education, 51*(4), 269–287. Retrieved on 05/04/2014, from http://www.jstor.org/stable/25054542.

Guryan, J. (2001). *Does Money Matter? Regression-Discontinuity Estimates from Education Finance Reform in Massachusetts* (Working Paper No. 8269). National Bureau of Economic Research. Retrieved on 03/30/2015, from http://www.nber.org/papers/w8269.

Hanushek, E., Link, S., & Woessmann, L. (2011). *Does School Autonomy Make Sense Everywhere? Panel Estimates from PISA* (Working Paper No. 17591). Retrieved on 03/15/2012, from http://www.nber.org/papers/w17591.

Hanushek, E., & Rivkin, S. G. (2003). Does Public School Competition Affect Teacher Quality? *NBER*, 23–48. Retrieved on 08/28/2013, from http://www.nber.org/chapters/c10084.

Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. *Journal of Public Economics*, *95*(7–8), 798–812. Retrieved on 05/12/2014, from http://doi.org/10.1016/j.jpubeco.

Hayek, F. (1945). The Use of Knowledge in Society. *American Economic Review*, *XXXV* (4), 519–530. Retrieved on 08/28/2012, from http://www.cato.org/sites/cato.org/files/articles/hayek-use-knowledge-society.pdf.

Heyneman, S. P. (2003). The History and Problems of Making Education Policy at the World Bank, 1960–2000. *International Journal of Education Development*, *23*, 315–337.

Heckman, J., Humphries, J., LaFontaine, P., & Rodriquez, P. (2011). *Taking the Easy Way Out: How the GED Testing Program Induces Students to Drop Out.* The

Institute for the Study of Labor (IZA). Retrieved on 04/12/2014, from http://ftp.iza.org/dp3495.pdf.

Herbst, M., & Wojciuk, A. (2014). Inequity in a Decentralized Education System-Evidence from Poland. *Edukacja*, *6*(131), 5–22.

Herczynski, J., & Herbst, M. (2008). *Reforma na Financiraneto na Obrazovanieto v Balgaria: pregled na tekushtite problemi [Reform in the Financing of Education in Bulgaria: Review of Current Issues]* (pp. 1–43). Sofia: Open Society Institute. Retrieved on 05/25/2012, from www.osf.bg/cyeds/downloads/EDU_Financing_Report.pdf.

Herczynski, J., & Herbst, M. (2011). Ravnopostavenost i Razhodna Efectivnost na Decentralizaranoto Finansirane na Obrazovanieto v Balgaria [Equalization and Effectiveness of the Financial Decentralization of Education in Bulgaria]. In *Upravlenie na srednoto obrazovanie* [*Management of Education]*, (pp.87–116). Sofia: Ministry of Education and Science.

Herrera-Sosa, K., Moreno, M., Kutner, D., Gautam, A., & Gortazar, L. (2012). *How Can Bulgaria Improve its Education System: An Analysis of PISA 2012 and Past Results* (No. 91321) (pp. 1–60). The World Bank. Retrieved from 05/25/2015, from http://documents.worldbank.org/curated/en/2012/09/20278281/can-bulgaria-improve-education-system-analysis-pisa-2012-past-results.

Hochschild, J. (2009). *Conducting Intensive Interviews and Elite Interviews*. Retrieved on 10/15/2013, from

http://scholar.harvard.edu/jlhochschild/publications/conducting-intensive-interviews-and-elite-interviews.

Hoxby, C. (1995). *Is There Equity-Efficiency Trade off in School Finance? Tiebout and the Theory of the Local Public Goods Producer. National Bureau of Economic Research* (Working Paper No. 5265). (1-45). Retrieved on 04/25/2012, from http://www.nber.org/papers/w5265.pdf.

International Monetary Fund. (2006). *IMF Country Report No. 6/131*. Retrieved on 06/17/2015, from https://www.imf.org/external/pubs/cat/longres.aspx?sk=19120.0.

Jacob, B. A., & Lefgren, L. (2002). *The Impact of Teacher Training on Student Achievement: Quasi-Experimental Evidence from School Reform Efforts in Chicago* (NBER Working Paper No. 8916). National Bureau of Economic Research, Inc. Retrieved on 04/23/2015, from https://ideas.repec.org/p/nbr/nberwo/8916.html.

Jakubowski, M., & Topinska, I. (2009) The Impact of Decentralization on Education in Poland. In Ahmad, E., & Brosio, G. (Eds.). *Does Decentralization Enhance Service Delivery and Poverty Reduction? Studies in Fiscal Federalism and State-local Finance series.* (pp. 223–257). Cheltenham, UK: Edward Elgar Publishing Limited.

Kabakchieva, P. (2004). Sravnenie mezdu proekta “Modernizatcia na obrazovanieto” i proekta “Reforma v blagosastoyanieto na decata” [Comparison between the project “Modernization of Education” and the project “Child-Welfare

Reform"]. In Dimitrov, G. (Ed.) *Darzavata sreshu reformite* [*The State against the Reforms*] (pp. 64–87). Sofia, Bulgaria: Iztok–Zapad.

Koedel, C. (2008). Teacher quality and dropout outcomes in a large, urban school district. *Journal of Urban Economics*, *64*(3), 560–572. Retrieved on 10/15/2015, from http://doi.org/10.1016/j.jue.2008.06.004.

Lateva, Z. (2008, January16). Povecheto uchilishta ostavali na starite zaplati [Most of the Schools Will Keep the Old Salaries]. *Dnevnik*. Retrieved on 01/03/2017, from http://www.dnevnik.bg/bulgaria/2008/01/16/448571_/.

Lateva, Z. (2008, January 23). Tri mesetsa sled uchitelskata stachka: sakrashetniya vmesto po visoki zaplati [Three Months after the Teachers' Strike–More Layoffs instead of Higher Salaries]. *Dnevnik.* Retrieved on 02/02/2017, from http://www.dnevnik.bg/dnevnikplus/2008/01/22/450584_/.

Left Behind. (2015, June 4). *The Economist.* Retrieved on 06/05/2015, from http://www.economist.com/news/europe/21653654-life-not-improving-one-europes-biggest-and-most-ostracised-minorities-left-behind.

Lewis, L., & Patrinos, A. (2011). *Framework for Engaging the Private Sector in Education* (p. 59). The World Bank. Retrieved on 04/18/2012, from http://siteresources.worldbank.org/EDUCATION/Resources/278200-1290520949227/Framework_for.

McNeal, R. (1997). High School Dropouts: A Closer Examination of School Effects. *Social Science Quarterly*, 78, 209–222. Retrieved on 08/31/2013, from http://www.jstor.org.proxy-bc.researchport.umd.edu/stable/42863687.

Mihnev, P., Simidtchiev, G., Atanassov, V., & Voikova, A. (2001). Bulgaria. In Fiszbein, A. (Ed.). *Decentralizing Education in Transition Societies: Case studies from Central and Eastern Europe* (No. 22097). (pp.31–42). Washington, D.C: The World Bank. Retrieved on 02/01/2012, from http://documents.worldbank.

Ministerski Savet na Republica Balgaria. (1998*).* Postanovlenie No 30 ot 9 fevruari 1998 godina za usloviyata i reda za upravlenie na budzet o uchilishtata i obsluzvashite sistemata na narodnata prosveta zvena na teritoriyta na obshinite Nesebar, Kustendil, Blagoevgrad i Silistra, raboteshi po proekt BG 95.06-02 "Finansovo upravlenie na srednoto obrazovanie" po Programata FAR [Council of Ministers of Republic of Bulgaria Order No. 30 for the Management of Budgets of the Schools in the Public Education System in the Territory of Nessebar, Kyustendil, Blagoevgrad, and Silistra Municipalities Participating in Project BG 95.06-02 "Financial Management of the Public Education" via PHARE Program]. *State Journal*, 02/13/1998, 18, pp. 12–13.

Ministerski Savet na Republica Balgaria. (2007). *Natzionalna programa Optimizatziya na uchilishnata mrezha [Council of Ministers of the Republic of Bulgaria National Program for Consolidation of the School Network]*. Retrieved on 02/01/2017, from http://www.mon.bg/?go=page&pageId=13&subpageId=347.

Ministerski Savet na Republica Balgaria. (2008). *Natzionalna programa Optimizatziya na uchilishnata mrezha [Council of Ministers of the Republic of Bulgaria National Program for Consolidation of the School Network]*.

Retrieved on 02/01/2017, from http://www.mon.bg/?go=page&pageId=13&subpageId=346.

Ministerski Savet na Republica Balgaria. (2008). *Postanovlenie No 212 ot 02.09.2008 g. za priemane na kriterii za opredelyane na zashitenite uchilishta v Republica Balgaria i na usloviyata i red za tyahnoto dopalnitelno finansirane [Council of Ministers of the Republic of Bulgaria Order No. 212 from 09/02/2008 for Accepting of Criteria for Defining Protected Schools in Republic of Bulgaria and the Way for Their Financing.* Retrieved on 01/05/2017, from http://www.mon.bg/?go=page&pageId=7&subpageId=58.

Ministerski Savet na Republica Balgaria. (2009). *Natzionalna programa "Optimizatziya na uchilishnata mrezha [Council of Ministers of the Republic of Bulgaria National Program for Consolidation of the School Network]*. Retrieved on 02/01/2017, from www.strategy.bg/FileHandler.ashx?fileId=877.

Ministerski Savet na Republica Balgaria. (2010). *Natzionalna programa "Optimizatziya na uchilishnata mrezha" [Council of Ministers of the Republic of Bulgaria National Program for Consolidation of the School Network]*. Retrieved on 02/03/2017, from http://www.mon.bg/?go=page&pageId=13&subpageId=343.

Ministerstvo na Finansite. (2008*). Formuli za razpredelenie na sredstvata v sisistemata na narodnata prosveta—pomoshen material vav vrazka s prilaganeto na § 70 ot Prehodnite i zakluchitelnite razporedbi na Zakona za darzhavniya budzhet na Republica Balgaria za 2008 g. [Instruction of the*

Ministry of Finance—Formulas for Distribution of the Funds in the Education System Regarding the Use of §70 of the Closing Clauses of the Bill for the Public Budget of Bulgaria—2008]. Retrieved on 06/01/2016, from http://www.mon.bg/?go=page&pageId=9&subpageId=66.

Ministerstvo na Finansite. (2009). *Formuli za razpredelenie na sredstvata po edinni razhogni standarti—pomoshten material vav vrazka s prilaganeto na §68 ot prehodnite i zakluchitelnite razporedbi na Zakona za darzhavniya budzhet na Republica Balgaria za 2009 g.[Instruction of Ministry of Finance—Formulas for Distribution of the Funds from the Unified Student Standards Regarding the Use of §68 of the Closing Clauses of the Bill for the Public Budget of Bulgaria—2009]*.Retrieved on 06/02/2016, from http://www.mon.bg/?go=page&pageId=9&subpageId=66.

Ministerstvo na Obrazovanieto i Naukata. (1991). *Pravilnik za Prilozenieto na Zakona za Narodnata Prosveta [Ministry of Education and Science Rule on the Implementation of the Bill of Public Education]*. Retrieved on 10/01/2013, from http://minedu.government.bg/?go=page&pageId=7&subpageId=60**.**

Ministerstvo na Obrazovanieto i Naukata. (1996). *Naredba No 5 ot 29 dekemvri 1996 g. za usloviata za povishavane kvalifikatziata na pedagogicheskite kadri v sistemata na narodnata prosveta i reda za pridobivane na profesionalno-kvalifikatzionni stepeni [Ministry of Education and Science Regulation No.5 for the Professional Qualifications of Teachers]*. State Journal, 01/21/1997, 6, pp. 3-9.

Ministerstvo na Obrazovanieto i Naukata. (2000). *Naredba No 7 from 29.12.2000 g. za opredelyane na paralelkite i grupite i broya na uchenitzite i na detzata v paralelkite i v grupite na uchilishtata, detskite gradine i obsluzhvashtite zvena [Ministry of Education and Science Instruction No. 7 from 12/29/2000 on the Number and Size of the School Classes]*. Retrieved on 01/02/2017, from http://www.mon.bg/?go=page&pageId=7&subpageId=59.

Ministerstvo na Obrazovanieto i Naukata. (2001). Narendba No 5 za otzenyavane i odobryavane na uchebnitzi i uchebni pomagala [Ministry of Educaiton and Science Regulaton No. 5 for the Assessment and Approval of School Textbooks]. Retrieved on 01/02/2016, from http://www.mon.bg/?go=page&pageId=7&subpageId=59.

Ministerstvo na Obrazovanieto i Naukata. (2003). *Naredba No. 4 ot 16 april 2003 g. za documentite v sistemata na narodnata prosveta [Ministry of Education and Science Regulation No. 4 of 16 April 2003 for the Documents in the System of Public Education]*. Retrieved on 04/27/2017, from http://www.mon.bg/?go=page&pageId=7&subpageId=59 .

Ministerstvo na Obrazovanieto i Naukata. (2004). Strategiya za razvitie na sistemata na srednoto obrazovanie v Republica Bulgaria *[Ministry of Educaton and Science Strategy for development of Education System in Republic of Bulgaria]*. Retrieved on 09/08/2017, from http://econ.bg/Анализи/Стратегия-за-развитие-на-системата-на-средното-образование-в-Република-България_l.a_i.117329_at.4.html.

Ministerstvo na Obrazovanieto i Naukata. (2006*). Doklad za izpalnenie na Natzionalnata program za razvitie na uchilishnoto obrazowanie i preduchilishnoto vazpitanie i podgotovka 2006g. [Ministry of Education and Science Report for the Completion of the National Program for the Development of School Education-2006]*. Retrieved on 05/01/2015, from http://www.mon.bg/?go=page&pageId=74&subpageId=143.

Ministerstvo na Obrazovanieto i Naukata. (2006). *Natzionalna programa za razvitie na uchilishnoto obrazovanie i preduchilishnoto vazpitanie i podgotovka (2006-2015g) [Ministry of Education and Science National Program for the Development of School Education (2006-2015)]*. Retrieved on 05/01/2014, from http://www.mon.bg/?go=page&pageId=74&subpageId=143.

Ministerstvo na Obrazovanieto i Naukata. (2007*). Doklad za izpalnenie na Natzionalnata program za razvitie na uchilishnoto obrazowanie i preduchilishnoto vazpitanie i podgotovka 2007g. [Ministry of Education and Science Report for the Completion of the National Program for the Development of School Education-2007]*. Retrieved on 05/05/2016, from http://www.mon.bg/?go=page&pageId=74&subpageId=143.

Ministerstvo na Obrazovanieto i Naukata. (2008*). Doklad za izpalnenie na Natzionalnata program za razvitie na uchilishnoto obrazowanie i preduchilishnoto vazpitanie i podgotovka 2008g. [Ministry of Education and Science Report for the Completion of the National Program for the Development of School Education-2008]*. Retrieved on 11/05/2016, from http://www.mon.bg/?go=page&pageId=74&subpageId=143.

Ministerstvo na Obrazovanieto i Naukata. (2008). *Naredba No 3 ot 18.02.2008 g. za normite za prepodavatelska rabota i reda za opredelyane na chislenostta na personala v sistemata na narodnata prosveta. [Ministry of Education and Science Instruction No.3 from 02/18/2008 on the Norms of the Teachers' Workload and the Number of Personnel in the Education System]*. Retrieved on 04/01/2017, from http://www.mon.bg/?go=page&pageId=7&subpageId=59.

Ministerstvo na Obrazovanieto i Naukata. (2008). *Naredba No 2 ot 18.02.2008 g. za rabotnite zaplati na personala v zvenata ot sistemata na narodnata prosveta [Ministry of Education and Science Instruction from 02/18/2008 on the Salaries of the Personnel in the Education System]*. Retrieved on 05/06/2016, from http://www.mon.bg/?go=page&pageId=7&subpageId=59.

Ministerstvo na Obrazovanieto i Naukata. (2010). *Razyasneniya i ukazaniya otnosno prilaganeto na sistemata na delegiranite budzheti [Ministry of Education and Science Instruction for the Implementation of the Delegated School Budgets]*. Retrieved on 06/01/2015, from http://www.mon.bg/?go=page&pageId=9&subpageId=66.

Ministerstvo na Obrazovanieto i Naukata. (2011*). Pismo–ukazanie za prilagane na sistemata na delegiranite budzheti in 2011g. [Ministry of Education and Science Instruction for the Implementation of the Delegated School budgets in 2011]*. Retrieved on 06/03/2015, from http://www.mon.bg/?go=page&pageId=9&subpageId=66.

Ministerstvo na Obrazovanieto i Naukata. (2012*). Pismo–ukazanie za prilagane na sistemata na delegiranite budzheti in 2012 g. [Ministry of Education and Science Instruction for the Implementation of the Delegated School budgets in 2012]*. Retrieved on 06/03/2015, from http://www.mon.bg/?go=page&pageId=9&subpageId=66.

Ministerstvo na Obrazovanieto i Naukata. (2013*). Pismo–ukazanie za prilagane na sistemata na delegiranite budzheti in 2013g. [Ministry of Education and Science Instruction for the Implementation of the Delegated School budgets in 2013]*. Retrieved on 06/03/2015, from http://www.mon.bg/?go=page&pageId=9&subpageId=66.

Morse, J. (1991). Approaches to Qualitative-Quantitative Methodological Triangulation. *Nursing Research*, *40*(2), 120–123.

Murnane, R., Willett, J, & Cardenas, S. (2006). *Did Participation of Schools in Program Escuelas de Calidad (PEC) Influence Student Outcomes?* Retrieved on 04/24/2015, from https://www.researchgate.net/publication/263542240_Did_Participation_of_Schools_In_Programa_Escuelas_de_Calidad_%28PEC%29_Influence_Student_Outcomes.

Mundy, K. & Verger, A. (2015). The World Bank and the Global Governance of Education in a Changing World Order. *International Journal of Educational Development*, *40*, 9–18.

Nonchev, A., Mondon, P., Donkova, M., Milenkova, V., Strakova, L., & Ruseva, R. (2006). *Prichini za Otpadane na Dezata ot Uchilishe v Balgaria: Analiz na*

Rezultatite ot Provedeno Sotziologichesko Izsledvane [Reasons for Dropping out of Children from School in Bulgaria: An Analysis of Results from Conducted Sociological Research]. Sofia, BG: Iztok-Zapad.

Oates, W. (1999). An Essay on Fiscal Federalism. *Journal of Economic Literature, 37*(3), 1120–1149. Retrieved 03/23/2013, from http://www.jstor.org.proxy-bc.researchport.umd.edu/stable/2564874.

Organization for Economic Cooperation and Development (2016). *Low reading literacy performance of pupils (tsdsc 450).* [Table]. Retrieved on 03/01/2016, from http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdsc450&plugin=1.

Owen, G. T. (2014). Qualitative Methods in Higher Education Policy Analysis: Using Interviews and Document Analysis. *The Qualitative Report, 19*(26), 1–19. Retrieved from http://nsuworks.nova.edu/tqr/vol19/iss26/2.

Paes de Barros, & R. Mendonca. (1998). The Impact of Three Institutioanal Innovations in Brazilian Education. In Savedoff, W. (Ed.) *Organizations Matters: Agency Problems in Health and Eduation in Latin America.* Washington, D.C: Inter-American Development Bank.

Patrinos, H., Ridao-Cano, C., & Sakellariou, C. (2006). *Estimating the Return to Education: Accounting for Heterogeneity in Ability.* Retrieved on 09/18/2017, from http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079934475/wps4040_estimating_return.pdf.

Petrov, J. (2006, January 23). Kak obrazovanieto moze da hlatne oshe, tozi pat s pomoshta na Svetovnata banka [How Education Can Fail Even More, This Time with the Help of the World Bank.]. *Mediapool.bg.* Retrieved on 06/13/2016, from http://www.mediapool.bg/kak-obrazovanieto-mozhe-da-hlatne-oshte-tozi-pat-s-pomoshtta-na-svetovnata-banka-news113536.html.

Petrov, J. (2006, May 1). Obrazovanieto–istinskata predpazna klauza. [Education–The Real Precautionary Clause]. *Dnevnik*. Retrieved on 06/13/2016, from http://www.dnevnik.bg/evropa/comentari_analizi/2006/05/01/259758_/.

Psacharopoulos, G. (1985). Planning for Education: Where Do We Stand? (pp.1–32) Washington, D.C: Inter-American Development Bank. Retrieved on 09/15/2017, from http://documents.worldbank.org/curated/en/874591468739443073/pdf/multi-page.pdf.

Rado, P. (2001). *Transition in Education*. Budapest: Open Society Institute. Retrieved on 02/12, 2012, from http://www.osi.hu/iep/papers/transit.pdf.

Rado, P. (2009*). Dezantralizacia na Uchilishnoto Obrazovanie v Balgaria* [*Decentralization of School Education in Bulgaria*]. Retrieved on May 25, 2012, from http://www.osf.bg/downloads/File/Decentrall_full.pdf.

Rado, P. (2010). *Governing Decentralized Education Systems: Systemic Change in South Eastern Europe*. Budapest: Open Society Institute.

Reforma, a ne promyana na parche [Reform, not a Piece-made Change]. (2006, February 11). *Capital*. Retrieved on 05/07/2016, from

http://www.capital.bg/politika_i_ikonomika/obshtestvo/2006/02/11/235016_reforma_a_ne_promiana_na_parche/.

Richardson, P. (2014). Engaging the Russian Elite: Approaches, Methods and Ethics. *Politics, 34*(2), 180–190.

Rivera, S.W., Kozyreva, P.M., & Sarovskii, E.G. (2002). Interviewing Political Elites: Lessons from Russia. *PS: Political Science and Politics, 35*(4), 683–688.

Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, Schools, and Academic Achievement. *Econometrica, 73*(2), 417–458. Retrieved from http://www.jstor.org.proxy-bc.researchport.umd.edu/stable/3598793.

Roberts, S. (2013). Research in Challenging Environments: The Case of Russia's "Managed Democracy." *Qualitative Research*, 13(3), 337–351.

Rossman, G. B., & Wilson, B. L. (1985). Numbers and words: Combining quantitative and qualitative methods in a single large-scale evaluation study. *Evaluation Review, 9*(5), 627–643.

Rumberger, R.W. (1995). Dropping out of Middle School: A Multilevel Analysis of Students and Schools. *American Educational Research Journal, 32*(3), 583–625. Retrieved on 08/30/14, from http://doi.org/10.2307/1163325.

Rumberger, R. W., & Thomas, S. L. (2000). The Distribution of Dropout and Turnover Rates among Urban and Suburban High Schools. *Sociology of Education, 73*(1), 39–67. Retrieved on 08/30/2013, from http://doi.org/10.2307/2673198.

Saumure, K. & Morgan, L. Nonprobability Sampling. (2008). In Morgan, L. (Ed). *The SAGE Encyclopedia of Quantitative Research Methods: Volumes 1&2*. Thousand Oaks, CA: Sage Publications, Inc.

Smetna Palata na Republica Balgaria (2003). *Oditen doklad No 0500020702 [National Audit Office Audit Report No. 0500020702]*. Retrieved on 04/03/2016, from http://www.bulnao.government.bg/bg/articles/dokladi-128.

Stake, R. (1995). *The Art of Case Study Research.* Thousand Oaks, CA: Sage Publications.

Standing Committee on Education and Science. (September 1, 2005). *Stenograma ot zasedanie na komisiya, 09/01/2005 [Minutes from a Session of the Committee, 09/01/2005]*. Retrieved on 01/03/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/22.

Standing Committee on Education and Science. (November 09, 2005). *Stenograma ot zasedanie na komisiya, 09/11/2005 [Minutes from a Session of the Committee, 11/09/2005]*. Retrieved on 01/03/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/64.

Standing Committee on Education and Science. (May 17, 2006). *Stenograma ot zasedanie na komisiya, 17/05/2006. [Minutes from a Session of the Committee, 05/17/2006]*. Retrieved on 01/03/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/292.

Standing Committee on Education and Science. (October 18, 2006). *Stenograma ot zasedanie na komisiya, 18/10/2006 [Minutes from a Session of the Committee,*

10/18/2006]. Retrieved on 01/03/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/522.

Standing Committee on Education and Science. (May 17, 2006). *Stenograma ot zasedanie na komisiya, 17/05/2006 [Minutes from a Session of the Committee, 05/17/2006]*. Retrieved on 01/10/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/292.

Standing Committee on Education and Science. (May 31, 2006). *Stenograma ot zasedanie na komisiya, 31/05/2006 [Minutes from a Session of the Committee, 05/31/2006]*. Retrieved on 01/12/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/286.

Standing Committee on Education and Science. (October 18, 2006). *Stenograma ot zasedanie na komisiya, 18/10/2006 [Minutes from a Session of the Committee, 10/18/2006]*. Retrieved on 01/05/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/522.

Standing Committee on Education and Science. (October 17, 2007). *Stenograma ot zasedanie na komisiya, 17/10/2007 [Minutes from a Session of the Committee, 10/17/2007]*. Retrieved on 01/05/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/789.

Standing Committee on Education and Science. (November 14, 2007). *Stenograma ot zasedanie na komisiya, 14/11/2007 [Minutes from a Session of the Committee, 11/14/2007]*. Retrieved on 01/05/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/815.

Standing Committee on Education and Science. (January 30, 2008). *Stenograma ot zasedanie na komisiya, 30/01/2008 [Minutes from a Session of the Committee, 01/30/2008]*. Retrieved on 01/05/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/885.

Standing Committee on Education and Science. (April 16, 2008). *Stenograma ot zasedanie na komisiya, 16/04/2008 [Minutes from a Session of the Committee, 04/16/2008]*. Retrieved on 01/05/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/946.

Standing Committee on Education and Science. (November 26, 2008). *Stenograma ot zasedanie na komisiya, 26/11/2008 [Minutes from a Session of the Committee, 11/26/2008]*. Retrieved on 01/05/2013, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/1159.

Standing Committee on Education and Science. (April 29, 2009). *Stenograma ot zasedanie na komisiya, 29/04/2009 [Minutes from a Session of the Committee, 04/29/2009]*. Retrieved on 01/10/2014, from http://www.National Assembly of the Republic of Bulgaria.bg/bg/archive/2/3/163/steno/ID/1300.

Tansey, O. (2007). Process Tracing and Elite Interviewing: A Case for Non-Probability Sampling. *Political Science and Politics*, *40*(4), pp. 1–23.

Thurlow, M., Sinclair, M., & Johnson, D. (2002). *Students with Disabilities Who Drop Out of School—Implications for Policy and Practice.* Retrieved on 10/02/13, from http://www.ncset.org/publications/printresource.asp?id=425.

Tiebout, C. M. (1956). A Pure Theory of Local Expenditures. *Journal of Political Economy*, *64*(5), 416–424. Retrieved from http://www.jstor.org.proxy-bc.researchport.umd.edu/stable.

Valtchev, R. (2007, October 30). Premalchanite istini v obrazovanieto [Unspoken Truths in Education]. *Dnevnik*. Retrieved on 03/02/2017, from http://www.dnevnik.bg/analizi/2007/10/30/392813_/.

Verger, A., & Bonal, X. (2012).“All things being equal?” Policy options, shortfalls and absences in the World Bank Education Sector Strategy 2020. In Klees, S., J. Samoff, and N. Stromquist (eds.) *World Bank and Education: Critiques and Alternatives.*Rotterdam: Sense.

Warren, J. R., & Saliba, J. (2012). First- Through Eighth-Grade Retention Rates for All 50 States A New Method and Initial Results. *Educational Researcher*, *41*(8), 320–329. Retrieved on 06/20/2013, from http://doi.org/10.3102/0013189X12457813

World Bank (2000*). Bulgaria–Education Modernization Project* (pp.1–107). Washington, DC: World Bank. Retrieved on 05/07/2015, from http://projects.worldbank.org/P055158/education-modernization-project?lang=en.

World Bank. (2004a). *Bulgaria–Education Modernization Project* (pp. 1–58). Washington, DC: World Bank. Retrieved on 05/05/2015, from http://documents.worldbank.org/curated/en/2004/09/5154869/bulgaria-education-modernization-project.

World Bank. (2004b). *Bulgaria–Issues in intergovernmental relations* (pp. 1–42). Washington, DC: World Bank. Retrieved on 05/20/2016, from http://documents.worldbank.org/curated/en/547241468769833035/Bulgaria-Issues-in-intergovernmental-relations.

World Bank. (2004c). *Bulgaria–Second Programmatic Adjustment Loan Project* (pp. 1–166). Washington, DC: World Bank. Retrieved on 05/06/2015, from http://documents.worldbank.org/curated/en/160701468224072569/pdf/334130rev0pdf.pdf.

World Bank. (2005a). *Bulgaria–Education and Skills for the Knowledge Economy. A Policy Note: Executive summary.* Retrieved on 04/13/2014, from http://siteresources.worldbank.org/INTBULGARIA/Resources/EducationPolicyNote_EN.pdf.

World Bank. (2005b). *Bulgaria–Second Programmatic Adjustment Loan Project* (pp. 1–14). Washington, DC: World Bank. Retrieved on 05/06/2015, from http://documents.worldbank.org/curated/en/160701468224072569/pdf/334130rev0pdf.pdf.

World Bank (2005c*). Bulgaria–Third Programmatic Adjustment Project* (pp. 1–122). Washington, DC: World Bank. Retrieved on 05/06/2015, from http://documents.worldbank.org/curated/en/128401468006032407/pdf/30696.pdf.

World Bank. (2006a). *Bulgaria–Series of Three Programmatic Adjustment Operations Project (No. 36603)* (pp. 1–73). Retrieved on 05/05/2015, from

http://documents.worldbank.org/curated/en/2006/06/6940947/bulgaria-series-three-programmatic-adjustment-operations-project.

World Bank. (2006b). *Program Information Document Appraisal Stage* (pp. 1–3). Washington, DC: World Bank. Retrieved on 05/10, 2015, from http://documents.worldbank.org/curated/en/927931468241791694/pdf/PID01Appraisal0Stage1sept28.pdf.

World Bank. (2007a). *Bulgaria–Accelerating Bulgaria's Convergence : Volume 2. The Challenge of Rising Productivity*. Washington, DC. The World Bank. Retrieved on 05/15/2016, from https://openknowledge.worldbank.org/handle/10986/7876 License: CC BY 3.0 IGO.

World Bank. (2007b). *Bulgaria–First Social Sector Institutional Reform Development Policy*. (pp. 1–83). Washington, DC: World Bank. Retrieved on 11/05/2015, from http://documents.worldbank.org/curated/en/2007/02/7421801/bulgaria-first-social-sector-institutional-reform-development-policy.

World Bank. (2008a). *Program Document on a Proposed Loan in the Amount of 101.7 Million Euro (US$150 Million Equivalent) to the Republic of Bulgaria for a Second Social Sectors Institutional Reform Development Policy Loan SIR DPL II (No. 45453)* (pp. 1–103). Retrieved on 06/10/ 2015, from http://documents.worldbank.org/curated/en/584731468017335510/Bulgaria-Second-Social-Sectors-Institutional-Reform-Development-Policy-Loan.

World Bank. (2008b*). Program Information Document (PID) Concept Stage (No. AB3308)* (pp.1–3). Retrieved on 09/08/2016, from

http://documents.worldbank.org/curated/en/994261468006619658/pdf/PID010Concept01nal0with0SM0approval.pdf.

World Bank. (2009a). *Bulgaria–Third Social Sectors Institutional Reform Development Policy Loan Program* (No. 47067) (pp. 1–79). Retrieved on 11/05/2015, from http://documents.worldbank.org/curated/en/2009/04/10583361/bulgaria-third-social-sectors-institutional-reform-development-policy-loan-program.

World Bank. (2009b). *Education System Performance Project.* Washington, D.C.: World Bank. Retrieved on 09/13/2016, from http://documents.worldbank.org/curated/en/602881468224993191/pdf/Integrated0Saf10Sheet1Concept0Stage.pdf.

World Bank. (2010). *Bulgaria–First, Second, and third Social Sectors Institutional Reform Development Policy Loan Project*. (pp. 1–64). Washington, DC: World Bank. Retrieved on 11/05/2015, from http://documents.worldbank.org/curated/en/2010/07/13259877/bulgaria-first-second-third-social-sectors-institutional-reform-development-policy-loan-project.

Yin, R. K. (2009). *Case study research: design and methods* (4th ed). Los Angeles, California: Sage Publications.

Yordanova, L. (2008, September 12). Dobar 4+ [Good B+]. *Capital.* Retrieved on 02/03/2017, from http://www.capital.bg/politika_i_ikonomika/bulgaria/2008/09/12/549452_dobur_4/.

Zakon za darzavniya budzhet na Republica Balgaria za 2007 [Bill of the Public Budget of Republic of Bulgaria, 2007]. *State Journal*, 12/29/2006, 108, pp. 1–44. Retrieved on 01/01/2016, from https://www.minfin.bg/bg/page/395.

Zakon za darzavniya budzhet na Republica Balgaria za 2008 [Bill of the Public Budget of Republic of Bulgaria, 2008]. *State Journal*, 12/29/2006, 113, pp. 28–70. Retrieved on 01/10/2016, from https://www.minfin.bg/bg/page/516.

Zakon za narodnata prosveta [Bill of Public Education]. (1991). Retrieved on 02/01/2015, from http://www.mon.bg/?go=page&pageId=7&subpageId=57.

Zapp, M.(2017). The World Bank and Education: Governing (through) Knowledge. *International Journal of Educational Development, 53,* 1–11.