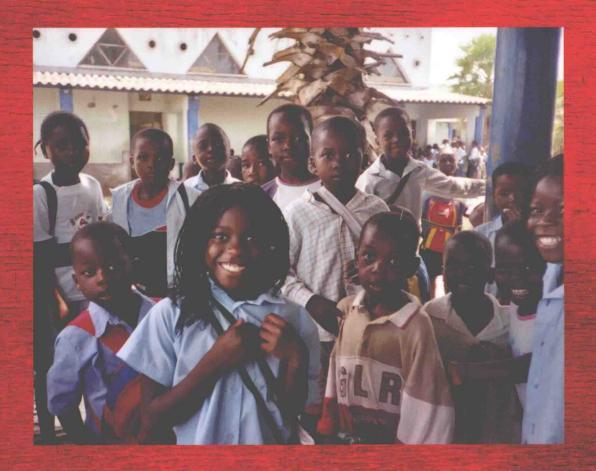
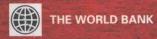
A WORLD BANK STUDY



# **Education in Sub-Saharan Africa**

A COMPARATIVE ANALYSIS



# Education in Sub-Saharan Africa

A Comparative Analysis

Kirsten Majgaard and Alain Mingat





© 2012 International Bank for Reconstruction and Development / The World Bank

1818 H Street NW, Washington DC 20433

Telephone: 202-473-1000; Internet: www.worldbank.org

Some rights reserved

1 2 3 4 15 14 13 12

World Bank Studies are published to communicate the results of the Bank's work to the development community with the least possible delay. The manuscript of this paper therefore has not been prepared in accordance with the procedures appropriate to formally edited texts.

This work is a product of the staff of The World Bank with external contributions. Note that The World Bank does not necessarily own each component of the content included in the work. The World Bank therefore does not warrant that the use of the content contained in the work will not infringe on the rights of third parties. The risk of claims resulting from such infringement rests solely with you.

The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be considered to be a limitation upon or waiver of the privileges and immunities of The World Bank, all of which are specifically reserved.

### Rights and Permissions



This work is available under the Creative Commons Attribution 3.0 Unported license (CC BY 3.0) http://creativecommons.org/licenses/by/3.0. Under the Creative Commons Attribution license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

Attribution—Please cite the work as follows: Majgaard, Kirsten and Alain Mingat. 2012. Education in Sub-Saharan Africa: A Comparative Analysis. Washington, D.C.: World Bank. DOI: 10.1596/978-0-8213-8889-1. License: Creative Commons Attribution CC BY 3.0

Translations—If you create a translation of this work, please add the following disclaimer along with the attribution: This translation was not created by The World Bank and should not be considered an official World Bank translation. The World Bank shall not be liable for any content or error in this translation.

All queries on rights and licenses should be addressed to the Office of the Publisher, The World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

ISBN (paper): 978-0-8213-8889-1 ISBN (electronic): 978-0-8213-8890-7 DOI: 10.1596/978-0-8213-8889-1

Cover photo: Children in front of a primary school in Maputo, Mozambique. Photo courtesy of Cornelia Jesse.

### Library of Congress Cataloging-in-Publication Data

Majgaard, Kirsten.

Education in sub-saharan Africa : a comparative analysis / by Kirsten Majgaard and Alain Mingat.

ISBN 978-0-8213-8889-1 — ISBN 978-0-8213-8890-7

1. Education—Africa, Sub-Saharan—Finance. 2. Education—Africa, Sub-Saharan—Finance—Statistics. 3. School management and organization—Africa, Sub-Saharan. 4. Education and state—Africa, Sub-Saharan. I. Mingat, Alain. II. Title.

LB2826.6.A34M35 2011

370.967-dc23

# Acknowledgments

This report was prepared by a team led by Ramahatra Rakotomalala. The report was authored by Kirsten Majgaard and Alain Mingat. Cornelia Jesse, Francis Ndém, Meng Zhao, Juan Carlos Rodriguez, and Koffi Segniagbeto assisted with first-rate background analyses. Kiong Hock Lee helped with careful editing. Jee-Peng Tan launched the study and provided general guidance to the team.

Over the years, many people—too many to name individually—have contributed to the preparation of the education Country Status Reports for African countries, which constitute the foundation for this work. They include representatives from African ministries of education and other national agencies in the respective countries, staff and consultants from the World Bank and the Pôle de Dakar (UNESCO-BREDA) and other development agencies.

Many other individuals contributed to the study. At the concept note stage, the team benefited from guidance from Carlos Rojas, Yaw Ansu and Jean-Claude Balmes (*Agence Française de Développement*). Dung-Kim Pham and Elizabeth Ninan provided comments to an initial draft. Peer reviewers were Amit Dar, Laurent Cortese and Punam Chuhan-Pole. Linda English, Mathieu Brossard and Shwetlena Sabarwal also provided valuable comments. Christopher Thomas, Peter Materu, Cristina Santos, Maureen Lewis and Michel Welmond ensured management oversight. This report could not have been completed without the valuable contributions and support of everyone.

The Team also acknowledges the generous financial support received from the Education Program Development Fund of the Global Partnership for Education (formerly EFA FTI), a multi-donor trust fund established in 2004 to help low-income countries accelerate progress towards universal primary completion.

# **Acronyms and Abbreviations**

AGEMAD Amélioration de la Gestión de l'Education à Madagascar

AFTHD Africa Technical Families Human Development

AIDS Acquired Immune Deficiency Syndrome

ASLI African Student Learning Index

BREDA Regional Office for Education in Africa [of UNESCO]

CAR Central African Republic
CCT conditional cash transfer

CDC Centers for Disease Control and Prevention

CDD community-driven development

CONFEMEN Conference of Ministers of Education of French-Speaking

Countries

CR completion rate

CSR Country Status Report

CWIQ Core Welfare Indicators Questionnaire

DAC Development Assistance Committee (OECD)

DHS Demographic and Health Survey

EFA Education For All

FTI Fast Track Initiative (Education For All)

GDP gross domestic product
GER gross enrollment rate
GIR gross intake rate

GNI gross national income
GPI Gender Parity Index

HIV Human Immunodeficiency Virus

IBRD International Bank for Reconstruction and Development

IDA International Development Association

LAY latest available year LS lower secondary

xvii

MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey

MLA Measurement of Learning Achievement

MoE Ministry of Education

NA not available

ODA Overseas Development Assistance

OECD Organization for Economic Cooperation and Development
PASEC Program for the Analysis of Education Systems of

CONFEMEN

PCR primary completion rate

PETS Public Expenditure Tracking Survey

PIRLS Progress in International Reading Literacy Study

PTA Parent-Teacher Association

PTR pupil teacher ratio

R<sup>2</sup> / R-square coefficient of determination in statistical analysis

SACMEQ Southern Africa Consortium for Monitoring Educational

Quality

SLE school life expectancy

TVET technical and vocational education and training

UIS UNESCO Institute of Statistics

UNCTAD United Nations Conference on Trade and Development

UNESCO United Nations Educational, Scientific, and Cultural

Organization

UNESCO-BREDA UNESCO Regional Office for Education in Africa, Pôle de

Dakar

UNICEF United Nations Children's Fund UPC universal primary completion

US upper secondary

## **Contents**

Acknowledgm	nents	xv
Acronyms an	d Abbreviations	xvii
- 5	Overview	1
	Is Everyone Getting a Chance at Education?	2
	Are Those Given a Chance Actually Learning?	6
	Is What They Are Learning Relevant for Work and Life? Are Countries Investing Enough in Education and	8
	Achieving a Sound Balance across Levels of Education? Are the Resources Well Deployed and Managed to Ensure	11
	Efficient Functioning of Education Systems?	14
	How Is Cross-Country Diversity in Policies and	
	Educational Outcomes Useful for Country-Specific	
	Policy Development?	14
	Notes	16
	References	17
	Country Status Reports	18
Chapter 1	Coverage of Education and Prospects for Expansion	21
	Overview of the Pattern of Coverage	21
	Relationship between Education Coverage and Per	
	Capita GDP	27
	Prospects for the Expansion of Education Coverage	30
	Issues for Policy Development	40
	Notes	41
	References	43
Chapter 2	Socioeconomic Disparities in Education	45
	Gender Disparities: Analysis of Administrative Data	45
	Socioeconomic Disparities beyond Gender: Analysis of Household Surveys	52
	Issues for Policy Development	54
	Notes	55
	References	55
	references	00

179

Labor Market

Box 3.1: The Central African Republic, The Gambia, Lesotho, and	
Malawi: Enhancing Teacher Deployment to Rural Areas	69
Box 3.2: Malawi: Impact of Conditional Cash Transfers on Girls'	
Secondary School Attendance	72
Box 3.3: Kenya: Girls' Scholarship Program	72
Box 4.1: Madagascar, Niger, and Senegal: Contract Teacher Recruitment to	
Expand Primary School Coverage	107
Box 4.2: Madagascar: Improvement in the Allocation of Teachers to	
Schools	114
Box 5.1: Ghana: Leaping in Quality from "Poor" to "Fair"	134
Box 5.2: Senegal: Better Management of Instructional Time to Improve	
Student Learning	138
Box 5.3: Madagascar: School Management Impact Evaluation	142
Box 5.4: The Gambia: Reducing Teacher Absenteeism by Strengthening	
Supervision	144
Box 5.5: Uganda: Public Access to Information Increases Effective Arrival	
of Grants to Schools	145
Box 5.6: Kenya: Teacher Incentive Pilot Program	146
Tables	
Table O.1: Social Outcomes by Average Education Level in Sub-Saharan	
African Countries, ca. 2003	9
Table O.2: Randomness in Teacher Allocation to Primary Schools,	
Selected Sub-Saharan African Countries, 2000–08	16
Table 1.1: Education Coverage in Low-Income Countries, by World	
Region, ca. 2009	23
Table 1.2: Secondary Education Coverage in Selected Sub-Saharan	
African Countries, ca. 2009	26
Table 1.3: Absolute Gains in Coverage, by Education Level, in 33	
Low-Income Sub-Saharan African Countries, 1990–2009	30
Table 1.4: Scenarios for the Expansion of Lower Secondary Enrollment by	
2020 in 33 Low-Income Sub-Saharan African Countries	37
Table 2.1: Gender Disparities at All Levels of Education, Sub-Saharan	
African Countries, Selected Years	46
Table 2.2: Comparison of Sub-Saharan African Gender Disparities in	
Education with Those of Low-Income Countries in Other World	
Regions, 2008	46
Table 2.3: Distribution of Population Aged 5–24 by Gender, Location,	
Income, and Level of Schooling in Sub-Saharan African Countries,	
ca. 2005	52
Table 2.4: Disparities by Social Group and Level of Education,	F10===0
Sub-Saharan African Countries, ca. 2005	53
Table 3.1: Primary Entry and Attainment Rates Based on Different Data	1000
Sources, 33 Low-Income Sub-Saharan African Countries, ca. 2003	59

Table 3.2: Estimated Number of Out-of-School Children in 33 Low-	
Income Sub-Saharan African Countries, ca. 2003	60
Table 3.3: Correlation of Distance to School and Probability of Grade	
One Enrollment, Simulated for Aggregate of Eight Sub-Saharan	
African Countries, ca. 2003	67
Table 3.4: Education Policies to Increase Access to, and Participation in,	
Primary Schooling	73
Table 3.5: Impact of Proportion of Female Teachers on Primary-School	
Repetition and Retention Rates in Sub-Saharan African Countries	74
Table 3.6: Impact on Primary School Retention of Reduced Repetition	
and Increased Share of Schools with Full Primary Cycle	76
Table 3.7: Education Policies to Increase Retention in Primary Education	77
Table 4.1: Comparison of Public Spending on Education (Capital and	
Recurrent), ca. 2005	88
Table 4.2: Average Tax Revenues and ODA Relative to Total Public	
Spending, Sub-Saharan African Countries, 2005–07	90
Table 4.3: Household Spending on Education in Selected Sub-Saharan	0.0
African Countries, ca. 2003	94
Table 4.4: Comparison of Education Spending Distribution, by Level,	
2006 or Latest Available Year	95
Table 4.5: Public Recurrent Spending Per Student by Educational Level in	1
Sub-Saharan African Countries, ca. 2003	97
Table 4.6: International Comparison of Per-Student Public Spending by	
Educational Level, ca. 2005	100
Table 4.7: Concentration of Public Education Spending within a Cohort,	
by Sub-Saharan African Country Income Level	102
Table 4.8: School Inputs in Primary Education in Sub-Saharan African	
Countries, ca. 2003	105
Table 4.9: Decomposition of Variables' Relative Influence to Explain	
Variability in Primary GER across Sub-Saharan African Countries	110
Table 4.10: Comparison of Randomness in Teacher Allocation to Primary	
Schools in Selected Sub-Saharan African Countries	113
Table 4.11: Scope for Increasing Education Spending in Selected	
Low-Income Sub-Saharan African Countries	115
Table 5.1: Test Scores and Index of Student Learning in Primary	
Education in Selected Sub-Saharan African Countries, 1996–2009	123
Table 5.2: Variance Decomposition of PASEC Learning Scores in 10	
Sub-Saharan African Countries	130
Table 5.3: School Management and Accountability Tools in Selected	
Sub-Saharan African Countries, 2007	143
Table 6.1: Logit Regression Results: Relation between Risk of Poverty and	
Educational Attainment in Benin, 2001	156
Table 6.2: Social Outcomes by Level of Education, Sub-Saharan African	
Average	164

Table 6.3: Contribution to Social Outcomes by Year of Education,	
Sub-Saharan African Average	165
Table 7.1: Employment Status Distribution per 100 Working-Age	
Population, Aggregate for 23 Sub-Saharan African Countries, ca. 2003	172
Table 7.2: Simulation of Employment by Sector as a Function of Per	
Capita GDP, Average Low-Income Sub-Saharan African Country	176
Table 7.3: Apparent Labor Productivity by Sector, Sub-Saharan African	
Average, 1985–2003	178
Table 7.4: Employment Status by Age Group and Highest Level of	1,0
Schooling Attended, Aggregate for 23 Sub-Saharan African Countries,	
ca. 2003	183
Table 7.5: Employment and Unemployment by Level of Education and	100
Age Group in 23 Sub-Saharan African Countries, ca. 2003	185
Table 7.6: Determinants of Unemployment Rate in 25–34 Age Cohort of	
Higher-Education Graduates: Cross-Country Analysis, ca. 2003	186
Table 7.7: Modeling Higher Education Enrollment and Share of Skilled	100
Formal Sector Jobs	187
Table A.1: Classification of Sub-Saharan African Countries Used in This	107
Report	193
Table A.2: Definitions of Student Flow Indicators	194
Table A.3: Duration of Primary and Secondary Cycles (Standardized)	151
in 47 Sub-Saharan African Countries, 2005	195
Table B.1: Education Coverage by Level of Education in 47 Sub-Saharan	100
African Countries, ca. 2009	197
Table B.2: Development in Education Coverage over Time in Sample of 33	107
Low-Incomea Sub-Saharan African Countries, 1990, 1999, and 2009	198
Table C.1: Gender Disparities by Level of Education and Sub-Saharan	150
African Country, ca. 1990 and 2008	201
Table D.1: Number and Proportion of Out-of-School Children in 33	201
Low-Income Sub-Saharan African Countries, 2003	205
Table D.2: Characteristics of Out-of-School Children in 30 Low-Income	200
Sub-Saharan African Countries, ca. 2003	206
Table D.3: Extent of Social Disparities between Children In and Out of	200
School in 30 Sub-Saharan African Countries, ca. 2003	207
Table E.1: Public Spending (Capital and Recurrent) on Education in	207
Sub-Saharan African Countries, ca. 2005	209
Table E.2: Public Recurrent Spending per Student per Year in	200
Sub-Saharan African Countries, by Education Level, ca. 2003	210
Table G.1: PASEC and SACMEQ Scores and Their Transformation to the	210
MLA Scale in Sub-Saharan African Countries, 1996–2009	217
Table H.1: Education and Risk of Being Poor in Sub-Saharan African	41/
Countries, without Wealth as Control	220
Table H.2: Education and Childbearing Behavior in Sub-Saharan African	
Countries, with and without Wealth as Control	220
7	

Table H.3: Education and Maternal Health in Sub-Saharan African	
Countries, with and without Wealth as Control	220
Table H.4: Education and Child Health and Development in Sub-Saharan	
African Countries, with and without Wealth as Control	221
Table H.5: Education, Knowledge about HIV/AIDS, and Use of	
Information Media in Sub Saharan Africa Countries, with and without	
Wealth as Control	221
Table H.6: Relation between Education and Probability of Being in the 40	
Percent Poorest, by Country	221
Table H.7: Relation between Education and Woman's Age at First Birth,	
by Country	222
Table H.8: Relation between Education and Months between Last Two	
Consecutive Births, by Country	223
Table H.9: Relation between Education and Number of Live Births to	
Date, by Country	224
Table H.10: Relation between Education and Probability of Using any	
Contraceptive Method Frequently, by Country	224
Table H.11: Relation between Education and Number of Prenatal	
Consultations during Pregnancy, by Country	225
Table H.12: Relation between Education and Number of Tetanus	
Vaccinations during Last Pregnancy, by Country	226
Table H.13: Relation between Education and Probability of Receiving	
Vitamin A during Last Pregnancy, by Country	226
Table H.14: Relation between Education and Probability that Last	
Delivery Was Assisted by Skilled Attendant, by Country	227
Table H.15: Relation between Education and Probability that Children	
Sleep under a Bed Net, by Country	228
Table H.16: Relation between Education and Probability that Children	
Are Fully Vaccinated by Age 2, by Country	228
Table H.17: Relation between Education and Mortality Rate of Children	
under 5, by Country	229
Table H.18: Relation between Education and Probability that Children	
Aged 9–11 Have Ever Attended School, by Country	230
Table H.19: Relation between Education and Index of Knowledge of	
HIV/AIDS, by Country	230
Table H.20: Relation between Education and Probability of Reading	
Newspapers Frequently, by Country	231
Table H.21: Relation between Education and Probability of Listening to	-
the Radio Frequently, by Country	232
Table H.22: Relation between Education and Probability of	
Watching TV Frequently, by Country	232
Table H.23: Construction of Index of Improvement in Social	
Outcomes from Six Years of Primary School, 36 Sub-Saharan African	222
Countries	233

Х

Figures	
Figure O.1: Sub-Saharan Africa's Educational Pyramid, ca. 2009	3
Figure O.2: Projected Primary Completion Rates by 2015 in Low-Income	
Sub-Saharan African Countries	5
Figure O.3: Correlation of Reading Ability and Length of Schooling,	
Selected Sub-Saharan African Countries	7
Figure O.4: Public Spending on Education in Sub-Saharan African	
Countries (Capital and Recurrent), ca. 2005	12
Figure O.5: Tradeoff between Teacher Salary and Pupil-Teacher Ratio at	
Primary Level in Selected Sub-Saharan African Countries, ca. 2003	13
Figure O.6: Number of Schools by Per-Student Spending, Burundi and	
Malawi, ca. 2004	15
Figure 1.1: Sub-Saharan Africa's Educational Pyramid, ca. 2009	22
Figure 1.2: Primary School Entry and Retention Rates in Sub-Saharan	
African Countries, ca. 2009	25
Figure 1.3: Relationship between Per Capita GDP and School-Life	
Expectancy in Low-Income Sub-Saharan African Countries,	
1990–2009	28
Figure 1.4: Growth in Primary Education Coverage in 33 Low-Income	
Sub-Saharan African Countries, 1990–2009	31
Figure 1.5: Relative Gains in Education Coverage, by Education Level, in	
33 Low-Income Sub-Saharan African Countries, 1990–2009	33
Figure 1.6: Average Annual PCR Growth in 33 Low-Income Sub-Saharan	
African Countries, 1999–2009	34
Figure 1.7: Projected Primary Completion Rates through 2015 in Low-	
Income Sub-Saharan African Countries	35
Figure 1.8: Projected Enrollment in Lower Secondary Education by 2020	
as a Multiple of Enrollments in 2003	39
Figure 2.1: Gender Gap in the Primary Completion Rate, by Sub-Saharan	
Africa Country, 2008	47
Figure 2.2: Comparison of Gender Disparities in Three Groups of	
Sub-Saharan Africa Countries, 2008	48
Figure 2.3: Relationship between Education Coverage and Gender	
Disparity in Primary Education Sub-Saharan Africa Countries, 2008	49
Figure 2.4: Difference between Actual and Model-Predicted Gender Parity	
Index in Primary Education, by Sub-Saharan Africa Country, 2008	50
Figure 2.5: Comparison of Gender Disparities in Education by Data	
Source, Sub-Saharan Africa Countries, ca. 2005	53
Figure 3.1: Typical Schooling Profile in a Low-Income Country	58
Figure 3.2: Proportion of Out-of-School Children in 33 Low-Income	
Sub-Saharan African Countries, ca. 2003	61
Figure 3.3: Relationship between the Proportion of Out-of-School	
Children at Beginning and End of the Primary Cycle, in 33	
Low-Income Sub-Saharan African Countries 2003	62

Figure 3.4: Risk of Being Out of School by Gender, Location, and Wealth,	
Aggregate for Low-Income Sub-Saharan African Countries, 2003	63
Figure 3.5: Distribution of Out-of-School Children by Gender, Location,	
and Wealth, Aggregate for Selected Low-Income Sub-Saharan African	
Countries, ca. 2003	64
Figure 3.6: Distribution of Out-of-School Children by Gender, Location,	
and Wealth in Selected Low-Income Sub-Saharan African Countries,	
ca. 2003	65
Figure 3.7: Extent of Differences between Out-of-School and Enrolled	
Children in 30 Low-Income Sub-Saharan African Countries	79
Figure 3.8: Suggested Targeting to Reach 35 Million Out-of-School	
Children in 33 Low-Income Sub-Saharan African Countries	80
Figure 4.1: Public Spending on Education in Sub-Saharan African	
Countries (Capital and Recurrent), ca. 2005	89
Figure 4.2: Trend in ODA to Sub-Saharan Africa, 1990–2007	92
Figure 4.3: Growth in Government Revenue and ODA in Sub-Saharan	
Africa, 1997–2007	92
Figure 4.4: Ranking of Sub-Saharan African Countries by Per-Student	
Spending on Primary Education	98
Figure 4.5: Patterns of Coverage and Per-Student Spending by Educational	
Level in Sub-Saharan African Countries, ca. 2005	101
Figure 4.6: Relation of School-Life Expectancy and Education Spending	
in Selected Sub-Saharan African Countries, ca. 2005	102
Figure 4.7: Per-Student Spending and GER at the Primary Level in	
Low-Income Sub-Saharan African Countries, ca. 2003	104
Figure 4.8: Comparison of Average Teacher Salary and Pupil-Teacher	
Ratio at Primary Level in 16 Sub-Saharan African Countries with	
Similar Per-Student Spending, ca. 2003	106
Figure 4.9: School Distribution in Burundi and Malawi, by Per-Student	
Spending, ca. 2004	111
Figure 4.10: Relation between Numbers of Students and Teachers at	
Primary Level in Benin and Madagascar, 2005/06	112
Figure 5.1: Correlation of ASLI Scores with GDP per Capita and Primary	
Completion Rate in 31 Sub-Saharan African Countries, ca. 2005	125
Figure 5.2: Literacy and Length of Studies, Selected Sub-Saharan African	
Countries	125
Figure 5.3: Relationship between Per-Student Spending on Primary Level	
and the Africa Student Learning Index, 31 Sub-Saharan African	
Countries. ca. 2005	127
Figure 5.4: Relationship between Public Per Student Spending on	
Education and Performance on the 2009 PISA Mathematics Test, 27	
OECD Countries	127
Figure 5.5: Relation between Primary Schools' National Exam Pass Rates	
and Per-Student Spending	128

Figure 5.6: Relationship between Primary Teacher Salary and GER in	
Selected Sub-Saharan African Countries	141
Figure 6.1: Relationship between Educational Attainment and the Risk	
Poverty, Benin 2001, and Sub-Saharan African Average	157
Figure 6.2: Relationship between Women's Educational Attainment and	
Childbearing, Sub-Saharan African Average	158
Figure 6.3: Relationship between Women's Educational Attainment and	
Prenatal Health Care, Sub-Saharan African Average	159
Figure 6.4: Relationship between Mothers' Educational Attainment and	
Child Health and Development, Sub-Saharan African Average	160
Figure 6.5: Relationship between Educational Attainment and Awareness	
of HIV/AIDS, Sub-Saharan African Average	162
Figure 6.6: Relationship between Educational Attainment and Exposure	
to Information Media, Sub-Saharan African Average	163
Figure 6.7: Cross-Country Variation in the Relationship between	
Education, Live Births and Child Vaccination in Selected Sub-Saharan	
African countries	166
Figure 6.8: Relationship between Effectiveness at Generating Social	
Outcomes and the ASLI Scores in Sub-Saharan African Countries	167
Figure 6.9: Relationship between National Average Level Social Outcome	
Indicators and Change in Indicators from Six Years of Primary	
Education, Sub-Saharan African Countries	168
Figure 7.1: Employment by Sector in 23 Sub-Saharan African Countries, Circa 2003	170
	173
Figure 7.2: Farm Employment by Per Capita GDP in 23 Sub-Saharan African Countries, Circa 2003	174
Figure 7.3: Formal and Public Sector Employment by Per Capita GDP in	174
23 Sub-Saharan African Countries, Circa 2003	175
Figure 7.4: Relation between Employment in Informal Non-Farm Sector	1/3
Employment and Unemployment Rate in 23 Sub-Saharan African	
Countries, Circa 2003	177
Figure 7.5: Highest Level of Schooling among Working-Age Population in	177
23 Sub-Saharan African Countries, Circa 2003	179
Figure 7.6: Relationship between Share of Population with Upper	175
Secondary or Higher Education and Per Capita GDP in 23 Sub-	
Saharan African Countries, Circa 2003	180
Figure 7.7: Comparison of Educational Attainment of Two Generations in	
Ghana, Mozambique, Zambia and Aggregate for 23 Sub-Saharan	
African Countries, Circa 2003	180
Figure 7.8: Share of WorkForce Employed in the Formal and Informal	
Sectors, by Highest Level of Education Attended, Circa 2003	181
Figure 7.9: Shares Working in Farm vs. Non-Farm Sectors, and in	
Public vs. Modern Private Sectors, by Education Level, Circa 2003	182

Figure 7.10: Simulation of Higher Education Enrollment Associated with 25% Unemployment among 25-34 Year Olds with Higher Education, by Per Capita GDP, in Selected Sub-Saharan African Countries	
Maps	
Map 1.1: Primary School Completion Rates in Sub-Saharan Africa, 2009	24