

Three Empirical Essays on Child Marriage, Changing Social Norms, and Women's Life Outcomes

By

Workenh Eshatuu Sime

DISSERTATION

Submitted to

KDI School of Public Policy and Management

in partial fulfillment of the requirements

for the degree of

**DOCTOR OF PHILOSOPHY
IN DEVELOPMENT POLICY**

2022

Three Empirical Essays on Child Marriage, Changing Social Norms, and Women's Life Outcomes

By

Workenh Eshatuu Sime

DISSERTATION

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

**DOCTOR OF PHILOSOPHY
IN DEVELOPMENT POLICY**

2022

Professor Taejong Kim

Three Empirical Essays on Child Marriage, Changing Social Norms, and Women's Life Outcomes

By

Workenh Eshatuu Sime

DISSERTATION

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY IN DEVELOPMENT POLICY

Committee in Charge

Professor Taejong Kim, **Supervisor**

Professor Changyong Choi

Professor Jin Park

Professor Yumin Joo

Professor Hee-Seung Yang


Changyong Choi

Approval as of May, 2022

Abstract

Three Empirical Essays on Child Marriage, Changing Social Norms, and Women's Life Outcomes

By

Workenh Eshatuu Sime

Chapter 1: Child Marriage and Women's Educational Attainment: Evidence from a Policy Experiment in Ethiopia

Professor Taejong Kim and Workenh Eshatuu Sime

In 2000, the Ethiopian government revised the 1960 Family Code-FC. According to the 1960 FC, the legal minimum age for marriage was 15. However, the Revised FC increased to 18 years. Article 7 sub-article 1 of Revised FC stated that neither a man nor a woman who has not attained the full age of eighteen years shall conclude a marriage. As Ethiopia is a federal country established with 10 regions and 2 city administrations, there were geographic and time variations in adopting the Revised FC. Having these variations, this study seeks to analyze the impact of the Revised FC on age at marriage and women's educational attainment, as well as the impact of early marriage on women's educational attainment in Ethiopia. The key data source for this study is the Ethiopian Demographic and Health Survey (DHS). According to the Generalized Difference-in-Differences with multiple groups and time periods estimation results, adoption of the Revised Family Code (RFC) increases the age at marriage by 0.16 years and years of attained education by 0.12 years for treated observations relative to controlled observation assuming *ceteris paribus*. The instrumental variable (IV) estimate reveals that as age at marriage increases by 1 year, years of

educational attainment increase by 0.65 years. Building on the results, it is highly recommendable for the Ethiopian government to enforce effective implementation of the policy all over the country, assign human and financial resources, and design an effective monitoring and evaluation mechanism.

Chapter 2: Evaluating the Long-run Impact of adopting Revised Family Code on Women's Life Outcomes

Workenh Eshatuu Sime

Currently, there are coordinated efforts by national and international development agencies to tackle the problem of early marriage. In 2000, the Ethiopian government by revising the 1960's Family Code, extended the minimum legal age for marriage from 15 to 18 years. Having this exogenous policy intervention, this study aimed to evaluate the long-run impact of adopting the Revised Family Code (RFC) on women's life outcomes as well as estimate the impact of child marriage and age at marriage on women's life outcomes. The major source of the data is Ethiopia's Demographic and Health Survey (DHS) data. To achieve these objectives the author runs Generalized Difference-in-differences (DID) with multiple groups and time periods, and Two Stages Least Squares (2SLS) estimation techniques. The study shows that the adoption of RFC significantly increased women's life outcomes (wealth index (2%), work on a paid job (2%), and asset ownership (0.2%)), *ceteris paribus*. On average, as age at marriage increased by one year, the probability of wealth index significantly increased by (0.07), work on a paid job (0.07), and asset ownership (0.007), *ceteris paribus*. The findings of the study show that the high prevalence of child marriage significantly decreases the long-run women's life outcomes. Thus, the researcher recommends for all responsible bodies to exhort the maximum possible effort for the effective implementation of the Revised Family Code (RFC).

Chapter 3: Changing Social Norms on Child Marriage through a Legislative Change: A case study of the Revised Family Code enforcement in Ethiopia

Workenh Eshatuu Sime

The Ethiopian Government took a major step to end the practice of child marriage in 2000 with the revision of the old 1960 Family Code. The revision pulled up the minimum legal age for marriage from 15 to 18 and made the practice of child marriage punishable in the criminal code for the first time. Revising the Family Code, however, was not going to end the practice by itself. The purpose of this case study is to find out hurdles that had to be addressed and overcome, and supplementary policies that were adopted to help end the practice of child marriage. The study identifies a long list of barriers to the effective implementation of the Revised Family Code including the existence of harmful social norms and practices, capacity gaps in the legal system, and limitations in access to media in large parts of the country. To overcome these and other “delivery challenges”, the leaders of the government and the civil society engaged the citizens and community leaders in public awareness campaigns, developed programs to empower women and children in local communities, and improved the judicial system, among other things. These interventions led to changes in social norms and public attitudes regarding child marriage, and more importantly, to a substantial reduction in child marriage throughout the country.

Keywords: Child marriage, Education attainment, Generalized Difference-in-Differences with multiple groups and time Periods, Two Stage Least Square, Revised Family Code, Women’s the logn-run Life Outcomes, Harmful social norms and practices, and delivery challenges

Copyright by
Workenh Eshatuu Sime
2022

Dedicated to my mother Tiru Dinku

Acknowledgment

First of all, I would like to praise Almighty God, for his unlimited support and care throughout my life. I would like to extend my deepest gratitude and appreciation to the KDI School of Public Policy and Management and the Republic of Korea Government for giving me the scholarship to pursue both my graduate and a postgraduate degree in Korea. Furthermore, I would like to appreciate my employer, Ethiopian Civil Service University, for allowing me to pursue my Ph.D. study.

I owe my special thanks with great pleasure and indebtedness to Professor Taejong Kim, the supervisor of my dissertation. I am extremely grateful for his enthusiasm, immense knowledge, and encouragement which have strongly inspired me to work hard and complete my dissertation. His careful guidance and constructive comments have contributed enormously to the successful accomplishment of my project. Without his valuable professional guidance and constructive suggestions this project really would not appear as it appeared in this manuscript. It was a great pleasure to work under his guidance. I would like to extend my deepest gratitude to all Ph.D. committee members for their constructive and helpful feedback and suggestions.

My sincere appreciation also goes to all my professors, my students who supported me through the assistance in the data collection process, Ms. Klery Chikwede from the KDI School Writing Center for the proofreading service, staff of KDI School for their facilitation responsibilities and all other administrative assistance. Finally, I would like to thank my mother, girlfriend, family, and friends who supported and encouraged me throughout my Ph.D. study.

Table of Contents:

Chapter one: Child Marriage and Women's Educational Attainment: Evidence from a Policy Experiment in Ethiopia

1.1.	Introduction.....	1
1.1.1.	Background of the study	1
1.1.2.	Statement of the problem	3
1.1.3.	Research questions of the study	5
1.1.4.	Hypotheses of the study	6
1.1.5.	Importance of the study.....	6
1.2.	Literature Review.....	7
1.2.1.	Definition of child marriage.....	7
1.2.2.	Theoretical literature	7
1.2.2.1.	Grounds for early marriage practice	8
1.2.2.2.	Exogenous policy intervention to control early marriage	9
1.2.3.	Empirical literature	11
1.2.3.1.	Determinants of child marriage.....	11
1.2.3.2.	Consequences of child marriage	12
1.2.4.	Identified research gaps of the literature	15
1.2.5.	Conceptual framework of the study	17
1.3.	Methods and Strategies of the Research	18
1.3.1.	Data sources and types	18
1.3.2.	Identification strategy.....	18
1.3.3.	Econometric model	18
1.3.3.1.	Generalized DID with multiple groups and time periods	18
1.3.3.2.	Test of policy endogeneity problem.....	22
1.3.3.3.	Two-Stage Least-Squares (2SLS) estimation techniques.....	24
1.4.	Results and Discussion	27
1.4.1.	Summary statistics	27
1.4.2.	Immediate impact of adopting the RFC	31
1.4.2.1.	Impact of adopting the RFC using full sample	31
1.4.2.2.	Impact of adopting the RFC using restricted sample	34
1.4.2.3.	Falsification test	36

1.4.3.	Impact of child marriage on women’s educational attainment in Ethiopia.....	38
■	Relevance and exclusion restriction test	38
1.5.	Conclusion and Policy Implications	43
1.5.1.	Conclusion	43
1.5.2.	Policy implications of the study.....	47
References.....		49
Appendix.....		54
■	Impact of the Revised Family Code: evidence from first-phase.....	54
■	Impact of the Revised Family Code: evidence from second-phase	56

Chapter 2: Evaluating the Long-run Impact of adopting the Revised Family Code on Women’s Life Outcomes

2.1.	Introduction.....	59
2.1.1.	Background	59
2.1.2.	Statement of the problem	61
2.1.3.	Identified research gaps	64
2.1.4.	Research questions of the study	65
2.1.5.	The hypothesis of the study	66
2.1.6.	Relevance and significance of the study	66
2.2.	Methods and Strategies of the Study.....	68
2.2.1.	Source and type of data.....	68
2.2.2.	Identification strategy.....	69
2.2.3.	Econometric model	69
2.2.3.1.	Generalized DID with multiple groups and time periods	69
2.2.3.2.	Test of policy endogeneity	72
2.2.3.3.	Two Stages Least Squares (2SLS) estimation methods	73
2.3.	Results and Discussion	76
2.3.1.	Summary statistics	76
2.3.2.	Long-run impact of adopting the RFC on women’s life outcomes.....	78
2.3.2.1.	The long-run impact adopting the RFC using full samples	78
2.3.2.2.	The long-run impact of adopting the RFC using restricted sample	82
2.3.2.3.	Falsification test	84
2.3.3.	Impact of child marriage on the long-run women’s life outcomes	86

2.3.3.1.	Relevance and exclusion restriction conditions	86
2.3.3.2.	Impact of early marriage on probability of women wealth index	88
2.3.3.3.	Impact of early marriage on probability of women asset ownership	90
2.3.3.4.	Impact of early marriage on the Probability of work in paid jobs	93
2.4.	Conclusion and Policy Implication	98
2.4.1.	Conclusion	98
2.4.2.	Policy implication	103
Reference	105

Chapter 3: Changing Social Norms on Child Marriage through a Legislative Change: A Case Study of the Revised Family Code Enforcement in Ethiopia

3.1.	Introduction.....	115
3.2.	Literature Review.....	117
3.2.1.	The Power of social norms.....	117
3.2.2.	Socioeconomic issues	118
3.2.3.	Understanding and measuring changes in harmful social norms.....	121
3.2.4.	Review of effectiveness of various policy interventions	122
3.2.5.	Demand and supply side policy interventions to change social norms.....	124
3.2.6.	Strategies to change social norms	126
3.3.	Methods and instruments of the Study.....	127
3.3.1.	Research approach	127
3.3.2.	Data type and source	129
3.3.3.	Target population	129
3.3.4.	Sampling techniques and sample size determination.....	130
3.3.5.	Method of data analysis	130
3.4.	Development challenges	131
3.5.	Contexts and the key policy intervention.....	134
3.5.1.	Global and continental context	134
3.5.2.	National context	135
3.5.3.	Key policy intervention.....	136
3.4.	Delivery challenges.....	137

3.4.1.	Social norms and cultural challenges	137
3.4.2.	Coordination and engagement challenges.....	139
3.4.3.	Legislation and regulation challenges.....	140
3.4.4.	Limited access to the media	142
3.4.5.	Underdevelopment and poverty	143
3.5.	Tracing the implementation processes	144
3.5.1.	Public awareness and advocacy campaigns on the Revised Family Code.....	146
3.5.2.	Mainstreaming the Revised Family Code in different sectors' plans	147
3.5.3.	Child marriage prevention programs	147
■	National roadmap to end child marriage	147
■	Establishing Women's Development Groups	148
■	Well-established Children's Parliament.....	150
■	Establishing Child Rights Committees	151
■	Establishing diverse girls' clubs	152
3.5.4.	Justice for children	153
■	Specialized courts for girls and women	153
■	Closed courts for child marriage cases	154
3.5.5.	Securing international and regional support	154
3.5.6.	Life skills building	155
3.6.	Results.....	156
3.6.1.	Enhanced public awareness	156
■	Child marriage is a crime	156
■	Educating a woman is educating a nation.....	157
■	Change of social norms on child marriage.....	159
■	Changes in the attitudes of the community and religious leaders	160
3.6.2.	Better enforcement of laws and quick Justice for Children	162
3.6.3.	Sectorial plans modified to incorporate the goal of ending child marriage	163
3.6.4.	The decline in the child marriage practices.....	163
3.6.5.	Further consequences.....	165
■	Narrowed gender disparity in education	165
■	Work in paid job	167
■	Summary of the interconnection among delivery challenges, processes, and results	168
3.7.	Discussion.....	169

3.8. Lessons learned	173
References.....	175

List of tables

Table 1.1: Test of policy endogeneity problem	23
Table 1.2: Summary statistics	28
Table 1.3: Immediate impact of adopting the RFC using full sample	32
Table 1.4: Immediate impact of adopting the RFC using restricted sample	35
Table 1.5: Falsification test.....	37
Table 1.6: First-stage regressions.....	38
Table 1.7: Impact of early marriage on women's maximum years of completed education	40
Table 1.8: Impact of the RFC adoption in first-phase (2000-2005).....	54
Table 1.9: Impact of the RFC adoption in second-phase (2005–2011)	56
Table 2.1: Type and source of data.....	68
Table 2.2: Test of policy endogeneity.....	73
Table 2.3: Summary statistics	77
Table 2.4: The long-run impact of adopting the RFC using full samples	79
Table 2.5: The long-run impact of adopting the RFC using restricted samples.....	83
Table 2.6: Falsification test.....	85
Table 2.7: First-stage regression	86
Table 2.8: Impact of child marriage on probability of women wealth index.....	88
Table 2.9: Impact on the probability of women's asset ownership.....	91
Table 2.10: Impact on the probability of women work in paid jobs	94
Table 3.1: Women empowerment platform/ structure	149
Table 3.2: School dropout rates in Ethiopia.....	158
Table 3.3: Trend of gender parity ratio in education in Ethiopia.....	166
Table 3.4: Percentage of female students in Addis Ababa city administration.....	167
Table 3.5: Summary of the interconnection among delivery challenges, processes, and results.....	168

List of figures

Figure 1.1: Conceptual framework of the study.....	17
Figure 1.2: Description of geographic variation on adoption of the RFC.....	20
Figure 1.3: prevalence of child marriage based on year of marriage	29
Figure 1.4: prevalence of child marriage in Ethiopia.....	31
Figure 3.1: Key entities and structures in the country that help to end child marriage.....	145
Figure 3.2: The key facts about child marriage issues in Ethiopia.	157

Figure 3.3: Net enrolment ratio in Grade 1, by gender, 2013/2014 (%)	159
Figure 3.4: Incidence of child marriage across regional government	164
Figure 3.5: Incidence of child marriage among women aged 20-24.....	165

List of abbreviations and acronyms

2SLS= Two Stage Least Square

ADP= Adolescent Development Program

AIDS= Acquired Immunodeficiency Syndrome

CEDAW= Convention on the Elimination of all forms of Discrimination against Women

CMS= Centre for Media Studies

COVID-19= Coronavirus Disease of 2019

CRC= Convention on the Rights of Child

CSA= Central Statistical Agency

CSOs= Civic Society Organizations

DHS= Demographic and Health Survey

DID= Difference-in-differences

GQAL= Gender Quality Action Learning

GTZ= German Agency for Technical Cooperation (Deutsche Gesellschaft für Technische Zusammenarbeit)

HIV= Human immunodeficiency Virus

ICRW= International Center for Research on Women

ICT= Information, Communication, and Technology

IV= Instrument Variables

MDG= Millennium Development Goal

MoWSA= Ministry of Women and Social Affairs

NGO= Non-governmental Organizations

OLS= Ordinary Least Square

RCT= Randomized Control Trail

RFC= Revised Family Code

SDG= Sustainable Development Goal

SNNP of Ethiopia= South Nation, Nationalities, and People of Ethiopia

UNFPA= United Nation Fund for Population Activities

UNHRC=United Nation Human Right Council

UNICEF= United Nation Children's Fund

Chapter one

Child Marriage and Women's Educational Attainment: Evidence from a Policy Experiment in Ethiopia

1.1. Introduction

1.1.1. Background of the study

International institutions such as the UN Committee on Child's Rights recognize that child marriage is a destructive practice and strive for its prohibition. At the fourth United Nations International Conference on Women, which took place in 1995 in China, all actions and activities needed to be taken to alleviate the problem of early marriage were outlined, which included creating educational plans for families about early marriage. In this regard, the United Nations Human Rights Council (UNHRC) resolved to "put an end child marriage, early marriage and forced marriage". Likewise, the Sustainable Development Goals (SDGs) priorities eliminating child marriage as outlined in (target 5.3) goal number 5 on gender equality. According to an information sheet from "Girls Not Brides", around fifteen (15) million girl children get married prior reaching the legal age of marriage in one year. The report also mentioned that out of three children at least one gets married prior to attaining their 18th birthday for most emerging nations. The same institution also forecasted that for the coming 2050, unless intervention mechanisms are implemented effectively, almost 1.2 billion girls will get married before their 18th birthday (Tong & White, 2017).

According to the DHS data of 34 Sub-Saharan African countries, 54 percent of women aged 20-24, experienced child marriage. There is a marked difference among countries in Africa: the lowest of 16.5 % in Rwanda and the highest rate is 81.7% in Niger (Yaya *et al*, 2019). A report by UNICEF discloses that, child marriage is continuously increasing in Sub-Saharan African countries. For example, out of 3 girl children who marry before attaining the legal minimum age of marriage, one (1) is from Sub-Saharan African countries. In contrast, 25 years ago the rate was one (1) in 7 girls married before the minimum legal age of marriage (UNICEF, 2018a).

Different researchers (see Koski *et al*, 2017) categorized the practice of ‘child marriage’ in Africa into four parts: little sign of change, first decline and then reversed, recent decline and decreasing at a decreasing rate. In countries like Chad, Malawi, Tanzania, Zimbabwe, and Namibia, the pace of child marriage has shown insignificant changes in the past two decades. In countries such as Cote d’Ivoire, Niger, Senegal, and Kenya, the pace of child marriage initially declined but stalled through time. In Nigeria, the situation of child marriage is rising again while in Mozambique, Zambia, and Uganda, researchers have revealed a recent decline. Finally, in Burkina Faso, Ghana, and Togo the situation of Child Marriage is decreasing at decreasing rate (Koski *et al.*, 2017).

The largest percent of the African Population are young and the share of girl children is very high. The decreasing rate of decline of prevalence of child marriage in Africa would expose the girl child at a risk of early marriage practice. According to a report from the UNICEF, even if the child marriage tradition decreases, it is not enough to reduce the number of children that marry prior to attaining legal minimum age of marriage (UNICEF, 2015).

In the last two decades, Ethiopia has been performing well in reducing the practice in which girl children marry before attaining the minimum legal age of marriage. The 2016 Ethiopian DHS data reported that from 2005 to 2015, in Ethiopia, the practice of child marriage dropped from 60 percent to 40 percent. This 20 percent reduction is a big success for Ethiopia. According to a report from UNICEF, 4 out of 10 females between 20 and 24 years marry prior to attaining the minimum legal age for marriage in Ethiopia. From African countries, Rwanda is also performing well in reducing the practice of child marriage (UNICEF, 2018). The Ethiopia Performance Monitoring and Accountability Survey (2014-2016) revealed the decline of the cumulative probability of child marriage from 55.3 percent to 28.7 percent in the last two decades (Mekonnen *et al.*, 2018).

1.1.2. Statement of the problem

According to the report from World Day of Prayer for Children at Risk (2012), on average within three seconds, one girl is exposed to early marriage. The same report revealed that within 24 hours, more than 25,000 young children are exposed to early marriage. If the present pace continues, by a decade, more than 100 million adolescents will be exposed to early marriage (World Day of Prayer for Children, 2012). One of the SDGs is to eliminate child marriage from the world. It states the consequence of child marriage: “prologs the poverty cycle by shortening the education of young girls exposing them to early and frequent pregnancies and reducing their employment prospects.”

Child marriages violate the rights of girl children and limit their school attainment, learning, and future earnings. These aggravate the level of poverty in society. Generally, child marriage has negative consequences on the exposed child’s psychological, social, economic, and health aspects. The common negative consequences of child marriage are poor academic performance, negative

socio-economic effects, exhausted mental and physical setup, lowered participation in the labor market, and less control in their families' decision-making (Parsons *et al.*, 2015; Jensen & Thornton, 2003; Malhotra, 2013). In addition, Child brides completely lose their freedom and are restricted in the grooms' households without any contact with old friends and family (Nour, 2009; Le Stat *et al.*, 2011; Parsons *et al.*, 2015). Furthermore, Vogelstein and a report from UNICEF explained some negative effects of early marriage. Girls exposed to early marriage will drop-out of school. School drop-out has both long-term and short-term consequences. Inability to have school peers and lack of social life with students of the same age can be considered the short-term effects of being child brides. On the other hand, loss of economic independence and exclusion from the labor market can be considered the long-term effects (Vogelstein, 2013; UNICEF, 2014). Using age at first menarche as an instrument, Field and Ambrus (2008) revealed the negative impact of early marriage on education attainment in Bangladesh. Nguyen and Wodon (2012) reached the same conclusion as Field and Ambrus by using the two-stage least squares (2SLS) approach. Nguyen and Wodon (2012) revealed in their study that as early marriage increases by one year, the fulfillment of the right to access education would decrease by 3.2 percentage points. Their findings explicitly described the negative consequences of early marriage on the nation at large. Findings from Lloyd and Mensch (2008) for sub-Saharan African countries showed that early marriage is the major reason for education drop-out in Africa.

According to the Ethiopian DHS (2016) data, the average age at marriage in the country is 16.5 years. This implies that child marriage account for more than 50 percent in Ethiopia. Thus, early marriage is a major problem in the country. Early marriage has both physical and psychological effects on married children. Physically, those children face early sexual exposure, early pregnancy, birth injuries, maternal mortality, and home-based violence from the husband and his family.

Psychologically, a child exposed to early marriage tends to be unable to contact old friends and family, causing them to feel lonely. School dropout and low academic attainment also cause them to be excluded from the labor market and economic sphere.

Currently, existing literature in Ethiopia categorizes the cause of early marriage into three: religious factors, economic factors, and social factors. Some religions practiced in Ethiopia encourage early marriage. From an economic perspective, the majority of the Ethiopian community has a low per capita income. In addition, the level of poverty is very high for rural households. Thus, rural households use early marriage as a mechanism to reduce the economic burden of raising children. Social factors include different traditional norms and values of the community that encourages the practice of early marriage. If someone breaks these traditional social norms and values, they will face various kind of exclusion and discrimination from the community leaders (UNICEF, 2016). The Ethiopian government revised the 1960 Family code and approved the RFC in 2000. The RFC extended the minimum years for marriage from 15 to 18. Using this exogenous policy intervention, this study sought to evaluate the impact of the adoption of the RFC on early marriages and females' maximum years of completed education in Ethiopia, and the effect of early marriages on females' maximum years of completed education in Ethiopia.

1.1.3. Research questions of the study

This study is aimed to answer the following three research questions.

- What is the impact of adopting the RFC on the age at marriage in Ethiopia?
- What is the impact of adopting the RFC on women's educational attainment in Ethiopia?
- What is the impact of the age at marriage on women's educational attainment in Ethiopia?

1.1.4. Hypotheses of the study

- Adoption of the RFC significantly increases the age at marriage in Ethiopia.
- Adoption of the RFC significantly increases the maximum years of completed education in Ethiopia.
- Age at marriage significantly increases Ethiopian women's maximum years of completed education.

1.1.5. Importance of the study

The study is unique in its objective of pinpointing the effect of the implementation of the RFC on educational attainment in Ethiopia beyond its main goal of analyzing early marriage in Ethiopia. As the implementation of the RFC is still ongoing phenomenon in Ethiopia, even with more attention from the federal government and international organizations, the findings of the study will help them design a mechanism to realize the end goal. Currently, there is no other research that provides policy directions for decision-makers in this area. Thus, this paper is also unique from this angle. The paper also serves as a policy guide for Ethiopian policy-makers and decision-makers and implementers in particular, and all developing countries in general, to realize the first goal of the SDGs, which is aimed at empowering women's socioeconomic status by reducing the incidence of child marriages in the world.

1.2. Literature Review

1.2.1. Definition of child marriage

UNICEF defines “child marriage” as an illegal marital union between boys and girls before they attain the minimum legal age of marriage, which is 18 years (UNICEF, 2005). Furthermore, according to UNFPA (2006), it is any form of marital union practiced before the legal age of marriage (here being 18), in which girls are morally and physically not ready to manage their lives. In many countries, child marriage is conceptualized as the legal arrangement in which both or one of the consorts are under aged (less than 18) and that the marriage may or may not be formally registered under civil, religious, or customary laws. The tradition of marrying early before the minimum required age contradicts children’s rights, and human rights overall. According to a survey conducted between 2000 to 2010 by Hervish and Jacobs (2011), over 58 million girl children married prior to attaining legal age of marriage.

1.2.2. Theoretical literature

All international laws and conventions related to girls strictly forbid the practice of early marriages and set the minimum legal age of marriage. Contrary to these laws, mostly in developing countries, many marital unions are arranged based on the interest of parents without the knowledge and interest of the female children. As Oyortey and Pobi (2003) revealed in their study, education positively impacts the reproductive health and survival of children. Educated women are economically independent and have full power in all decisions made in their families. On the contrary, early marriage negatively affects girls’ school attendance, self-confidence and forces them to depend economically on their husbands. Under the MDG and SDG, accessibility of education is one of the target goals. However, at the global level, from the 115 million children,

(including 62 million girls), who are still denied the right to education; more than 70 percent are from developing nations (UNICEF, 2004).

1.2.2.1. Grounds for early marriage practice

Child marriage, which means a marriage prior to reaching the minimum legal age for marriage (18 years in this case), has multifaceted social problems and is caused by many factors:

a. Poverty

In most developing countries poverty is the major drive for early marriage. In these countries, a sizable proportion of parents are unable to cover their children's basic needs and to send them to school. Steinhouse *et al.* (2018) found that little or no education and lack of employment opportunities is the major cause of early marriage in Malawi. Amin (2017) showed that providing girls with education and economic opportunities would be considered a good alternative to early marriage. Odimegwu & Mkwanzani (2016) revealed that besides the household or individual level poverty, the community level poverty is also the major cause for the high prevalence of early marriage in many African countries.

b. Need for family protection and respect

In societies where early marriage is common, giving more value for family respect and honor force girls to marry at an early age (Amin 2017). Roest (2019) revealed that keeping family respect and reputation is the major drive factor for early marriage in male-dominated societies. As in most developing countries, keeping the good name of family and reputation is the main contributing factor for the high incidence of early marriage in Ethiopia (Alemu, 2008). For example, in most parts of Ethiopia, girls married or promised to marriage before attaining the legal age for marriage sometimes even go as early as 10 years and below (UNFPA, 2012).

1.2.2.2. Exogenous policy intervention to control early marriage

a. Girls' empowerment and life skills programs

Malhotra *et al.* (2011) evaluated different programs and projects that implemented to end early marriage, focusing on projects that provide short and long-term training, enhancing awareness, creating a safe learning and living environments, and supporting the development of social communication and networking in different countries. Their study shows that the programs that directly work with girls are more effective in reducing early marriage relative to the programs that work with the community or parents. In support of Malhotra *et al.* (2011), both Freccero and Whiting (2018) and Chae and Ngo (2017) revealed that programs and projects that work for the empowerment of girls effectively reduced the prevalence of early marriage in most developing countries. Austrian *et al.* (2016) revealed the effectiveness of programs aimed at empowering women in Zambia for reducing the prevalence of early marriage, educational attainment and HIV prevalence in Zambia.

b. Conditional cash transfer (CCT)

The effectiveness of economic approaches to address the incidence of early marriage remains questionable. For example, Kalamar *et al.* (2016) argued that the economic mechanism to tackle the high occurrences of early marriage is effective. In their study, out of four programs, three significantly increased school attendance and decreased the prevalence of early marriage. On the other hand, Chae and Ngo (2017) disproved this conclusion and argued that the economic mechanism to tackle the high prevalence of early marriage is ineffective. Their study concluded that a program that provided sole economic intervention faced big failure, whereas if combined with other intervention mechanisms it would significantly decrease the prevalence of early

marriage. Baird *et al.* (2011 & 2012) studied the effectiveness of economic intervention mechanisms to reduce the prevalence of early marriage and HIV infection. Their study showed that economic intervention mechanisms such as monthly money transfer conditional to school attendance and payment for school fees effectively reduce the prevalence of early marriage, early pregnancy, and HIV infection.

c. Providing free education

Several scholars concluded that early marriage can be reduced by boosting the quality and accessibility of formal schools for girls (Koski, 2016 and Rasmussen *et al.*, 2019). Koski (2016) showed that the absence of tuition fee payment at primary school increases the age at marriage by nine months for Sub-Saharan African countries. Malhotra *et al.* (2016) evaluated the effectiveness of programs to improve school curriculum, teacher training on HIV/AIDS and gender sensitivity and hiring female teachers. The result concluded the ineffectiveness of these programs for the reduction of the prevalence of early marriage.

d. Legal and advocacy approaches

Koski (2016) and Malkotra *et al.* (2011) showed an insignificant impact of Indonesia's 1974 National Marriage Act for reducing the prevalence of early marriage. Freccero and Whiting (2018) revealed the absence of many pieces of research that evaluate the effectiveness of intervention of legal and advocacy approaches because of lack of the counterfactual. They evaluated whether the goal of enhancing awareness and advocacy goals were met or not. Kidman and Heymann (2016) analyzed the effectiveness of laws and policies in 22 developing countries and concluded the insignificant impact of laws and order on reducing the prevalence of early marriage.

e. Multi- vs. single-component approaches

Chae and Ngo (2017) showed that holistic approaches to address the early marriage problem are more effective than single components policy intervention. Young *et al.* (2017) and Ellsberg *et al.* (2015) also concluded that comprehensive policy interventions that address individual, family, and community problems simultaneously are more effective for handling the problem of early marriage.

f. Creating employment opportunities for women

The correlation between early marriage and employment is complex. First, early marriage causes lower educational attainment. Lower educational attainments reduce the chance of getting well-paying jobs and affect the type of work one could get. Also, early marriage causes higher fertility. These directly influence the role of women in the labor market. Mostly, women join informal and less-paying jobs to survive.

1.2.3. Empirical literature

1.2.3.1. Determinants of child marriage

Empirical research identifies the main causes of early marriage in most developing countries such as cultural norms, values and customs, poverty, faith, education level, and socioeconomic status. Especially, in less developed countries, as families lack financial resources to meaningfully invest in the education of their children, they use early marriage as an alternative. Apart from this, the existing social norms and practices limit families to invest in their daughters as most boys are considered the ones who must look after families.

Bayisenge (2010) revealed the major causes of early marriage, which include peer pressure, as well as social norms and values. A violation of traditional norms and values results in exclusion

from the communities. On the other hand, Mathu *et al.* (2003) revealed that poverty is the main reason for early marriage. For families with low income, the burden of raising a child is very high, which leads them to force their children to marry early. This situation mostly happens in the regions where mortality is high, so the brides are pressured to give birth soon after marriage.

At the global level, many countries have established different laws and policies to tackle the problem of early marriage. However, there are limitations in the implementation and enforcement of those laws and policies. For example, according to a study conducted by Bihar *et al.* (2008), India's early marriage proclamation orders all marriages to register under the Compulsory Registration Act (2006), but other states have not taken any measures to make the law compulsory in their States. According to the annual report of the Right to Education Project (2013), 74 nations around the globe have not set the legal age for marriage. In a sample of 60 developing countries, more than 40 percent of girls marry before the minimum legal age for marriage (Nguyen & Wodon, 2012 and 2014).

1.2.3.2. Consequences of child marriage

As Klasen & Pieters (2012) revealed in their study, early marriage decreases the opportunity for girls to participate in the labor force through reduced gross salary because of lower educational attainment; higher fertility, and being busy with non-paid work at home. Parson (2015) divided the consequences of early marriage into three: damage on the physical body structure, emotional effect, and impact on education and know-how. These three consequences of early marriage force girls to be socially, economically, and politically dependent on their spouses. Field & Ambrus (2008) and Nguyen & Wodon (2015) revealed in their studies that if early marriage is reduced by one year, the probability of completing secondary school education increases by 4.6 percent.

Ahmed *et al.* (2013) also identified that early marriage effects go beyond that of educational attainments, such as psychological disadvantages, including lack of self-esteem, depression, and sexual abuse. Godha *et al.* (2013) and Raj *et al.* (2010) showed that early marriage causes early pregnancy, increased health risks for both the mother and child. A report from the World Health Organization (2011) also revealed that complications during pregnancy and childbirth are some of the main causes of death in most developing countries. Bayisenge (2010) assessed the consequences and found that early marriages violates the girl child's basic human rights, loss of opportunity for human development through education, development challenges for nations, and healthcare costs.

Kyari & Ayodele (2014) also analyzed the effect of early marriage in Nigeria using primary data. The study revealed that early marriage is the major obstacle to educational attainment in northwestern Nigeria. The researchers recommended that policy-makers should improve educational opportunities for girls by providing them free books, uniforms, and scholarships. Islam *et al.* (2015) investigated the socio-economic effect of early marriage using primary data. They found that early marital union negatively affected the socio-economic variables of their respondents. They recommended that governments should enhance awareness, ensure sexual security of girls, establish public-private partnerships to support the government, incorporate the negative impact of early marriage in the curriculum, and establish marriage and family laws to reduce the prevalence of early marriage.

Delprate *et al.* (2015) analyzed how early marriage affected girls' educational attainment in Sub-Saharan African countries and Southwest Asian countries using the instrumental variable approach.

They used age at menarche as an Instrumental Variable (IV). The study revealed that early

marriage decreases by one year, educational attainment for Sub-Saharan African countries increases by 0.5 percentage points and by 1/3 of years in Southwest Asian countries. The reduction of the practice of child marriage decreases the percentage of school dropouts in Southwest Asian countries. In a research that evaluates the effect of early marriage on educational attainment using the instrumental variable approach, Nguyen & Wodon (2014) revealed that marrying early reduces the probability of literacy, secondary schooling, and completing secondary schooling by 5.7, 5.6, and 3.5 percentage points, respectively.

Jain *et al.* (2011) revealed the negative consequences of early marriage in India from social, economic, and political perspectives. They recommended enhancing the opportunity for girls to actively participate in economic, social, and political affairs and increasing the awareness of the community on early marriage. Early marriage forces girl children to be controlled by their husbands and in-laws, restrict their right to explain their views, and have their own plans and visions. Early marriage has different socio-economic consequences on girl children such as absence from school and inability to decide whether to resume their schooling or not, restrict their literacy, numeracy, and financial skill and lack of making any decision on their lives and house (Vogelstein, 2013; Malhotra *et al.* 2011; Plan UK 2011). Child brides, because of low academic achievement, their ability to get paying jobs, earn income, and make resource allocation decisions in their household are highly undermined by their husbands and in-laws (Jain, 2007; Becker, 2006; World Bank, 2012; Haddad *et al.* 1997; Blumberg *et al.*, 1995).

Duflo (2011) revealed that early marriage causes dropping out of school, separation from friends and colleagues that restrict their social communication and social support, which is essential for

psychological wellbeing and limits their networks and social capital that could enhance their chance of earning and effective use of their income. Furthermore, early married girls lost their right to negotiate sexual activities, family planning use, and birth spacing decision with their husbands and are unable to protect themselves from physical and emotional aggression from their husbands and in-laws (Raj, 2010; UNFPA, 2013).

Chanie (2015) investigated the consequence of early marriage in Ethiopia and revealed that early marriage affects both boys and girls, even though most of the time; girls are more affected than boys. He concluded that early marriage's effect is beyond breaking girls' physical strength; it hurts their psychological wellbeing. Tilson & Larsen (2014) investigated the causes of divorce in Ethiopia and revealed that early marriage and childlessness are the two major causes. The study showed a significant correlation between early marriage and divorce in Ethiopia.

1.2.4. Identified research gaps of the literature

No study analyzed the effect of the adoption of the RFC on educational attainment and early marriage using generalized DID with multiple groups and time periods estimation techniques. In this study, the adoption of RFC is categorized into three groups. The first group (2000-2005) incorporates the regional states that immediately adopted the program (Tigray, Amhara, and Oromia) and two city administrations (Addis Ababa and Dire Dawa). The second group (2005–2011) included the two regions which adopted the RFC, namely Gambela and SNNP of Ethiopia. A third group includes all regional governments that adopted the RFC later: Harari, Benishangul Gumuz, Afar, and Somali. Thus, by capturing both geographic and time variation of on the adoption of the RFC across the regional governments of Ethiopia, this study used maximum efforts to exhaustively identify the impact of the program on early marriage and educational attainment.

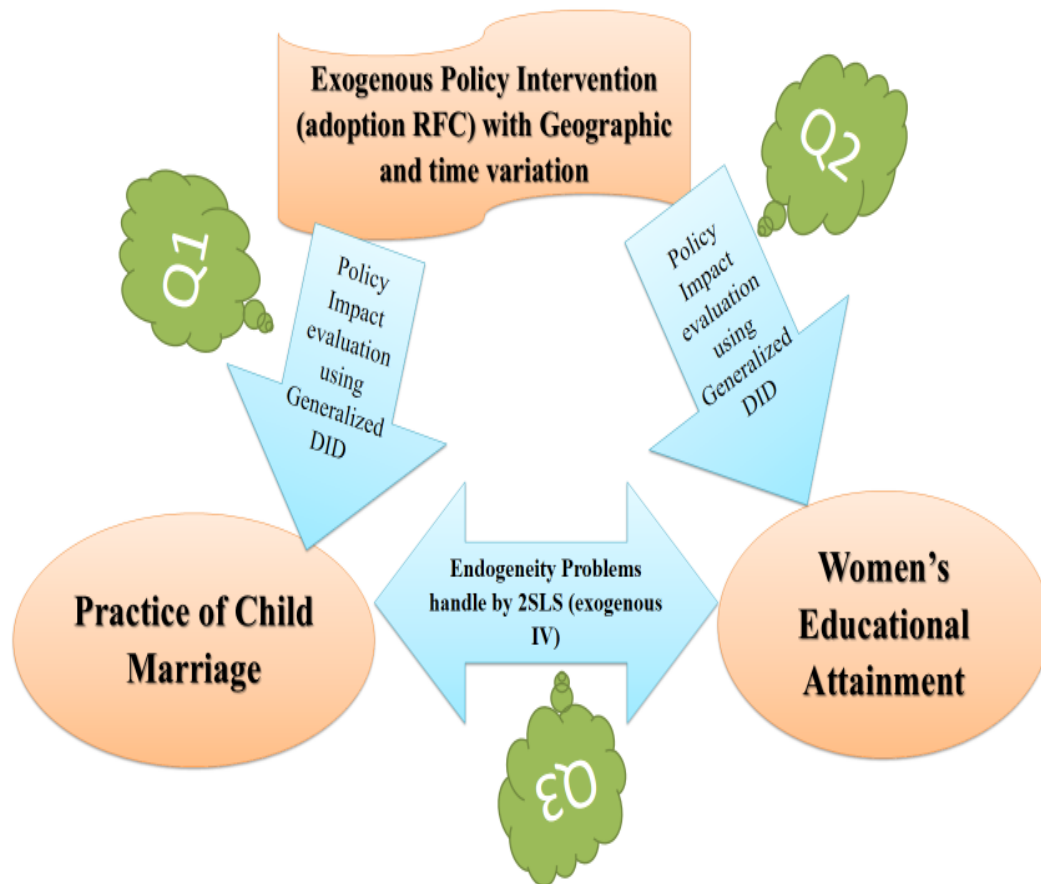
This paper captures the impact of the program using generalized DID with multiple groups and time periods estimation techniques.

Most of the studies conducted so far mostly focused on identifying factors that forced girls to marry early. What remains unexamined is the effect of early marriages on educational attainment using an exogenous variable that can solve the endogeneity problem between educational attainment and early marriage caused by reverse causality, omitted variable bias, and measurement error problem. The relationship between educational attainment and early marriage is bi-directional. As the prevalence of early marriage increases, it has a damaging effect on educational attainment. In the same reasoning, if girls achieve higher educational attainment, the probability to marry early will decrease.

In this study, the researcher uses the exogenous variable as an instrumental variable to solve the problem of endogeneity caused by omitted variables, measurement error, and or reverse causality. Therefore, the preferred IV for this study is treatments dummy that shows whether the RFC was active for individual 'i', from group 'g' at time 't' when she got married. The study is also unique in terms of exhaustively using all the regional variations in implementing the RFC in Ethiopia.

1.2.5. Conceptual framework of the study

Figure 1.1: Conceptual framework of the study



Source: Drawn by authors

1.3. Methods and Strategies of the Research

1.3.1. Data sources and types

The main source of data for the study is the Ethiopian DHS. So far, Ethiopia has conducted DHS four times (2000, 2005, 2011, and 2016). Thus, this study used all existing results of the DHS data. Authors create pooled cross-sectional across time using all available Ethiopia's DHS data.

1.3.2. Identification strategy

In 2000, the Ethiopian government revised the 1960 Family Code. In 1960's Family Code, the minimum legal age for marriage was 15 years. However, the RFC increased the legal age for marriage to 18 years. The RFC has been implemented since 2000. This Family Code touches on different issues related to family-building, from marriage to divorce, including the legal age for marriage. This study focuses on the minimum age at marriage, which is declared by Article 7 sub-article one: "neither a man nor a woman who has not attained the full age of eighteen years shall conclude a marriage". To address identified research gaps, the Authors used this exogenous policy intervention.

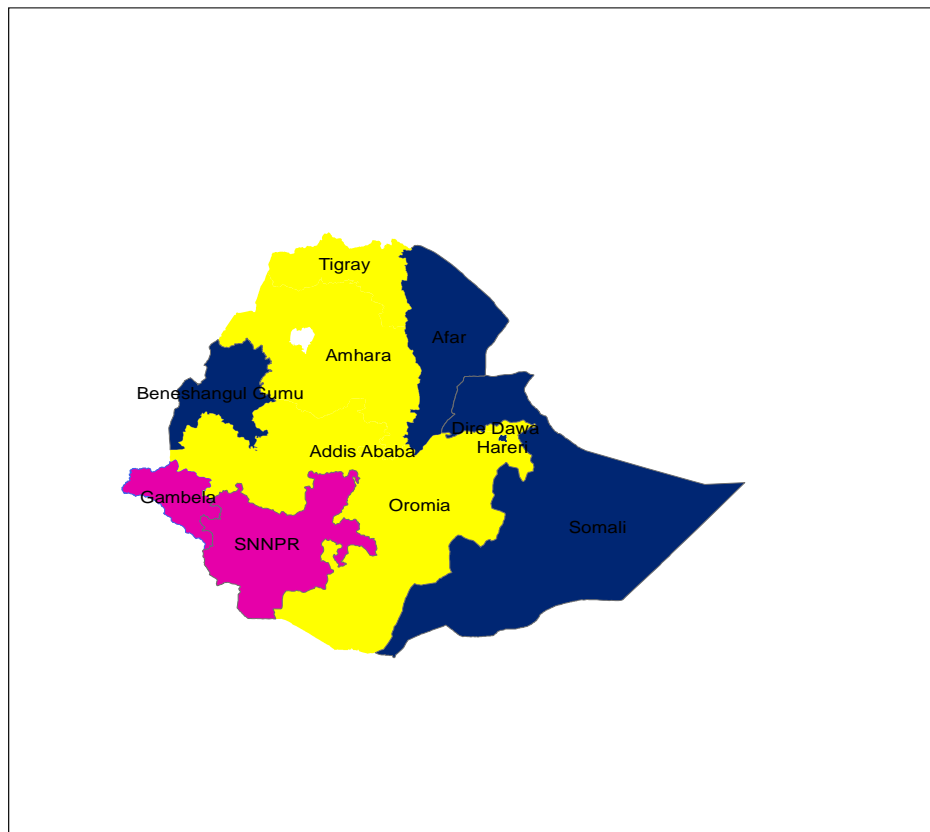
1.3.3. Econometric model

1.3.3.1. Generalized DID with multiple groups and time periods

Ethiopia is a federal country that has ten regions: Tigray, Amhara, Afar, Oromia, Somali, SNNP of Ethiopia, Gambela, Benishangul-Gumuz, Sidama, and Harari and Addis Ababa and Dire Dawa city administrations. Sidama regional state was established in 2019. Before 2019, Sidama regional state was part of the SNNP of Ethiopia. Thus, in this study, the authors consider the Sidama regional state as part of the SNNP of Ethiopia.

Once the federal government approved the RFC in 2000, there were geographic and time variations among the regional governments in the adoption of the program. These variations create multiple groups and time periods on the adoption of the program. It was immediately adopted by Tigray, Amhara, and Oromia and Addis Ababa and Dire Dawa City Administrations (Gajigo and Hallward, 2005). These immediate adopters of the policy are categorized under Group One. The other six regions delayed the adoption of the RFC. After 2005 two more regional states adopted the RFC (Gambela and SNNP of Ethiopia) and the remaining four regions (Benishangul-Gumuz, Afar, Somali, and Harari) were implementing the 1960 family code (Hombrados, 2017). These two regional states are categorized under Group Two. Lastly, after 2011, the outstanding four regional states adopted the program. The late adopters of the policy are categorized under Group Three.

Figure 1.2: Description of geographic variation on adoption of the RFC



Source: drawn by authors

For this study, all regions that adopted the RFC in the first phase (Tigray, Amhara, Oromia, Addis Ababa, and Dire Dawa) are categorized under Group One and marked in yellow color as shown above. The regions with Rose color (SNNP of Ethiopia and Gambela) are categorized under Group Two. The other regions with Blue color (Benishangul-Gumuz, Somali, Afar, and Harari) are categorized under Group Three to run our generalized DID with multiple groups and time estimation techniques.

Depending on year of the marriage of our respondents, the authors identifies four time periods: pre-2000, 2001-2005, 2006-2011, and 2012-2016. The existence of time and geographic variations

on the adoption of the RFC led to the adoption of a Generalized DID with multiple groups and time periods research design.

To estimate the immediate impact of adopting RFC, the authors run the following Generalized DID with multiple groups and time period regression. The immediate impact of the RFC adoption is measured by rate of the prevalence of the RFC, age at marriage and women's educational attainments.

$$\begin{aligned}
 & (immediateimpactofadoptingRFC)_{igt} \\
 & = \beta_o + \delta_1(treatmentdummy)_{igt} + \beta_1(wealthindexdummy)_{igt} \\
 & + \beta_2(urbanresidencydummy)_{igt} + \beta_3(dummyforxposuretomedial)_{igt} \\
 & + \beta_4(setofreligiondummy)_{igt} + \beta_5(workstatusdummy)_{igt} \\
 & + \beta_6(familysize)_{igt} + \beta_7(femaleheadedhh)_{igt} \\
 & + \beta_8(partnerseducationinyears)_{igt} + \lambda_t + \alpha_g + \psi_g t + \varepsilon_{igt} - - - - - \\
 & - - - (1)
 \end{aligned}$$

In equation one, $(immediateimpactofadoptingRFC)_{igt}$ represent the immediate goal of adopting the RFC which includes its effect on prevalence of child marriage, age at marriage and maximum years of women's education attainments; $(treatmentdummy)_{igt}$ is a dummy variable that represent whether RFC was active for woman 'i' in the group 'g' at time 't' when she got married; $(wealthindexdummy)_{igt}$ represent wealth index of the individual; $(urbandummy)_{igt}$ represent a dummy variable for an urban resident; $(workstatusdummy)_{igt}$ represent a dummy for work status; $(dummyforexposuretomedial)_{igt}$ dummy for the frequency of exposure to mass media per-week;

(familysize)_{igt} shows number of family members and (orderofbirth)_{igt} shows the order of birth in the family; (partnerseducationyears)_{igt} partners maximum years of completed education; λ_t time periods dummies; α_g groups dummies and ψ_{gt} group specific linear time trends and ε_{igt} is an error term for woman “i” group ‘g’ at time ‘t’. δ is the parameter of interest, which indicates the impact of the implementation of the RFC on outcome variables in Ethiopia.

One of the basic assumptions we need to test under generalized DID with multiple groups and time periods estimation techniques is whether the parallel trend assumption holds or not. To generate the pseudo treatment value, the authors creates four pseudo time periods depending on the year of marriage of respondents: Pre-1985; 1985-1990; 1991-1995; 1996-1999. The authors also assumes that group 1 adopted the policy in the time period 1985- 1990, group two adopted the policy in the time period 1991-1995, and group three adopted the policy in the time period 1996-1999. Thus, the authors identifies the pseudo treatment dummy value that represents whether RFC was active for individual ‘i’ from group ‘g’ at time ‘t’ when she got married. Thus, we conducted the placebo test to know whether our outcome variable had the same trend before the adoption of the Revised Family Code in Ethiopia or not. The result is presented in the next chapter.

1.3.3.2. Test of policy endogeneity problem

To isolate the impact of the adoption of the RFC from potential policy Endogeneity problem, we have to ensure absence of any differential change of time-varying regional-level variables for treated and controlled groups or change in similar fashion for both treated and controlled groups (Besley and Case, 2000). Controlling region fixed effect could not overcome suspected policy endogeneity problem. The timing of the adoption of the RFC may depend on factors before the adoption of program such as the prevalence of child marriage practice in the country and high

gender disparity on women's years of completed education. If there were specific trends on the prevalence of child marriage practice and gender disparity on women's years of completed education that were correlated with the timing of adoption of the RFC across the regional government, a generalized difference-in-differences could be problematic (Hahn and Yang, 2016). To test this, the authors regress Post on one- and two-year lagged of prevalence of child marriage, age at marriage, and women's educational attainment.

$$\begin{aligned}
 (post)_{gt} = & \beta_0 + \beta_1(lagoneearlymarriage)_{igt} + \beta_2(lagtwoearlymarriage)_{igt} \\
 & + \beta_3(lagoneageatmarriage)_{igt} + \beta_4(lagtwoageatmarriage)_{igt} \\
 & + \beta_5(lagoneyeducationinyears)_{igt} + \beta_6(lagtwoeducationinyears)_{igt} \\
 & + \varepsilon_{igt} \text{ --- (2)}
 \end{aligned}$$

Where, $(Post)_{gt}$ represent for whether group 'g' at time period 't' adopted the RFC or not; $(lagoneearlymarriage)_{igt}$ represent for lag one year of dummy for the prevalence of child marriage; $(lagtwoearlymarriage)_{igt}$ represent for lag two years of dummy for the prevalence of child marriage; $(lagoneageatmarriage)_{igt}$ represent for lag one year of age at marriage; $(lagtwoageatmarriage)_{igt}$ lag two year of age at marriage; $(lagoneyeducationinyears)$ represent for lag one year of women maximum years of education attainment; $(lagtwoeducationinyears)_{igt}$ represent for lag two years of women maximum years of education attainment.

Table 1.1: Test of policy endogeneity problem

Variables	Post _{gt}	Post _{gt}	Post _{gt}	Post _{gt}
First lag of prevalence of child marriage	.001 (.003)			-.002 (.0003)
Second lag of prevalence of child marriage	.0002 (.0005)			.0002 (.0003)
First lag of age at marriage		-.001 (.0003)		-.001 (.0003)
Second lag of age at marriage		.0004 (.0001)		.0005 (.0001)
First lag of years of completed education			.0008 (.0006)	.001 (.0002)
Second lag of years of completed education			-.0003 (.0002)	-.0005 (.0001)
Observation	170,986	169,990	170,985	169,990
R-square	0.93	0.94	0.93	0.94
Source: Authors' estimation *, ** and *** represent for 10%, 5% and 1% significance level, respectively				

Table 1.1 presents a test for policy endogeneity problem on adoption of the RFC across the regional government of Ethiopia. All the coefficients are close to zero and statistically insignificant. We find no significant impact of previous prevalence of child marriage, age at marriage and education gender disparity on the timing of adoption of the RFC across the regional government of Ethiopia. This result implies that policy endogeneity is not a huge concern in this study.

1.3.3.3. Two-Stage Least-Squares (2SLS) estimation techniques

■ *Issues and requirements*

There is reverse causality between women's years of completed education and prevalence of child marriage. The level of educational attainment of girls directly determines whether they get married early or not. In the same way, the age at marriage determines the level of education attained by girls. Thus, this model has the endogeneity problem caused by reverse causality, omitted variable bias, and or measurement error. Our coefficient from OLS will be biased because of the omitted variable, reverse causality, and or measurement error problem between early marriage and

educational attainment. Under this condition, the classical linear regression model assumption will be violated (Heanue & O'Donoghue, 2014).

Scholars recommended different mechanisms to overcome the Endogeneity problem. By selecting an exogenous instrumental variable that could fulfill exogeneity and exclusion restriction requirements, the reverse causality, omitted variable, or measurement error problems could be overcome. According to the exogeneity condition, the selected instrumental variable must be correlated with the endogenous explanatory variable. In the case of exclusion restriction criteria, the selected IV must be uncorrelated with the dependent variable and all variables categorized under the error term (Murray, 2006). Thus, the instrumental variable design successfully overcomes the endogeneity problem (Card, 1999; Cawley & Meyerhoefer, 2012).

■ Functional form of the model

The authors created the exogenous IV ‘the treatment dummy’ that shows whether the RFC was active for individual ‘i’, from group ‘g’ at time ‘t’ when she got married. As explained in the analysis and discussion part, this instrumental variable fulfills exogeneity and exclusion restriction requirements (Wooldridge, 2013).

First-stage regression equation:

$$\begin{aligned}
 (\widehat{earlymarraige})_{igt} &= \delta_0 + \delta_1(treatmentdummy)_{igt} + \beta_1(wealthindex)_{igt} + \beta_2(urban)_{igt} \\
 &+ \beta_3(mediaexposure)_{igt} + \beta_4(religion)_{igt} + \beta_5(workstatus)_{igt} \\
 &+ \beta_6(familysize)_{igt} + \beta_7(femaleheadedhh)_{igt} \\
 &+ \beta_8(partnerseducationinyears)_{igt} + \beta_9(birhtorder)_{igt} + \lambda_t + \alpha_g \\
 &+ \psi_g t + \varepsilon_{igt} \text{-----} (2)
 \end{aligned}$$

Second-stage regression equation:

$$\begin{aligned} (educatt)_{igt} = & \alpha_0 + \delta_1(\widehat{earlymarriage})_{igt} + \delta_2(wealthindex)_{igt} + \delta_3(urban)_{igt} \\ & + \delta_4(religion)_{igt} + \delta_5(workstat)_{igt} + \delta_6(partnerseducationinyears)_{igt} \\ & + \delta_7(mediaexp)_{igt} + \delta_8(famsize)_{igt} + \delta_9(birhtorder)_{igt} \\ & + \delta_{10}(femaleheadedhh)_{igt} + \lambda_t + \alpha_g + \psi_g t + \varepsilon - - - - - (3) \end{aligned}$$

(treatmentdummy)_{igt} represent treatment dummy whether the RFC was active for individual ‘i’ from group ‘g’ at time ‘t’ when she got married; (Eduatt)_{igt} is women’s maximum years of completed education; (earlymarriage)_{igt} is the dummy variable for early marriage; (wealthindex)_{igt} is the dummy for wealth index of the individual; (urban)_{igt} is the dummy variable for an urban resident; (workstat)_{igt} is the partner’s work status; (parteduc)_{igt} is the partner’s education in years; (media)_{igt} denotes the frequency of exposure to mass media; (famsize)_{igt} shows the number of family members and (birthtorder)_{igt} shows the order of birth in the family.

■ Specification tests

For the validity of the constructed instrumental variable, it should fulfill exogeneity and exclusion restriction requirements. For the validity of the exclusion restriction requirement, Wald ‘F’ statistics must exceed 10 to ensure that the instrument is not weak (Wooldridge, 2013). The exclusion restriction condition will be checked through the theoretical justification of the absence of any relationship between IV and variables in the error terms.

1.4. Results and Discussion

The study evaluates the impact of adopting the RFC on early marriage, age at marriage, and women educational attainment and to analyze the impact of early marriage on women educational attainment in Ethiopia. To answer these objectives, the authors designed mainly two estimation techniques: Generalized DID with multiple groups and time periods and 2SLS.

1.4.1. Summary statistics

We use Ethiopian DHS to evaluate the impact of the adoption of the RFC on early marriage and women's educational attainment. So far, Ethiopia has four waves of DHS data. This research used all available Ethiopia's Demographic and Health Survey. Authors generate pooled cross-sections across time. Overall the study used around 170,000 observations to evaluate the impact of adopting the RFC. The following table presents descriptive statistics for the major variables under investigation in the current study which includes the head of household, place of residence, religion of the respondents, wealth index of the respondents, work status of the respondents, age at marriage of the respondents, the dummy for early marriage, number of household members, years of completed education, land ownership status, frequency of exposure to media and partner's education in years. In this study age at marriage, the dummy variable for early marriage, and years of completed education are used as the main outcome variables.

Table 1.2: Summary statistics

Variables	Summary for Major data file			Summary for treated observations		Summarily for untreated observations	
	Observations	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
<i>Place of residence (1 if urban)</i>	170,987	.178	.382	.234	.424	.171	.377
Religion dummy							
<i>Orthodox</i>	65,958	.386	.487	.381	.485	.381	.486
<i>Catholic</i>	1,518	.009	.094	.006	.079	.010	.099
<i>Muslim</i>	71,396	.418	.493	.426	.494	.414	.492
<i>Protestant</i>	27,933	.163	.370	.009	.093	.010	.099
<i>Traditional</i>	2,890	.017	.129	.016	.124	.020	.138
<i>Other</i>	461	.003	.052	.005	.067	.002	.045
<i>Wealth index</i>	126,813	.528	.499	.571	.495	.521	.500
<i>Employment status</i>	170,891	.387	.487	.453	.498	.362	.480
<i>Female headed household</i>	170,987	.219	.413	.218	.413	.220	.414
<i>Age at marriage (Years)</i>	170,401	15.96	3.484	18.108	4.262	15.708	3.288
<i>Number of family members</i>	170,987	6.398	2.354	5.410	2.174	6.515	2.346
<i>Education (in Years)</i>	170,987	1.161	2.863	2.688	4.104	.981	2.621
<i>Early marriage (1/0)</i>	170,987	.726	.446	.524	.499	.750	.432
<i>Media exposure (1/0)</i>	170,778	.164	.370	.261	.439	.153	.359
<i>Group one dummy</i>	170,987	.506	.500	.279	.448	.721	.448
<i>Group two dummy</i>	170,987	.205	.404	.249	.432	.751	.432
<i>Group three dummy</i>	170,987	.269	.443	.265	.442	.734	.442
<i>Partner's education (Years)</i>	165,998	3.266	10.175	4.843	9.426	3.083	10.242
<i>Modern contraceptive usage</i>	170,987	.156	.363	.299	.457	.139	.346
Source: Authors' estimation							

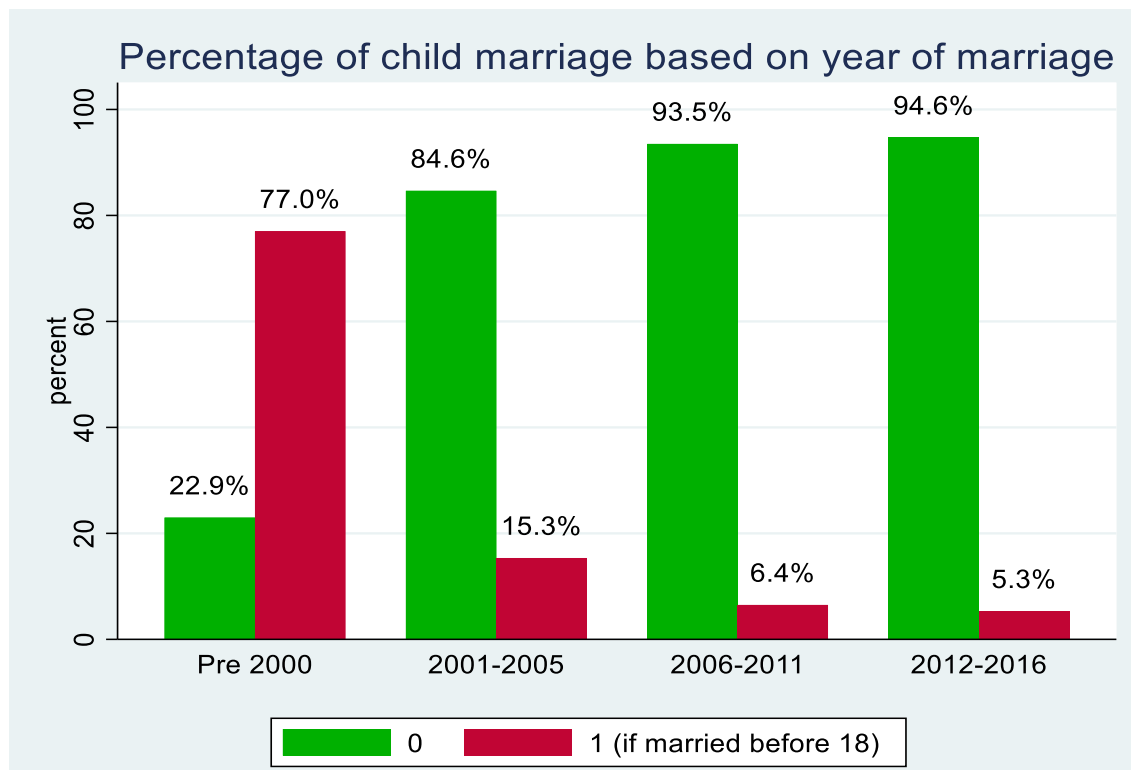
Table 1.2 above presents the summary of the main variables used in the study. The above report shows that for the whole observation, the average age at marriage is 15.96 in Ethiopia. This value is 18.11 for treated observations and 15.71 for untreated observations. These show that all over the country the average age at marriage is below the minimum legal age of marriage- 18. Our second outcome variable-dummy for early marriage measures the tendency of early marriage in Ethiopia.

In this study, more than 72 percent of our observations married before the minimum legal age of 28

marriage. For the whole observations in the study, the average maximum year of completed education is 1.16 years. This number is 2.69 years in treated observations and 0.98 years for untreated observations in Ethiopia.

One of the major explanatory variables in the study is the sex of the head household. Out of the total observations, 78 percent of them are male-headed households. The summary statistics show that 78.2 percent of treated and 78 percent of controlled observations are male-headed households. The report shows that from the total observations, 17.8 percent of them reside in urban areas whereas 82.2 percent of them reside in rural areas. The majority of treated observations are Muslims (42.6 %) and Orthodox Christian (38.1%). In this study, treated observations are richer (53.4%) than untreated observations. The summary report shows that the majority of treated respondents are employed (45.3%) than untreated observations. The majority of untreated observations (75.04 percent) married before the legal age of marriage relative to treated observations (52.4 percent), and also 92.7 percent of treated observation own land compared to 87.8 percent for controlled observations. On the other hand, few numbers of observations follow media, 15.3 percent for untreated observations compared to 26.1 percent for treated observations. The results in summary statistics also show that the maximum year of completed education for the partner is higher for treated observations (4.84 years) compared to untreated observations (3.08 years).

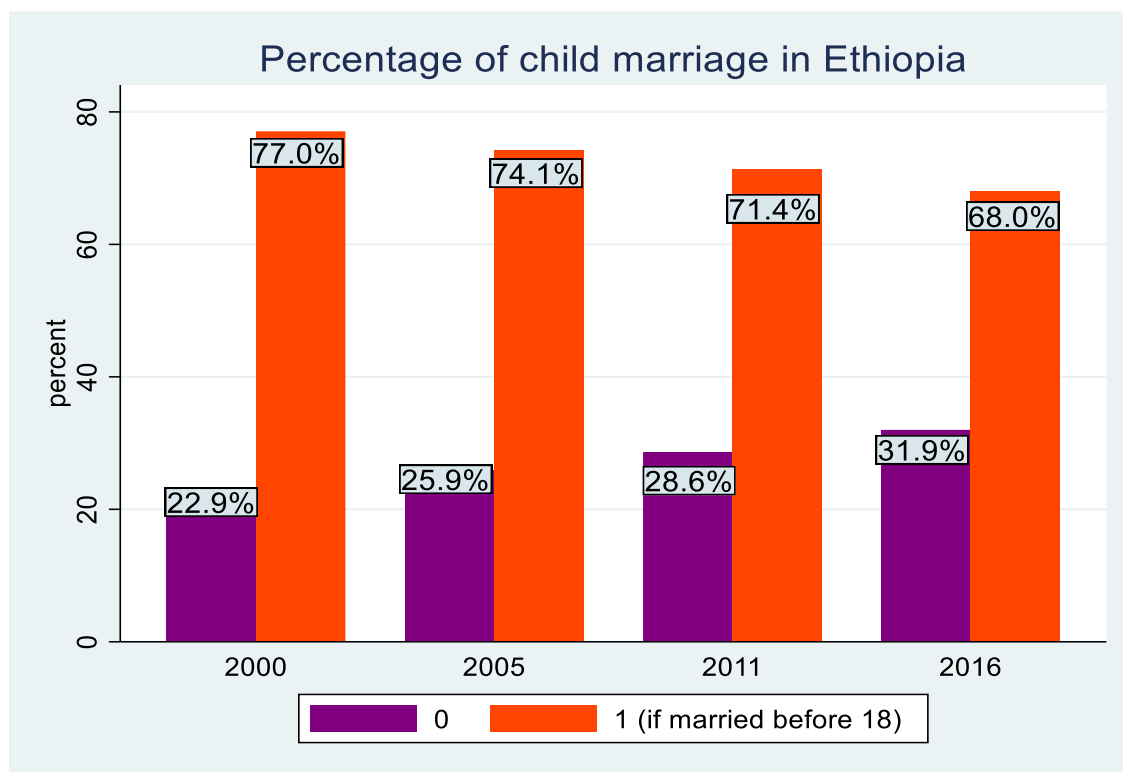
Figure 1.3: prevalence of child marriage based on year of marriage



Source: Drawn by authors

Figure 1.3 shows the prevalence of child marriage for individual ‘i’ from group ‘g’ at time ‘t’ when she got treatment. Before the approval of the RFC, 77 percent of our respondents married before the legal age of marriage. After adoption of the RFC the prevalence of child marriage continuously decline for observations that got treatment.

Figure 1.4: prevalence of child marriage in Ethiopia



Source: Drawn by authors

The above clustered bar chart shows the prevalence of early marriage across different time periods. In pre-2000, 77 percent of our observations married before the legal age of marriage. This value slightly declined to 68 percent in 2016.

1.4.2. Immediate impact of adopting the RFC

1.4.2.1. Impact of adopting the RFC using full sample

The RFC increases the legal age for marriage to 18 years. There were time and geographic variations on the adoption of the RFC across the regional governments. The Code was implemented in three phases. In the first phase (2000–2005), two federal city administrations and three regional governments adopted it. We categorized these regions under group one. In the

second phase (2005–2011), two new regional governments started the implementation. The authors categorized these two new adopters under group two. Lastly, after 2011, the remaining four regions started the implementation of RFC. These four regions are categorized under group three. Thus, this study uses generalized DID with multiple groups and time periods set-ups. Table 1.3 below reports immediate impact of adopting the RFC on prevalence of child marriage, age at marriage, and years of completed education using full samples.

Table 1.3: Immediate impact of adopting the RFC using full sample

Variables	Child Marriage(1 if married before 18)		Age at marriage (Years)		Education Attainment (Years)	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Group-time ATET (1/0)</i>	-.074*** (.009)	-.074*** (.009)	.591*** (.069)	.165*** (.033)	.0181 (.030)	.124*** (.032)
<i>Urban Residence (1/0)</i>		-.024*** (.004)		.034** (.014)		1.988*** (.032)
<i>Employment Status (1/0)</i>		-.004* (.002)		.011 (.009)		.275*** (.014)
<i>Media Exposure (1/0)</i>		-.025*** (.003)		.050*** (.013)		1.452*** (.025)
<i>Size of HH</i>		.006*** (.0005)		-.006*** (.002)		-.089*** (.003)
<i>Modern contraceptive (1/0)</i>		-.0009 (.003)		.042*** (.011)		.568*** (.021)
<i>Dummy for time period 2006-2011</i>	.148*** (.014)	-.051*** (.005)	.267*** (.038)	.062*** (.018)	.052** (.023)	.062*** (.020)
<i>Dummy for time period 2012-2016</i>	.104*** (.011)	-.028*** (.004)	-.069*** (.029)	.165*** (.021)	.070** (.032)	.256*** (.029)
<i>Dummy for second group</i>	.148*** (.014)	.147*** (.014)	-1.331*** (.107)	-.346*** (.051)	-.072 (.047)	-.223*** (.062)
<i>Dummy for third groups</i>	.104*** (.011)	.104*** (.011)	-.836*** (.085)	-.167*** (.040)	-.069 (.061)	-.123*** (.044)
<i>Constant</i>	29.1*** (1.528)	28.7*** (1.533)	-208.1 *** (11.679)	-40.2*** (6.784)	-138.1*** (10.021)	-69.3*** (8.860)
<i>Group specific- linear time trend</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Individual and household variables</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observation</i>	170,987	170,682	170,401	148,148	170,987	147,880
<i>R-Square</i>	0.07	0.07	0.11	0.82	0.20	0.41
Source: Authors' estimation ***, **, * one, five, and ten percent significance level, respectively						

Table 1.3 shows the report of the impact of the adoption of the RFC on Early marriage and maximum years of completed education. Column 1 and 2 in Table 1.3 shows the impact of adopting the RFC on early marriage in Ethiopia. Column one reports without controlling for different explanatory variables that could affect the outcome variable. Adoption of the RFC decreases the probability of early marriage by 0.07 for observations that get treatments relative to controlled observations. The second column shows the impact of adopting the RFC by controlling different explanatory variables that could affect the outcome variable. Adopting RFC decreases the probability of early marriage by 0.07 for observations that get treatment relative to controlled observations in Ethiopia assuming that all other variables stay constant. In this model, urban residences, being employed, media exposure, and female as the head of household decrease the probability of early marriage in the country.

Column 3 and 4 of Table 1.3 is showing the impact of adopting the RFC on age at marriage for observations that are treated relative to untreated observations. Model one evaluates the impact of the program by using the basic generalized DID with multiple groups and time periods set-ups. Adoption of the RFC significantly increases the age at marriage by 0.59 years for treated observations relative to controlled observations assuming that all other explanatory variables in the model stay constant. Model two evaluates the impact of the adoption of the RFC by using generalized DID with multiple groups and time periods by controlling all explanatory variables that have an impact on the outcome variable. In this model, adoption of the RFC significantly increases the age at marriage by 0.17 years for observations that get treatment relative to controlled observations assuming that all other explanatory variables stay constant in the model. In this model,

living in urban areas, having employment, exposure to the media, and women being head of household significantly increase the age at marriage.

Column 5 and 6 of Table 1.3 shows the impact of adopting the RFC on women's maximum years of completed education for treated observations relative to untreated observations. Model one evaluates the impact of the program using the basic generalized DID with multiple groups and time periods design. Adopting the RFC significantly increases women's maximum years of completed education by 0.02 years for treated observation relative to untreated observations assuming that all other explanatory variables stay constant in the model. Model two uses multiple group and time DID by controlling all explanatory variables that could affect the outcome variable. Adoption of the RFC significantly increases the maximum years of completed education by 0.12 years for treated observations relative to controlled observations assuming that all other covariates in the model stay constant. In this model living in urban areas, having work, and exposure to the media significantly increase women's maximum years of completed education for treated observations relative to untreated observations.

1.4.2.2. Impact of adopting the RFC using restricted sample

In this study, treated observations identified whether the RFC was active for individual 'i' from group 'g' at time 't' when she got married. In our sample, to check the sensitivity of our results for older respondents that could achieve higher years of completed education and marry at a later age, we run sensitivity checks using observations that are older than 30 from the latest Ethiopian DHS survey. In the same case, to check the consistency of our results for intra-regional migration, I run sensitivity checks using observations that lived in the place of the interview for more than 20 years.

Table 1.4 below reports the regression results that check the consistency of our respondents with restricted samples.

Table 1.4: Immediate impact of adopting the RFC using restricted sample

Variables	Child marriage dummy		Age at marriage (years)		Women educational attainment (years)	
	Sensitivity for marriage at later age	Sensitivity check for migration	Sensitivity for marriage at later age	Sensitivity check for migration	Sensitivity for marriage at later age	Sensitivity check for migration
	(1)	(2)	(3)	(4)	(5)	(6)
Group-time ATET (1/0)	-.087*** (.009)	-.072*** (.011)	.165** (.080)	.161*** (.046)	.127** (.056)	.132** (.055)
<i>Urban Residence (1/0)</i>	-.004 (.008)	-.152*** (.020)	.001 (.0008)	1.748*** (.165)	2.085*** (.065)	1.921*** (.045)
<i>Dummy for time period 2006-2011</i>	.260*** (.019)	-.093*** (.013)	1.324*** (.075)	.831*** (.110)	-.504*** (.127)	.047* (.028)
<i>Dummy for time period 2012-2016</i>	-.271*** (.012)	-.083*** (.014)	.862*** (.046)	.913*** (.082)	1.632*** (.107)	-96.558*** (33.504)
<i>Dummy for group two</i>	.075*** (.015)	-34.734*** (9.346)	-.383*** (.053)	-.742*** (.070)	.860*** (.213)	1.164*** (.085)
<i>Dummy for group three</i>	-.152*** (.014)	29.517*** (6.184)	.394*** (.048)	-198.134*** (41.304)	.795*** (.106)	.8002*** (.076)
<i>Constant</i>	2.195*** (.018)	10.117*** (1.171)	4.655*** (.091)	-71.004*** (10.074)	.764*** (.084)	-67.206*** (6.096)
<i>Group specific linear time trend</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Individual and household variables</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observation</i>	27,524	92,438	27,524	92,440	31,418	90,904
<i>R-Square</i>	0.47	0.10	0.87	0.23	0.41	0.43
Source: authors' estimation ***, **, * one, five and ten percent significance level, respectively						

Table 1.4 shows impact of implementation of the RFC on child marriage and women's maximum years of completed education using restricted sample. Column 1 and 2 presents the impact of implementation of the RFC on prevalence of child marriage. In column 1, the author used observations that are older than 30 years from the latest Ethiopian DHS survey and in column 2 used observations that lived in the place of interview for more than 20 years. In both columns the impact of intervention on the prevalence of child marriage is consistent to unrestricted sample.

Column 3 and 4 shows the impact of implementation of the RFC on age at marriage using the restricted sample. In column 4 our observations were restricted to respondents that are older than 30 from the latest Ethiopian DHS survey and in column 5 restricted to respondents that lived in the place of interview for more than 20 years. In both columns the impact of implementation of the RFC are consistent with unrestricted samples. Column 5 and 6 show the impact of adoption of the RFC on the maximum years of completed education using restricted samples. Column 5 reports impact of the RFC implementation on maximum years of completed education using observations that are older than 30 from the latest Ethiopian DHS; and column 6 reports using observations that lived in the place of interview for more than 20 years. In both columns the impact of adopting the RFC is consistent with the unrestricted samples. Thus, the report in table 1.4 revealed the consistency of the impact of adopting the RFC between unrestricted and restricted samples.

1.4.2.3. Falsification test

One of the basic assumptions we need to test under generalized DID with multiple groups and time periods estimation techniques is whether the parallel trend assumption holds or not. The coefficients from the following table justify the parallel trend assumption using pre-adoption of the Revised Family Code data. To generate the pseudo treatment value, the authors create pseudo four time periods: pre-1985, 1985-1990; 1991-1995 1996-1999. The authors also assume that group 1 adopted the RFC in the time periods 1985- 1990, group two adopted the RFC in time periods (1991-1995) and group three adopted the RFC in time periods 1996-1999. Thus, the authors identify the pseudo treatment dummy that represents whether the RFC was active for individual ‘i’ from group ‘g’ at time ‘t’ when she got married. Thus, we conducted the placebo test to know whether our outcome variables have the same trend before the adoption of the Revised Family Code in Ethiopia.

Table 1.5: Falsification test

Variables	Child marriage (1 if married before 18)		Age at first marriage (years)		Education Attainment in years	
	(1)	(2)	(3)	(4)	(5)	(6)
Pseudo Group-time ATET (1/0)	.665 (.459)	.004 (.006)	-.066 (.044)	-.024 (.043)	.155 (.276)	.039 (.261)
Urban Residence		-.037*** (.004)		.334*** (.035)		2.603*** (.311)
Media Exposure		-.009** (.004)		.161*** (.031)		1.670*** (.234)
Female headed household		-.026*** (.003)		.144*** (.025)		.076* (.039)
Constant	-52.898*** (6.816)	43.486*** (3.636)	14.460*** (.538)	14.394*** (.093)	-136.6*** (6.611)	-69.369*** (9.028)
Dummies for groups	Yes	Yes	Yes	Yes	Yes	Yes
Dummies for time periods	Yes	Yes	Yes	Yes	Yes	Yes
Group specific linear time trend	Yes	Yes	Yes	Yes	Yes	Yes
Individual and household variables	Yes	Yes	Yes	Yes	Yes	Yes
Observation	123,526	123,804	123,963	123,367	123,963	123,804
R-square	0.16	0.08	0.06	0.10	0.22	0.36
Source: authors' estimation ***, **, * one, five and ten percent significance level, respectively						

Table 1.5 shows the placebo test value of the impact of the Revised Family Code on different outcome variables before adoption of the Revised Family Code. Column 1 and 2 show the placebo impact of adopting the Revised Family Code on the probability of Child marriage. The coefficient on pseudo treatment shows the insignificant placebo test value of the impact of adopting the program on the probability of Child Marriage in Ethiopia. Column 3 and 4 show the placebo test value of impact of adopting the Revised Family Code on age at first marriage. The coefficient on pseudo treatment shows a statistically insignificant placebo test value of the impact of adoption of the Revised Family Code on age at first marriage before the implementation of the program. The

last two columns show the placebo impact of adopting the program on women's maximum years of completed education using the pseudo treatment value. The coefficient on pseudo treatment shows insignificant placebo test value of the impact of adopting the Revised Family Code on women the maximum years of completed education before the adoption of the program.

1.4.3. Impact of child marriage on women's educational attainment in Ethiopia

■ Relevance and exclusion restriction test

Table 1.6 shows the first-stage regression result for 2SLS's instrument which fulfilling the instruments' relevance requirement. To successfully overcome Endogeneity problem caused by reverse causality, measurement error, and omitted variable problems, the IV should fulfill the relevance and exclusion restriction requirements.

Table 1.6: First-stage regressions

Variables	Child Marriage(1 if married before 18)	Age at marriage (Years)
	(1)	(2)
<i>Adoption of the RFC (IV)</i> <i>(1/0)</i>	-.074*** (.009)	.165*** (.033)
<i>Urban Residence (1/0)</i>	-.024*** (.004)	.034** (.014)
<i>Media Exposure (1/0)</i>	-.025*** (.003)	.050*** (.013)
<i>Size of HH</i>	.006*** (.0005)	-.006*** (.002)
<i>Head of HH (1/0)</i>	-.010**** (.003)	.072*** (.012)
<i>Dummy for time period 2006-2011</i>	-.051*** (.005)	.062*** (.018)
<i>Dummy for time period 201-2016</i>	-.028*** (.004)	.165*** (.021)
<i>Dummy for second group</i>	.147*** (.014)	-.346*** (.051)
<i>Dummy for third groups</i>	.104***	-.167***

	(.011)	(.040)
<i>Constant</i>	28.660*** (1.533)	-40.153*** (6.784)
<i>Group specific- linear time trend</i>	Yes	Yes
<i>Individual and household variables</i>	Yes	Yes
<i>Observation</i>	170,682	148,148
<i>R-Square</i>	0.07	0.82
<i>F-statistics</i>	65.78	24.77
<i>Source: Authors' estimation</i> ***, **, * one, five, and ten percent significance level, respectively		

Table 1.6 shows impact of adoption of the RFC on age at marriage and prevalence of child marriage. Adoption of the program significantly increase age at marriage and decrease the prevalence of child marriage. These regressions measure the degree of the relevance of the preferred instrumental variable. The identified instrumental variable is the treatment dummy variable that shows whether the RFC was active for individual ‘i’ from group ‘g’ at time ‘t’ when she got married. The f-statistics value reported in the table is greater than the rule of thumb (10) for strong instrument variable. The result in the above table proves that a strong relationship exists between the instrumental variable and endogenous variable (the age at marriage and early marriage) in the study.

The second requirement to have a good instrumental variable is exclusion restriction. According to this condition, the identified IV should not have any correlation with the covariates left in the error terms as well as other independent variables controlled in the model. Our IV is completely unrelated with our outcome variables, and all other exogenous variables controlled in the model. Furthermore, this instrument has no correlation with the covariates left in the error term. Thus, the exclusion restriction requirement of our IV is satisfied.

The relationship between the age at marriage and educational attainment is bi-directional. The age at marriage determines the educational attainment of girls and educational attainment also affect the age at marriage. The number of years children stay in the school also determines whether girls marry early or not. Thus, there is a reverse causality problem. To resolve the reverse causality problem, the authors introduced the instrumental variable (IV) technique. The selected exogenous instrumental variable is the treatment dummy variable that shows whether the RFC was active for individual ‘i’ from group ‘g’ at time, ‘t’ when got married. Table 1.7 presents the evidence of the effect of early marriage on women’s maximum years of completed education from two-stage least-squares (2SLS).

Table 1.7: Impact of early marriage on women’s maximum years of completed education

Variables	Educational Attainment (Years)			
	Pooled OLS	2SLS	Pooled OLS	2SLS
	(1)	(2)	(3)	(4)
Age at marriage (years)	.109*** (.002)	.592*** (.038)		
Child Marriage (1/0)			-.672*** (.014)	-1.388*** (.409)
Work Status (1/0)	.354*** (.016)	.331*** (.024)	.351*** (.012)	.369*** (.013)
Urban (1/0)	1.839*** (.033)	1.627*** (.161)	2.218*** (.026)	2.164*** (.041)
Exposure to Media (1/0)	1.361*** (.026)	1.712*** (.041)	1.686 (.024)***	1.655*** (.026)
Size of HH	-.049*** (.003)	-.011*** (.004)	-.054*** (.003)	-.049*** (.004)
Age	-.090*** (.006)	-.208*** (.012)	-.087*** (.007)	-.110*** (.015)
Age square	.0006*** (.00009)	.002*** (.0002)	.0006*** (.00009)	.0009*** (.0002)
Constant	1.216*** (.143)	-4.871*** (.472)	3.190*** (.112)	4.088*** (.550)
Dummies for groups	Yes	Yes	Yes	Yes
Dummies for time periods	Yes	Yes	Yes	Yes

Group specific linear time trend	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
Individuals and households variables	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Observations	<i>126,083</i>	<i>170,036</i>	<i>170,616</i>	<i>170,616</i>
R-square	<i>0.41</i>	<i>---</i>	<i>0.38</i>	<i>0.38</i>
Source: Authors' estimation ***, **, * one, five, and ten percent significance level, respectively				

Table 1.7 shows the impact of early marriage on women's maximum years of completed education using age at marriage and a dummy variable for early marriage. Column 1 shows the estimated coefficient of the impact of age at marriage on women's maximum years of completed education using OLS. The coefficient from OLS is positive and statistically also significant. Therefore, as the age at marriage increases by one year, girls' educational attainment will increase by 0.11 years, assuming that all other covariates in the model stay constant. The coefficient in column 2 estimates the impact of the age at marriage on educational attainment using the 2SLS estimation technique. This coefficient is also positive and statistically significant. Thus, as the age at marriage increases by one year, the maximum years of educational attainment of our respondents will increase by 0.59 years, assuming that all other covariates in the model stay constant.

The coefficients in column 3 and 4 are estimated using a dummy variable for early marriage and the coefficient on our interest variable significantly declines at a one percent significance level. As the probability of early marriage increases by one, the maximum years of educational attainment will decrease by 0.67 years, assuming that all other covariates in the model stay constant. The coefficients in Column 4 are estimated using two-stage least-squares methods and the estimate for our interest variable significantly declines at the one percent significance level. If the probability of early marriage increases by one, the maximum years of completed education will decline by

1.39 years, *ceteris paribus*. In this model, all other controlled covariates have the expected sign and are statistically significant.

Generally, the finding of this study revealed that age at marriage is positively impacting and the probability of early marriage is negatively impacting on maximum years of completed education in Ethiopia. The results of this study are in line with the researches carried out by Vogelstein (2013), Lloyd and Mensch (2008), Nguyen and Wodon (2012d), Klasen and Pieters (2012), Parson (2015), Field and Ambrus (2008), Nguyen and Wodon (2015a), Bayisenge (2010), Hotchkiss *et al.* (2016), Delprate *et al.* (2018), and Wodona *et al.* (2018).

1.5. Conclusion and Policy Implications

1.5.1. Conclusion

International institutions like the UN's Committee on the Child's Rights recognize that early marriage is a destructive practice and strive for its prohibition. At the fourth United Nations International Conference on Women in Beijing, which took place in 1995, all actions and activities needed to be taken to alleviate the problem of early marriage were outlined, which included creating educational plans for the families about early marriage. In this regard, the UNHRC resolved to "eliminate child, early and forced marriage". According to an information sheet from 'Girls Not Brides', in one year around 15 million young females get married before reaching the legal age of marriage (Tong and White, 2017). The common negative consequences of early marriage are poor academic performance, negative socio-economic effects, exhausted mental and physical setup, minimal participation in the labor market, and less control over their families' decision-making (Parsons *et al.*, 2015; Jensen & Thornton 2003; Malhotra, 2013).

According to the Ethiopian DHS (2016) data, about 40 percent of young females aged 20-22 got married before the legal age of marriage. To control the high prevalence of early marriage, the Ethiopian government revised the 1960 Family code and approved the new Family Code (FC) in 2000. According to the 1960 Family Code, the minimum legal age for marriage was 15 years. However, the RFC increased the legal age for marriage to 18 years. The RFC has been implemented since 2000. Using this exogenous policy intervention, this study evaluate the impact of the adopting the RFC on early marriage and women's educational attainment in Ethiopia, and the impact of early marriage on educational attainment in Ethiopia.

The main source of the data is the Ethiopian Demographic and Health Survey (DHS). So far, Ethiopia has conducted DHS four times (2000, 2005, 2011 and 2016). Thus, this study used all existing results of the DHS. Once announced by the federal government, the RFC was not fully implemented in all regions and administrative cities of Ethiopia at the same time. Ethiopia is a federal country that has ten regions and two city administrations. The latest region, Sidama, was established in 2019. Before 2019, the Sidama regional government was included as one zone under SNNP of Ethiopia. Since we used the data collected before establishing the Sidama region, we consider the Sidama region as part of the SNNP of Ethiopia.

The Federal government approved the RFC in 2000. In 2000, the Code was adopted immediately in Tigray, Oromia, Amhara, Addis Ababa, and Dire Dawa. We use these first implementers of the program as group one for our generalized DID with multiple groups and time periods design. The other regions: Afar, Benishangul, Gambela, Harari, SNNP of Ethiopia, and Somalia, implemented the 1960 Family Code (Gajigo & Hallward, 2005). After 2005, two regions adopted the RFC: Gambela and SNNP of Ethiopia (Hombrados, 2017). We use these two regions as a second group for our design. Finally, we categorized the late adopters of the program as the third group. Depending on the year of marriage of our respondents we create four time periods pre-2000, 2001-2005, 2006-2011, and 2012-2016. To measure the impact of adopting the RFC, the authors designed DID with multiple groups and time periods.

Authors generated pooled cross-sections across time from 4 waves of the Ethiopian Demographic and Health Survey. Overall the study uses around 170,000 observations to evaluate the impact of adopting RFC. The age at marriage, the dummy variable for early marriage which shows whether our observations married before the legal age of marriage or not, and the maximum years of

completed education are used as the main outcome variables in this study. In our observations, the average age at marriage is 15.96. This value is 18.11 for treated observations and 15.71 for untreated observations. These show that all over the country the average age at marriage is below the legal minimum age of marriage-18. Our second outcome variable-dummy variable for early marriage measures the tendency of early marriage in Ethiopia. In this study, more than 72 percent of our observations married before the legal age of marriage. Our third major outcome variable measures the maximum years of completed education in Ethiopia. For the whole observations in the study, the average maximum year of completed education is 1.16 years. This number is 2.69 years for treated observations and 0.98 years for untreated observations in Ethiopia.

Adoption of the RFC decreases the probability of early marriage by 0.07 for treated observations relative to controlled observations under the basic set-up of generalized DID with multiple groups and time design. By controlling other explanatory variables, adopting RFC, decreases the probability of early marriage by 0.07 for treated observations relative to controlled observations assuming that all other variables stay constant. In our study, urban residences, being employed, media exposure, and female as head of household decrease the probability of early marriage in Ethiopia.

In this study, using the basic model of generalized DID with multiple groups and time periods design, adoption of the RFC significantly increases the age at marriage by 0.59 years for treated observations relative to untreated observations assuming that all other explanatory variables in the model stay constant. By controlling other explanatory variables, adoption of the RFC significantly increases the age at marriage by 0.17 years for observations that get treatment relative to untreated observations assuming that all other explanatory variables stay constant in the model. In our study,

being employed, having media exposure, and women being head of household significantly increase the age at marriage.

In our study, using the basic model of generalized DID with multiple groups and time periods, adopting the RFC significantly increases the maximum years of completed education by 0.02 years for treated observation relative to untreated observations assuming that all other explanatory variables stay constant in the model. By controlling other explanatory variables, adopting the RFC significantly increases the maximum years of completed education by 0.12 years of treated observations relative to untreated observations assuming that all other covariates in the model stay constant. In this study, living in urban areas, having work, and having exposure to the media significantly increase the maximum years of completed education for treated observations relative to untreated observations.

This study evaluates the impact of age at marriage on maximum years of completed education in Ethiopia. The effect of age at marriage is positive and statistically significant at the one percent significance level. Using the pooled OLS regression, as the age at marriage increases by one year, girls' educational attainment will increase by 0.11 years, assuming that all other covariates in the model stay constant. The coefficient from two-stage least square is also positive and statistically significant. Thus, as the age at marriage increases by one year, the maximum years of educational attainment of our respondent will increase by 0.59 years, assuming that all other covariates in the model stay constant. All other covariates controlled in these models have the expected sign and are statistically significant at the one percent significance level.

The study also evaluates the impact of early marriage on educational attainment using a dummy variable for whether our respondents married before 18 years old or not. The coefficient from

pooled OLS regression significantly decline at the one percent significance level. As the probability of early marriage increases by one, the maximum years of educational attainment will decrease by 0.67 years, assuming that all other covariates in the model stay constant. The coefficient from two-stage least square is also negative and statistically significant at the one percent significance level. If the probability of early marriage increases by one, the maximum years of completed education will decrease by 1.38 years, assuming that all other variables in the model are constant.

1.5.2. Policy implications of the study

The results from the generalized DID with multiple groups and time periods estimation technique shows a positive impact of the policy on the age at marriage and educational attainment of Ethiopian girls. Thus, to sustain its impact as well as to optimize the positive impact of this treatment, it is highly recommended for the Ethiopian government to enforce the effective implementation of the policy in all regions of Ethiopia. The federal government should assign the right human and financial support as well as establish a strong monitoring and evaluation mechanism for the effective implementation of the policy in all regions of Ethiopia.

The 2SLS results also confirm the positive impact of the age at marriage on the educational attainment of Ethiopian girls. Thus, it is recommended for the Ethiopian government to enhance the awareness of the community about the advantage of the age at marriage and its role for the educational attainment of the community. It is also recommendable to enhance community awareness on the advantages of education to change the community's attitude on early marriage. This study shows that wealth index, living in an urban area, current work status, and religions highly determine the educational attainment of Ethiopian girls. Wealth index, current work status,

and living in an urban area positively affect the level of educational attainment of Ethiopian girls. Thus, we highly recommend that the Ethiopian government works on increasing the awareness of religious leaders, preachers, and the community at large on the advantage of education on the health of mothers and children as well as its positive impact for the community at large. Since more than 85 percent of Ethiopians live in the rural part of the country, we recommend that the government designs special education packages to address the needs of the rural households.

The study shows that large family size is the major barrier for the high educational attainment of Ethiopian girls. As the family size increases, home duty for girls will increase. In addition to this, as Ethiopia is a developing country, households with big family sizes incurred financial constraints to invest on the education of their children. Thus, it is highly recommendable for the Ethiopian government to design accessible family planning services for all regional governments of the country.

The findings of the study revealed that exposure to media increases the years of completed education. Thus, it is recommendable for the government to design a mechanism to increase the coverage of media for all regional governments in the country. More specifically, by focusing on educational programs rather than only entertainment programs, it is possible for the government to maximize the advantage of education for the country's citizens.

References

- Ahmed, S., Khan, A., Khan, S. and Noushad, S. (2014). Early marriage; a Root of Current Physiological and Psychosocial health burdens. *International Journal of Endorsing Health Science Research*, 2(1), 50–53.
- Alemu, B. (2008). Early marriage in Ethiopia: Causes and Health consequences. *Exchange on HIV and AIDS, Sexuality and Gender*, 1(1), 4–6.
- Angrist, JD., and Imbens, GW. (1995). Two-Stage Least Squares Estimation of Average Causal Effects in Models with Variable Treatment Intensity. *Journal of the American Statistical Association*, 90(430), 431–442.
- Austrian, K., Soler-Hampejsek, E., Kangwana, B. (2020). Adolescent Girls Initiative–Kenya: End-line Evaluation Report. Population Council; doi:10.31899/pgy14.1027.
- Baird, S., McIntosh, C. and Ozler, B. (2011). Cash or condition? Evidence from a cash transfer Experiment. *The Quarterly Journal of Economics*. 126 (--), 1709-1753. Available at: <http://qje.oxfordjournals.org/content/126/4/1709.full.pdf>.
- Bayisenge, J. (2010). Early Marriage as a Barrier to Girl’s Education Rwanda: Department of Social Sciences: National University of Rwanda.
- Becker G. (1991). *A Treatise on the Family*. Harvard University Press.
- Brown, G. (2012). Out of Wedlock into School: Combating Child Marriage through Education. London: The Office of Gordon and Sarah Brown.
- Cawley, J., and C. Meyerhoefer. (2012). The Medical Care Costs of Obesity: An Instrumental Variables Approach. *Journal of Health Economics*, 31(1): 219–30.
- Chae, S., and Thoai, N. (2017). The Global State of Evidence on Interventions to Prevent Child Marriage. *GIRL Center Research Brief* no. 1. New York: Population Council.
- Clifford, O., and Sibusiso, Mk. (2016). Factors Associated with Teen Pregnancy in sub-Saharan Africa: A Multi-Country Cross-Sectional Study. *African Journal of Reproductive Health*, 20(3), 94-107.
- Corno, L., Hildebrandt, N. and Voena, A. (2020). Age of Marriage, Weather Shocks, and the Direction of Marriage Payments. *Journal of the Econometric Society*, 88(3), 879-915.
- David, R., Hotchkiss, D., Anastasia, J. and Claudi C. (2016). Risk Factors associated with the Practice of Child Marriage among Roma girls in Serbia. *BMC International Health and Human Rights*, 16(6), <https://doi.org/10.1186/s12914-016-0081-3>.
- Delprat, M., and Kwame, A. (2015). The Effect of Early Marriage Timing on Women's and Children's Health in Sub-Saharan Africa and Southwest Asia. *Ann Glob Health*. 83(3-4):557-67.
- Duflo, E. (2011). Women’s Empowerment and Economic Development. *Journal of Economic Literature*, 50(4), 1051.
- Ellsberg, M., and Heise, L. (2005). Researching violence against women: a practical guide for researchers and activists. Washington DC, United States: World Health Organization, PATH. Available from: [http:// www.path.org/publications/files/GBV_rvaw_complete.pdf](http://www.path.org/publications/files/GBV_rvaw_complete.pdf)

- Federal Democratic Republic of Ethiopia (2016). Ethiopia Demographic and Health Survey 2016. Retrieved from <https://dhsprogram.com/publications/publication-fr328-dhs-finalreports.cfm>
- Federal Negarit Gazette of the Federal Democratic Republic of Ethiopia (2000). Revised Family Code (RFC) Proclamation of 2000. Addis Ababa: Government of Ethiopia.
- Federal Negarit Gazette of the Federal Democratic Republic of Ethiopia (2000). The Revised Family Code. Federal Negarit Gazette Extra Ordinary Issue No. 1/2000 The Revised Family Code Proclamation No. 213/2000
- Field, E., and Ambrus, A. (2008). Early marriage, age of Menarche, and Female Schooling \ Attainment in Bangladesh. *Journal of Political Economy*. *Journal of Political Economy*, 116(5), 881-930. <http://dx.doi.org/10.1086/593333>.
- Freccero, J., and Whiting, A. (2018). Towards an end to child marriage. Lessons from research and practice in development and humanitarian sectors. Berkeley CA: Human Rights Center and Save the Children (https://resourcecentre.savethechildren.net/node/13485/pdf/child_marriage_report_june2018.pdf)
- Godha, D., Hotchkiss, DR., Gage, AJ. (2013). Association between child marriage and reproductive health outcomes and service utilization: a multi-country study from South Asia. *J Adolesc Health*, 52(5):552-8.
- Godha, D., Hotchkiss, DR., Gage, AJ. (2013). Association between child marriage and reproductive Health outcomes and service utilization: A multi-country study from South Asia. *Journal of Adolescent Health*, 52: 552-558. DOI: 10.1016/j.jadohealth.2013.01.021.
- Haddad, L., Hoddinott, J., and Alderman, H. (1997). *Intra-household Resource Allocation in Developing Countries: Models, Methods, and Policy*. Baltimore: The Johns Hopkins University Press.
- Hahn, J. (1998). On the Role of Propensity Score in Efficient Semi-parametric Estimation of Average Treatment Effects. *Journal of Econometric Society*, 66(2),315-331. : <https://www.jstor.org/stable/2998560>.
- Hahn Y. and Yang H. (2016). Do Work Decisions among Young Adults Respond to Extended Dependent Coverage? *ILR Review*, 69(3). DOI: 10.1177/0019793915610308.
- Hahn, J., Todd, P., and Van W. (2001). Identification and estimation of treatment effects with a regression-discontinuity design. *Journal of the Econometric Society*, 69(1), 201-209. <https://doi.org/10.1111/1468-0262.00183>.
- Hallward-Driemeier, Mary & Gajigo, Ousman. (2015). Stengthening Economic Rights and Women's Occupational Choice: Impact of Reforming Ethiopia's Family Law. *World Development, Elsevier*, vol. 70(C), 260-273.
- Hallward-Driemeier, Mary & Gajigo, Ousman. (2015). Strengthening Economic Rights and Women's Occupational Choice: The Impact of Reforming Ethiopia's Family Law. *World Development*, 70(C), 260-273.
- Heanue, K. and O'Donoghue, C. (2014). The Economic Returns to Formal Agricultural

- Education. Available at: ISBN: 978-1-84170-613-9
- Hervish, A., and Feldman-Jacobs, C. (2011). Who Speaks for Me? Ending Child Marriage. Policy Brief. Population Reference Bureau, Washington DC. Available at:
- Hombrados, J. (2017). Child Marriage and Infant Mortality: Evidence from Ethiopia. Working Paper Series No. 13-2017.
- Imbens, G., and Lemieux, T. (2008). Regression discontinuity designs: A Guide to practice. *Journal of Econometrics society*, 142(2), 615-635.
- Islam, T., Tahar, JI., Uddin, B., and Forid, S. (2015). Socio-economic values and child marriage: A case study on selected villages in Kurigram district. *International Journal of Natural and Social Sciences*, 2(5), 18-23.
- Jain, S., & Kurtz, K. (2007). New insights on preventing child marriage: A global analysis of factors and programs. International Council for Research on Women (ICRW). Retrieved from <http://www.icrw.org/docs/2007-new-insights-preventing-child-marriage.pdf>.
- Jensen, R., and Rebecca, T. (2003). Early Female Marriage in the Developing World. *Gender and Development and Marriage*, 11(2), 9-19. <https://doi.org/10.1080/741954311>
- John, C., and Chad, M. (2012). The medical care costs of obesity: An instrumental variables approach. *Journal of Health Economics* 31 (2012) 219–230.
- Jones, N., Tefera, B., Emirie, G., Gebre, B., Berhanu, K., Marshal, E., Walker, D., Gepta, T., and Plank, G. (2016). One Size Does Not Fit All: The Patterning and Drivers of Child Marriage in Ethiopia's Hotspot Districts. Technical report, UNICEF and ODI. Available at: <https://www.unicef.org/ethiopia/media/1536/file/One%20size%20does%20not%20fit%20all.pdf>
- Kalamar, AM., Lee-Rife, S., Hindin, MJ. (2016). Interventions to Prevent Child Marriage Among Young People in Low- and Middle-Income Countries: A Systematic Review of the Published and Gray Literature. *J Adolesc Health*, 59(3):16-21.
- Kidman, R., Heymann, J. (2018). Prioritizing action to accelerate gender equity and health for women and girls: Micro-data analysis of 47 countries. *Glob Public Health*, 13(11), 1634-1649.
- Klasen, S., and Pieters, J. (2012). Push or Pull? Drivers of Female Labor Force Participation during India's Economic Boom. IZA Discussion Papers 6395, Institute for the Study of Labor (IZA).
- Koski, A., Clark, S., and Nandi, A. (2017). Has child marriage declined in Sub-saharan Africa? An analysis of trends in 31 countries. *Population Development Review*, 43(1):7–29.
- Kyari, G., and Ayodele, J. (2014). The Socio-Economic Effect of Early Marriage in North Western Nigeria. *Mediterranean Journal of Social Sciences*, 5(14). DOI: [10.5901/mjss.2014.v5n14p582](https://doi.org/10.5901/mjss.2014.v5n14p582).
- Lawry-White, J., and Tong, K. (2016). Multi-Country Real-Time Evaluation of UNICEF Gender-based Violence in Emergencies Programming: Synthesis Report. Available at:
- Le Strat, Y., Dubertret, C., and Le Foll, B. (2011). Child marriage in the United States and its

- association with mental health in women. *Pediatrics*, 128(3), 524-530. DOI: [10.1542/peds.2011-0961](https://doi.org/10.1542/peds.2011-0961).
- Lee, D. and Lemieux, T. (2010). Regression Discontinuity Designs in Economics. *Journal of Economic Literature*, 48(2), 281-355).
- Lloyd, CB., Mensch, BS. (2008). Marriage and childbirth as factors in dropping out from school: an analysis of DHS data from sub-Saharan Africa. *Popul Stud (Camb)*, 62(1):1-13. doi: 10.1080/00324720701810840. PMID: 18278669.
- Malhotra, A., Amin, A., & Nanda, P. (2019). Catalyzing gender norm change for adolescent sexual and reproductive health: Investing in interventions for structural change. *Journal of Adolescent Health*, 64(4).
- Malhotra, A., Warner, A., McGonagle, A. and Lee-Rife, S. (2011). Solutions to End Child Marriage. What the evidence shows. Washington, DC: ICRW.
- Malhotra, A., Warner, A., McGonagle, A., & Lee-Rife, S. (2011). Solutions to End Child Marriage: What the Evidence Shows. Washington, DC: International Center for Research on Women (ICRW).
- McClendon, KA., McDougal, L., Ayyaluru, S., Belayneh, B., Sinha, A., Silverman, JG., Raj, A. (2018). Intersections of girl child marriage and family planning beliefs and use: qualitative findings from Ethiopia and India. *Culture, Health & Sexuality*. 20(7),799-814.
- Mekonnen, A., Berhanu, A., Tesama, D., Worku, B., , Juanola, L., & van der Kwaak, A. (2018). Yes I do. Ethiopia - Amhara Region. The situation of child marriage in Qewet and Bahir Dar Zurida: a focus on gender roles, parenting and young people's future perspectives. Addis Ababa: University of Addis Ababa and Royal Tropical Institute
- Murray, C., and Lopez, A. (1998). *Health Dimensions of Sex and Reproduction*. World Health Organization: Geneva, Switzerland.
- Nguyen M., and Wodon, Q. (2012). Measuring Child Marriage. *Economics Bulletin*, 32(1), 398-411.
- Nguyen, M., and Wodon Q. (2015). Global and Regional Trends in Child Marriage. *The Review of Faith & International Affairs*, 13(3), 6-11.
- Nguyen, M., and Wodon, Q. (2014). Impact of Child Marriage on Literacy and Education Attainment in Africa. Paper prepared for a task funded by the Global Partnership for Education. Global Partnership for Education.
- Nguyen, MC and Q Wodon (2012). Estimating the Impact of Child Marriage on Literacy and Education Attainment in Africa. mimeo, Washington, DC: The World Bank.
- Nour NM (2009). Child marriage: a silent health and human rights issue. *Rev Obstet Gynecol*, 2(1), 51-56.
- Oyortey, N., & Pobi, S. (2003). Early marriage and poverty: exploring links and key policy issues. *Gender & Development*, 11(2), 42-51.
- Odimegwu, C., and Mkwanaenzi, S. (2016). Factors associated with teen pregnancy in sub-Saharan Africa: a multi-country cross-sectional study. *Afr. J. Reprod. Health*.

- Parsons, J., Edmeades, J., Kes, A., Petroni, S., Sexton, M. & Wodon, Q. (2015). Economic impacts of child marriage: A review of the literature. *The Review of Faith & International Affairs*, 13(3), 12-22.
- Raj, A., Saggurti, N., Balaiah, D., Silverman, J. (2009). Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: A cross-sectional, observational study. *Lancet* 373(9678):1883-1889: Doi: 10.1016/S0140-6736(09)60246-4.
- Rasmussen, B., Maharaj, N., Sheehan, P., Friedman, HS. (2019). Evaluating the Employment Benefits of Education and Targeted Interventions to Reduce Child Marriage. *J Adolesc Health*. 65(1S),16-S24.
- Roest, J. (2016). Child Marriage and Early Child-bearing in India: Risk Factors and Policy Implications (Policy Paper No. 10). Oxford: Young Lives.
- Singh, S., and Samara, R. (1996). Early marriage among women in developing countries. *International Family Planning perspectives*, 22(4), 148-157.
- Tilsen, D., and Larson, U. (2000). Divorce in Ethiopia: The Impact of Early Marriage and Childlessness. *Journal of biosocial science*, 32(3), 355-372.
- UNICEF (2005). Early Marriage A Harmful Traditional Practice A Statistical Exploration. Retrieved from https://www.unicef.org/publications/index_26024.html
- UNICEF (2007). World Fit for Children target: End harmful traditional or customary Practices: https://www.unicef.org/progressforchildren/2007n6/index_41848.htm
- Vogelstein, R. (2013). Ending Child Marriage: How Elevating the Status of Girls Advances U.S. Foreign Policy Objectives. New York: Council on Foreign Relations.
- White, J., and Tong, K. (2017). UNFPA-UNICEF Global Programme to Accelerate Action to End Child Marriage Evaluability Assessment. UNICEF and UNFPA.
- Wooldridge, J.M. (2013). *Introductory econometrics: A modern approach (5th ed.)*. Mason, OH: South-Western, Cengage Learning.
- Yaya, S., Odusina, EK., and Bishwajit, G. (2019) Prevalence of child marriage and its impact on fertility outcomes in 34 sub-Saharan African countries. *BMC International Health and Human Rights* 19(1), 33.

Kamsahamnida!!!

Appendix

■ Impact of the Revised Family Code: evidence from first-phase

The Revised Family Code extended the minimum legal age of marriage to 18. There were time and geographic variations on the adoption of the RFC among the regional government of Ethiopia. The RFC was implemented in 3 phases. In the first phase (2000–2005), two federal city administrations and three regional governments adopted it: Addis Ababa and Dire Daw City administrations, and Amhara, Oromia, and Tigray regional governments (Group one). In the second phase (2005–2010), two new regional governments started the implementation: SNNP of Ethiopia and Gambela (group 2). Lastly, the remaining regional states adopted the policy in the third phase: Afar, Somali, Harari, and Benishangul Gumuz (Group 3). Table 1.8 shows the estimated impact of adopting the RFC for initial adopters of the policy (Group 1).

Table 1.8: Impact of the RFC adoption in first-phase (2000-2005)

Variables	Child Marriage(1 if married before 18)		Age at first marriage (Years)		Education Attainment (Years)	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Adoption of the RFC</i>	-.031 (.006)***	-.023 (.006)***	.134 (.046)***	.098 (.041)***	.050 (.035)	.069 (.026)***
<i>Urban Residence</i>		-.020 (.006)***		.439 (.041)***		1.313 (.052)***
<i>Employment Status</i>		-.001 (.003)		.022 (.023)		.227 (.015)***
<i>Media Exposure</i>		-.018 (.001)***		.105 (.010)***		.835 (.010)***
<i>Size of HH</i>		-.0001 (0.00001)***		.0006 (.00007)***		.00006 (.00004)
<i>Order of Birth</i>		.023 (.0006)***		-.455 (.006)***		-.043 (.002)***
<i>Constant</i>	.714 (.003)***	1.250 (.027)***	16.109 (.0258)***	8.968 (.203)***	.744 (.017)***	-.698 (.183)***
<i>Region fixed effect</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year fixed effect</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Individuals and households variables</i>	No	Yes	No	Yes	No	Yes
<i>Observation</i>	84,055	83,960	83,787	83,697	84,055	83,959
<i>R-Square</i>	0.07	0.08	0.02	0.21	0.08	0.49
Source: authors' estimation ***, **, * one, five and ten percent significance level, respectively						

The results in Table 1.8 are obtained using the DID estimation technique. As shown in Table 1.8, in Columns 1 and 2, the impacts of adoption of the RFC are negative and statistically significant at the one percent significance level for child marriage. Thus, the implementation of the RFC decreases the probability of child marriage by 0.03 for treated observations relative to controlled observations, *ceteris paribus*. In the second column, we controlled for different explanatory variables that could affect the outcome variables. Adoption of the RFC decreases the probability of child marriage by 0.02 for treated observations relative to controlled observations, *ceteris paribus*. In this model living in urban area, having work, exposure to mass media significantly decrease the probability of child marriage in Ethiopia.

Columns 3 and 4 of Table 1.8 show the impact of adopting the RFC on age at first marriage in Ethiopia. The estimates in column 3 present the impact of the program without other explanatory variables that could affect age at first marriage. Implementation of the RFC increases age at first marriage by 0.13 years for treated observations relative to controlled observations, *ceteris paribus*. The estimates in column 4 present the impact of adopting the program by controlling different exogenous explanatory variables that could affect age at first marriage. In this model adoption of the RFC significantly increased age at first marriage by 0.1 years for treated observations relative to controlled observations, *ceteris paribus*. In the same model living in urban areas, having work and exposure to mass media have positive and statistically significant impact on age at first marriage.

The last two columns present the impact of adopting the program on years of completed education. Column 5 presents the impact of adopting the program on years of education attainment without

controlling explanatory variables that could affect outcome variables. Adoption of the RFC increases years of education attainment by 0.05 years for treated observations relative to controlled observations, *ceteris paribus*. The last column presents the impact of adopting the RFC on years of education attainments by controlling different exogenous explanatory variables that could affect the outcome variable. Adoption of the RFC significantly increases years of education attainments by 0.07 years for the region adopted the program relative to the regions delayed implementation of the program, *ceteris paribus*. In this model living in urban areas, having work and exposure to mass media positively increase years of education attainments in Ethiopia.

■ Impact of the Revised Family Code: evidence from second-phase

After the federal government announced the implementation of the RFC in the year 2000, the timing and geographical variations in the adoption of the Code among the regional governments offered the opportunity to estimate the effect on educational attainment using the DID estimation approach. In Phase 2 (2005–2010), two regional governments implemented the program: SNNP of Ethiopia and Gambela. Thus, Table 1.9 shows the impact of the RFC adoption for groups that adopt the Code in the second phase (group 2).

Table 1.9: Impact of the RFC adoption in second-phase (2005–2011)

Variables	Child marriage (1 if married before 18)		Age at first marriage		Education Attainment in years	
	(1)	(2)	(3)	(4)	(5)	(6)
Adoption of the RFC	-.049*** (.017)	-.060*** (.020)	.110 (.153)	.238* (.138)	.294** (.149)	.388*** (.123)
Urban Residence		-.081*** (.007)		.469*** (.058)		1.376*** (.052)
Wealth index		.020*** (.002)		-.135*** (.017)		.127*** (.008)
Media Exposure		-.008*** (.003)		.062*** (.023)		.667*** (.034)
Head of the HH		.005 (.005)		-.070* (.040)		.174*** (.025)
Order of birth		.021*** (.0009)		-.202*** (.007)		-.031*** (.004)

Employment status		.022*** (.004)		-.114** (.051)		.293*** (.025)
Constant	.817*** (.003)	2.152*** (.039)	16.000 (.022)***	13.061*** (.167)	.737*** (.016)	.928*** (.071)
Region fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Individuals and households variables	No	Yes	No	Yes	No	Yes
Observation	42,091	42,091	42,038	42,038	42,091	42,091
R-square	0.02	0.09	0.02	0.13	0.02	0.38
Source: authors' estimation ***, **, * one, five and ten percent significance level, respectively						

In column 1 and 2 of Table 1.9, authors evaluate the impact of adopting the RFC on the probability of child marriage in second phase (2005-2011). The coefficient in column one presents the impact of adopting the RFC on the probability of child marriage without controlling different explanatory variable that could affect the outcome variable. Adopting the RFC decreases the probability of child marriage by 0.05 for treated observations relative to controlled observations, *ceteris paribus*. Second column presents the impact of adopting the RFC on the probability of child marriage by controlling different exogenous explanatory variables that could affect the outcome variable. Adopting the RFC significantly decreases the probability of child marriage by 0.06 for treated observations relative to controlled observations, *ceteris paribus*. In this model living in urban area, exposure to mass media and age significantly decrease the probability of child marriage in Ethiopia.

In Columns 3 and 4 of Table 1.9, authors present the impact of adopting Revised Family Code on age at first marriage. In column 3 the impact of adopting the RFC on age at first marriage are positive and statistically significant. The implementation of the RFC in those two regional governments increases the age at first marriage by 0.11 years for treated observations relative to controlled observations, *ceteris paribus*. Column 4 presents the impact of adopting the RFC on age at first marriage by controlling different explanatory variables that could affect the outcome variable. Adoption of the RFC significantly increases age at first marriage by 0.23 years for treated

observations relative to controlled observations, *ceteris paribus*. All the other covariates controlled in this model have the right sign and are statistically significant at one percent significance level.

Columns 5 and 6 show estimates of the treatment impact on the maximum years of education for observations from group two (2005–2010). In column 5 the coefficient of the treatment is positive and statistically significant at one percent significance level. Adoption of the RFC increases educational attainment for treated observations by 0.29 years relative to controlled observations, *ceteris paribus*. The last column presents the impact of adopting the RFC on maximum years of education attainment by controlling different exogenous explanatory variables that could affect the outcome variable. Adoption of the RFC significantly increases maximum years of education attainment by 0.4 years for treated observations relative to controlled observations, *ceteris paribus*. In in this model, all other covariates have the expected sign and are statistically significant at the one percent significance level.

Chapter 2

Evaluating the Long-run Impact of adopting Revised Family Code on Women's Life Outcomes

2.1. Introduction

2.1.1. Background

Currently, there are coordinated efforts by national and international development agencies to tackle the problem of early marriage. On Thursday 2 July, 2015 the United Nations Human Rights Council unanimously adopted a resolution co-sponsored by over 85 States to strengthen efforts to prevent and eliminate child, early and forced marriage, a practice that affects 15 million girls every year. The resolution is the first-ever substantive resolution on child marriage adopted by the Council. Various international development agencies and non-governmental organizations invested financial and non-financial resources into designing a mechanism to tackle the problem of early marriage across the world. Some of the mechanisms developed are: incentives for parents and adolescent girls to change their plan to marry and provide a new chance for further education and skill-building training.

Despite intervention works that were implemented by national and international development agencies, the practice of early marriage is still high. The report from UNFPA (2012) showed that 33 percent of women aged between 20 and 24 had already married before the legal age of marriage in developing countries. The literature reviewed by Jensen & Thornton (2003) and UNICEF (2001) concluded that early marriage disturbs human capital development through absence from school, inability to join the formal labor market, and health and psychological effects. In the marriage

model at equilibrium, the pervasiveness of early marriage will decline as many girls stay long without getting married. However, the majority of girls believe that the longer they stay before getting married their quality and desirability will decline, developing an incentive to accept marriage proposals as early as possible, which worsens the prevalence of early marriage in the nation.

In societies that have high early marriage occurrences, the low probability of getting formal work and low returns from working further discourage girls to join the labor market. This lower intensity of labor force participation significantly increases girls' poverty levels, susceptibility to economic shocks, decreases sources of income, and increases short-term investment rather than a long-term investment in human capital development. At a country level, this can affect the national health, decrease long-term investment, lower production and productivity which directly affect the macroeconomic stability of the nation. This negative impact has a long-run intergenerational effect which causes poorer health conditions and decreases the level of investment in education.

In most African countries, women face high level of discrimination in the labor market. The female labor market force participation rate is lower relative to males. Many African women have lower years of completed education relative to males (Efevbera et al, 2019). Child brides affect human capital development and labor market transition. In the same continent, only a few countries adopt mechanisms and strategies to control the high prevalence of early marriages (Efevbera *et al.*, 2019). In 2000, the Ethiopian government revised the 1960 family code and approved the RFC. The Revised Family Code pulled-up the minimum legal age for marriage from 15 to 18. Thus, this study aimed to evaluate the impact of adopting the RFC on women's long-run life outcomes.

2.1.2. Statement of the problem

Different scholars revealed that as number of women who work in paid jobs increases, the allocation of resources for food and clothing, human capital development significantly increases (Hoddinott & Haddad, 1995; Bussolo *et al.*, 2011, Backiny-Yeta & Wodon, 2010). Yetna & Wodon (2010), in their study, revealed that economic empowerment of women (work in paid jobs, asset ownership, and better wealth index) reduced the national poverty level and enhanced human capital development. Increasing the per-capita income of women enhances a long-term investment in human capital development. Furthermore, urbanization and women's participation in paid jobs enhances household saving and consumption.

Wodon *et al.*, (2009) revealed the factors that affect women's decision to allocate time and work in paid jobs. The first factor is how much is earned and who control income in the household. The amount of household earning directly determines whether women are encouraged to work in paid jobs or not. The second factor that determines the probability of women being hired in paid jobs is who is the head the household; and or whether they make key decisions in the household or not? If women are highly empowered in the household, the probability that they would join the paid labor force will increase. Thirdly poverty- women mostly work in unpaid housework for a long time and have few hours to work in paid jobs. The social position of women forces them to work less time in paid jobs and have lower bargaining power for the allocation of resources for household consumption and long-term investment.

Beaman *et al.* (2012) assessed how female leadership affects the years of completed education and probability of joining the labor force using Randomized Control Trial (RCT). In their RCT framework, they used village councils that reserved female leadership positions as a treated village and other villages that have not reserved female leadership positions as controlled villages. Their study found that in a village that reserved female leadership positions, the gender gap for having higher positions decreased by 25 percent in parents and 32 percent in adolescents compared to villages that have not reserved female leadership positions. These scholars also revealed that the number of years of completed education and the probability of women work in paid jobs significantly increased for villages that reserved female leadership positions relative to villages that do not reserve female leadership positions in their council.

World Bank & ICRW (2016) revealed that early marriage affects the probability of women participating in paid jobs directly through lack of an institution that could care for their offspring and indirectly through low educational attainment. The researchers concluded that early marriage negatively affects educational attainment, increases the level of fertility, decreases labor force participation, and forces children to face extreme poverty. Thus, early marriages increase poverty through increasing household consumption as a result of too many children competing for few resources. Early marriage negatively affects the macroeconomic growth of a nation through its impact on labor force participation and reduction of earnings. On the other hand, reducing the prevalence of early marriage enhances the economic growth rate and contributes to the effort of reducing poverty in most developing countries.

Kicks & Kicks (2013), using a longitudinal survey, examined the economic impact of early marriage in Western Kenya. These scholars, using age at first menarche as an instrument variable,

evaluated the impact of early marriage on different economic variables. Their study revealed that the age of marriage has a positive and statistically significant impact on maximum years of completed education and students' academic test scores. However, the study shows that the self-reported health and wellbeing of their respondents, the decision for migration, and ownership of assets, participation in politics, and attitudes and beliefs of their respondents are unaffected.

Duflo (2011) revealed that early marriage causes dropping out of school, separation from friends and colleagues that restrict social communication and social support which is essential for psychological well-being and limit their networks and social capital that could enhance their chances of earning and effective use of their earnings. Furthermore, early married girls lose their right to negotiate sexual activities, family planning use, birth spacing decisions, and they are unable to protect themselves from physical and emotional violence from their husbands and in-laws (Raj, 2010; UNFPA, 2013).

Wodon *et al.* (2015) revealed that girls exposed to early marriage lose their right to get better health and education and to decide about their future path of life. All girls that married before the legal age of marriage were immature and undereducated. They don't have the opportunity to generate income for themselves as well as for their households. Early marriages force the girl child to drop out of school and lack essential power to make their own decisions which directly restricts their access to school, and earnings (Malhotra *et al.*, 2011; Plan UK, 2011; Vogelstein, 2013).

Early marriage reduces the level of girls' educational attainment which directly affects women's labor market outcomes. This would increase their dependence on the household and decrease their bargaining power to make decisions. According to a report from Girls Not Brides (2017), by

controlling early marriage, countries could enhance earnings on average by 1 percent. Early marriage also has an indirect impact on the probability of women's labor force participation. On the other hand, it has a direct impact on fertility and the number of hours they can work. Frequent absence from work to care for children directly affects women's job selection, forcing them to join low-paying and uncomfortable working environments. The report further revealed that in Niger controlling the prevalence of early marriage in 2015 would boost 1.7 billion dollars additional welfare, 327 million dollars on the education budget, 34 million dollars on reduced infant mortality, and 8 million dollars from reduced child stunting. The report quantitatively points out the downside of early marriage on current earning and what would happen unless appropriate policy intervention is applied (Girls Not Brides, 2018).

According to the Ethiopian DHS (2016) data, about 40 percent of women aged 20-22 got married before the minimum legal age of marriage. The average age at marriage in the country is 16.5 years. Thus, early marriage is a major problem in Ethiopia. This study evaluates the impact of exogenous policy intervention to end child marriage on women's long-run life outcome.

2.1.3. Identified research gaps

The majority of the studies conducted to date mostly focused on identifying factors that force girls to marry early. What remains unexamined is an analysis of the impact of adopting RFC on the life outcomes using the estimation techniques that could exhaustively consider both geographic and time variations on the phase of adoption of the program. The study is unique in terms of exhaustively using all the regional variations in the implementation of the RFC in Ethiopia. The Code was immediately approved and implemented in three regional states (Tigray, Oromia, and Amhara) and two city administrations (Addis Ababa and Dire Dawa). The author categorized these

earlier adopters of the policy under Group one. After five years (2005), two regional governments (Gambela and South Nation, Nationalities and People of Ethiopia) adopted the program. These two regional governments are categorized under Group two. Lastly, after six years (2011) four regional governments (Afar, Somali, Benishangul, and Harari) adopted the policy. These four regional governments are categorized under Group three. The researcher also identifies four time periods depending on the year of marriage of our respondents: (pre-2000, 2001-2005, 2006-2011 and 2012-2016).

Thus, the author systematically designed special estimation techniques that could precisely evaluate the impact of the adoption of RFC by considering both geographic and time variations across the regional government of Ethiopia. To thoroughly consider both geographical and time variations on the phase of adoption of the program, the authors run generalized DID with multiple groups and time period estimation techniques.

This study is also unique in terms of analyzing the impact of adopting RFC on women's life outcomes using an exogenous variable that can solve the endogeneity problem (caused by reverse causality, measurement error, and or omitted variable problems). In this study, the researcher uses the exogenous variable as an instrumental variable to solve the endogeneity problem caused by reverse causality, omitted variables bias and measurement errors. The authors use instrument variable 'the treatment dummy' that shows whether the Revised Family Code was active for individual 'i', from group 'g' at time 't' when she got married.

2.1.4. Research questions of the study

Having this exogenous policy intervention, this study aims to answer the following 3 research questions:

- What is the impact of the adoption of the RFC on the long-run women's life outcomes?
- What is the impact of early marriage on the long-run women's life outcomes?
- What is the impact of age at marriage on the long-run women's life outcomes?

2.1.5. The hypothesis of the study

This study tests the following hypotheses:

- The adoption of RFC significantly increases the long-run women's life outcomes.
- The high prevalence of child marriage significantly decreases the long-run women's life outcomes.
- Increasing age at marriage significantly increase the long-run women's life outcomes.

2.1.6. Relevance and significance of the study

The study is unique in terms of providing real-time evidence for policy and decision-makers on the effectiveness and impact of implementation of RFC. Previous studies have given no attention to evaluate the impact of adopting RFC on women's life outcomes in Ethiopia. This study takes the lead to empirically evaluate the impact of the adoption of RFC on women's life outcomes using powerful estimation techniques that could exhaustively consider the existence of multiple groups and time periods. The findings of this study can serve as a springboard for Ethiopia's decision and policy-makers, in general, and Ethiopian women, in particular, by revealing the impact of the adoption of the RFC on women's life outcomes. It is the first to evaluate the impact of the adoption

of the RFC on the probability of categorizing women in the richer category of wealth index, work in a paid jobs, and asset ownership.

The outcomes of this research will contribute to the effective implementation and evaluation of the RFC. Like most developing countries, Ethiopia has a shortage of policy research that gives policy direction for policy-makers and implementers. To the researcher's knowledge, to date, no research has attempted to evaluate the impact of adopting the RFC on women's life outcomes using powerful estimation techniques that could exhaustively consider the existence of both geographic and time variation on the adoption of the program. The outcomes of this research can be the first policy direction for Ethiopian policy and decision-makers. The output of the study can be used as real-time evidence for policy and decision-makers of the country. Scholars, academics and researchers can benefit from this study as it can form the basis for and provide literature materials for future research. The findings of this study will add to the body of knowledge on the effectiveness of adopting the RFC.

2.2. Methods and Strategies of the Study

2.2.1. Source and type of data

The main source of data for the study is the Ethiopian DHS. So far, Ethiopia has published four DHS data sets (2000, 2005, 2011, and 2016). Thus, this study used all existing results of the DHS data. The author creates pooled cross-sectional across time using all available Ethiopia's DHS data.

Table 2.1: Type and source of data

No	Variables	Source of the data	Expected impact on dependent variables
1	Age of respondents (years)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
3	Age at marriage (Years)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
4	Female headed household dummy (1/0)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
5	Size of household (cont.)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
7	Household has electricity (1/0)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
9	Level of education attainment (Level)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
10	Maximum years of completed education (years)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
11	Religion dummy (set of dummy for religion)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
12	Urban (1/0)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
13	Wealth index (1/0)	DHS (2000, 2005, 2011 & 2016)	Dependent variable
14	Employment dummy (1/0)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
15	Early marriage (1/0)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
16	Work in paid job (1/0)	DHS (2000, 2005, 2011 & 2016)	Dependent variable
17	Exposure to the media (1 if exposed to media more than one per week)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
19	Asset ownership (1/0)	DHS (2000, 2005, 2011 & 2016)	Substantial direct impact
Source: Summarized by the author			

Table 2.1, shows type, source and the expected outcome of the major independent variables that controlled in Generalized DID with multiple groups and time periods and two stage least square regression.

2.2.2. Identification strategy

The RFC was approved in 2000 by revising the 1960 Ethiopian family code. According to the 1960 family code, the minimum legal age for marriage was 15 years. The RFC increased the minimum legal age for marriage to 18 years. Article 7 of the RFC articulates that “*neither a man nor a woman who has not attained the full age of eighteen years shall conclude a marriage*”.

2.2.3. Econometric model

2.2.3.1. Generalized DID with multiple groups and time periods

Ethiopia is a federal country that has ten regions: Tigray, Amhara, Afar, Oromia, Somali, SNNP of Ethiopia, Gambela, Benishangul-Gumuz, Sidama, and Harari and two city administrations (Addis Ababa and Dire Dawa). The Sidama regional state was established in 2019. Before 2019, Sidama regional state was part of the SNNP of Ethiopia. Thus, in this study, the author considers the Sidama regional state as part of the SNNP of Ethiopia.

After the federal government approved the RFC in 2000, there were geographic and time variations among the regional governments on the adoption of the program. These variations are used to create three groups and four time periods on the adoption of the program for the research designs. The RFC was immediately adopted by Tigray, Amhara, and Oromia regions and Addis Ababa and Dire Dawa City Administrations (*Gajigo and Hallward, 2005*). These immediate adopters of the policy are categorized under Group One. The other six regions delayed the adoption of the RFC. After 2005 two more regional states adopted the RFC (Gambela and SNNP of Ethiopia) and the

remaining 4 regions (Benishangul-Gumuz, Afar, Somali and Harari) were implementing the 1960 family code up until 2011 (*Hombrados, 2017*). These two regional states are categorized under Group two. Those four regional states that adopted the program from 2012 are categorized as the late adopters. Lastly, after 2012 those four left regional states adopted the program. The late adopters of the policy are categorized under Group three. Depending on the year of marriage of our respondents, the author identifies four time periods: pre-2000, 2001-2005, 2006-2011, and 2012-2016. The existence of geographic and time variations on the adoption of the RFC led the researcher to employ a generalized DID with multiple groups and time periods research design.

To evaluate the impact of adopting RFC on the long-run women's life outcome, the author runs the following Generalized DID with multiple groups and time periods regression. The long-run women's life outcomes are measured by three variables: probability of categorizing women in the richer category of wealth index, probability of asset ownership, and probability of work in paid jobs.

$$\begin{aligned}
& (women's\ life\ outcome)_{igt} \\
& = \beta_0 + \delta_1(treatmentdummy)_{igt} + \beta_1(urbandummy)_{igt} \\
& + \beta_2(dummy\ for\ exposure\ to\ media)_{igt} + \beta_3(set\ of\ religion\ dummy)_{igt} \\
& + \beta_4(partners\ education\ in\ years)_{igt} + \beta_5(family\ size)_{igt} \\
& + \beta_6(female\ headed\ hh)_{igt} + \beta_7(birth\ order\ dummy)_{igt} + \lambda_t + \alpha_g + \psi_g t \\
& + \varepsilon_{igt} \text{ --- (1)}
\end{aligned}$$

In the above equation long-run women's life outcomes are measured by probability of categorizing women in richer category of wealth index, probability of women asset ownership and probability

of women's work in paid jobs; $(\text{treatmentdmmmy})_{igt}$ is a dummy variable that shows whether RFC was active for woman 'i' from the group 'g' at time 't' when she got married; λ_t time periods dummies; α_g group dummies and ψ_{gt} group-specific linear time trend; $(\text{urbandummy})_{igt}$ is the dummy variable for an urban resident; $(\text{dummyformediaexposure})_{igt}$ denotes the frequency of per-week exposure to mass media; $(\text{familysize})_{igt}$ shows the number of family members and $(\text{femaleheadedhh})_{igt}$ shows the sex of head of household; $(\text{birthorderdummy})_{igt}$ denotes the order of birth of respondents; $(\text{partnerseducationyears})_{igt}$ denotes partners maximum years of completed education, and ε_{igt} is an error term for woman "i" from group 'g' at a time 't'. δ is the parameter of interest, which indicates the effect of the adoption of the RFC on the long-run women's life outcomes variables in Ethiopia.

One of the basic assumptions we need to test under generalized DID with multiple groups and time periods estimation techniques is whether the parallel trend assumption holds or not. To generate the pseudo treatment value, the author creates four pseudo time periods depending on the year of marriage of respondents: Pre-1985; 1985-1990; 1991-1995; 1996-1999. The author also assumes that group 1 adopted the policy in the time period 1985- 1990, group two adopted the policy in the time period 1991-1995, and group three adopted the policy in the time period 1996-1999. Thus, the author identifies the pseudo treatment dummy value that represents whether RFC was active for individual 'i' from group 'g' at time 't' when she got married. Thus, we conducted the placebo test to know whether our outcome variable had the same trend before the adoption of the Revised Family Code in Ethiopia or not. The result is presented in the next chapter.

2.2.3.2. Test of policy endogeneity

To isolate the impact of the adoption of the RFC from potential policy endogeneity problem, the author has to ensure absence of any differential change of time-varying regional-level variables for treated and controlled observations or change in similar fashion for both treated and controlled observations (Besley and Case, 2000). Controlling region fixed effects could not overcome suspected policy endogeneity problem. The timing of the adoption of the RFC may depend on factors before the adoption of program such as the extent of the prevalence of child marriage practice in the country and existence of gender disparity on the long-run women's life outcomes. If there were specific trends in long-run women's life outcomes that were correlated with the timing of adoption of the RFC across the regional government in Ethiopia, a generalized difference-in-differences could be problematic (Hahn and Yang, 2016). To test this, the author regresses $Post_{gt}$ (shows whether group 'g' adopt the RFC at time period 't') on one- and two-year lagged of long-run women's life outcomes (probability of work in paid jobs, probability of asset ownership and probability of women's wealth index).

$$\begin{aligned}(post)_{gt} = & \beta_0 + \beta_1(lagone\text{workpaidjobs})_{igt} + \beta_2(lagtwo\text{workpaidjobs})_{igt} \\ & + \beta_3(lagone\text{assetownership})_{igt} + \beta_4(lagtwo\text{assetownership})_{igt} \\ & + \beta_5(lagone\text{wealthindex})_{igt} + \beta_6(lagtwo\text{wealthindex})_{igt} + \varepsilon_{igt} - - - - \\ & - - - - - (2)\end{aligned}$$

Where, $(post)_{gt}$ represent for whether group 'g' adopt the RFC at time periods 't' or not; $(lagone\text{workpaidjobs})_{igt}$ represent for lag one year of probability of work in paid jobs; $(lagtwo\text{workinpaidjobs})_{igt}$ represent for lag two years of probability of work in paid jobs; $(lagone\text{assetownership})_{igt}$ represent for lag one year of probability of women asset ownership;

(lagtwoassetownership)_{igt} represent for lag two years of probability of women asset ownership;
(lagnewwealthindex)_{igt} represent for lag one year of women wealth index and
(lagtwowealthindex)_{igt} represent for lag two year of women wealth index.

Table 2.2: Test of policy endogeneity

Variables	Post _{gt}	Post _{gt}	Post _{gt}	Post _{gt}
First lag of probability of work in paid jobs	-.002 (.003)			-.003 (.003)
Second lag of probability of work in paid jobs	.001 (.002)			.001 (.002)
First lag of probability of asset ownership		.001 (.005)		.009 (.009)
Second lag of probability of asset ownership		-.005 (.006)		-.021 (.014)
First lag of probability of women wealth index			-.001 (.002)	-.002 (.003)
Second lag of probability of women wealth index			.002 (.002)	.004 (.003)
Observation	77,888	167,437	126,811	49,694
R-square	0.9453	0.9390	0.9184	0.9153
Source: Author's estimation *, ** and *** represent for 10%, 5% and 1% significance level, respectively				

Table 2.2, report test of policy endogeneity problem on adoption of the RFC across the regional government of Ethiopia. All the coefficients are close to zero and statistically insignificant. The author finds no significant impact of previous women's life outcomes on the time of adoption of the RFC across the regional government of Ethiopia. This result implies that policy endogeneity is not a huge concern in this study.

2.2.3.3. Two Stages Least Squares (2SLS) estimation methods

To identify the impact of early marriage on the long-run women's life outcomes, there is a need to design estimation techniques that could overcome the problem of endogeneity caused by reverse causality, omitted variables bias, and measurement errors. The coefficient obtained from Ordinary

Least Squares (OLS) could be biased because of the endogeneity problem caused by the above-listed factors (Heanue and O'donoghue, 2014). Using the 2SLS estimation techniques could help to overcome the endogeneity problem. The authors created the exogenous instrument variable 'the treatment dummy' that shows whether the Revised Family Code was active for individual 'i', from group 'g' at time 't' when she got married. The instrumental variable should fulfill both the exclusion restriction and instrument exogeneity conditions. The coefficient estimated using 2SLS approach successfully overcomes the endogeneity problem and is a true estimate of the causality between early marriage and long-run women's labor market outcomes (Card, 1999; Cawley & Meyerhoefer, 2012).

First stage regression equation:

$$\begin{aligned}
 (\widehat{chuldmarriedummy})_{igt} &= \gamma_0 + \gamma_1 treatmentdummy_{igt} + \gamma_3(urbandummy)_{igt} \\
 &+ \gamma_4(religiondummy)_{igt} + \gamma_5(workstatusdummy)_{igt} \\
 &+ \gamma_6(partnersyearsofeducation)_{igt} \\
 &+ \gamma_7(dummyformediaexposure)_{igt} + \gamma_8(familysize)_{igt} \\
 &+ \gamma_9(birthorder)_{igt} + \gamma_{10}(femaleheadedhh)_{igt} + \alpha_g + \lambda_t + \psi_{1g}t \\
 &+ v_{igt} - - - - - (3)
 \end{aligned}$$

Second Stage regression equation:

Where, $(treatmentdummy)_{igt}$ represent treated dummy that whether the RFC was active for individual ‘i’ from group ‘g’ at time ‘t’ when she got married; $(earlymarrieddummy)_{igt}$ is the dummy variable for early marriage; $(urbandummy)_{igt}$ is the dummy variable for an urban resident; $(workstatdummy)_{igt}$ is the respondents work status; $(partnersyearsofeducation)_{igt}$ is the partner’s education in years; $(dummyforexposuretomedialexp)_{igt}$ denotes the frequency of exposure to mass media per-week; $(famsize)_{igt}$ shows the number of family members and $(birthtorder)_{igt}$ shows the order of birth in the family; $(femaleheadedhh)_{igt}$ whether female is the head of the household or not; α_g represent for group dummies λ_t represent for time period dummies and $\psi_{1g}t$ group specific linear time trend.

2.3. Results and Discussion

This study evaluate the impact of adopting the RFC on women's life outcomes measured by the probability of categorizing under the richer category of wealth index, probability of women's asset ownership, and probability of women work in a paid jobs, and the author estimate the impact of early marriage on long-run women's life outcomes. To achieve these objectives, the author adopted Generalized DID with multiple groups and time periods and Two Stages Least Squares estimation techniques.

2.3.1. Summary statistics

Ethiopian DHS data were used to evaluate the impact of adoption of the RFC on early marriage and women's educational attainment. Pooled cross-section across time data set was built using all available Ethiopia DHS data. The study used around 170,000 observations to evaluate the impact of adopting RFC. The following table presents summary statistics for the major variables used in the study which includes head of household, place of residence, religion of the respondents, wealth index of the respondents, work status of the respondents, age at marriage of the respondents, dummy for early marriage, number of household members, women's years of completed education, frequency of exposure to mass-media and partner's education in years. In this study, the life outcomes are measured by the probability of categorizing women in the richer category of the wealth index, the probability of women work in paid jobs and the probability of women's asset ownership.

Table 2.3: Summary statistics

Variables	Summary for major data file			Summary for treated observations		Summary for controlled observations	
	Observation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
<i>Place of residence (1 if urban)</i>	170,987	.178	.382	.234	.424	.171	.377
Religion dummy							
<i>Orthodox</i>	65,958	.386	.487	.381	.485	.381	.486
<i>Catholic</i>	1,518	.009	.094	.006	.079	.010	.099
<i>Muslim</i>	71,396	.418	.493	.426	.494	.414	.492
<i>Protestant</i>	27,933	.163	.370	.009	.093	.010	.099
<i>Traditional</i>	2,890	.017	.129	.016	.124	.020	.138
<i>Other</i>	461	.003	.052	.005	.067	.002	.045
<i>Wealth index</i>	126,813	.528	.499	.571	.495	.521	.500
<i>Employment status</i>	170,891	.387	.487	.453	.498	.362	.480
<i>Female headed household</i>	170,987	.219	.413	.218	.413	.220	.414
<i>Age at marriage (Years)</i>	170,401	15.962	3.484	18.108	4.262	15.708	3.288
<i>Number of family members</i>	170,987	6.398	2.354	5.410	2.174	6.515	2.346
<i>Education (in Years)</i>	170,987	1.161	2.863	2.688	4.104	.981	2.621
<i>Early marriage (1/0)</i>	170,987	.726	.446	.524	.499	.750	.432
<i>Media exposure (1/0)</i>	170,778	.164	.370	.261	.439	.153	.359
<i>Group one dummy</i>	170,987	.506	.500	.279	.448	.721	.448
<i>Group two dummy</i>	170,987	.205	.404	.249	.432	.751	.432
<i>Group three dummy</i>	170,987	.269	.443	.265	.442	.734	.442
<i>Partner's education (Years)</i>	165,998	3.266	10.175	4.843	9.426	3.083	10.242
<i>Work in Paid Job</i>	85,218	.633	.482	.680	.466	.614	.487
<i>Asset Ownership</i>	168,238	.011	.105	.021	.142	.010	.100
<i>Modern contraceptive usage</i>	170,987	.156	.363	.299	.457	.139	.346
Source: Authors' estimation							

Table 2.3 shows that, the average age at marriage is 15.96 in Ethiopia. Similarly the average age at marriage is 18.11 for treated observations and 15.71 for untreated observations. These results have shown that all over the country, the average age at marriage is below the minimum legal age of marriage. The dummy variable for early marriage measures the tendency of early marriages in Ethiopia. In this study more than 72 percent of the observations married before the legal age of marriage. For the whole observations in the study, the average maximum year of completed education is 1.16 years. This number is 2.68 years in treated observations and 0.98 years for controlled observations in Ethiopia. In the study, 79 percent of the observations have zero years of formal educations.

One of the major explanatory variables controlled in the study is the sex of the head of the household. Out of the total observations, 78 percent are male-headed households. The summary statistics shows that 78.2 percent of treated and 78 percent of controlled observations are male-headed households. Out of the observations, 17.8 percent live in urban areas whereas 82.2 percent of them live in rural areas. The majority of treated observations are Muslims (42.6 %) and Orthodox Christianity (38.1%). In this study, treated observations are richer (53.4%) than controlled observations. The majority of controlled respondents married before the legal age of marriage, 75.04 percent controlled observations relative to 52.4 percent for treated observations. On the other hand, few numbers of controlled observations follow media, 15.3 percent for controlled observations compared to 26.1 percent for treated observations. The results in summary statistics also show that the maximum year of completed education is higher for treated observations (2.69 years) compared to controlled observations (0.98 years). The majority of treated observations work in a paid jobs (68 percent) compared to observations in controlled categories (61 percent). The summary statistics revealed that the majority of observations in the treated category have assets (2.06 percent) compared to observations in controlled categories (1.01 percent).

2.3.2. Long-run impact of adopting the RFC on women's life outcomes

2.3.2.1. The long-run impact adopting the RFC using full samples

Once the federal government approved the RFC in 2000, three regions and two city administrations immediately adopted the program (Amhara, Tigray, and Oromia, Addis Ababa, and Dire Dawa). These regional governments are categorized under the first group. In the second phase (2006-2011), two regional governments started implementing of the RFC: SNNP of Ethiopia and Gambela.

These regional governments are categorized under group two. The remaining regions: Somali, Afar, Benishangul, and Harari adopted the program in the third phase (2012-2016) and are categorized under third group. The following table shows the impact of adopting RFC on women life outcomes measure: the probability of women's work in a paid jobs, the probability of women's asset ownership, and the probability of categorizing women in the richer wealth index.

Table 2.4: The long-run impact of adopting the RFC using full samples

<i>Variables</i>	<i>Work on paid Jobs (1/0)</i>		<i>Asset ownership(1/0)</i>		<i>Wealth index (1/0)</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Group-time ATET (1/0)</i>	.072*** (.016)	.019** (.009)	.003** (.001)	.002* (.001)	.057*** (.005)	.019*** (.004)
<i>Urban residence (1/0)</i>		.166 *** (.004)		.014*** (.001)		.673*** (.009)
<i>Media exposure (1/0)</i>		.012*** (.003)		.012*** (.001)		.102*** (.003)
<i>Dummy for time periods 2006-2011</i>	.293*** (.019)	.170*** (.009)	.001 (.002)	-.002** (.0008)	.027*** (.007)	.025** (.011)
<i>Dummy for time periods 2012-2016</i>	.177*** (.031)	.137*** (.011)	.009*** (.003)	.009*** (.001)	.086*** (.011)	.114*** (.021)
<i>Dummy for group two</i>	-.081*** (.026)	-.108*** (.015)	-.003 (.002)	-.002 (.002)	---	.022* (.012)
<i>Dummy for group three</i>	.098*** (.020)	.070*** (.011)	-.003 (.002)	-.003 (.002)	-.120*** (.023)	---
<i>Constant</i>	2.369*** (6.001)	.032*** (.010)	.150 (.558)	.882** (.353)	.405*** (.007)	5.362*** (.416)
<i>Group specific linear time trend</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Individual and household variables</i>	No	Yes	No	Yes	No	Yes
<i>Observations</i>	85,218	85,131	168,238	163,097	126,813	101,545
<i>R-square</i>	0.19	0.73	0.04	0.07	0.15	0.37
<i>Source: Author's estimation</i>						
<i>*, ** and *** represent for 10%, 5% and 1% significance level, respectively</i>						

Table 2.4, columns 1 and 2 report the impact of adoption of the RFC on the probability of women work in paid jobs. Table 2.4 first column, reports the coefficients from Generalized Difference-in-Difference with multiple groups and time periods. Adoption of the RFC increases the probability

of women work in a paid jobs by 0.07 for the treated regions relative to controlled regions, *ceteris paribus*. The second model estimates the impact of adopting RFC using Generalized DID with the multiple groups and time periods by controlling different explanatory variables that affect the outcomes variable. Adopting RFC significantly increases the probability of women work in paid jobs by 0.02 for treated observations relative to controlled observations, *ceteris paribus*. The probability of being hired in paid jobs increases by 0.17 for the urban residents relative to rural residents in this study, *ceteris paribus*. As the frequency of exposure to the media increases by one, the probability of women work in paid jobs increase by 0.01, *ceteris paribus*.

In table 2.4, columns 3 and 4 show the impact of implementation of the RFC on the women's asset ownership. Thus, the adoption of RFC increases the probability of asset ownership by 0.003 for treated observations relative to controlled observations, *ceteris paribus*. Model two evaluates the impact of adopting the RFC by controlling different explanatory variables that could affect the outcome variables. Adopting the RFC significantly increases the probability of women's asset ownership by 0.002 for treated observations relative to controlled observations, *ceteris paribus*. The probability of owning assets increases by 0.01 for the women who live in an urban areas relative to women who live in a rural areas, *ceteris paribus*. In the model, the wealth index and the highest years of completed education significantly increase the probability of women's asset ownership.

Table 2.4 columns 5 and 6 show the impact of implementation of the RFC on the probability of categorizing women in the richer category of wealth index. Under this category model one evaluates the impact of adopting the program on the probability of categorizing women under the richer category of wealth index without controlling other explanatory variables that could affect

the outcome variable. Adoption of the RFC significantly increases the probability of categorizing women under the richer category of wealth index by 0.06 for treated observations relative to controlled observations, *ceteris paribus*. Model two evaluates the impact of adopting RFC by controlling different explanatory variables that could affect outcome variables. Adopting the RFC significantly increases the probability of categorizing women under the richer category of wealth index by 0.02 for treated observations relative to controlled observations, *ceteris paribus*. In the same model, the probability of categorizing women under the richer category of wealth index increases by 0.67 for urban residents relative to rural residents assuming all other variables in the model are constant.

Generally, the results from the above table show that the implementation of the RFC significantly increases the probability of women work in paid jobs, probability of asset ownership, and probability of categorizing women under the richer category of wealth index. The finding of this study supports the conclusion reached by different scholars in different countries. ElNagar *et al.* (2017) revealed that girls who marry before the legal age of marriage are disadvantaged due to the lack of different socio-economic opportunities including the opportunity to join the formal labor force to earn sufficient income for their basic needs. Scholars argued that in countries with high early marriage occurrences, there is either ineffective implementation or absence of laws and regulations that could protect children from early marriage (Mathur *et al.*, 2003; Myers, 2013; Backlund & Blomqvist, 2014).

Many developing countries have policies and strategies to protect girls from early marriage. Putting it down in black and white, however, cannot practically overcome the problem of early marriage. There is a problem with effective implementation and evaluation (ICRW, 2011; Myer,

2013). Since the early 1990's, India set 18 years as the minimum legal age of marriage (UNICEF, 2015). In Nigeria, the adoption of the minimum legal age for marriage has no implications on early marriage (Toyo, 2006). Approving and adopting the appropriate legal age for marriage is necessary, but insufficient without effective enforcement. The policy and decision-makers should intensify efforts towards the effective enforcement of laws and regulations that can prohibit early marriage (Malhotra *et al.*, 2011). Nour (2009) revealed that lack of basic needs, opportunities for education and formal employment are the causes and consequences of early marriage in many developing countries. The report from UNICEF (2016) shows that women from poor households are more probable to marry before the legal age of marriage relative to women from rich families. In developing countries, the percentage will increase to more than fifty percent. The report from World Bank (2011) also confirmed that girls from rich families marry later than girls from poor and uneducated families. The finding of this study contribute to these literatures through reflecting the effectiveness of adopting the RFC for improving women's long-run life outcome.

2.3.2.2. The long-run impact of adopting the RFC using restricted sample

In this study, treated observations identified whether the RFC was active for individual 'i' from group 'g' at time 't' when she got married. In our sample, to check the sensitivity of our results for older respondents that could attend higher education level and marry at a later age, the author run sensitivity checks using observations that are older than 30 using latest/recent DHS data. In the same case, to check the sensitivity of our results for intra-regional migration, I run sensitivity checks using observations that lived in the place of the interview for more than 20 years. Table 2.5 below shows the regression results that check the sensitivity of our respondents with restricted samples.

Table 2.5: The long-run impact of adopting the RFC using restricted samples

Variables	Probability of work in paid jobs (1/0)		Probability of asset ownership (1/0)		Probability of women wealth index (1/0)	
	Sensitivity for marriage at later age	Sensitivity for migration	Sensitivity for marriage at later age	Sensitivity for migration	Sensitivity for marriage at later age	Sensitivity for migration
	(1)	(2)	(3)	(4)	(5)	(6)
Group-time ATET (1/0)	.025* (.015)	.023* (.014)	.006* (.004)	.003** (.001)	.018*** (.002)	.019*** (.001)
<i>Urban residence (1/0)</i>	.006*** (.0004)	.140*** (.026)	.016*** (.003)	.024*** (.008)	.071*** (.007)	.030*** (.003)
<i>Media exposure (1/0)</i>	.002*** (.0003)	.001 (.007)	.021*** (.003)	.002*** (.002)	.001*** (.0001)	.011*** (.002)
<i>Education attainment (years)</i>	.002*** (.0002)	.0007*** (.0001)	.0005 (.001)	.0007 (.00009)	.002*** (.0002)	.006*** (.0006)
<i>Dummy for time period 2006-2011)</i>	.018* (.010)	.008 (.019)	.018*** (.006)	-.004 (.005)	-.030 (.022)	-.010*** (.002)
<i>Dummy for time period 2012-2016)</i>	.213*** (.013)	---	.0135*** (.005)	-.003 (.014)	.213** (.087)	.260*** (.014)
<i>Dummy for group two</i>	-.078** (.035)	124.130*** (15.638)	.0181*** (.006)	-.006 (.002)	-.005 (.009)	.004*** (.001)
<i>Dummy for group three</i>	-.014 (.024)	-53.665*** (7.586)	.0135*** (.005)	2.984* (1.653)	.010 (.008)	.009*** (.005)
<i>Constant</i>	.329*** (.017)	-25.56*** (1.665)	-.002 (.040)	-.038 (.043)	-.158*** (.016)	-.090 (.018)
<i>Group specific linear time trend</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Individual and household variables</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	12,688	46,115	31,005	91,292	27,524	60,056
<i>R-square</i>	0.11	0.22	0.07	0.09	0.50	0.43
Source: Author's estimation *, ** and *** represent for 10%, 5% and 1% significance level, respectively						

Table 2.5 above shows the impact of implementation of the RFC on women's long run life outcomes using restricted samples. Column 1 and 2 show the impact of implementation of the RFC on women's probability of work in paid jobs using restricted samples. In column 1, the author used observations that are older than 30 years from recent DHS data and in column 2 used observations who lived in the place of interview for more than 20 years. In both columns the impact of

intervention on women's life outcome is consistent with unrestricted samples. Column 3 and 4, shows the impact of implementation of the RFC on the probability of women's asset ownership in Ethiopia. In column 3 our observations restricted to respondents that are older than 30 from the recent DHS data and in column 4 restricted to respondents that lived in the place of residence for more than 20 years. In both columns the impact of adoption of the RFC are consistent with unrestricted samples. Column 5 and 6 show the impact of adoption of the RFC on the probability of categorizing women in the richer category of wealth index using a restricted sample. Column 5 reports impact of the RFC implementation on probability of categorizing women in the richer category of wealth index using observations who are older than 30 from recent Ethiopia DHS data and column 6 reports using observations who lived in the place of interview for more than 20 years. In both columns the impact of adopting the RFC is consistent with the unrestricted sample.

2.3.2.3. Falsification test

One of the basic assumptions we need to test under generalized DID with multiple groups and time periods estimation techniques is whether the parallel trend assumption holds or not. The coefficients from the following table justify the parallel trend assumption using pre-adoption of the Revised Family Code data. To generate the pseudo treatment value, the author creates four pseudo time periods depending on the year of marriage of respondents: Pre-1985, 1985-1990; 1991-1995 and 1996-1999. The author also assumes that group 1 adopted the policy in the time period 1985- 1990, group two adopted the policy in the time period 1991-1995, and group three adopted the policy in the time period 1996-1999. Thus, the author identifies the pseudo treatment dummy value that represents whether the RFC was active for individual 'i' from group 'g' at time

‘t’ when she got married. Thus, we conducted the placebo test to know whether our outcome variable had the same trend before the adoption of the Revised Family Code in Ethiopia or not.

Table 2.6: Falsification test

Variables	<i>Work on paid Jobs (1/0)</i>		<i>Asset ownership (1/0)</i>		<i>Wealth index (1/0)</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
Pseudo group-time ATET (1/0)	-.147 (.100)	-.129 (.096)	.007 (.013)	.006 (.012)	-.007 (.046)	-.027 (.034)
Urban residence (1/0)		(.130)** (.044)		.023*** (.003)		.453*** (.044)
Media exposure (1/0)		.038** (.016)		.019*** (.004)		.197*** (.021)
Female headed household (1/0)		.068** (.027)		-.009** (.004)		-.049*** (.016)
Constant	-22.174*** (.288)	-19.0*** (.960)	-.838*** (.091)	-.259** (.113)	-16.2*** (.482)	-5.962*** (.901)
Dummies for groups	Yes	Yes	Yes	Yes	Yes	Yes
Dummies for time periods	Yes	Yes	Yes	Yes	Yes	Yes
Groups specific linear time trend	Yes	Yes	Yes	Yes	Yes	Yes
Individual and household variables	Yes	Yes	Yes	Yes	Yes	Yes
Observation	61,101	61,025	122,141	121,953	103,891	103,757
R-square	0.17	0.19	0.05	0.05	0.15	0.28
Source: authors' estimation						
***, **, * one, five and ten percent significance level, respectively						

Table 2.6 shows the placebo test value of the impact of the RFC adoption on different outcome variables before adoption of the Revised Family Code. Column 1 and 2 shows the placebo impact of adopting the Revised Family Code on the probability of work on paid jobs. The coefficient on pseudo treatment shows the insignificant placebo test value of the impact of adopting the program on the probability of work on paid jobs for Ethiopia women. Column 3 and 4 show the placebo test value of impact of adopting the Revised Family Code on probability of asset ownership. The coefficient on pseudo treatment shows a statistically insignificant placebo test value of the impact of adoption of the Revised Family Code on asset ownership before the implementation of the

program. The last two columns show the placebo impact of adopting the program on the probability of categorizing women under the richer category of wealth index. The coefficient on pseudo treatment shows insignificant placebo test value of the impact of adopting the Revised Family Code on the maximum years of completed education before the implementation of the program. Thus, the above finding shows fulfillment of the parallel trend assumption in this study.

2.3.3. Impact of child marriage on the long-run women's life outcomes

2.3.3.1. Relevance and exclusion restriction conditions

Table 2.7 shows the first-stage regression result for 2SLS estimation techniques which examine the fulfillment of the instruments' relevance requirement. To successfully overcome endogeneity problem caused by reverse causality, measurement error, and omitted variable bias, the instrument variable should fulfill the relevance and exclusion restriction requirements.

Table 2.7: First-stage regression

Variables	Child marriage(1 if married before 18)	Age at marriage (Years)
	(1)	(2)
<i>Exogenous instruments (IV) (1/0)</i>	-.074*** (.009)	.165*** (.033)
<i>Urban Residence (1/0)</i>	-.024*** (.004)	.034** (.014)
<i>Media Exposure (1/0)</i>	-.025*** (.003)	.050*** (.013)
<i>Size of HH</i>	.006*** (.0005)	-.006*** (.002)
<i>Dummy for time period 2006-2011</i>	-.051*** (.005)	.062*** (.018)
<i>Dummy for time period 201-2016</i>	-.028*** (.004)	.165*** (.021)
<i>Dummy for second group</i>	.147*** (.014)	-.346*** (.051)
<i>Dummy for third groups</i>	.104***	-.167***

	(.011)	(.040)
<i>Constant</i>	28.660*** (1.533)	-40.153*** (6.784)
<i>Individual and household variables</i>	Yes	Yes
<i>Group specific linear time trend</i>	yes	Yes
<i>Observation</i>	170,682	148,148
<i>R-Square</i>	0.07	0.82
<i>F-statistics</i>	65.78	24.77
<p style="text-align: center;"><i>Source: Author's estimation</i> ***, **, * one, five, and ten percent significance level, respectively</p>		

Table 2.7 shows that implementation of the RFC significantly increases the age at marriage and decreases the probability of early marriage in Ethiopia. These regressions measure the degree of the relevance of the preferred instrumental variable. The identified instrumental variable is the treatment dummy variable that shows whether the RFC was active for individual ‘i’ from group ‘g’ at time ‘t’ when she got married. The f-statistics value reported in the table is greater than the rule of thumb (10) for strong instrument variable. The result proves existence of strong relationship between the instrumental variable and endogenous variable (the age at marriage and early marriage) in the study.

The second requirement to have a good instrumental variable is exclusion restriction. According to this condition, the identified IV should not have any correlation with the covariates left in the error terms as well as other independent variables controlled in the model. Our IV is completely unrelated with our outcome variables, and all other exogenous variables controlled in the model. Furthermore, this instrument has no correlation with the covariates left in the error term. Thus, the exclusion restriction requirement of our IV is satisfied.

2.3.3.2. Impact of early marriage on probability of women wealth index

Table 2.8 presents the estimated impact of age at marriage and prevalence of early marriage on the probability of categorizing women under the richer category of wealth index. The wealth index is a binary variable that measures the probability of categorizing women under the richer category of the wealth index.

Table 2.8: Impact of child marriage on probability of women wealth index

Variables	Probability of categorizing under richer category of wealth index (1/0)			
	Pooled OLS	2SLS	Pooled OLS	2SLS
	(1)	(2)	(3)	(4)
Age at marriage			.006*** (.0005)	.071*** (.007)
Child Marriage (1/0)	.028*** (.003)	-.211*** (.019)		
Urban (1/0)	.366*** (.003)	.007 (.019)	.219*** (.016)	.021 (.020)
Media exposure (1/0)	.204*** (.003)	.102*** (.003)	.169*** (.003)	.095*** (.003)
Education in years	.051*** (.001)	.020*** (.0008)	.037*** (.001)	.0159*** (.0009)
Education in years square	-.003*** (.00007)	-.001*** (.00006)	.037*** (.001)	-.001*** (.00007)
Constant	.309*** (.024)	25.404*** (1.492)	18.549*** (.590)	27.957*** (1.699)
Dummies for groups	Yes	Yes	Yes	Yes
Dummies for time periods	yes	yes	Yes	Yes
Group specific linear time trend fixed effect	Yes	No	Yes	No
Individual and Household variables	Yes	Yes	Yes	Yes
Observations	126,573	126,573	121,781	121,781
R-squared	0.21	0.63	0.26	0.61
Source: Author's estimation ***, **, * one, five and ten percent significance level, respectively				

In columns 1 and 2 of Table 2.8, the author presents the impact of early marriage on the probability of categorizing women under the richer category of wealth index. The coefficient from 2SLS shows that as the number of respondents that married before the legal age of marriage increases by one, the probability of categorizing women under the richer category of wealth index will decrease by 0.21, *ceteris paribus*. As the frequency of per-week exposure to media increases by one, the probability of categorizing under the richer category of wealth index increases by 0.10. As maximum years of completed education increases by one year, the probability of categorizing under the richer category of wealth index will increase by 0.02, *ceteris paribus*. All the covariates controlled in the model have the expected sign and significance level.

Column 3 and 4 in Table 2.8, presents the impact of age at marriage on the probability of categorizing women under the richer category of wealth index. The coefficient from 2SLS shows that as age at marriage increase by one year, the probability of categorizing women under the richer category of wealth index will increase by 0.07 assuming that all other covariates in the model stay constant. As the frequency of per-week exposure to the media increases by one, the probability of categorizing under the richer category of wealth index will increase by 0.09, *ceteris paribus*. The maximum years of completed education substantial increases the outcome variable. As the maximum year of completed education increase by one year, the probability of categorizing women under the richer category of wealth index increases by 0.02, *ceteris paribus*. All other covariates controlled in the model have the expected sign and significance level.

Generally, the above results evaluate the impact of early marriage on probability of categorizing women under the richer category of wealth index. The entire coefficients have the anticipated sign and significance value. These results are in-line with the findings of different researchers who

made the same conclusion in different countries (see Erulkar *et al.*, 2010; Vogelstein, 2013; Palamuleni, 2011). Erulkar *et al.* (2010) identified the consequences of early marriage from restricting a girl child's decision-making abilities to join the labor market and earn income to support a family. Early marriage significantly reduces women's empowerment, wealth index, labor market participation, and the probability of earning better income (Vogelstein, 2013; Rogers, 2012). Edin & Kefalas (2005) and Work & Wilson (1987) revealed that as the age at marriage increases the ability of young people of satisfying commonly needed economic standards of marriageability will increase. Palamuleni (2011) showed that the high prevalence of early marriage decreases the economic status of women in Malawi.

On the other hand, the finding of this study opposes the conclusion reached by different researchers who argued for early marriage (see Boyden *et al.*, 2012; Schneide, 2011; Jones *et al.*, 2014). They argued that early marriage enhances the economic freedom of girls' families. In the current globalized world, with high economic uncertainty, poor families encourage early marriage to have a connection with rich families (Boyden *et al.*, 2012; Lindstrom *et al.*, 2009; Nayak, 2013). Many parents from poor households believe that early marriage enhances the future of their daughters (Pankhurst, 2014). Jones *et al.* (2014) also confirmed that many poor families believe early marriage has many economic benefits both for the girl child and themselves. Schneide (2011), using National Longitudinal Survey on Youth 1979, revealed that households categorized under the lower category of wealth index forced girls to marry before the legal age of marriage.

2.3.3.3. Impact of early marriage on probability of women asset ownership

Table 2.9 presents the estimated impact of early marriage on the probability of women's asset ownership. Asset ownership is a dummy variable that show whether our respondents have basic assets or not.

Table 2.9: Impact on the probability of women's asset ownership

Variables	Probability of women's asset ownership (1/0)			
	Pooled OLS	2SLS	Pooled OLS	2SLS
	(1)	(2)	(3)	(4)
Age at marriage			.0002*** (.00009)	.007*** (.003)
Child Marriage (1/0)	-.00008 (.0006)	-.031*** (.018)		
Urban residence (1/0)	.023*** (.001)	.022*** (.001)	.023*** (.001)	.020*** (.002)
Exposure to Media (1/0)	.0126*** (.001)	.013*** (.001)	.013*** (.001)	.015*** (.001)
Female headed HH (1/0)	-.004*** (.0007)	-.004*** (.0007)	-.003*** (.0007)	-.004*** (.002)
Education in years	-.003*** (.0005)	-.003*** (.0007)	-.003*** (.0005)	-.003*** (.0006)
Education in years square	.0008*** (.00006)	.0007*** (.00006)	.0008*** (.00006)	.0007*** (.00008)
Constant	.0193*** (.005)	.076*** (.022)	.017*** (.005)	-.050 (.032)
Dummies for groups	Yes	Yes	Yes	Yes
Dummies for time periods	Yes	Yes	yes	Yes
Group specific linear time trend fixed effect	Yes	No	Yes	No
Individual and household variables	Yes	Yes	Yes	Yes
Observations	168,029	168,029	167,455	167,455
R-squared	0.06	0.05	0.07	0.02
Source: Author's estimation ***, **, * one, five and ten percent significance level, respectively				

In column 1 and 2 of Table 2.9, the author presents the results of the impact of early marriage on the probability of women's asset ownership. The coefficient from 2SLS shows that as the number

of respondents that married before the legal age of marriage increase by one, the probability of women's asset ownership will decrease by 0.03, *ceteris paribus*. On average, the probability of women's asset ownership will increase by 0.02 for urban residents relative to rural residents assuming that all other covariates in the model stay constant. As the frequency of exposure to media increases, the probability of women's asset ownership will increase by 0.01, *ceteris paribus*. All other covariates controlled in the model have the expected sign and significance level.

Column 3 and 4 in Table 2.9, presents the results of the impact of age at marriage on the probability of women's asset ownership. The coefficient from 2SLS shows that as age at marriage increase by one year, the probability of women's asset ownership increases by 0.007, assuming that all other covariates in the model stay constant. On average the probability of women's asset ownership increases by 0.02, for urban residents relative to rural residents, *ceteris paribus*. The findings of the study show that as the frequency of per-week exposure to the media increase by one, the probability of women's asset ownership increases by 0.02, assuming that all other covariates stay constant in the model. All other covariates controlled in the model have the expected sign and significance level.

Generally, Table 2.9 presents the estimated coefficient of the impact of early marriage and age at marriage on the probability of women's asset ownership. The study confirms that early marriage decreases and age at marriage increases, the probability of women's asset ownership. This conclusion is in-line with the conclusion reached by different scholars in different countries (see Edmeades *et al.*, 2015; McCleary *et al.*, 2015; El Nagar *et al.*, 2017; Gibson *et al.*, 2005). Edmeades *et al.* (2015) showed that high prevalence of early marriage exposes girls to limited

access to have appropriate knowledge and skills needed to join the labor market and earn sufficient income for consumption and saving. The high prevalence of early marriage negatively affects the labor force participation opportunity of girl child, directly through lack of agency, indirectly through the lower level of educational attainment, and a high number of births (McCleary *et al.*, 2015).

Others concluded that as age at marriage increases, the probability of having enough money in the bank, buying own car and home and other necessities will increase (Edin & Kefalas, 2005; Edin & Reed, 2005; Gibson *et al.*, 2005). In the globalized world, women are actively engaged in the labor force and contribute to the economic growth of most developing countries. As women's age at marriage increases, the probability of getting skilled jobs such as engineering, banking, medicine, and professorship increases (ElNagar *et al.*, 2017). El Nagar *et al.* revealed that girls married before the legal age of marriage were disadvantaged through lack of socio-economic opportunities such as good reproductive health, quality education, and the opportunity to join formal paying jobs and earn enough money for consumption and saving. These directly caused women not to have assets in their households.

2.3.3.4. Impact of early marriage on the Probability of work in paid jobs

Table 2.10 presents the estimated impact of early marriage on the probability of Ethiopian women work in paid jobs. A probability of work in paid jobs is measured by binary variable (1/0).

Table 2.10: Impact on the probability of women work in paid jobs

Variables	Probability of women work in paid jobs (1/0)			
	Pooled OLS	2SLS	Pooled OLS	2SLS
	(1)	(2)	(3)	(4)
Age at marriage			.0009** (.0004)	.080*** (.017)
Child marriage (1/0)	-.023*** (.004)	-.293*** (.023)		
Urban residence (1/0)	.218*** (.004)	.060*** (.013)	.208*** (.005)	.160*** (.008)
Media exposure (1/0)	.024*** (.004)	.026*** (.005)	.028*** (.004)	.023*** (.006)
Education in years	.007*** (.001)	.002* (.001)	.008*** (.001)	.002 (.002)
Education in years Square	.0002* (.00009)	-.0001 (.0001)	.0002*** (.00009)	-.001*** (.0003)
Constant	.339*** (.033)	17.696*** (1.206)	.457*** (.036)	-.720*** (.209)
Dummies for groups	Yes	Yes	Yes	Yes
Dummies for time periods	Yes	Yes	Yes	Yes
Groups specific linear time trend fixed effect	Yes	No	Yes	No
Individual and Household variables	Yes	Yes	Yes	Yes
Observations	85,131	85,131	84,736	84,736
R-square	0.1	0.03	0.12	---
Source: Author's estimation ***, **, * one, five and ten percent significance level, respectively				

In columns 1 and 2 Table 2.10, the author presents the impact of child marriages on the probability of women work in paid jobs. The coefficient from 2SLS shows that as the probability of early marriage increase by one, the probability of women work in paid jobs decrease by 0.29, assuming that all other covariates in the model stay constant. On average, the probability of women work in paid jobs increase by 0.06, for urban residents relative to rural residents, assuming that all other covariates in the model stay constant. As the frequency of per-week exposure to media increase, the probability of women asset ownership increase by 0.03, *ceteris paribus*. As maximum years of completed education increase by one year, the probability of women work paid jobs increase by

0.002, *ceteris paribus*. All other covariates controlled in the model have the expected sign and significance level.

As presented in Table 2.10, the coefficient for age at marriage significantly increase the probability of women work in a paid jobs in both estimation techniques. Column 3 presents the coefficient from pooled OLS regression. As age at marriage increases by one year, the probability of getting a paid jobs increase by 0.0009, *ceteris paribus*. Column 4 shows the coefficient estimated by 2SLS estimation technique. As age at marriage increases by one year, the probability of women working in paid jobs increase by 0.08, *ceteris paribus*. The coefficient under 2SLS is greater than the pooled OLS coefficient. This implies that the OLS estimation technique underestimates the true value of the impact of age at marriage on the probability of working in a paid job because of reverse causality, omitted variables and measurement error problems.

In Table 2.10, living in urban areas significantly increase the probability of women working in a paid jobs in both estimation techniques. On average, the probability of women working in a paid jobs increased by 0.16 for women from urban areas relative to women from rural areas, *ceteris paribus*. The coefficient for frequencies of per-week exposure to media significantly increase the probability of women work in paid jobs in both estimation techniques. The coefficient for women as the head of the household also significantly increase the probability of women work in paid jobs in both estimation techniques presented in Table 2.10.

Generally, Table 2.10 presents the impact of early marriage and age at marriage on the probability of women work in paid jobs under 2SLS estimation techniques. The findings confirm negative impact of early marriage and positive impact of age at marriage on probability of women work in

paid jobs. These findings justify the conclusion of different researchers in different countries (see El Nagar *et al.*, 2017 and Nour, 2009). El Nagar *et al.* (2017) revealed that girls married before the legal age of marriage are disadvantaged through lack of socio-economic opportunities such as good reproductive health, quality education, and the opportunity to join formal paying jobs. Nour (2009) revealed that lack of basic needs, opportunities for education, and formal employment are the effect of early marriage in many developing countries. The high prevalence of early marriage takes away the opportunity of the girl child to join the formal labor force and limits their capacity to contribute to the national economy (Mathur *et al.*, 2003 and Mann *et al.*, 2015). As women's age at marriage increases, the probability of getting skilled jobs such as engineering, banking, medicine, and professorship increases (El Nagar *et al.*, 2017).

The high prevalence of early marriage negatively affects the labor force participation opportunity of girl child directly through lack of agency and indirectly through the lower level of educational attainment and a high number of births (McCleary- Sills *et al.*, 2015). Early marriage cause girl child not to join the formal labor force and earn income to support their families (DHS, 2011 and CSA & ICF International, 2012). The report from USAID (2012) showed that as age at marriage increases, the chance for the girl child to get an educational opportunity and demand for basic rights and participation in formal labor increases. Subramaniam (2008) argues that early marriage is discrimination against women to get social and economic benefits and takes away a girl child's opportunity to join the labor market. A report from ICRW (2000) confirms that the majority of girls who married before the legal age of marriage are highly engaged in housework or informal sectors. This affects their financial independence from their husbands.

2.4. Conclusion and Policy Implication

2.4.1. Conclusion

In societies that have a high prevalence of early marriage, the low probability of getting formal work and low return from working further discourage girls to join the labor market. This lower intensity of labor force participation significantly increases girls' poverty level, susceptibility to economic shocks, decreases sources of income, and increases short-term investment rather than long-term investment in human capital development. Various scholars conclude that as women work in a paid jobs, it significantly increases the allocation of resources for food, clothing and human capital development (Hoddinott & Haddad, 1995; Bussolo et al., 2011, Backiny-Yeta & Wodon, 2010). Yetna & Wodon (2010), in their study, revealed that as women participate in the labor market and get income, it significantly reduces the national poverty level and enhances human capital development. In Africa, only a few countries have adopted mechanisms and strategies to control the high prevalence of early marriages (Efevbera et al., 2019). To control high prevalence of child marriage, in 2000, the Ethiopian government revised the 1960's Family Code. This study aimed to evaluates the impact of adopting the RFC on long-run women's life outcomes.

Ethiopian DHS is the major source of data for this study. Currently, there have been four published DHS data sets in Ethiopia: 2000, 2005, 2011, and 2016. This study used all available DHS data to answer the basic research questions. Ethiopia is a federal country that has ten regions: Tigray, Amhara, Afar, Oromia, Somali, SNNP of Ethiopia, Gambela, Benishangul-Gumuz, Sidama and Harari regional governments and two city administrations (Addis Ababa and Dire Dawa city administrations). The Sidama regional state was established in 2019. Before 2019, the Sidama

regional government was categorized under South Nation, Nationalities and People of Ethiopia. Thus, in this study, the author considered Sidama regional state as part of SNNP of Ethiopia.

After the Federal government approved the RFC in 2000, there were geographic and time variations among the regional governments on adoption of the RFC. These variations help us to create multiple groups and times for our design. The RFC was immediately adopted by Tigray, Amhara and Oromia regional states and Addis Ababa and Dire Dawa City Administrations (*Gajigo & Hallward, 2005*). These immediate adopters of the policy are categorized under Group One in my design. After 2005, two more regional states adopted the RFC (Gambela and SNNP of Ethiopia) while the remaining four regions (Benishangul-Gumuz, Afar, Somali and Harari) were implementing the 1960 Family Code (*Hombrados, 2017*). Those two regional states that adopted the policy are categorized under Group Two. Lastly, after 2011 the outstanding four regional states adopted the program. The late adopters are categorized under Group Three. The study also has four time periods depending on the year of marriage of our respondents: pre-2000, 2001-2005, 2006-2011, and 2012-2016. The existence of geographic and time periods variations on the adoption of the RFC, led me to adopt a Generalized DID with Multiple Groups and Time Periods estimation technique.

To identify the impact of early marriage and age at marriage on long-run women's labor market outcomes, the researcher needed to design estimation techniques that could overcome the problem of endogeneity caused by reverse causality, omitted variable bias, and measurement error. The coefficient obtained from Ordinary Least Square (OLS) is biased because of the endogeneity problems (Heanue and O'donoghue, 2014). Using 2SLS estimation techniques would help us to overcome the endogeneity problem. The author created the exogenous instrument variable

treatment dummy which represent—whether the RFC was active for individual ‘i’ from group ‘g’ at time ‘t’ when she got married. Finally the study uses 170,000 observations to evaluate the impact of adopting the RFC on women’s life outcomes.

Adopting the RFC significantly increase the probability of women working in paid jobs by 0.02 for treated observations relative to controlled observations, *ceteris paribus*. The probability of being hired in paid jobs increase by 0.17 for the urban residents relative to rural residents, *ceteris paribus*. As frequency of per-week exposure to the media increases by one, the probability of women who work in paid jobs increase by 0.01, *ceteris paribus*.

Adopting RFC significantly increase the probability of women’s asset ownership by 0.002 for treated observations relative to controlled observations, *ceteris paribus*. The probability of owning assets increases by 0.01 for the women who live in urban areas relative to women who live in rural areas, *ceteris paribus*. In the model, wealth index and the highest years of completed education significantly increase probability of women’s asset ownership.

Adopting RFC significantly increase the probability of categorizing women under richer category of wealth index by 0.02 for treated observations relative to controlled observations, *ceteris paribus*. The probability of categorizing women under the richer category of wealth index increases by 0.67 for urban residents relative to rural residents assuming other variables in the model stay constant.

The findings of the study show that as the number of respondents that married before the legal age of marriage increase by one, the probability of categorizing under the richer category of wealth index will decreases by 0.21, *ceteris paribus*. On average, the probability of categorizing women

under richer category of wealth index increases by 0.007 for respondents from urban areas relative to respondents from the rural areas, *ceteris paribus*. As frequency of per-week exposure to media increases, the probability of categorizing women under the richer category of wealth index increases by 0.10. As maximum years of completed in education increases by one year, the probability of categorizing under the richer category of wealth index will increase by 0.02, *ceteris paribus*.

The finding of this study shows that as age at marriage increase by one year, the probability of categorizing women under the richer category of wealth index will increase by 0.07 assuming that all other covariates in the model stay constant. On average, the probability of categorizing women under richer category of wealth index increases by 0.02 for respondents from urban area relative to respondents from rural area of the country, *ceteris paribus*. As the frequency of per-week exposure to the media increase by one, the probability of categorizing under the richer category of wealth index will increase by 0.10, *ceteris paribus*.

The finding of this study shows that as the number of respondents that married before the legal age of marriage increase by one, the probability of women's asset ownership will decrease by 0.03, *ceteris paribus*. On average, the probability of women's asset ownership will increase by 0.02 for urban residents relative to rural residents assuming that all other covariates in the model stay constant. As frequency of exposure to media increases, the probability of women asset ownership will increase by 0.01, *ceteris paribus*.

Additionally, the finding of this study shows that as age at marriage increase by one year, the probability of women's asset ownership increases by 0.007 assuming that all other covariates in

101

the model stay constant. On average, the probability of women's asset ownership increases by 0.02 percentage points for urban residents relative to rural residents, *ceteris paribus*. The finding of the study shows that as frequency of per-week exposure to the media increase by one, the probability of women's asset ownership increases by 0.02 assuming that all other covariates stay constant in the model.

Furthermore, the study shows that as the probability of early marriage increase by one, the probability of women who work in paid jobs decreases by 0.29 assuming that all other covariates in the model stay constant. On average, the probability of women who work in paid jobs increases by 0.06 for urban residents relative to rural residents assuming that all other covariates in the model stay constant. As frequency of per-week exposure to media increases, the probability of women asset ownership increases by 0.03, *ceteris paribus*.

The result of this study shows that as age at marriage increases by one year, the probability of women who work in a paid jobs increases by 0.08, *ceteris paribus*. The coefficient under two-stage least square is greater than the pooled OLS coefficient. This implies that OLS estimation technique underestimate the true value of the impact of age at marriage on the probability of having a paid job because of reverse causality, omitted variable and measurement error problems. On average, as age at marriage increased by one year, the probability of women who work in a paid jobs increased by 0.16 percentage points for women from urban area relative to women from rural area, *ceteris paribus*.

2.4.2. Policy implication

The findings of the study show that the adoption of the RFC significantly increases women's life outcomes. Thus, it is highly recommended that the government effectively implements the program and design appropriate follow-up, monitoring, and evaluation mechanisms to identify the implementation gaps. The findings of the study also show that as age at marriage increases, women's life outcomes significantly increases in all models. Thus, it is recommended that all policy-makers, decision-makers, political activists, religious leaders, preachers, and all other responsible agents advocate for increasing age at marriage.

The study revealed the negative impacts of the high prevalence of early marriage on women's life outcomes. Thus, the researcher recommends policy and decision-makers to enforce the effective implementation of the RFC to reduce the practice of early marriage in Ethiopia.

This study shows that most of the religions that are practiced in Ethiopia significantly decrease women's life outcomes. Thus, it is recommended that religious leaders and preachers advocate for effectively implementing the RFC and increasing age at marriage.

The study shows that exposure to the media significantly increase women's life outcomes. Thus, the author recommends that Ethiopian Broadcasting Corporation enhances the availability and accessibility of the media throughout the country. In this regard as the role of internet is very high especially in this globalized world, the author highly recommends that Ethio-telecom improve the penetration and accessibility of internet service throughout the country.

The findings of the study show that urban residences significantly increase women's life outcomes. Thus, the author recommends that policy and decision-makers provide the necessary service available in urban areas to rural residents as well. It is highly recommended that Ethiopia's policy and decision-makers reduce service availability gaps between rural and urban residents.

Generally, the findings of the study show the positive impact of adopting the RFC on women's life outcomes. The immediate objective of the RFC is to increase the age at marriage from 15 to 18 years. In addition to that, the adoption of the RFC positively affects long-run women's life outcomes. To maximize the positive impact of adopting the RFC, the researcher highly recommends that both federal and regional governments exert the maximum possible effort for effective implementation of the RFC on nationwide.

Reference

- Ackerson, L., and Subramanian, V. (2008). Domestic Violence and Chronic Malnutrition among Women and Children in India. *American Journal of Epidemiology*, 167(10), 1188-1196.
- Alderman, H., Behrman, J., Kohler, P., Maluccio, J., and Watkins, S. (2001b). Attrition in longitudinal household survey data: Some tests for three developing country samples. *Demographic Research* 5 (4): 78-124.
- Alderman, H., Behrman, J., Lavy, V., and Menon, R., (2001a). Child Health and School Enrollment: A Longitudinal analysis. *Journal of Human Resources*, 36(1): 185-205.
- Amin, S., Saha, J.S., Ahmed, J.A. (2018). Skills-Building Programs to Reduce Child Marriage in Bangladesh: A Randomized Controlled Trial. *Journal of Adolescent Health* 63(3), 293-300.
- Angrist, J.D. and Imbens, G.W. (1995). Two-Stage Least Squares Estimation of Average Causal Effects in Models with Variable Treatment Intensity. *Journal of the American Statistical Association*, 90, 431–442.
- Austrian, K., and Muthengi, E. (2013). Safe and smart savings products for vulnerable adolescent girls in Kenya and Uganda: evaluation report. Nairobi, Kenya: Population Council.
- Backiny-Yetna, P., and Wodon, Q. (2010): *Gender Labor Income Shares and Human Capital Investment in the Republic of Congo*. Published in: Gender Disparities in Africa's Labor Markets, World Bank, Washington, DC (edited by J. S. Arbach, A. Kolev, and E. Filipiak) (August 2010): pp. 359-380.
- Backlund, H., and Blomqvist, G. (2014). Protecting the Girl Child or Upholding Patriarchy: A Case Study of Child Marriage in the Cultural and Legal Context of Tanzania. Masters thesis, Lund University, Lund, Sweden.
- Baird, S., McIntosh, C. and Ozler, B. (2011). Cash or condition? Evidence from a cash transfer experiment. *The Quarterly Journal of Economics*. 126 (4), 1709-1753.
- Baird, S., Chirwa, E., McIntosh, C., and Ozler, B. (2010). The Short-Term Impacts of a Schooling Conditional Cash Transfer Program on the Sexual Behavior of Young Women. *Health Economics*, 19(s1), 55-68. <https://doi:10.1002/hec.1569>. PMID:19946887.
- Beaman, L., Duflo, E., Pande, R., and Topalova, P. (2012). Female Leadership Raises

- Aspirations and Educational Attainment for Girls: A Policy Experiment in India. *Science* 335 (6068): 582–586.
- Becker, S., Fonseca-Becker, F., and Schenck-Yglesias, C. (2006). Husbands' and Wives' Reports of Women's Decision-Making Power in Western Guatemala and Their Effects on Preventive Health Behaviors. *Social Science and Medicine* 62 (9): 2313–2326.
- Becker, S. (1965). A Theory of the Allocation of Time. *The Economic Journal*, 75(299), 493-517.
- Blumberg, B., Cooper, DR. and Schindler, P. (2008). *Business Research Methods* (2nd Europeans Edition ed.). London: McGraw-Hill Higher Education
- Blumberg, RL., Rakowski, CA., Tinker, I., and Monteon, M. (1995). *Engendering Wealth and Well-being: Empowerment for Global Change*. Boulder, Colorado: Westview Press Inc.
- Bourguignon, F., and Pierre-Andre, C. (1992). Collective Models of Household Behaviour: An Introduction. *European Economic Review*, 36(2-3), 355-364.
[https://doi.org/10.1016/0014-2921\(92\)90091-A](https://doi.org/10.1016/0014-2921(92)90091-A).
- Boyden, J., Pankhurst, A., and Tafere, Y. (2013). Harmful Traditional Practices and Child Protection: Contested Understandings and Practices of Female Child Marriage and Circumcision in Ethiopia. London: Young Lives.
- Boyden, J., Pankhurst, A., and Tafere, Y. (2012). Harmful Traditional Practices and Child Protection: Female Early Marriage and Genital Modification in Ethiopia', Development in Practice.
- Boyden, J, Alula, P., and Yisak, T. (2013). Harmful Traditional Practices and Child Protection: Contested Understandings and Practices of Female Child Marriage and Circumcision in Ethiopia. Oxford, UK: Young Lives. Retrieved February 26, 2022 from
https://www.younglives.org.uk/sites/www.younglives.org.uk/files/YL_WP93_Boyden.pdf.
- Browning, M. and Chiappori, P.-A. (1998). Efficient intra-household allocations: a general characterization and empirical tests. *Econometrica*, 66(6): 1241-78.
- Bussolo, M., Fofana, I., Parra, C., and Wodon, Q. (2011). Exports and Labor Income by Gender: A Social Accounting Matrix Analysis for Senegal, in M. Bussolo and R. E. De Hoyos, editors, *Gender Aspects of the Trade and Poverty Nexus: A Macro-Micro Approach*, World Bank and Palgrave Macmillan, Washington, DC.
- Bussolo, M., De Hoyos, E., and Wodon, Q. (2009). Higher Prices of Export Crops,

- Intrahousehold Inequality, and Human Capital Accumulation in Senegal, in M. Bussolo and R. E. De Hoyos, editors, *Gender Aspects of the Trade and Poverty Nexus: A Macro-Micro Approach*, World Bank and Palgrave Macmillan, Washington, DC, 165–184.
- Camfield, L., and Tafere, Y. (2009). No, living well does not mean being rich: Diverse understandings of well-being among 11 to 13 year old children in three Ethiopian communities. *Journal of Children and Poverty*.
- Cawley, J., Meyerhoefer, C., (2012). The medical care costs of obesity: an instrumental variables approach. *Journal of Health Economics* 31(1):219–230.
- Chaaban, J., and W. Cunningham. (2011). Measuring the Economic Gain of Investing in Girls: The Girl Effect Dividend. Policy Research Working Paper. Washington, DC: World Bank.
- Chae, S., and Ngo, TD. (2011). The Global state of evidence on interventions to prevent child marriage. The Girl Innovation, Research and Learning Centre, Population Council.
- Cislaghi, B., and Heise, L. (2017). Measuring Gender-Related Social Norms: Report of a meeting, Baltimore Maryland, June 14–15, 2016. London: LSHTM.
- CSA and ICF International. (2012). Ethiopia Demographic and Health Survey 2011. Available from: <http://dhsprogram.com/pubs/pdf/FR255/FR255.pdf>.
- Dommaraju, P. (2008) Marriage age and Fertility Dynamics in India. Calverton, MD: Macro International Inc; 2008. DHS Working Paper, No. 52.
- Duflo, E. (2011). Women’s Empowerment and Economic Development. *Journal of Economic Literature*, 50(4), 1051.
- Edin K, and Reed JM. (2005). Why don’t they just get married? Barriers to marriage among the disadvantaged. *The Future of Children* 2005;15(2):117–137.
- Edin, K., and Kefalas, M. (2005). *Promises I Can Keep: Why Poor Women Put Motherhood before Marriage*. Berkeley: University of California Press. (293 pp., \$24.95-hb, ISBN-0-520-24113-4)
- Edmeades, J., R. Hayes, and G. Gaynair. (2014). Improving the Lives of Married, Adolescent Girls in Amhara, Ethiopia. Washington, DC: *International Center for Research on Women*.
- Efevbera, Y., Bhabha, J., Farmer, P., and Fink G. (2019). Girl child marriage, socioeconomic status, and under-nutrition: Evidence from 35 countries in Sub-Saharan Africa. *BMC Medicine*, 17(1).
- El Nagar, S. (2017). Girls, Child Marriage, and Education in Red Sea State, Sudan: Perspectives

- on Girls' Freedom to Choose. Bergen, Norway: CMI - Chr. Michelsen Institute.
- El Nagar, S., Sharifa, B., and Liv, T. (2017). Girls, Child Marriage, and Education in Red Sea State, Sudan: Perspectives on Girls' Freedom to Choose. Bergen, Norway: Chr. Michelsen Institute, Sudan Report (SR).
- Elborgh-Woytek, K., Newiak, M, Kochhar, K. (2013). Women, Work, and the Economy: Macroeconomic Gains from Gender Equity. Washington, DC: International Monetary Fund.
- Ellsberg, M., Diana, J., Arango, M., Floriza, G., Sveinung, K., Manuel, C., and Charlotte, W. (2015). Prevention of Violence against Women and Girls: What Does the Evidence Say? *The Lancet* 385 (9977): 1555–66.
- Erulkar, S., and Muthengi, E. (2007). Evaluation of Berhane Hewan: A Pilot Program to Promote Education & Delay Marriage in Rural Ethiopia. Addis Ababa: Population Council.
- Erulkar, A., Ferede, A., Worku, A., Woldemariam, G., (2010). Ethiopia gender survey: A study in seven regions. New York: Population Council.
- Erulkar, S., and Muthengi, E. (2009). Evaluation of Berhane Hewan: A program to delay child marriage in rural Ethiopia. *International Perspectives on Sexual and Reproductive Health*, 35(1), 6-14.
- Ethiopia Central Statistical Agency (CSA) and ICF International. (2012). Ethiopia Demographic and Health Survey 2011. Calverton, Maryland, USA.
- Fan, J., and Gijbels, I. (1996). Local polynomial modeling and its applications. London: Chapman & Hall.
- Freccero, J., and Whiting, A. (2018). Toward an end to Child Marriage. Lessons from research and practice in development and humanitarian sectors. Berkeley CA: Human Rights Center and Save the Children
- Gibson-Davis, Christina, M., Kathryn, E., and Sara, M. (2005). High Hopes but Even Higher Expectations: The Retreat from Marriage among Low-Income Couples. *Journal of Marriage and Family*, 67(5), 1301-1312.
- Girls not Bride. (2018). Economic Impact of Child Marriage: An Information Sheet. Global Partnership to End Child Marriage. Retrieved on February 26, 2022 from: <https://www.aidsdatahub.org/sites/default/files/resource/girlsnotbrides-economic-impact-cm-2018.pdf>

- Girls Not Brides. (2018). Child Marriage in Humanitarian Settings. Girls Not Brides. Retrieved on February 26, 2022 from <https://www.girlsnotbrides.org/wp-content/uploads/2016/05/Child-marriage-in-humanitariansettings.pdf>
- Girls Not Brides. (2005). The Global Partnership to End Child Marriage. Lessons Learned from Selected National Initiatives to End Child Marriage. Retrieved from <http://www.girlsnotbrides.org/wp-content/uploads/2015/07/Lessons-learned-from-nationalstrategies-Girls-Not-Brides-July-2015.pdf>.
- Girls Not Brides. (2014). The Global Partnership to End Child Marriage: A Theory of Change on Child Marriage. Retrieved on February 26, 2022 from <http://www.girlsnotbrides.org/wp-content/uploads/2014/07/Girls-Not-Brides-Theory-of-Changeon-Child-Marriage.pdf>
- Greene, M. and Stiefvater, E. (2019). Social and Gender Norms and Child Marriage: A reflection on issues, evidence and areas of inquiry in the field. ALIGN
- Haddad, L., Hoddinott, J., and Alderman, H. (1997). Intra-household Resource Allocation in Developing Countries: Models, Methods, and Policy. Baltimore: The Johns Hopkins University Press.
- Hahn, Y., and Yang, H. (2016). Do Work Decisions among Young Adults Respond to Extended Dependent Coverage? *ILR Review*, 69(3). <https://DOI: 10.1177/0019793915610308>.
- Hallward-Driemeier, M., and Gajigo, O. (2015). Strengthening Economic Rights and Women's Occupational Choice: Impact of Reforming Ethiopia's Family Law. *World Development, Elsevier*, vol. 70(C), 260-273.
- Heanue, K., and O'Donoghue, C. (2014). The Economic Returns to Formal Agricultural Education, Teagasc. Oakpark. ISBN: 978-1-84170-613-9
- Hoddinott, J., and Haddad, L. (1995). Does Female Income Share Influence Household Expenditures? Evidence from Cote d'Ivoire. *Oxford Bulletin of Economics and Statistics*, 57 (1): 77–96.
- Hombrados, J. (2017). Child Marriage and Infant Mortality: Evidence from Ethiopia. Working Paper Series No. 13-2017. Retrieved on February 26, 2022 from <https://www.sussex.ac.uk/webteam/gateway/file.php?name=wps-13-2017.pdf&site=24>.
- Human Rights Center, UC Berkley School of Law and Save the Children. (2018). Toward an

- End to Child Marriage- Lessons from Research and Practice in Development and Humanitarian Sectors. Retrieved from: https://www.law.berkeley.edu/wp-content/uploads/2018/08/Toward-an-End-to-Child_Marriage_Report_FINAL.pdf
- ICRW. (2000). Development Initiative on Supporting Healthy Adolescents (DISHA) Project. Analysis of quantitative baseline survey data collected in select sites in the states of Bihar and Jharkhand, India.
- ICRW. (2006). Young Lives in Bihar and Jharkhand, India: Insights from the DISHA Baseline Survey. Washington, D.C.: ICRW.
- Inderjit, S., Lyn, S., and Jof, R. (1986). Agricultural Household Models Extensions, Applications, and Policy. A World Bank Research Publication
- International Food Policy Research Institute. (2003). Household Decisions, Gender, and Development: A Synthesis of Recent Research. Washington, DC: International Food Policy Research Institute.
- Jain, S., and Kurz, K. (2007). New Insights on Preventing Child Marriage: A Global Analysis of Factors and Programs. Washington, DC: ICRW.
- Jain, S., and Kurz, K. (2007). New Insights on Preventing Child Marriage: A Global Analysis of Factors and Programs. Washington, DC: ICRW.
- Jensen, R., and Rebecca, T. (2003). Early Female Marriage in the Developing World. *Gender and Development and Marriage*, 11(2), 9-19. <https://doi.org/10.1080/741954311>
- Jones, N., Tefera, B., Stephenson, J. (2014). Early marriage and education: the complex role of social norms in shaping Ethiopian adolescent girls' lives (Country Report). ODI.
- Kidman, R., and Heymann, J. (2016). Do Protective National Marriage Age Policies Reduce the Practice of Child Marriage? Paper Presented at the Annual Meeting of the Population Association of America 2016, Washington DC.
- Koski, A., Clark, S., and Nandi, A. (2017). Has child marriage declined in Sub-saharan Africa? An analysis of trends in 31 countries. *Population Development Review*, 43(1):7–29.
- Lee, D. and Lemieux, T. (2010). Regression Discontinuity Designs in Economics. *Journal of Economic Literature*, 48(2), 281-355).
- Lindstrom, D., Kiros, G., and Hogan, D. (2009). Transition into First Intercourse, Marriage, and Childbearing among Ethiopian Women. *Genur LXV* (2), 45-77.
- Malhotra, A., Warner, A., McGonagle, A., and Lee-Rife, S. (2011). Solutions to End Child Marriage What the Evidence Shows. *Washington, DC: International Center for Research*

on Women.

- Mann, G., Padraig, Q., and Rosal, F. (2015). Qualitative Study on Child Marriage in Six Districts of Zambia. Child Frontiers for UNICEF. Retrieved on February 26, 2022 from: <https://www.gender.gov.zm/wp-content/uploads/2018/01/Qualitative-Research-Report.pdf>.
- Mark, C. and Wodon, Q. (2006). Gender, Time Use, and Poverty in Sub-Saharan Africa. *The World Bank Group*.
- Mathur, S., Greene, M., and Malhotra, A. (2003). Too Young to Wed: The Lives, Rights and Health of Young Married Girls. International Centre for Research on Women (ICRW): Washington, D.C.
- McCleary, S., Hanmer, L., Parsons, J., and Klugman, J. (2015). Child Marriage: A Critical Barrier to Girls' Schooling and Gender Equality in Education. *The Review of Faith & International Affairs*, 13(3), 69-80
- McClendon, KA., McDougal, L., Ayyaluru, S., Belayneh, B., Sinha, A., Silverman, JG., Raj, A. (2018). Intersections of girl child marriage and family planning beliefs and use: qualitative findings from Ethiopia and India. *Culture, Health & Sexuality*. 20(7),799-814.
- Muthengi, E., and Erulkar, A. (2010). Building programs to address child marriage: The Berhane Hewan experience in Ethiopia. Addis Ababa: Population Council. Retrieved on February 26, 2022 from. https://knowledgecommons.popcouncil.org/cgi/viewcontent.cgi?article=1153&context=departments_sbsr-pgy
- Myers, J. (2013). Untying the Knot: Exploring Early Marriage in Fragile States. London: World Vision UK.
- Nayak, B. (2013). Child Marriage in Ethiopia: A Matter of Concern. *International Journal of Management and Social Sciences Research*, 2(7).
- Nguyen, MC., and Wodon, Q. (2015a). Impact of Early Marriage on Literacy and Education Attainment in Africa. In *Child Marriage and Education in Sub-Saharan Africa*, edited by Q. Wodon. Washington, DC: World Bank.
- Nguyen, MC., and Wodon, Q. (2015b) Early Marriage, Pregnancies, and the Gender Gap in

- Education Attainment: An Analysis Based on the Reasons for Dropping out of School. In *Child Marriage and Education in sub-Saharan Africa*, edited by Q. Wodon. Washington, DC: World Bank.
- Nour, NM. (2009). Child marriage: a silent health and human rights issue. *Rev Obstet Gynecol*, 2(1), 51-56.
- Odimegwu, C., and Mkwanaenzi, S. (2016). Factors associated with teen pregnancy in sub-Saharan Africa: a multi-country cross-sectional study. *African Journal of Reproductive Health*, 20(3), 94-107. <https://DOI:10.29063/ajrh2016/v20i3.14>.
- Palamuleni, EM. (2011). Socio-economic Determinants of age at marriage in Malawi. *International Journal of Sociology and Anthropology*, 3(7), 224-235.
- Parsons, J., Edmeades, J., Kes, A., Petroni, S., Sexton, M. & Wodon, Q. (2015). Economic impacts of child marriage: A review of the literature. *The Review of Faith & International Affairs*, 13(3), 12-22.
- Plan UK. (2011). *Breaking Vows, Early and Forced Marriage and Girls' Education*, London. Retrieved on February 26, 2022 from: <https://resourcecentre.savethechildren.net/pdf/5930.pdf/>.
- Raj, A. (2010). When the Mother is a Child: The Impact of Child Marriage on the Health and Human Rights of Girls. *Archives of Disease in Childhood* 95 (11): 931–935.
- Roest, J. (2016). Child Marriage and Early Child-bearing in India: Risk Factors and Policy
- Rogers, B. (2012). Child Marriage in Ethiopia and its associated human rights violations. *UW Bothell Policy Journal*. 11-19
- Sathar, ZA., and Framurz, M. (1998). Some Consequences of Rising Age at Marriage in Pakistan [with comments]. *The Pakistan Development Review*, 37(4), 541-556.
- Smith, L., and Haddad, L. (2015). Reducing Child Under nutrition: Past Drivers and Priorities for the Post-MDG Era. *World Development*, 68(), 180-204.
- Solanke, L. (2015). Marriage Age, Fertility Behaviour and Women's Empowerment in Nigeria. *SAGE Open*. <https://doi.org/10.1177/2158244015617989>.
- Subramaniam, PK. (2008). Determinants of the Age at Marriage of Rural Women in India. *Family and Consumer Sciences Research Journal* 3(2), 160–66.
- Svanemyr, J., Amin, A., Robles, OJ., and Greene, M. (2015). Creating an enabling environment for adolescent sexual and reproductive health: A framework and promising approaches', *Journal of Adolescent Health*, 56(1 suppl), s7-14:

<https://doi:10.1016/j.jadohealth.2014.09.011.pmid>.

- The World Bank and ONE. (2014). *Leveling the Field: Improving Opportunities for Women Farmers in Africa*. Washington, DC: The World Bank; ONE
- Toyo, N. (2006). Revisiting Equality as a Right: The Minimum Age of Marriage Clause in the Nigerian Child Rights Act, 2003. *Third World Quarterly*, 27(7), 1299-1312.
- UN Population Fund (UNFPA). (2013). *Marrying Too Young: End Child Marriage*, available at: <https://www.refworld.org/docid/508fe73f2.html> [accessed 25 February 2022]
- UNFPA. (2017). *Child Marriage and Adolescent Pregnancy in Mozambique: Causes and Impact*. UNFPA ESARO.
- UNICEF. (2001). *Early Marriage: Child Spouses*. Innocent Digest No. 7. Florence: Innocenti Research Center.
- UNICEF (2014). *Ending Child Marriage: Progress and Prospects*. New York: UNICEF. Retrieved on February 26, 2022 from: <https://resourcecentre.savethechildren.net/document/ending-child-marriage-progress-and-prospects/>.
- UNICEF (United Nations Children's Fund). (2013). *The State of the World's Children: Children with Disabilities*. New York: UNICEF.
- UNICEF (United Nations Children's Fund). (2014a). *Ending Child Marriage: Progress and Prospects*. New York: UNICEF.
- UNICEF (United Nations Children's Fund). (2014b). *Hidden in Plain Sight: A Statistical Analysis of Violence against Children*. New York: UNICEF.
- UNICEF Regional Office for the Middle East and North Africa. (2011). *Lebanon MENA Gender Equality Profile* (p. 2-3). UNICEF.
- United Nations Children's Fund. (2005). *Early Marriage: A Harmful Traditional Practice, A Statistical Exploration*. New York: UNICEF.
- United Nations Population Fund. (2012). *Marrying Too Young: End Child Marriage*. New York: UNFPA.
- United Nations Population Fund. (2013). *State of the World Population 2013: Motherhood in Childhood: Facing the Challenge of Adolescent Pregnancy*. New York: UNFPA.
- United Nations Population Fund. (2014). *Safe Motherhood: Stepping up Efforts to Save Mothers' Lives*. New York: UNFPA.

- USAID. (2012). Ending Child Marriage and Meeting the Needs of Married Children: The USAID Vision for Action. Retrieved on February 26, 2022 from:
<https://reliefweb.int/sites/reliefweb.int/files/resources/PDACU300.pdf>.
- Vogelstein, R. (2013). *Ending Child Marriage: How Elevating the Status of Girls Advances U.S. Foreign Policy Objectives*. The Council on Foreign Relations. ISBN 978-0-87609-563-8. Washington, DC: The International Bank for Reconstruction and Development/ The World Bank and The International Center for Research on Women (ICRW). Retrieved on February 26, 2022 from:
<https://reliefweb.int/report/world/economic-impacts-child-marriage-global-synthesis-report>.
- World Health Organization. (2012). Understanding and Addressing Violence against Women: Health Consequences. Geneva: WHO.
- World Health Organization (WHO). (2014). Health for the World's Adolescents, A Second Chance in the Second Decade. Geneva: WHO.
- Wilson, WJ. (1987). *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: University of Chicago Press.
- Wodon, Q. (2015). Child Marriage, Family Law, and Religion: Introduction to the Fall 2015 Issue. *Review of Faith & International Affairs*, 13(3), 1-5.
<https://doi.org/10.1080/15570274.2015.1075761>.
- Wodon, Q. (2017). Estimating the Economic Impacts and Costs of Child Marriage Globally: Methodology and Estimates. Education Global Practice. Washington, DC: The World Bank.
- Wodon, Q., Male, C., Nayihouba, A., Onagoruwa, A., Savadogo, A., Yedan, A., Edmeades, J. (2017). Economic Impacts of Child Marriage: Global Synthesis Report.
- Yisak, T., and Camfield, L. (2011). Community understandings of childhood transitions in Ethiopia: different for girls? *Children's Geographies*, 9(2): 247-262.
 DOI: 10.1080/14733285.2011.562385.

Kamsahamnida!!!

Chapter 3

Changing Social Norms on Child Marriage through a Legislative Change: A Case Study of the Revised Family Code Enforcement in Ethiopia

3.1. Introduction

The Ethiopian Government took a major step to end the practice of child marriage in 2000 through the revision of the old 1960 Family Code. The revision pulled up the legal minimum age for marriage from 15 to 18 and made the practice of child marriage punishable in the criminal code for the first time. Revising the Family Code, however, was not going to end the practice by itself. The intent of the study is to find out hurdles that had to be addressed and overcome, and supplementary policies that were adopted to help end the practice of child marriage.

Declaring core principles such as the minimum legal age for marriage and criminalization of child marriage, the 1964 International Convention of Consent to Marriage, Minimum Age for Marriage and Registration of Marriage (UN, 1964), and the Convention of the Right of the Child (UN, 1989), provided important impetuses to help end the practice of child marriage throughout the world. These and other related international agreements reflected a shared understanding of the harmful consequences of child marriage for women, their families, and their societies. Ethiopia was a signatory to the international conventions aforementioned, but the prevailing situations including social norms and socioeconomic conditions hampered the implementation of the principles that were requisite for the ending of child marriage (UNICEF, 2016). Many developing countries, including Ethiopia, enacted legislation to prohibit and criminalize the practice of child marriage (UNFPA, 2020).

Regarding the effectiveness of legislative initiatives to tackle and challenge deeply-embedded cultural practices, there are competing schools of thought. On one hand, we have optimists. Sunstein (1996) and McAdams (2000) argue that even if the legislation is not enforced effectively, it has an “expressive effect” which impacts attitudes, norms, behaviours, values, and traditions. Chen and Yeh (2014) revealed that simply delivering a message about formal law affects social norms, values, attitudes, beliefs, and behaviours in the United States of America. On the other hand, real-life experiences suggest that it might be very difficult, if not impossible, to overcome the steep barriers presented by entrenched social norms. For example, in India, the Child Marriage Restraint Act of 1929 stipulated the punishment of a maximum of three months in jail and a fine not exceeding 1,000 rupees for the practice of child marriage. Nonetheless, not many cases were ever indicted in India. The Indian government revised the 1929 family laws in 2006 and increased the punishment of child marriage to 2 years and fines were extended to a maximum of 100,000 rupees. But UNICEF (2020) reported that from 2014 to 2016, only 1, 785 child marriages cases were reported to the officials; while 4,777 criminals were arrested, and only 274 convictions were made.

Researchers working on social standards have shown how social norms and traditions, and informal rules of acceptable behaviours are encouraging and sustaining child marriage acts (e.g. see Shakya, *et al.*, 2014). Global evidence revealed the existence of social norms and traditions that encourage child marriage to sustain the practice in many parts of the world (see Das *et al.*, 2018; Cislighi and Bhattacharjee, 2017; Cislighi & Heise, 2018b; Sabates *et al.*, 2015; Human Rights Watch, 2016; Jain & Kurz, 2007; UNWOMEN, 2016 and Horn *et al.*, 2017). The socioeconomic conditions that constrain choices for families in the developing world also interact

with the prevalent social norms to further strengthen the influence of the social norms. Thus, it is not surprising that many developing countries still struggle in their endeavours to end the practice of child marriage.

Ethiopia has been able to make significant improvements in reducing incidences of child marriage since the adoption of the Revised Family Code in 2000. The legislative action was an important first step, but as many examples in the other countries demonstrate, it was not going to attain the stated goal by itself, as Ethiopia was beset with challenges that hamper the effective implementation of child marriage-related legislation.

3.2. Literature Review

3.2.1. The Power of social norms

Nowadays the objectives of tackling the high incidences of child marriage practice and empowering girls and women get priority. In any society, women are key strategic groups for the sustainable economic development of a nation, yet they are the most mistreated category of society, disadvantaged in socio-economic welfare, and whose fundamental rights are extensively breached (Chabaan & Cunningham, 2011; Watson *et al.*, 2010; Greene *et al.*, 2009). More than socio-economic and political factors, harmful social rules and practices play a substantial responsibility in sustaining child marriage acts (Cooper & Fletcher, 2013; Watson *et al.*, 2012; Huda & Calder, 2013). Different researches revealed that both national-level policy interventions, as well as local-level policy interventions, are effective in changing harmful traditional social norms (Denny *et al.*, 2012; Marcus, 2014; Munoz *et al.*, 2012).

There are not many pieces of research that evaluate how policy interventions change harmful traditional social norms that sustain the practice of child marriage. Constantly enhancing the awareness of the community on the side-effects of harmful traditional social norms is one of the strategies to change the attitude of the community. The current perception of the power of social customs has heightened the social norms promotion movement (Poynton *et al.*, 2010). Expansion of information, communication, and technology (ICT) facilitate the spread of information that promotes gender equality and empowers women (Plan International, 2010).

3.2.2. Socioeconomic issues

Many scholars ignore the effect of socioeconomic factors on the effectiveness of exogenous policy interventions aimed to change social norms that sustain child marriage practice. On one hand, Ara and Das (2010) revealed an absence of significant impact of socioeconomic factors on the effectiveness of BRAC's ADP program in Bangladesh. On the other hand, Amin and Suran (2005) found BRAC-run Kishori Abhijan to be the most effective for the younger and poorer districts with a high level of treatment. Erulkar and Muthengi (2007) revealed how poverty matters for evaluating the effectiveness of the Berhane Hewan policy intervention in Ethiopia for social norms change. Erulkar and Muthengi reported that poverty significantly affects the effectiveness of the Berhane Hewan program. Leerlooijer *et al.*, (2013) qualitatively showed that poverty is a major factor that hinders girls' and women's educational attainment. Leerlooijer *et al* concluded that even if the Teenage Mothers Support Project (in Uganda) plays a crucial part in altering social norms, poverty still hinders girls' educational attainment.

The fact that many researchers concluded a positive impact of policy intervention on the social mobility of teenage girls and young ladies shows the point where harmful traditional social norms

have started changing. Ishraq (Egypt), both BRAC's GQAL (Bangladesh), and Better Life Options and DISHA, in India increase girls' and women's gender equality promotion programs that encourage girls' mobility (Selim *et al.*, 2013; Alim, 2011; Nathani *et al.*, 2009). For non-formal education programs and community dialogues, it is difficult for scholars to evaluate their effect on girls' and women's mobility. Selim *et al.* (2013) revealed that Ishraq (in Egypt) significantly increases adolescent girls' mobility within their communities and has enabled program participants to attend classes in youth centres once reserved for boys. This implies a significant change of norms for girls and women to be allowed to use public spaces (ibid). In India (Better Life Options and DISHA) and Bangladesh (BRAC's GQAL) policy interventions achieved significant change in girls' mobility for treated observations relative to controlled observations (Alim, 2011; Nathani *et al.*, 2009). Alim (2011) revealed that there is a significant change in perception of the community in the places that girls freely go for treated observations relative to controlled observations. Nathani *et al.*, (2009) showed that participation in the 'Better Life Option' program significantly increased girls' mobility by 42 percent for observations that were fully treated relative to untreated observations.

Vaughan *et al.*, (2000) examined the effectiveness of APWE PLEZI in St. Lucia policy intervention on the attitudes of the community toward a wife working in a paid job without her husband's permission. The findings have shown an absence of significant changes in attitudes of the communities towards wives working without their husbands' permission. On the other hand, Nathani *et al.*, (2009) revealed an absence of significant difference in attitudes of the communities between regular and irregular attendants in the Better Life Options program in India. The study shows that the two groups develop additional democratic viewpoints on gender roles. The

difference was bigger for observations that were fully treated relative to observations that were partially treated (ibid). Nathani *et al.* revealed the effectiveness of Better Life Option programs in India towards gender-egalitarian work-related factors. The program significantly improved the gender-egalitarianism towards work-related factors by 44 percent.

Different scholars examined the effectiveness of three programs (Humqadam, Ishraw, and PRACHAR) designed to change social customs that sustain the practice of child marriage (see Rozan, 2012; Daniel & Nanda, 2012; Pathfinder, 2011). In these programs, the attitudes of participants towards women working in paid jobs had changed. But the majority of the participants from the Humqadam policy intervention believe that men are the breadwinner in the households (Rozan, 2012). Rozan reported that the program influenced the majority of community members to change discriminatory norms and recommends implementing long-period policy intervention for grassroots social norm changes. Daniel and Nanda (2012) and Pathfinder (2011) assessed the effectiveness of Pracher's social norms change policy interventions in India. This social norm change policy intervention was implemented for more than 10 years with the focus of enhancing the awareness of the community on reproductive health issues and the campaign for gender-balanced stances towards work.

Policy intervention that empowers women is very important to break the intergenerational transmission of poverty. Marcus and Page (2014b) examined different policy interventions to change social norms in Vietnam, Nepal, Ethiopia, and Uganda that aimed to transform the lives of girls and young ladies. They revealed that gender prejudiced social standards, attitudes, and behaviours supported by poverty, deprivation, and exclusion serve to aggravate the vulnerability of girls and women.

3.2.3. Understanding and measuring changes in harmful social norms

Many policies and decision-makers believe in the importance of changing social norms, attitudes, and behaviours that sustain child marriage practice. Therefore, it is important to understand more about planning, implementing, monitoring, and evaluating policy interventions that could change the attitudes, norms, and behaviours that sustain child marriage practice. The best strategy recommended by different scholars to change harmful social norms is the knowledge, attitudes, and practices (KAP) strategy. According to the KAP strategy enhancing the awareness and knowledge of the community, will change social norms and practices that sustain child marriages. On the other hand, Westoff (1988) argued that improving knowledge did not guarantee the change of social norms, attitudes, and practices. Westoff argued that currently the hostility against females significantly increased and a new form of violence is continuously emerging such as violence through misogyny in cyberspace. Michau *et al.* (2015) revealed that enhancing the knowledge about harmful traditional social norms alone is not adequate to stop child marriage acts. Michau *et al* reported that despite mass acknowledgment that the child marriage act is wrong and must be criminalized, it is still widely practiced in many developing countries. Furthermore, girls and women cooperate with the practice despite their knowledge about the side effects of child marriage.

Another basic question that policy makers need to ask ourselves is what could change people's ways of behaving, other than knowledge. Paluck and Ball (2010) defined social norm as a belief of the community about specific issues or the stand of the majority on that practice. In the process of changing social norms sustainable and deeper change in attitudes and behaviour must be achieved. Social norm change is not only the change of what individuals do or believe. A significant change in social norms needs deeper change about what the community, family, and

nation at large believe and to what degree they accept the new idea and are ready to implement it. Social norms play a critical part in the success of females because they built strong expectations and behaviour supported by sanctions and rewards (Alexander-Scott *et al.*, 2016). The basic question that decision-makers commonly ask is ‘are norms altered by launching new knowledge and ideas for permanent behaviour?’ The knowledge, attitudes, and practice gaps suggest that changing social norms and practice need strong effort and commitment – it is not an easy task. In addition to enhancing the knowledge of the community about social norms and practice, it is very important to design policy interventions that aim to quantitatively measure the effect of social norms and how they shape the attitudes of the community.

3.2.4. Review of effectiveness of various policy interventions

Scholars confirmed that radio-or film-based policy intervention with believable stories is effective to change social norms (Koch & N’Kolo, 2011; Rogers *et al.*, 1999; Singhal *et al.*, 2004). For effective delivery of non-formal community-level policy intervention, policymakers need to consider two points (Marcus & page, 2014). First, intensive contact with the grassroots community is essential. This could change the attitude of the community towards harmful social norms and their effect on maternal and child health. Second, practitioners of the program should be selected from the local community as they know well the culture and tradition of their community. These local practitioners should be girls who have completed their education successfully and are working in paid jobs. Thus, they can act as role models (*ibid*).

Another important strategy aimed at changing social norms is to allow girls to freely express their feelings and opinions on the topic under consideration. Currently, Ishraq in Egypt, Better Life Options, Choices, and New Horizons in India empower girls to freely express their feeling without

any restrictions (Marcus & page, 2014). An impact evaluation of Taru, DISHA and GEMS (in India), IPA (in Zambia)- shows that these programs have a positive impact on reducing child marriages and have helped in eliminating harmful social norms that sustain the tradition of child marriages (CMS, 2004). This finding corroborates the findings of Malhotra *et al.* (2011) who evaluate the impact of 23 policy interventions on changing harmful traditional social norms that sustain child marriage practice. Singhal *et al.* (2004) revealed that policy interventions that nurture information, skills, and network for girls and women and use community mobilization campaigns, significantly changed the social norms that sustain the child marriage practice.

Nathani *et al.* (2009) and Assaad *et al.* (2007) investigated the effects of the difference in exposure intensity on change of attitudes and behaviour toward harmful traditional social customs that support the practice of child marriage. Nathani *et al.* (2009) evaluated the impact of policy intervention for regular and irregular participants on changing attitudes towards harmful traditional social norms. Their findings show that girls' desired age of marriage significantly increased for both regular and irregular participants (with only one percentage point difference between the two groups). On the other hand, Assaad *et al.* (2007) examined the impact of the differences in exposure intensity for Ishraq (adolescent girls' development program in Egypt). Assaad *et al.* showed that the lengthier the exposure to the intervention, the prevalence of child marriage decline from 28 percent to 1 percent. The study also shows that the impact of the program is greater for both groups of participants (fully treated and partially treated) relative to participants in the control group. These researchers attribute the difference in attitude to the preferred age of marriage between girls who are fully treated and those that are partially treated as the difference in initial attitudes.

In many developing countries interventions aimed to change social norms, have no significant effect on attitudes of the community towards the educational attainment of girls and women (see Chege *et al.*, 2001 for Kenya) or they exhibit a positive effect on improving general education (e.g. Diop, 2004 for Senegal). Alim (2011) revealed that in Bangladesh the policy intervention that aimed to enhance the school enrolment of girls has no significant impact on the attitude of the community toward prioritizing boys' education. Alim revealed that parents invest more in boys' education than girls' education. There is a big education disparity between boys and girls in the community. On the other hand, Elbadawy (2013) confirmed the existence of a selection problem in examining Ishraq's impact in Egypt on the attitudes of Ishraq's participants on females' education. Erulkar and Muthengi (2007) evaluate the influence of the Berhane Hewan program on the educational attainment of girls in Ethiopia. Their finding revealed an insignificant effect on school enrolment for girls older than 15 and a significant increase in school enrolment rate for girls younger than 15.

3.2.5. Demand and supply side policy interventions to change social norms

The policy intervention to change the practice of social norms can be divided into two major categories: demand-side and supply-side policy interventions (Watson, 2014). The demand side policy interventions aim to enhance the awareness of the community on the legal and normative issues of the child marriage practice. On the other hand, creating an inclusive macroeconomic environment including investment in service provision and establishing grassroots support structure and platforms is categorized under the supply-side policy interventions. To change these harmful customs, the supply, and demand-side policy interventions should interact effectively (ibid). Both demand and supply-side policy interventions feed each other and work effectively if

they interact successfully. For example, through the ‘educating girls is educating nation campaign’, in Uganda and Vietnam, the social value of girls' education is significantly enhanced but the absence of accessible secondary education hinders to meet its end goal (ibid). To successfully end the practice of child marriage and achieve gender-egalitarianism, an equal investment in both the supply and demand-side policy interventions is important.

On the other hand, there is enough evidence of gender discrimination in school through sexual harassment of women, for example, in Uganda (Cislagh *et al.*, 2019). High investment in education aiming to end harmful social practice by itself is not successful unless backed by comparable investment in the macroeconomic environment of the nation to create employment opportunities for girls (Watson, 2014). Communities give low value to girls' education. If the macroeconomic environment of the nation cannot create job opportunities, it could be used as justification for the low value of girls' education. Thus, the demand and supply side of policy interventions to end the child marriage act should move in parallel.

The effort to end this harmful act through enhancing awareness of girls and women about their rights is ineffective unless supported by significant investment in legal protection and redress services. Rather it may cause the disempowerment of girls and women since they cannot protect themselves. For example, the absence of effective enforcement and penalty against child marriages and underage sexual relations leave girls and women unprotected in Uganda. One of the major supply-side policy intervention gaps is the absence of adolescent-friendly reproductive health information and services (Cislagh *et al.*, 2019). Uganda's defilement law criminalizes sexual intercourse whether it is consensual or not, with girls younger than 18, and the national adolescent

health policy call for access to reproductive health information and service. But in practice, it is very difficult to get this service. In Uganda, the absence of this service causes a high prevalence of unwanted pregnancies which aggravates the practice of child marriage in the country (ibid).

3.2.6. Strategies to change social norms

Oxfam's Knowledge Hub (2011) recommends using social movement campaigns to change social norms. Social movements' campaigns play a critical role in introducing a new social behaviour alternative or completely changing old social norms and practices. Marcus and Harper (2015) revealed how social movements/social campaigns significantly change social norms that promote early, childhood, and forced marriage in a community. Roper (2011) reported that in El Salvador the community uses social movements/campaigns to get attention from policy and decision-makers to change harmful customs and traditions. Their social movement includes both social campaigning and direct advocacy for government officials, enforcement bodies, the judiciary, public servants, and the school community. Marcus and Harper (2015) based on the social learning theory, recommend using a role model person as a key catalyst for individual attitudes and social norms change. The role model person might be well-known persons such as celebrities, religious and community leaders, well-known professors, etc who could convince the community to adopt new attitudes and norms. Ricardo *et al.* (2011) concluded that harmful social norms are learned from community and family and they could be replaced by positive alternatives through long-term policy interventions. Jewkes *et al.*, (2015) warn about hegemonic masculinity which describes a man as strong, a warrior, or a leader. Oxfam uses civil society leaders as role models in media campaigns (Oxfam, 2011). Mujeres (2011) evaluate the effectiveness of school-based programs in empowering girls and women by using well-known stories, such as the 'Little Red Riding Hood'

in drama form. The program significantly empowered women and was integrated into the school curriculum as part of the literature set books.

3.3. Methods and instruments of the Study

3.3.1. Research approach

Berg (2011) and Creswell (2007) reported that qualitative research design is important when researchers are interested in understanding the beliefs and attitudes of a community about the topic under consideration. Given that the central research questions concern evolution of customs and attitudes associated with child marriage, the author decided to take advantage of the qualitative research approach to get more deep, valuable, and reliable information.

Qualitative research may take on a range of different strategies (Johnson & Christensen, 2004). In this chapter, the author specifically follow the science of delivery methods (Widner, 2015). A legislative change in the form of the Revised Family Code was not going to end this harmful practice in Ethiopia by itself, as the practice was sustained through the powerful interplay between strong traditional social norms and various socioeconomic factors. An integrated package of supplementary interventions was called for to address various hurdles both on the demand and the supply side of the phenomenon of child marriage. Needless to say, some of them were unanticipated, and close coordination of many agencies and civic groups was integral for a successful transition. The science of delivery approach is designed to effectively document various aspects of implementation challenges that are bound to come into play in such a complicated context.

Knowledge types of Science of Delivery approaches

The science of delivery case study brings together four types of knowledge (Widner, 2015):

1. It focuses on a problem or activity that is important and difficult within a given policy sphere. Science of delivery refers to this problem as **the development challenge**.
2. It tracks **the implementation process** and shows how the actions taken by a reform team contributed to the result and addressed anticipated delivery challenges as well as unexpected obstacles. The implementation process is the sequence of steps taken to put the policy or intervention into practice. It may include organizational changes and behavioral change, among other elements. These steps and their relationship to each other will vary from case to case.
3. It highlights **the delivery challenges** that are likely to arise during the implementation and the anticipated political economy problems that stem from the character of the activity and /or from the context. The science of the delivery approach cases shows public servants working to solve political economy problems that affect implementation.
4. Throughout, it pays attention to the influence of location-specific and time-specific circumstances on the response to the development challenge. These **contextual conditions** range from leadership aptitudes and variations in political will to whether disasters, social structures, belief systems, and electoral pressures. Contextual knowledge includes not only familiarity with the politics, economy, and socio-cultural circumstances of the country and or community concerned, but also awareness of important sector-specific technical information and how it might shape implementation. Context shapes the initial opening for reform, political will, problem definitions, delivery challenges, and responses to results.

3.3.2. Data type and source

The study used primary data that were obtained through interviews and focus group discussions. For further cross-validation, secondary data were collected from the published and unpublished data sources. Ethiopia is a federal country comprising 10 regions and 2 federal-level city administrations. To collect the necessary data, I randomly select one zone from each region. Because of the existing civil war, I could not collect necessary data from the Tigray region. In total, data were collected from 9 zones and two federal-level city administrations.

- a. **Key informant interviews:** Semi-structured interviews were conducted with the key informants to collect qualitative information. Participants of key informant interviews were purposively selected based on their knowledge, age, experience, educational status, and ties with the issue under investigation as well as their ability to give necessary information. The author used face-to-face and over-the-phone interviews. The author recorded the interview proceedings and also took notes manually by writing the main points during the interviews.
- b. **Focus group interviews (FGI):** Focus group interviews help the researcher to explore shared beliefs and experiences among participants (Cislaghi & Heise, 2017). FGI's allow participants to discuss their common social norms and beliefs and to reach a consensus on how to end the practice.

3.3.3. Target population

The study targets observers that have direct ties with the practice of child marriage from various parts of the country which includes: the enforcement officers, judiciary personnel, Directors from the Ministry of Women's and Social Affairs, Ministry of Justice, Ministry of Education, Bureau

of Women's and Social Affairs, Bureau of Justice, Vital Events Registration Agency, men and women, young and old community members, journalists, religious leaders, preachers, health officers, psychologists/counselors, and teachers.

3.3.4. Sampling techniques and sample size determination

Key informants were chosen purposively centred on the premise that they are previewed to the knowledge concerning the topic under scrutiny and therefore would provide sufficient, deep, and reliable data. This was conducted by employing a purposive non-probability sampling technique. In this regard, the researcher collected detailed and reliable information from the key informants. The basic supposition of employing purposive sampling is the capability of selecting strategically adequate data for the study (Kothari, 2004). I conducted 53 interviews with different interviewees from all over the country and due to the political crisis in the country, interviews outside Addis Ababa were conducted over the phone. I have conducted 3 focus group discussions: in the Ministry of Women and Social Affairs, Ministry of Justice, and Addis Ababa Vital Event Registration Office. Each focus group discussion consisted of 6 directors and practitioners of the RFC.

3.3.5. Method of data analysis

The study employed qualitative research methods. Thus, data were analysed through qualitative data analysis methods under the framework of the science of delivery approach of case study writing. Qualitative data that were collected through key informant interviews and focus group discussions were categorized, organized, and analysed concurrently and thematically through narration and explanation. First, I familiarized myself with the data, reading all the scripts critically many times. Initial codes/themes were then generated. I repeatedly reviewed and polished the themes, looking for internal coherence and external heterogeneity across the themes. I incorporated

all comments and suggestions from my supervisor until we reached an overall agreement on analysis.

3.4. Development challenges

The key development challenge is to safeguard the fundamental human rights of children and women. Child marriage violates the fundamental human rights of children and females. To address these developmental challenges, the Ethiopian Government has enforced different strategies and approaches to end child marriage. The Constitution of the Federal Democratic Republic of Ethiopia protects fundamental human rights including women's rights. In line with the national constitution, the government revised the 1960s family code and criminal code to defend girls and women from harmful social norms and practices including child marriage. There are also additional policies and packages designed to address harmful social norms and practices such as the National Policy on Ethiopian Women, and the Ethiopian Women's Development and Change Package.

Child marriage negatively affects girls' long-run development plans through early pregnancy, social isolation, school drop-out, loss of opportunity to join the formal labor market, and exposure to gender-based violence (Koski, 2017 and Rasmussen *et al.*, 2019). The negative impacts of child marriage also affect the macroeconomic growth and stability of the nation at large. By limiting the attainment of education, child marriages harm girls' participation in productive sectors. After marriage, even if the young child manages to continue her education or formal work, mostly she is very busy with domestic work, pregnancy, and pregnancy-related issues, and caring for poor health children (ibid).

The majority of girl-children who married before the legal age of marriage gave birth at a young age. On the other hand, since they are not physically and mentally mature to go through long labour associated with birthing, mostly girl children are at risk of Rectovaginal Fistula. Ethiopia's Government established Fistula Hospital because of the endemic nature of the problem in the country. In Ethiopia, due to child marriages, child mortality increased by 4 percent, and the risk of stunting by 13 percent (MoWSA, 2019). Child brides have no friends and are isolated from their peers, and the chance to take part in community development programs is lost. Due to their domestic work, responsibility to care for children, and strict control on their mobility, child brides are socially isolated. A report shows that more than 30 percent of child brides have no friends (ibid). Because of the difficult life they experience, child brides are endangered by different psychological and physiological problems which lead to divorce or suicide. Many child brides live in unhappy marriages. Particularly for girl children who are not physically and sexually ready for sexual intercourse, forced sexual intercourse with her husband could be traumatic. Child brides may not be mature enough to care for or have control over a child's health and education investment. The Ministry of Women and Social Affairs, claims that child marriage is the major source of early childbearing for 4 in 5 women who gave birth before 18 years. The number of children per woman is increased by 24 percent for the girl child who married before 13 years relative to those who married after the minimum legal age of marriage (ibid).

One of the alternatives that potential child brides use for them not to be involved in child marriages is to abscond. Some of them migrate domestically and others migrate internationally normally to the Middle East. In Ethiopia, if girls pass puberty and are unmarried, the community considers them to behave in “inappropriate ways” and many young children are unable to stand the

discrimination and scrutiny and choose to migrate. The adoption of migration by young children to avoid child marriage and to ensure their right to self-determination is often challenged by the lack of opportunity for self-expression and agency, which in turn exposes them to new risks and threats. Erulkar (2004) revealed the existing situation of the girl child who migrates domestically such as low-status jobs, less pay, no friends, and no close friends to borrow money in case of emergencies. Young children that migrate to the Middle East are also experiencing the same difficulties and challenges. The majority of them experienced physical and sexual abuse. Child marriage significantly restricts their voice and agency, it also impacts their mobility, and fertility, and increases gender-based violence. Erulkar (2004) found that child brides are less likely to discuss their family size, HIV/AIDS, issues related to their health services or their children's, and the issues of faithfulness in marriage. The report from the Ethiopian Ministry of Women and Social Affairs revealed that around 30 percent of young children who married before 15 discussed HIV/AIDS prevention with their husbands relative to around 56 percent for women who married at 18 or 19 (MoWSA, 2019).

Various global, continental and domestic laws and regulations conclude that child marriage is a violation of the rights of women and girls. The practices of child marriage support gender-based discrimination and inequality, and negatively affect the health, living standards, productivity, and self-determination of women and girls. The negative impact of child marriage has an inter-generational influence both on the girl-child and her offspring. Commonly, child marriage is the major cause of girl children dropping out of school. Child marriage exposes girls to gender-based violence (GBV), and a lack of opportunity to join the labor market because of early motherhood and strict control from her family-in-law.

3.5. Contexts and the key policy intervention

3.5.1. Global and continental context

International institutions such as the UN's Committee on the Child's Rights recognize that child marriage is a destructive practice and strive for its prohibition. At the fourth UN International Conference on Women in Beijing, which took place in 1995, all actions and activities needed to be taken to alleviate the problem of child marriage were outlined, which included creating educational plans for the families about early marriage. In this regard, the United Nations Human Rights Council embraced a resolution to "eliminate child marriage, early and forced marriage". Likewise, the SDGs include eliminating child marriage (targets 5.3) within the broader goal of gender equality. Africa policy and decision-makers reached a consensus about the inhumanity and illegality of child marriage and develop different policies and institutions for the practice. These policies and institutions request the abolition of harmful traditional social norms and practices. The African Charter on the Rights and Welfare of the Child 1990, strictly forbids the practice of child marriage as well as the cohabitation of girls and boys before the legal minimum age of marriage. This charter also requests African governments to set the legal minimum age of marriage at 18. The other continental level policy intervention is the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa (Maputo Protocol, 2003). This protocol calls for all countries to forbid and condemn all forms of harmful traditional social norms and practices.

The Africa Youth Charter (2006) is also another continental level policy intervention ratified by the Ethiopian Government. This charter requires all parties to develop and enforce policy and legislation that prohibit all forms of violence like female genital mutilation, child marriage, rape,

and sexual abuse against girls and women in Africa. It also orders the taking of necessary action to eliminate all harmful social norms and practices in the continent. The legislation and institution developed to end child marriage on the continent also have the support of the African Union (AU). For example, the recent movements to end child marriage in Africa have gotten a golden opportunity and a major boost to make significant progress through major decisions and protocols of the African Union.

3.5.2. National context

In support of international and regional legal frameworks, the Federal Democratic Republic of Ethiopia's constitution protects fundamental human rights for the nation, nationalities, and people of Ethiopia. To eliminate harmful traditional social norms and practices that affect children and women, the constitution has a particular provision for the rights of girls and women. The National Policy on Ethiopian Women of 1993 is also a major policy and institutional measure enforced to protect girls and women. To incorporate international conventions and charters accepted by the Ethiopia Government which are important to end harmful traditional social norms and practices and child marriage, the national government conducted several legal reforms in the country. Article 35(4) of the Ethiopian Constitution, which calls for the eradication of harmful social customs, provides for equality between men and women in all aspects and rights including the rights to equality in marriage; maternity leave with full pay. The equality also extends to the full consultation in national development issues, acquisition administration controlling, using, and transferring of property; emphasizing land and inheritance issues as well as equal employment, pay, and promotion.

3.5.3. Key policy intervention

The key policy intervention that has been taken by the Ethiopian government to end the practice of child marriage is the revision of the 1960s Family Code and Criminal Code. The Revised Family Code (RFC) was approved by the Federal Government in 2000. It incorporates different provisions that protect the rights of children and women which include the right of consent for marriage, the minimum legal age at first marriage, and the ban on bigamy in marriage (Articles 6, 7, and 8 of RFC).

Article 6: Consent

A valid marriage shall take place only when the spouses have given their free and full consent.

Article 7: Age

1. Neither a man nor a woman who has not attained the full age of eighteen years shall conclude the marriage.
2. Notwithstanding the provisions of Sub-Article (1) of this Article, the Minister of Justice may, on the application of the future spouses, or the parents or guardian of one of them, for serious cause, grant dispensation of not more than two years.

Article 11: Bigamy

A person shall not conclude marriage as long as he is bound by bonds of a preceding marriage.

Furthermore, for effective implementation of the RFC, Federal Government approved the Revised Criminal Code in 2005. The Revised Criminal Code states the range of punishment for a person who concludes a marriage with a minor from 3 to 7 years. Article 648 of the Criminal Code states that ‘whoever concludes marriage with a minor apart from circumstances permitted by relevant Family Code is punishable with: a) rigorous imprisonment not exceeding three years, where the age of the victim is thirteen years or above; or b) rigorous imprisonment not exceeding seven years,

where the age of the victim is below thirteen years.’ The Revised Criminal Code further extends the punishment to any individuals that participate in the process of child marriage. The practice of child marriage is one of the most harmful traditional practices against the fundamental rights of children. Thus, articles 569 and 570 of the Revised Criminal Code (2005), indicate the punishment for individuals that participate in the practice of child marriage.

Article 569: Participation in Harmful Traditional Practices

A parent or any other person, who participates in the commission of one of the crimes specified in this Chapter, is punishable with simple imprisonment not exceeding three months, or a fine not exceeding five hundred Birr.

3.4. Delivery challenges

3.4.1. Social norms and cultural challenges

One of the factors that challenge the effective implementation of the RFC is the harmful traditional social norms and practices.

Our respondents from the Ministry of Women and Social Affairs said that:

Harmful traditional social norms and practices are one of the major factors that sustain child marriage practice in Ethiopia. The level of literacy in Ethiopia is very low. The majority of the community believes in traditional social norms and values. Children also engage themselves in child marriage because of their wrong beliefs influenced by social norms and traditions. The common social norms that encourage child marriage practice are: bearing a child at an early age is a blessing, being unmarried after menarche is sinful, unmarried at an early age may cause qomoqar (left standing) or haftuu (unwanted), the culture of taking bride price, those girls unmarried during early age are forced to

marry old persons or persons that have children from another marriage. Most families prefer child marriage because of social norms and traditions that denounce girls' sexual intercourse and pregnancy before marriage. To keep the reputation of families they opt for child marriage as a preferable alternative.

Most policy interventions to control child marriage practices have stressed empowering girls to refuse and report child marriage requests. But, due to deep-rooted social norms and practices, some girls cooperate with their parents to sustain the practice of child marriage. Since these social norms and practices are deep-rooted by religious customs, it couldn't be easy to eliminate them from the community. In some places, young children prefer to marry before the legal age of marriage because of their beliefs and traditions moulded by social norms and limited opportunity for education and accessing the formal labour market.

Furthermore, the community's low value for girls' education and the absence of alternative opportunities for girls who drop out of school, sustain the practice of child marriage. Our respondents from local public administration offices listed factors that sustain the practice of child marriage:

Some of the factors [that] sustain the practice of child marriage are lack of awareness [about] the Revised Family Code, high-level poverty, inaccessibility of secondary education, social norms, culture, belief, and traditional public [saying]. The majority of our respondents underlined the effect of social norms, beliefs, cultures, and traditional public saying on sustaining the practice of child marriage in Ethiopia. Ethiopia is home to many nations, nationalities, and peoples with different cultures, customs, beliefs, and traditions.

Unfortunately, in terms of sustaining the practice of child marriage, these cultures, customs, beliefs, and traditions have significant roles.

The response suggests that although the cultures, customs, beliefs, and traditions in Ethiopia are diverse, they all encourage early marriages. The majority of Ethiopia's community believes that marriage at an early age is a reputation for both family and the girl child. A girl child who delayed her marriage is considered a spinster. Thus, the existence of diversity in culture, traditions, norms, and customs muddles the objective of changing harmful traditional social norms that sustain the practice of child marriage in Ethiopia.

3.4.2. Coordination and engagement challenges

The other major delivery challenge identified by our respondents is the lack of effective coordination. There is disagreement on roles and responsibility-sharing both at the federal and regional levels. In its nature, the RFC implementation is a cross-cutting issue. Different federal and regional governments should take part in the task of enforcing the RFC and ending the practice of child marriage. For example, respondents from the Ministry of Women and Social Affairs said that:

Most influential federal institutions compete to secure the task of controlling the practice of child marriage and its budget. If specific interventions to end child marriage are fully funded, different executive bodies compete to accomplish the tasks. On the other hand, if there is no assigned budget no one takes the initiative and responsibility to accomplish the task. Ending child marriage is a cross-cutting issue. In principle, they need to use their annual budget and mainstream interventions in their annual plan, to contribute to the process of ending child marriage practice. The key implementing partners of the RFC and ending the practice

of child marriage are the Ministry of Women and Social Affairs, Ministry of Education, Ministry of Health, Ministry of Justice, Journalist/Media and communication, law enforcement bodies, regional and local administration offices.

The Ministry of Women and Social Affairs, as the main actor of the RFC, facilitates the incorporation of the issue of implementing the RFC across all sectors. For example, the Ministry of Education needs to incorporate the RFC and the side effects of child marriage in their education curriculum, the Ministry of Health needs to incorporate it in their five-year sector plan, and the same for others. Even if many sectors have already incorporated the issue of enforcing the Revised Family Code, because of the absence of a specific budget, most of the activities are not effectively implemented. Our respondents conclude that the absence of agreed roles and shared responsibilities affect the effective implementation of the Revised Family Code.

3.4.3. Legislation and regulation challenges

Many of our respondents confirmed that justice for child marriage-related cases is delayed. The legal framework needs improvement in terms of flexibility for the girl child to express their feelings and emotions freely. The majority of our respondents revealed inflexibility and bureaucratic administrative structure from top to the bottom for the girl child to express her feelings and pain. Corruption and maladministration outweighed the justice system in the country. For example, on January 7, 2022, at a media brief of Ethiopian Prime Minister, Dr. Abiy Ahmed said:

Our justice system is very complicated. There is no fair justice system in the country. Most enforcement and judiciary bodies are highly affected by corruption and maladministration: bribery, ethnicity, or other related matters highly affect our justice system.

A high level of poverty contributes to the existence of unfair justice in the country. Ethiopia is a developing country. According to data from the Central Statistical Agency, more than 30 million Ethiopians are in absolute poverty. This high level of poverty increases the chance that public officials practice corruption and maladministration in the country. Our respondents from the Ministry of Women and Social Affairs said that:

One of the biggest challenges for effective enforcement of the Revised Family Code is corruption and maladministration in law enforcement bodies. In the past few years, the macro economy of Ethiopia has been affected by different factors including the COVID-19 pandemic; civil war; and drought. So the living standard of citizens is continuously declining. To survive, the probability of enforcement bodies participating in corruption is increasing.

The other challenge for poor enforcement of the Revised Family Code emanates from local public officials and enforcement bodies being the ones violating the law. Most local-level public officials and enforcement bodies practice child marriage by themselves. Even though they are educated and have awareness about the RFC and the side effects of the practice of child marriage, they nonetheless, practice child marriage. Our respondents from the Amhara regions said that:

The major challenge for effectively enforcing the laws and order against the practice of child marriage is the complexity of the issues. Most local public officials and enforcement bodies including police officers practice child marriage. Thus, the chance to get information about planned child marriage declined or we couldn't get evidence to bring the offenders to justice. This also discourages the victim from reporting the issue to the police officers.

3.4.4. Limited access to the media

Media play a significant role in changing social norms and practices that encourage the practice of child marriage. On the other hand, the accessibility of formal media is very low in Ethiopia. According to the data from Digital (2021), only 20 percent of Ethiopians have access to the Internet, less than 40 percent have access to mobile phones, only 5.8 percent use social media and according to Central Statistical Agency (CSA) data, 55 percent watch television, and 37.4 percent listen to the radio. The data reveals that the majority of the Ethiopian population has no access to media. Government should do a lot to enhance awareness of the community on the Revised Family Code, the side effect of child marriage, and the advantage of educating a woman. Our respondent from Ethiopian Broadcasting Authority said:

Our media is one of the most accessible media in Ethiopia. We designed different awareness creation programs sharing the side effects of child marriage. Particularly, during the early approval of the RFC, we designed different programs to enhance the awareness of the community about the new policy and its consequence in case of violation. We delivered a documentary film about the effect of child marriage on a young child. At this time we have a weekly awareness creation program on harmful traditional social norms, child marriage, child rights violence, gender-based violence, empowering women, and other programs related to children and women.

Still, the majority of the community members have low regard for girls' education since they believe that they will leave their families' houses upon getting married. Thus, the majority of girl children are forced to marry before the legal minimum age at marriage. One of our respondents from the Fana Broadcasting Authority said:

Fana Broadcasting Authority developed different programs on child marriage, child human rights, and women's domestic violence. But most of the time to work actively in these areas, we lack the budget and technical support. There are no interest groups, sponsors, or partners that work with Fana Broadcasting Authority in this area. To work at the grassroots level, we need sponsors and partners that have an interest to work with us. Fana Broadcasting Authority calls for the government and all parties to enhance the accessibility of both formal and informal media coverage in the country. It is better to use community leaders, religious leaders, preachers, elders, teachers, doctors, and police officers to enhance the awareness of the community about child marriages.

3.4.5. Underdevelopment and poverty

There is a vicious cycle between poverty, financial, human, and technical resources, and child marriage. In a society where child marriage is sustained, the level of poverty is very high. A young child that marries at an early age is not economically, financially, and psychologically independent. They will drop out of school and give birth while they are still minors. This affects the health of both the mother and the child. Girl children that drop their education become dependent on their husbands and family. Our respondents from the South Nation, Nationalities, and People of Ethiopia region responded that:

The major reason that sustains the practice of child marriage is the high level of poverty in the country. The majority of Ethiopian society is poor. In particular, poverty is very high in the rural part of the country. In this society, the family can't cover the basic needs of their children. They use child marriage as one alternative to reduce the burden of

raising their daughters. The Bureau of Women and Social Affairs designed different programs that empower women through Women Development Groups.

Thus, in the community where the practice of child marriage is very high, poverty is also very high and the opposite is also true. Poverty highly contributes to sustaining the practice of child marriage in Ethiopia. The absence of assigning adequate resources for the implementation of the Revised Family Code is also caused by a high level of poverty in the country.

Furthermore, in the past three years, Ethiopia has been passing through hard times. Mainly, civil war, the COVID-19 pandemic, and an unstable macro economy are the major challenges that are shaking Ethiopia. These challenges directly aggravate the level of poverty in the country. This high level of poverty sustains the practice of child marriage. One of our respondents from the Benishangul-Gumuz regional governments said:

In the past few years, our country has been affected by civil war, a humanitarian crisis, and displacement. This problem is also common in Benishangul-Gumuz regional state. Currently, most local bureaus are not actively working. All intervention programs have also suspended.

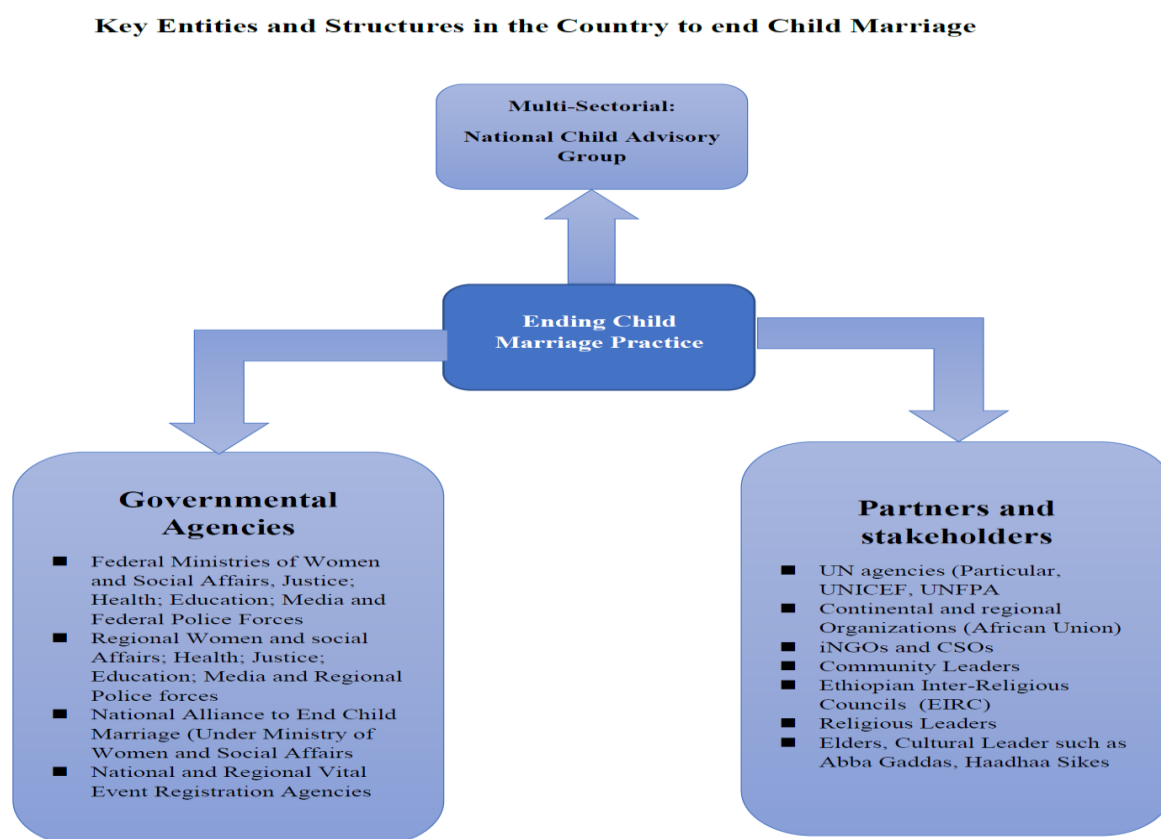
Generally, our respondents confirmed that a high level of poverty is also a cause of the ineffective implementation of the Revised Family Code in the country.

3.5. Tracing the implementation processes

Once announced by the federal government, the Revised Family Code was not uniformly enforced in all regions and administrative cities of Ethiopia. Ethiopia is a federal country that has ten regions and two city administrations. According to the Federal Democratic Republic of Ethiopia

constitution, the federal and regional governments have their defined mandates. To implement all laws and regulations by the federal government, the lawmakers of the regional government need to approve them first. In 2000, the Revised Family Code was adopted immediately in Tigray, Oromia, Amhara, Addis Ababa, and Dire Dawa. The other regions, namely Afar, Benishangul, Gambela, Harari, SNNP of Ethiopia, and Somalia, were implementing the 1960 Family Code (Gajigo & Hallward, 2005). After 2005, two regions adopted the Revised Family Code: Gambela and SNNP of Ethiopia (Hombrados, 2017). Lastly, after 2011 all outstanding regions adopted the program.

Figure 3.1: Key entities and structures in the country that help to end child marriage



Source: Ministry of women and Youth Affairs (2021)

Figure 3.1 shows key implementing partners of the RFC: government, non-governmental and multi-sectorial implementing agencies. The goal of ending the practice of child marriage is a cross-cutting issue. Different institutions need to take part to achieve the goal. For effective enforcement of the policy, these partners need to actively communicate and work together.

3.5.1. Public awareness and advocacy campaigns on the Revised Family Code

During the early stage of the adoption of the Revised Family Code, intensive awareness creation workshops, seminars, training, and community conversations have been conducted. As the Revised Family Code is a new issue for the community, most stakeholders intensively work to create awareness of the changed Family Code. The Revised Family Code clearly states the minimum legal age for marriage as well as different rights of children and women. Most stakeholders designed programs to enhance the awareness of their community on the legal minimum age for marriage as well as on the rights of children and women. The national Criminal Code (2005) also states that any marriage concluded with a girl-child younger than 18 years is a crime and punishable by law. Lack of knowledge and awareness is the major factor in committing a crime. To enhance the awareness of the community about the Revised Family Code and Criminal Code, intensive awareness creation and advocacy programs were conducted throughout the country by different stakeholders. Different stakeholders designed programs on the Revised Family Code and the side effects of child marriage in the community. Our respondents from the Bureau of Justice of the Amhara regional state said:

Legal literacy is one of the intervention tools incorporated in our annual plans. There is a division in our office that gives different awareness creation interventions to the community. We believe that the awareness of the community significantly enhanced on the Revised Family Code and the side effect of child marriage.

3.5.2. Mainstreaming the Revised Family Code in different sectors' plans

The second major activity accomplished for enforcing the Revised Family Code is mainstreaming the Revised Family Code and child marriage issues in different sectoral plans. Child marriage issues are cross-cutting. Different implementing stakeholders need to mainstream these in their annual plans for effective implementation. The key stakeholders for implementing the Revised Family Code are the Ministry of Education, Ministry of Health, Ministry of Justice, Ministry of Women and Social Affairs, Media, Police Force, and National Vital Events Registrations Agencies. Thus, the second major process taken to effectively implement the RFC on the ground is advocating and influencing the sector offices to integrate the RFC and end the practice of child marriage in their annual plan. Our respondents from the Ministry of Women and Social Affairs said:

One of the stepping stones to end the practice of child marriage is mainstreaming the Revised Family Code in different government and non-government agencies. It is impossible to end child marriage with only the effort exerted by the Ministry of Women and Social Affairs. It needs the contribution from the Ministry of Health, Ministry of Education, Ministry of Justice, Media, Enforcement Bodies, and other stakeholders and partners. To end child marriage practice, our ministry encourages all concerned bodies to mainstream child marriage issues in their annual plans.

3.5.3. Child marriage prevention programs

■ National roadmap to end child marriage

At the national level, the government designs a national roadmap to effectively enforce the Revised Family Code. The national roadmap depicts the package of intervention, delivery, expected result,

monitoring, and evaluation mechanisms to end child marriage practices in Ethiopia. It also shares roles and responsibilities among different stakeholders for the effective implementation of the Revised Family Code. The national roadmap was developed by incorporating all stakeholders' comments and suggestions, to build a sense of ownership at the implementation stage. The main objective of the National Roadmap is to identify the major strategies, nature of interventions, and means of delivery that will be enforced to realize the national target of ending child marriage by 2025. Furthermore, it shows the government's effort to meet Sustainable Development Goal 5 target 5.3 which aims to eliminate all harmful traditional practices including child marriage, early and forced marriage, and female genital mutilation. With this objective, the National Roadmap also identified different stakeholders and their roles and develop an accountability mechanism to end child marriage in the country.

■ Establishing Women's Development Groups

Women Development Groups are networks of neighbouring women with one Women Development Group having 30 households with one President and Vice President. The major objective of this structure is to empower women, and share and learn about their day-to-day experiences. To empower women economically, socially, and politically, creating a structured women's team is crucial. Throughout the country, Women Development Groups are created and actively working on children and women issues. The empowerment of women- and indeed, the promotion of sustainable growth in the country and across the globe requires breaking down barriers to accessing economic resources, increasing access to education, and keeping girls in school. In Ethiopia, with its very dynamic and young population, there is an opportunity to promote the empowerment of girls as a catalyst for positive change and prosperity. Our respondents from the Amhara region bureau of Women and Social Affairs said:

Our bureau empowers women by grouping them under the Women Development Group. This structure developed at the community level. One Women Development Group has 30 neighbouring households. Our office gives training for a trainer on life skill-building. The training includes how they practice modern agriculture, enhancing the culture of saving, the advantage of educating their children, and women's reproductive health and rights. A trained trainer will train the members of Women's development groups. Women development groups have a meeting twice per month. The Bureau of Women and Social Affairs encourages and follow-up their bi-monthly meetings and also assigned a budget for tea and coffee during their meeting.

Table 3.1: Women empowerment platform/ structure

Regions	Total number of Women Development Group	Total number of Women Change Army Groups	Number of women encompassed in the groups
Amhara Region	128,395	641,975	3,209,875
Oromia Region	170,944	954,720	4,273,600
SNNP Region	92,757	477,554	2,318,925
Dire Dawa	1,586	9,516	47,580
Harar Region	308	1,932	9,660
Somali Region	2,820	14,100	70,500
Sidama Region	22,393	111,852	670,818
Total	419,203	2,211,649	10,600,958

Source: Ministry of Women and Social Affairs, (2021)

Note: One Women Development Group contains 25-30 members. One Women Change army group contains 3-7 members. Currently, there is no women development group and women change army group in Addis Ababa city administration. Because of the ongoing humanitarian crisis and war, I couldn't get updated data from Afar, Gambela, and Benishangul. Change army is a smaller group under the Women Development Group.

Table 3.1 shows the total number of Women Development Groups, Women's Change Army, and the total number of women encompassed in Women Development Group in seven regions and one city administration. In total, there are 419,203 Women Development Groups;

2,211,649 Women's Change Army, and 10,600,958 women incorporated in the Women's Development Group. The government gives different support to economically empower members of Women Development Groups. Some of the support given by the government are tractors, start-up capital/loans with low interest or no interest, different life skill-building training (modern farming, commercial farming, artwork, pottery work), and others.

■ Well-established Children's Parliament

To equip children with knowledge and skill to challenge violence against them including child marriage, children's parliaments have been established in Ethiopia. The first children's parliament started operating in September 2006. The children's parliament has grown to become Ethiopia's centre of excellence for children's participation and engagement. The process of establishing children's parliaments was inspired by the children's parliament of Finland, i.e., the Tampere Children Parliament. This model parliament was successful in creating opportunities for Finnish Children and young people to raise their voices and ensure participation in a matter that directly has an impact on them. With the same objectives, there are children's parliaments throughout Ethiopia. In these parliaments, children practice how they could protect themselves from harmful traditional social norms including child marriage, how to report maladministration of children and other issues that directly affect them. The establishment of children's parliaments creates good opportunities to share their experiences, thoughts, and feeling so that they can influence children to struggle with harmful traditional practices such as child marriage in their community. Our respondents from West Hararghe Zone said:

We established a children's parliament at the local level. Each parliament has a president and vice-presidents. The presidents and vice-presidents of the local-level parliaments' will be members of children's parliaments at the Zone level. The woreda level children's

parliament has 60-80 members. There are six standing committees in each parliament: Child Rights Protection standing committee, Social issues standing committee, Gender and Discipline standing committee, Culture, Tourism and Recreational standing committee, Environmental Protection standing committee, and Data Management and Capacity building standing committee.

■ Establishing Child Rights Committees

To effectively deliver child policy intervention to end child marriage, Child Rights Committees are established both at the national, regional, and local levels of administration. The child rights committees meet bi-weekly to discuss mechanisms that improve child rights protection. A Child Rights Committee is composed of representatives from the Administrative office, Bureau of Women and Social Affairs, Bureau of Education, Bureau of Health, Community Leaders, Children, and Civic Society Organizations (CSOs). Our respondents from the Addis Ababa city administration said:

To eradicate any type of harmful traditional social norms and practices, there is a national-level Child Rights Committee. A Child Rights Committee is also established at the local level. The major objective of this committee is to protect children from any form of discrimination and injuries. The Government of Ethiopia passed legislation to assign two percent of the annual sectoral budget for children's protection. Of these two percent, one percent will be used for child rights protection and the other one percent will be used for people with HIV/AIDS. This shows a strong commitment from the government side to protect children.

■ Establishing diverse girls' clubs

Girls' clubs have become more known to empower and promote girls' well-being. Establishing girls' clubs has many advantages for young children such as being familiar with their natural, physical, and emotional change and learning the necessary knowledge and skills to challenge harmful traditional social norms and practices. Some of the clubs aimed to enhance girls' educational performance (In-school girls clubs); others aimed to give technical and vocational skills to girls who have dropped out of school or never attend girls to help them generate income (out-of-school girls clubs). In recent times, the Ethiopian government and different non-governmental organizations (NGOs) have effectively used girls' clubs to empower women. For example in the Amhara region, Amhara Development Association Girls' Club Initiative, run different clubs under the lower administrative structure of the community. These clubs enhance the awareness of young children about the side effects of child marriage, harmful traditional social norms, and practices, and sexual and reproductive health. Most of the clubs are managed by trained teachers. These trained teachers manage different groups of girls that are expected to share skills and knowledge with other girls through their development initiative at the grassroots level. Our respondents from the West Gonder zone said:

We established in-School and out-of-school girls' clubs. In-school clubs were established to reach students that enrolled in school. Generally, the objectives of the clubs are to enhance awareness of girls on reproductive health, the advantage of education, the side effect of child marriage, facilitate conditions to help each other academically, follow up on students that are absent from school, and others. On the other hand, out-of-school clubs are established to reach out to girls that missed school attendance. Each out-of-school girls club has 15 neighbourhood members. Bureau of Women and Social Affairs

supports these out-of-school clubs to economically empower them, discuss reproductive health, and the side effects of child marriage, and also provide credit without interest as start-up capital.

3.5.4. Justice for children

■ Specialized courts for girls and women

To deliver quick justice, the development of specialized courts for girls and women is very important. With the necessary budget and resources, a specialized court for girls and women is more effective in enforcing laws and orders to end child marriages. Under the specialized courts for girls and women, judges are gender-sensitive, deal with only girls' and women's issues, and can deliver justice more quickly. The fact that the same judges manage cases of children and women, may help to take appropriate measures to deal with repeated offenders. It could significantly decrease violence against young children and women in the community. Our respondents from the Ministry of Justice said:

We encourage and facilitate the development of specialized courts for children and women all over the country. A special court has psychologists, social work specialists/professionals, health workers, CCTV installed special rooms for young children that would increase their comfort to talk freely, and other technology that would increase the confidence of young children to express their pain and feeling to the court. These experts encourage a girl child to express her feeling and her pain without fear. Furthermore, the girl child will not directly contact the judge and other audiences including offenders. The judge will follow the girl child's opinions and feelings through a CCTV camera. These cases would be handled by female judges.

■ Closed courts for child marriage cases

In the area where there is no special court for children and women cases, there are other alternatives such as child-friendly benches. To encourage girls to express themselves clearly, all child marriage cases are handled under closed courts. In principle, all courts should operate publicly but to enhance the confidence of children and women, child marriage cases are handled in closed courts. In addition to this, the judge will not wear a formal gown, the judge will not sit on stage rather she sits in the office in a friendly manner unless there is a shortage of female judges, most child marriage cases are handled by female judges. Our respondents from the Benishangul-Gumuz region said:

Our region is in the process of installing special courts for children and women with the help of UNICEF. In the meantime, we have closed court for children and women to freely express themselves before the court. In a closed court, the relationship between judges and victims is friendly. We try our best to encourage girls to express themselves and their feelings.

3.5.5. Securing international and regional support

The child marriage problem is an agenda for all communities in the world. Different international and regional organizations support the practice of ending child marriage. Ethiopia is one of the African countries that secured international and regional support to end child marriage. For example, Ethiopia is one out of 12 countries supported by UNFPA-UNICEF Global Programme to Accelerate Action to End Child Marriage, Accelerating Change. At the regional level, Ethiopia is getting technical and financial support from the Africa Union's (AU) Campaign to End Child Marriages. Ethiopia has also hosted different regional and international summits to end the practice

of child marriage by 2025. For example, in 2015 a National Girl Summit was hosted by the Ethiopian Government to reassure its commitment to end the practice of child marriage, including assigning necessary financial, human, and technical resources.

3.5.6. Life skills building

Using different platforms and structures, the Bureau of Women and Social Affairs works for the empowerment of women. One approach that improves women's empowerment is to assist them to learn life skills. For example, our respondents from West Hararghe said:

Using Women Development Group, we facilitate for girls to learn new knowledge and skills that help them to earn for life. During previous times, women who dropped out-of-School had no other alternative except marriage. Poverty enforce girls to accept early marriage in their life. Getting exposure through Out-of-School clubs, Women Development Group, and Change Army arrangement facilitates the delivery of programs and interventions designed at the federal level to a regional level.

The Federal government designed different skill-building interventions like offering training on how to farm, how to herd livestock, modern beekeeping, handcrafted designs and artwork, and others. As children and women participate in Clubs, Women's Development Groups, and or Change Army groups, their confidence to talk about reproductive health, life skill, and natural change in girl-children enhanced. Participation in these structures and platforms also enhances the chance for young child brides to have friends and family members to talk with.

3.6. Results

3.6.1. Enhanced public awareness

■ Child marriage is a crime

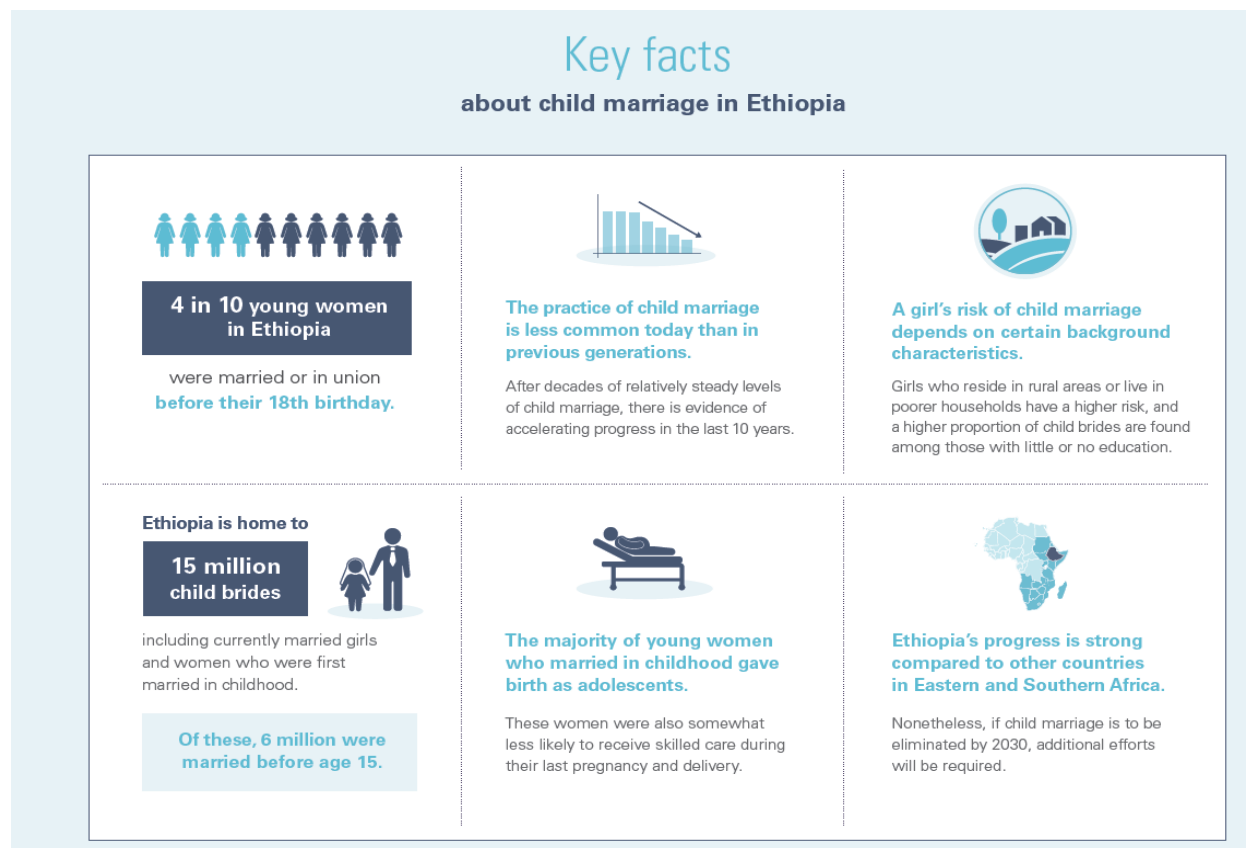
The Revised Family Code extended the minimum legal age of marriage to 18. Any marriage concluded with a minor would be dissolved by the court. Article 648 of the Criminal Code states that any marriage with a minor is a crime and punishable. The punishment for child marriage range from 3 to 7 years. The punishment is not only on the husband but also on all guests who attend the ceremony including both spouses' families. The Revised Family Code and Criminal Code clearly state that the practice of child marriage is a crime. The majority of the Ethiopian community has full awareness that the practice of child marriage is a crime. Before the revision of the Ethiopian 1960s Family Code, practicing child marriage was considered a reputation for the family and a blessing for the girl child. These days, practicing child marriage is very rare and if it is practiced, it will not be public. There are some new techniques that communities use to hide the issue from the law officer. For example, they may invite guests for a birthday celebration or some other local program but would indirectly be celebrating the wedding of a minor. Only a few family members know as it is a wedding program. Generally, the community knows that child marriage is a crime. Our respondents from Amhara Region said:

There is no problem of awareness in the community about the illegality of child marriage.

Everybody knows that marriage before the minimum legal age at marriage is illegal.

Nowadays, communities have developed a new mechanism to hide the practice of child marriage: They invite people for a birthday celebration but indirectly they are celebrating the marriage of their minor child.

Figure 3.2: The key facts about child marriage issues in Ethiopia.



Source: UNICEF (2021), Ethiopia

■ Educating a woman is educating a nation

Women are half of the total population of the country. Undermining women is about undermining the macro economy of the nation at large. Women are well-known for their long-term plans such as investing in capacity building/education of their offspring, health, and other high turnover investments. Policy and decision-makers use girls' education as a key tool to sustain economic growth in the country. Our respondents revealed that significant progress has been made in girls' school enrolment, drop-out, and completion rate. Mostly, the ratio of school enrolment becomes a one-to-one ratio in primary and secondary schools. Because of continuous awareness creation and advocacy interventions, school drop-out also decreased meaningfully.

Table 3.2: School dropout rates in Ethiopia

Dropout Rate						
Education cycles	2012	2013	2014	2015	2016	2017
Dropout rate in Primary Education	2.20%	2.16%	2.67%	3.8%	2.98%	2.11%
Dropout rate 1 st Cycle (grade 1-4)	1.80%	1.92%	1.39%	1.8%	1.47%	1.10%
Dropout rate 2 nd cycle (grade 5-8)	1.43%	1.41%	1.28%	2%	1.51%	1.01%
Secondary Education Dropout rate (Grade 9)				2.57%	2.21%	1.88%
Preparatory (Grade 11)				1.86%	1.61%	1.37%

Source: Ministry of Education: Education sector statistical abstract (2018)

Table 3.2 shows the percentage of drop-out rate across time in different education cycles in Addis Ababa city administration. The primary education drop-out rate declined from 2.2 in 2012 to 2.1 percent in 2017 and the secondary education drop-out rate declined from 2.6 percent in 2015 to 1.9 percent in 2017 in Addis Ababa city administration.

The primary and secondary school completion rates are also increasing continuously in the country.

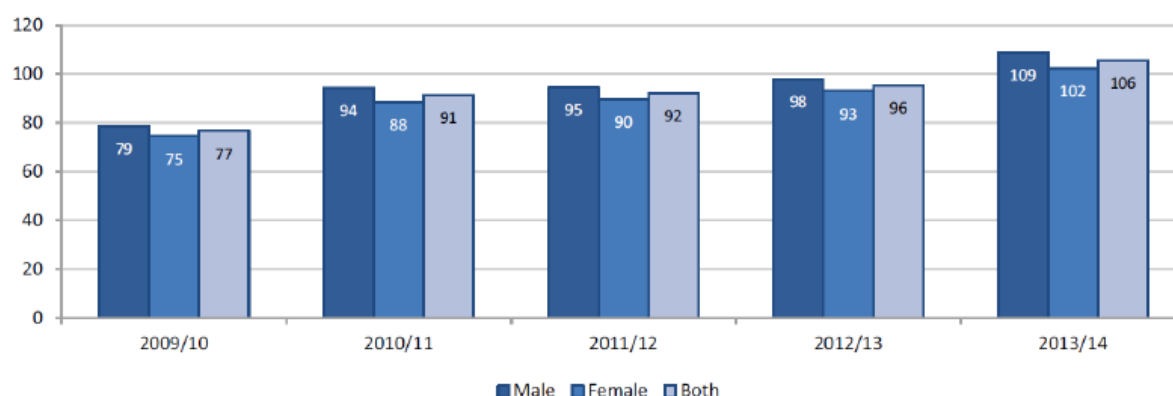
Our respondents from the Gurgaha Zone said:

Nowadays our community fully understands the advantage of girls' education. Empowering girls help their daughter to live the good life in the future. Previously the community was highly influenced by public beliefs such as educating girls is valueless since she will leave her parents' house upon marriage; Women could not advance in education and many other traditions and social norms discouraged girls' school attendance. But after the implementation of the Revised Family Code, the influence of these social norms significantly declined. Those people that believe in social norms that discourage girls' education are considered illiterate and backward people. The insult and discrimination backfire on

themselves. Rather, nowadays, communities' common slogan to promote girls' education is 'educating a woman is educating a nation'.

Ethiopia shows significant progress in girls' school enrolment and completion. The net primary enrolment rate has gone up from 80.5 percent in 2010 to 84.1 percent in 2013. Good progress has been also achieved in primary education completion. According to a report from the Ministry of Education in 2013, the grade 8 completion rate increased from 44.5 percent to 52.2 percent between 2010 and 2013. Even if secondary gross enrolment is less for girls than boys, it is continuously increasing. For example, between 2009 and 2013, the secondary school enrolment rate increased from 34.7 to 36.9 percent.

Figure 3.3: Net enrolment ratio in Grade 1, by gender, 2013/2014 (%)



Source: Ministry of Education: Education sector statistical abstract (2018)

■ Change of social norms on child marriage

In Ethiopia, most social norms and traditions force girls to work at home on unpaid jobs, restrict their time for education, and make them lose job opportunities. These social norms and traditions also forbid the movement of girls outside the home and limit the chance to contact friends and families. The same social norms and traditions sustain the practice of child marriage. Before the

adoption of the Revised Family Code, being married before 15 years was an indicator of family wealth and family reputation in the community. After the adoption of the Revised Family Code, these social norms and traditions continuously changed. Most of our respondents confirmed that the majority of the families know the side effect of child marriage. The majority of the family members have a vision of educating their girl child, enabling them to become economically independent and get married when mentally, physically, and economically ready to manage her marriage. Our respondents from the Gambela regions said:

After the implementation of the Revised Family Code (2000) and effective enforcement of the Revised Criminal Code (2005), harmful traditional social norms and traditions significantly declined. The community's belief and attitude towards child marriage significantly changed. Recently, our community believes in educating their daughters and enabling them to be economically empowered before marriage.

■ **Changes in the attitudes of the community and religious leaders**

All concerned public sectors (health, education, justice, and others) implemented advocacy and monitoring interventions at the community level using different platforms and structures such as Women Development Groups, in- and out-of-school clubs, and others. These lower-level platforms and structures consist of representatives from different community members such as women, youths, elders, religious leaders, community leaders, and experts from local administrations. Our respondents from the Ministry of Women and Social Affairs said:

The advocacy and monitoring intervention 2017 campaign on legal literacy, health, and women's rights, has shown significant results in ending child marriage practices. The women's rights perspective of the campaign has shown progress on gender roles, developing interest, and making the dialogue about other harmful traditional social

norms and practices such as abduction. To sustain the hopeful cooperation in the community, The Ministry of Women and Social Affairs has been taking different measures such as preparing manuals on social norms to change the community dialogue forum and encouraging male participation in the process of change.

Religious and tribal leaders play an important role in changing social norms and practices that sustain child marriage in the country. In Ethiopia, religious leaders play a significant role in supporting interventions aimed at eliminating traditional social norms and practices, ensuring that those practices will be reported to officials, and more importantly giving a blessing to field workers such as health workers, police officers, social workers, and others. This blessing encourages the community to cooperate with these public officers. At the national level, the Inter-Religious Council of Ethiopia (IRCE) has been established to eliminate harmful traditional social norms and practices since 2010. IRCE is composed of seven faith-based organizations. To achieve its objectives, IRCE has arranged different forums for community dialogue, prepare strategies through active participation of all members, and plans to end child marriage by 2025. Our respondents from the Amhara region said:

Religious leaders, preachers, community leaders, and elders highly support interventions designed to end child marriage. They actively participate in the delivery of the intervention to the targets population. Most religious leaders allow short awareness creation programs at religious centres (Churches, Mosques, and others) commonly on Sundays.

3.6.2. Better enforcement of laws and quick Justice for Children

By utilizing the established girls and women empowerment platform in 2020 about 3,749 planned child marriages were identified. Out of the identified planned child marriage practices, fifty-five percent were cancelled following the effective push and coordination between legal enforcement bodies and community-level women empowerment platforms. Relative to 2019, the total reported child marriage arrangements in 2020 were much less. For example in 2019, about 4,991 cases of planned child marriages were identified with thirty-seven percent voided through the effective cooperation between the legal enforcement bodies and community level women empowerment platforms (UNFPA-UNICEF, 2020). Due to the COVID-19 pandemic, the Ethiopian government closed schools from March 16, 2020, to November 2020. Thus, during this period in-school girl empowerment platforms such as in-school girls clubs were out of service. Although in-school girl clubs were inactive, many child marriage practices were, however, voided through the help of the community level girls and women empowerment platforms which include the out-of-school girls' clubs, Women Development Groups, Women Change Army Groups, and anonymous suggestion boxes in the communities (ibid). The continuous reporting of the planned child marriage acts during the COVID-19 pandemic shows the effective operation of girls' and women's empowerment platforms in the community. These girls and women's empowerment platforms boost the confidence of girls to report and seek support from concerned bodies (ibid).

According to the report from UNFPA-UNICEF (2020) pre-COVID-19 pandemic, schools, and girls empowerment groups, enabled the identification of more than eighty percent of planned child marriages in the community. The increased functionality of community-level girls and women empowerment platforms helped in identifying the planned child marriage practice, providing

technical and material support for girls, and distributing educational materials assist to fill the gaps that were created by the pandemic. Different government institutions such as the Bureau of Women, Children, and Youth, Bureau of Health, Bureau of Education, and Bureau of Justice support community-level women empowerment platforms and extend assistance to them through house-to-house visits.

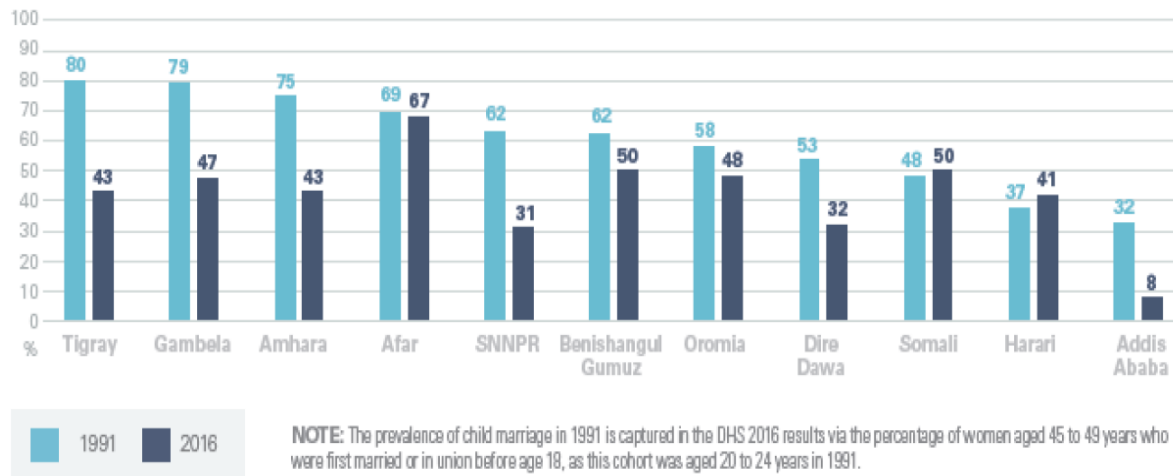
3.6.3. Sectorial plans modified to incorporate the goal of ending child marriage

Once the awareness of the community is enhanced, incorporating the child issue in the sectoral annual plan is very necessary for the prevention, protection, and response to child marriage. All necessary sectors (like education, health, justice, police, and other sectors) incorporated a plan for ending child marriage practice in Ethiopia. Under the ministry of Women and Social Affairs, the National Alliance to End Child Marriage was established. The alliance aimed to effectively coordinate enforcement of National Strategies and Action plan on harmful social norms that sustain the practice of early marriage.

3.6.4. The decline in the child marriage practices

After the adoption of the Revised Family Code, child marriage has shown a significant decline. The community understands the consequences of child marriages ranging from early motherhood, school drop-out, maternal death, intergenerational poverty, and loss of opportunity for the formal labour market (Koski, 2017 and Rasmussen *et al.*, 2019). But after the adoption of the Revised Family Code, child marriage practice is continuously declining. The following bar graph shows the variation of the decline of child marriage practice in the regional government of Ethiopia. Some regions – Tigray, Amhara, South Nation, Nationalities, and People of Ethiopia- are performing better than others.

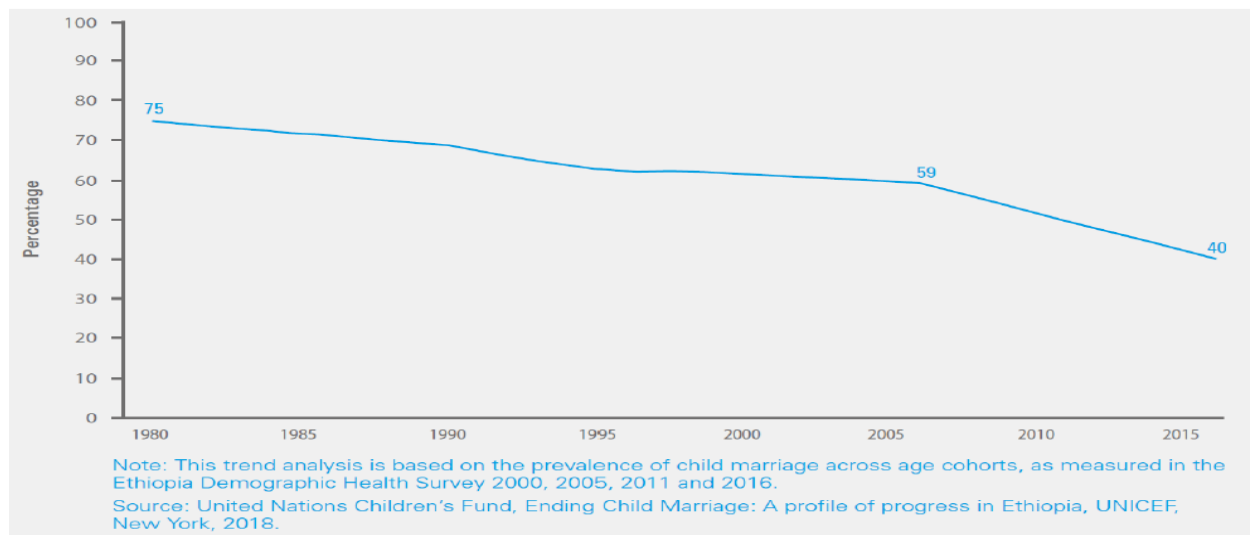
Figure 3.4: Incidence of child marriage across regional government



Source: UNICEF (2021), Ethiopia

Figure 3.4 shows the continued decline of early marriage practice in Ethiopia. Even if the incidence of early marriage is high in Ethiopia, it is declining at an increasing rate. For example, in the Tigray region, the incidence of early marriage dropped from 80 percent in 1991 to 43 percent in 2016 and in Addis Ababa city administration, dropped from 32 percent in 1991 to 8 percent in 2016. But in the Afar and Somali regional state still the incidence of early marriage is high.

Figure 3.5: Incidence of child marriage among women aged 20-24



Source: UNICEF (2021), Ethiopia

Figure 3.5 shows the incidence of early marriage for women aged 20-24. The incidence of early marriage for women aged 20-24 who were married before 18, dropped from 80 percent 1980 to 40 percent in 2016.

3.6.5. Further consequences

■ Narrowed gender disparity in education

Ethiopia's formal education system is now organized according to the primary cycle (Grade 1-6), lower secondary (Grade 7-8), and high school (9-12). The Sustainable Development Goal (Goal 5) is aimed at decreasing gender disparities in education and ensuring equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples, and children in vulnerable situations by 2030. After the adoption of the Revised Family Code, many gender disparities in primary and secondary education significantly declined in Ethiopia. Our respondents from Dire Dawa city administration said:

After the adoption of the Revised Family Code, the school enrolment rate is significantly increasing. There is an equal proportion of males and females in primary school. Even in some woredas, more female students than male students are enrolled. In secondary schools, there are relatively more males than females. Our respondents revealed the existence of significant gender disparity at tertiary level education and recommended for the government facilitate affirmative action for females to join tertiary education.

According to the Educational annual statistical abstract from the Ministry of Education, gender parity at different cycles of the education system shows significant improvement. As shown in Table 3.3 below, the gender parity ratio at all cycles of education are significantly increasing. This is because of the different interventions delivered to end the practice of child marriage in the community. As the number of young children who married before the legal age of marriage declines, the chance for the girl child to stay and complete her education will increase. Thus, the parity index in education significantly improved because of these reasons.

Table 3.3: Trend of gender parity ratio in education in Ethiopia

Gender Parity Ratio in Ethiopia		
Education Cycles	2009-2010	2012-2013
Primary (1-4)	0.90	0.92
Primary (5-8)	0.96	0.98
Secondary (9-10)	0.80	0.92
Preparatory (11-12)	0.56	0.81

Source: Ministry of Education, Education annual statistical abstract (2018), Ethiopia

As shown in the above table, the gender parity in each cycle of the education system is continuously improving. In all cycles, gender parity has changed positively.

Table 3.4: Percentage of female students in Addis Ababa city administration

Percentage of Female Students						
Cycle of Education	2012	2013	2014	2015	2016	2017
Pre-primary education	48.9	50.6	49.1	49.2	48.8	49.2
Primary education	54.8	54.8	52.2	54.3	54.8	54.3
First cycle (Grade 1-4)	54.1	56.6	56.7	54.0	54.3	53.8
Second cycle (Grade 5-8)	52.1	56.9	56.3	54.6	55.3	54.8
Secondary education 1 st Cycle (grade 9-10)	52.1	37.9	49.2	55.1	55.1	55.3
Preparatory 2 nd Cycle (11-12)	54.9	54.9	56.9	56.9	55.6	55.8

Source: Ministry of Education, Education annual statistical abstract (2018), Ethiopia

The above table shows the percentage share of female students in Addis Ababa city administration at different cycles of education. Except in the pre-primary education cycle, in all other cycles of education, the percentage share of female students is more than fifty percent. This shows that in Addis Ababa city administration more female students are attending school than male students.

■ Work in paid job

Before the adoption of the RFC, most women did not participate in the formal labour market. They limit their capacity only to domestic work. After the adoption of the Revised Family Code, a significant change has been achieved in women's educational enrolment and attainment, and labour force participation. For example, in 2016, the female employment rate increased to 71 percent from 64 in 2000. Of course, still, women's employment rate is less than the male employment rate (85 percent in 2016 for males) (MoE, 2018). Our respondent from the Gambela region said:

The chance of women getting formal labor is increasing after the adoption of the Revised Family Code in Ethiopia. The number of women employees in our staff could be used as a sample. There are many female public servants in our sectors. Women are empowered in their works as well as in the decision-making process in our regions. At the national level, there is a direction of incorporating women in the decision-making process. 47 percent of

the national cabinet are women. Using the same direction at the regional level the number of women decision-makers significantly increased at all levels of public administration.

According to a report from IDRC (2020), Ethiopia achieved significant progress on women's political empowerment after selecting women presidents and giving most of the cabinet positions to women. Ethiopia had been ranked 16 globally on women's political empowerment.

■ Summary of the interconnection among delivery challenges, processes, and results

Table 3.5 shows the interconnection among delivery challenges that hinder effective implementation of the RFC, the innovation introduced to overcome the challenges, and the results achieved in the process of implementation.

Table 3.6: Summary of the interconnection among delivery challenges, processes, and results

Delivery challenges	Tracing the implementation processes	Results
Social norms and cultural challenges	<ul style="list-style-type: none"> ■ Intensive public awareness creation campaign ■ Intensive legal literacy campaign 	<ul style="list-style-type: none"> ■ Change of social norms on child marriage ■ Child marriage is a crime ■ Educating a woman is educating a nation ■ Changes in the attitudes of the community and religious leaders ■ Declined in the child marriage practice
Coordination and engagement challenges	<ul style="list-style-type: none"> ■ Mainstreaming the RFC in different sectors' plans ■ National roadmap to end child marriage ■ Securing international and regional support 	<ul style="list-style-type: none"> ■ Sectorial plans modified to incorporate the goal of ending child marriage ■ Declined in the child marriage practice
Legislation and regulation challenges	<ul style="list-style-type: none"> ■ Specialized courts for girls and women ■ Closed courts for child marriage cases ■ Establishing child rights committees ■ Well-established children's parliaments (children's centre of excellence) 	<ul style="list-style-type: none"> ■ Better enforcement of laws ■ Quick justice for children ■ Declined in the child marriage practice

Limited access to the media	<ul style="list-style-type: none"> ■ Establishing diverse girls' clubs (In-and-out-of- school girls' clubs) ■ Establishing women's development and changing army groups ■ Well-established children's parliaments (children's centre of excellence) 	<ul style="list-style-type: none"> ■ Changes in attitudes of the community and religious leaders ■ Change of social norms on child marriage ■ Declined in the child marriage practice
Underdevelopment and poverty	<ul style="list-style-type: none"> ■ Provide life skills building training ■ Establishing women's development groups and changing army groups ■ Securing international and regional support 	<ul style="list-style-type: none"> ■ Increased probability to join the formal labour market ■ Narrowed gender disparity in education ■ Declined in the child marriage practice

Source: summarized by the author

3.7. Discussion

The majority of the Ethiopian community has full awareness that the practice of child marriage is a crime. Before the adoption of the RFC, practicing child marriage was considered a reputation for family and a blessing for the girl-child. Thus, in Ethiopia no one celebrate child marriage practice publically. In support of our finding Denny *et al.*, (2015) revealed that parents conclude early marriage by not referring to the ceremony as a wedding. In Ethiopia policy and decision-makers use girls' education as a key tool to sustain the economic growth of the nation. Our respondents revealed that significant progress has been made in girls' school enrolment and completion rate. In support of this study Schultz (2002), Karumbi *et al.*, (2017), and United Nations (2015) listed the benefits of girls education such as end early marriage, reduce unwanted pregnancy and young pregnancy, intimate, maternal and infant mortality, and ensure sustainable development of a nation. Abuya *et al.*, (2017) through a qualitative study showed that parents' engagement in school meetings changes the value of girls' education. On the other hand, Global Partnership for Education (2016) report shows that the existence of social norms and tradition influence families to give low value to girls' education.

In Ethiopia, most social norms and traditions force girls to work at home on unpaid jobs, restrict their time for education, and make them lose job opportunities. These social norms and traditions also forbid the movement of girls outside the home and limit the chance to contact friends and families. After the adoption of the RFC, these social norms and traditions meaningfully declined. The majority of my observations have a vision of educating their girl-child, enabling them to become economically independent and to get married when mentally, physically, and economically ready to manage her marriage. In support of this finding Sunstein (1996) and McAdams (2000) argue that even if the legislation is not enforced effectively, it has an “expressive effect” which impacts attitudes, norms, behaviours, values, and traditions. Chen and Yeh (2014) revealed that simply delivering a message about formal law affects social norms, values, attitudes, beliefs, and behaviours in the United States of America. On contrary, real-world experiences suggest that it might be very difficult, if not impossible, to overcome the steep barriers presented by entrenched social norms (Shakya *et al.*, 2014; UNICEF, 2020).

The study shows that through continuous awareness creation and advocacy campaigns, community and religious leaders’ attitudes towards ending the practice of child marriage are changed. Since community and religious leaders are highly respected in the community, they have a great role in the successful delivery of the intervention to end child marriage. In support of this finding Nathani *et al.*, (2009) and Assad *et al.*, (2007) revealed that longer exposure to policy interventions changes the attitude of community and religious leaders towards the support of interventions that aimed to end the practice of child marriage. On contrary, Vaughan *et al.*, (2000) reported the absence of a significant impact of exposure to the Apwe Plezi program on attitudes toward women working in paid jobs.

After the adoption of the Revised Family Code, child marriage has shown a significant decline. The community understands the consequence of child marriage ranging from early motherhood, school drop-out, maternal death, intergenerational poverty, and loss of opportunity for the formal labour market (Koski, 2017 and Rasmussen *et al.*, 2019). Thus, according to Ethiopia's DHS data the prevalence of child marriage declined from 60 percent in 2005 to 40 percent in 2016. In support of this finding Amin (2017) shows that accessible education opportunities significantly decrease the prevalence of child marriage. Assad *et al.*, (2007) showed that with the longer exposure to the Ishraq (in Egypt) program that aimed to end the practice of child marriage, the preference for marrying before the legal age of marriage declined from 28 percent to 1 percent among observations that attended the program relative to the observations in the control group. On the contrary, Koski (2016); Malkotra *et al.* (2011) and Kidman and Heymann (2016) revealed an insignificant impact of legislative policy intervention on child marriage practice.

After the implementation of the RFC, women's educational attainment significantly improved. In Ethiopia, the gender parity ratio for education significantly increased at all levels of the education cycle. In Addis Ababa city administration more female students are attending school than male students. In support of this finding Chege *et al.* (2001) and Diop (2004) showed that policy intervention that aimed to end child marriage significantly increased women's educational attainment in Kenya and Senegal, respectively. Alim (2011) evaluates the impact of community dialogue on gender-egalitarian norms in Bangladesh. The finding of the study showed that the intervention significantly increased girls' school enrolment rate. Contrary to this study, Papa *et al.*, (2004) on Taru in India; pure *et al.*, (2002) on ReproSalud in Peru; Low *et al.*, (2012) on IPA in Zambia; Assad *et al.*, (2007) on Ishraq in Egypt found an insignificant impact of policy

intervention towards gender-egalitarian norms on education. Fenn *et al.* (2015) revealed the existence high gender gap in education in sub-Saharan African countries.

After the adoption of the Revised Family Code, a significant change has been achieved in women's labour force participation. For example, in 2016, the female employment rate increased to 71 percent from 64 in 2000. Of course, still, women's employment rate is less than the male employment rate (85 percent in 2016 for males) (MoWSA, 2019). In support of our finding ElNagar *et al.* (2017) revealed that girls who marry before the legal age of marriage are disadvantaged due to the lack of different socio-economic opportunities including the opportunity to join the formal labour force to earn sufficient income for their basic needs. Scholars argued that in countries with high early marriage occurrences, there is either ineffective implementation or an absence of laws and regulations that could protect children from early marriage (Mathur *et al.*, 2003; Myers, 2013; Backlund & Blomqvist, 2014).

Generally, the findings of this study show the positive impact of adopting the Revised Family Code on the short and long-run women's life outcome. Though many developing countries have policies and strategies to protect girls from early marriage, putting it down in black and white, however, cannot practically overcome the problem of early marriage. There is a problem with effective implementation and evaluation (ICRW, 2011; Myer, 2013). Since the early 1990s, India set 18 years as the minimum legal age for marriage (UNICEF, 2015). In Nigeria, the adoption of the minimum legal age for marriage has no implications for early marriage (Toyo, 2006). Nour (2009) revealed that lack of basic needs, opportunities for education, and formal employment are the causes and consequences of early marriage in many developing countries.

3.8. Lessons learned

From this study, the author noticed that creating an enabling environment for effective delivery of interventions designed to end child marriage is an important strategy for eliminating harmful traditional social norms and practices. From this perspective, the Ethiopian government shows a strong pledge to end child marriage by 2025. For example, the government has a clear-cutting point for the minimum legal age of marriage, 18, and criminalizes child marriage in the Revised Criminal Code (2005). Some different interventions structures and platforms enable to reach local children's and women's-Women Development Group, In-School and Out-of-School Clubs, Child Right Committee, Change Army, and others- from the federal to the regional level which facilitates effective implementation of various policy interventions. These platforms and structures are actively supported by the community, religious leaders, and community leaders which facilitate effective engagement at the community level.

The other major lesson noticed from this study is the role of key community members like religious institutions, religious leaders, elders, and media organizations since they are key factors for achieving intended objectives. These key stakeholders have direct contact with different members of families, communities, and particularly with girls at risk. These key community members determine the success of the intervention because they are respected by the community members. Both at the federal and local levels of the country, some structures and platforms encourage communication and cooperation among these community members. These enabling factors help them to play an essential role in changing social norms and practices.

After the implementation of the Revised Family Code, school enrolment rates are continuously increasing. Nowadays, many children are attending primary and secondary school. Thus, to equip them with the skills and knowledge necessary to challenge harmful social norms and practices, developing school-based clubs is very important. In Ethiopia, there are many school-based clubs. One of the strengths of school-based clubs is that, for all girls to attend clubs programs, they do not need to get permission from their parents. To increase members of In-School clubs, teachers convince the community about the importance of enrolling girls in clubs. Furthermore trained teachers advocate for the establishment of out-of-school clubs to reach children who are not in school. These out-of-school clubs and different empowerment programs are basic strategic tools for policy and decision-makers to reach out to out-of-school girls (already married or have children). Selecting the suitable time and frequency of contacting these out-of-school girls is also important to reach all girls. Convincing their parents is also another determining factor for achieving the intended goals. To enhance the effectiveness of in and out-of-school clubs, creating opportunities for different family members including boys to enrol in the clubs is essential.

Many of the community and women's development structures established at different levels of administration highly depend on external funding. It is expected that this framework needs to work sustainably to reach different generations. Because of a lack of budget and experienced human resources, most of the initiatives and development structures are not sustainably working. Authors noticed that all girls' empowerment programs and initiatives should look at mechanisms that could help them to generate an annual budget sustainably for a longer-term. The facilitators of the programs and initiatives also need to update themselves with new ideas and technology.

References

- Abuya, B., Elungata, P., Mutisya, M. and Kabiru, C. (2017) Parental education and high school completion in the urban informal settlements in Kenya, *Cogent Education*, 4(1), 1369489, DOI: 10.1080/2331186X.2017.1369489
- African Union. (2013). Campaign to End Child Marriage in Africa: Call To Action. Retrieved on April, 2022 from:
Campaign to End Child Marriage in Africa Call for Action- English (Au.Int).
- Alim, A. (2011). Shaking Embedded Gender Roles and Relations: An Impact Assessment of Gender Quality Action Learning Programme. Dhaka: BRAC Education Programme. Retrieved on April 10, 2022 from: Shaking Embedded Gender Roles and Relations: An Impact Assessment of Gender Quality Action Learning Programme | Eldis.
- Amin, S., Asadullah, M., Hossain, S., and Wahhaj, Z. (2017). Can Conditional Transfers Eradicate Child Marriage? *Economic and Political Weekly*, 52(6).
- Ara, J. and Das, C. (2010). Impact Assessment of Adolescent Development Programme in the Selective Border Regions of Bangladesh'. Dhaka: BRAC. Retrieved on April 9, 2022 from Microsoft Word - Working Paper 14.doc (bracu.ac.bd).
- Assaad, R., Brady, M., Ibrahim, B., Salem, A., Salem, R. and Zibani, N. (2007). Providing New Opportunities to Adolescent Girls in Socially Conservative Settings: The Ishraq Program in Rural Upper Egypt. New York: Population Council.
- Backlund, H., and Blomqvist, G. (2014). Protecting the girl child or upholding patriarchy? A case study of child marriage in the cultural and legal context of Tanzania. Lund University: SIDA. Retrieved on April 9, 2022 from download (lu.se).
- Ball, C., and Fletcher, E. (2012). Reducing Societal Discrimination against Adolescent Girls. Using Social Norms to Promote Behavior Change. New York: Girl Hub. Retrieved on April 9, 2022 from Ball Cooper and Fletcher December (wordpress.com).
- Barker, G., Ricardo, C., Nascimento, M., Olukoya, A. (2010). Questioning gender norms with men to improve health outcomes: evidence of impact. *Global Public Health*, 5(5), 539–53. doi: 10.1080/17441690902942464.
- Benta, A., Elungata, P., Mutisya, M., & Kabiru, C. (2017). Parental education and high school completion in the urban informal settlements in Kenya. *Cogent Education*, 4(1), DOI: 10.1080/2331186X.2017.1369489
- Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2). pp. 77-101.
ISSN 1478-0887 Available from: http://eprints.uwe.ac.uk/11735.
- Chaaban, J. and Cunningham, W. (2011). Measuring the Economic Gain of Investing in Girls. The Girl Effect Dividend. Policy Research Working Paper-5753. Washington, DC: World Bank. Retrieved from: https://doi.org/10.1596/1813-9450-5753.
- Chen, L. and Yeh, S. (2014). The construction of morals. *Journal of Economic Behavior and*

- Organization*, 104(), 84-105. Retrieved from <https://doi.org/10.1016/j.jebo.2013.10.013>.
- Cislaghi, B., and Heise, L. (2017). Measuring Gender-related Social Norms, Learning Report 1. Learning Group on Social Norms and Gender-related Harmful Practices of the London School of Hygiene & Tropical Medicine. Retrieved from (92) [STRIVE Norms Measurement Brief.pdf | Ben Cislaghi - Academia.edu](#).
- Cislaghi, B. and Heise, L. (2018b). Using social norms theory for health promotion in low income countries. *Health Promotion International*, 34(5), 1-8. DOI:[10.1093/heapro/day065](https://doi.org/10.1093/heapro/day065)
- Cislaghi, B., Taylor, A., Murphy-Graham, E., Bapu Vaitla, J., and Valle, A. (2019). Child Marriages and Unions in Latin America: Understanding the Roles of Agency and Social Norms. *Journal of Adolescent Health*, 64 (5), 45-51. Retrieved form <https://doi.org/10.1016/j.jadohealth.2018.12.017>.
- CMS (Centre for Media Studies). (2004). An Evaluation Study of the Meena Communication Initiative (MCI) in India. New Delhi: UNICEF ROSA. Retrieved from [\[PDF\] Evaluation of the Meena Communication Initiative - Free Download PDF \(silo.tips\)](#).
- Conquering Lion of the Tribe of Judah Haile Selassie I Elect of God, Emperor of Ethiopia. (1960). Civil, Commercial and Family law. Civil Code Proclamation No. 165/1960. Negarit Gazeta. Gazette Extraordinary. Retrieved from [Ethiopia - Civil Code Proclamation No. 165/1960. \(ilo.org\)](#).
- Creswell, W. (2007) Qualitative Inquiry and Research Design: Choosing among Five Approaches. 3rd Edition, Sage, Thousand Oaks.
- Daniel, E. and Nanda, R. (2012). The Effect of Reproductive Health Communications on Age at Marriage and First Birth in Rural Bihar, India: A Retrospective Study'. Mastipur: Pathfinder International. Retrieved from: DOI:[10.1363/ifpp.34.189.08](https://doi.org/10.1363/ifpp.34.189.08).
- Das, M., Bankar, S., Collumbien, M., Verma, K., Cislaghi, B. & Heise, L. (2018). Contesting restrictive mobility norms among female mentors implementing a sport based programme for young girls in a Mumbai slum. *BMC Public Health*, 18(1), 471.
- Delprato, M., Akyeampong, K., Sabates, R. and Hernandez-Fernandez, J. (2015). On the impact of early marriage on schooling outcomes in Sub-Saharan Africa and South West Asia. *International Journal of Educational Development*, 44 (2015), 42–55. Retrieved from <https://doi.org/10.1016/j.ijedudev.2015.06.001>.
- Denny, E., Mackie, G., Moneti, F., and Shakya, H. (2015). What are social norms? How are they measured? New York, NY: UNICEF and UCSD. Retrieved from: [Social Norms and Measurement – WP – UCSD-UNICEF](#).
- Digital. (2022, April 2021). Digital 2021: Ethiopia. Retrieved from [Digital in Ethiopia: All the Statistics You Need in 2021 — DataReportal – Global Digital Insights](#).
- Diop, N., Faye, M., Moreau, A., Cabral, J., Benga, H., Cisse, F., Mane, B., Baumgarten, I. and

- Melching, M. (2004). *The Tostan Program Evaluation of a Community-Based Education Program in Senegal*. Washington, DC: Population Council, GTZ and Tostan. DOI: <https://doi.org/10.2307/3177536>.
- Dube, L. (1997), *Women and Kinship: Comparative Perspectives on Gender in South and South-East Asia*, United Nations University Press Ltd. Tokyo.
- Elbadawy, A. (2013). *Assessing the Impact of Ishraq Intervention, a Second-Chance Program for Out-of-School Rural Adolescent Girls in Egypt*. Cairo: Population Council. Retrieved from [Evaluating the Impact of the Ishraq Prog.pdf](#).
- El-naggar, M., & Bolt, A. (2016, October 15). Ladies First: Saudi Arabia's Female Candidates. The New York Times. Retrieved from: [Ladies First: Saudi Arabia's Female Candidates | AMNH](#).
- Erulkar, A., and Muthengi, E. (2009). Evaluation of Berhane Hewan: A Program to Delay Marriage in Rural Ethiopia. *International Perspectives on Sexual and Reproductive Health*. 35(1): 6–14.
- Erulkar, A., Mekbib, T., Simie, N., and Gulema, T. (2004). The Experience of Adolescence in Rural Amhara Region Ethiopia. Accra: Population Council. Retrieved from: [The Experience of Adolescence in Rural A.pdf](#).
- Federal Democratic Republic of Ethiopia. (1995). Constitution of the Federal Democratic Republic of Ethiopia. Proclamation No. 1/1995, Negarit Gazeta, Year 1, No. 1.
- Federal Democratic Republic of Ethiopia Ministry of Education. (2019). Education Statistics Annual Abstract 2011 E.C. (2018/19). Retrieved from [ESAA 2011 E.C. October 2019 - Ministry of Education.pdf \(moe.gov.et\)](#).
- Federal Democratic Republic of Ethiopia. (2005). Criminal Code Ethiopia. Proclamation no.414/2004. Retrieved from: [The Criminal Code of the Federal Democratic Republic of Ethiopia 2004 \(unodc.org\)](#)
- Global Partnership for Education. (2016). The Global Partnership for Education's Corporate Engagement Principles. Retrieved on April 7, 2022 from [2016-05-gpe-corporate-engagement-principles_0.pdf \(globalpartnership.org\)](#).
- Greene, M, Levine, R., Lloyd, C., and Grown, C. (2009). Girls Count. A Global Investment and Action Agenda. Washington, DC: CGD. Retrieved from: [40521 UNF CVR.indd \(cgdev.org\)](#).
- Hallward-Driemeier, M. and Gajigo, O. (2015). Strengthening Economic Rights and Women's Occupational Choice: The Impact of Reforming Ethiopia's Family Law. *World Development*, 70(C), 260-273.
- Henwood, K., & Pidgeon, N. (2003). Grounded theory in psychological research. In P. M. Camic, J. E. Rhodes, & L. Yardley (Eds.), *Qualitative research in psychology: Expanding perspectives in methodology and design* (pp. 131–155). American Psychological Association. <https://doi.org/10.1037/10595-008>.
- Hom, V., Vaitla, B., Taylor, A., and Cislighi, B. (2017). *Social Norms and Girls' Well-Being: Linking Theory and Practice*. Washington, D.C.: Data2X.

- Hombrados, J. (2018). Child Marriage and Infant Mortality: Evidence from Ethiopia. Working Papers 2018-07, FEDEA.
- Huda, K., and Calder, R. (2013). Adolescent Girls and Education: Challenges, Evidence, and Gaps. London: Development Pathways/DFID and Girl Hub. Retrieved from: 13-PathwaysPerspectives-adolescent-girls-and-education-pp13-1.pdf (developmentpathways.co.uk).
- Human Rights Watch. (7 September, 2016). Our Time to Sing and Play- Child Marriage in Nepal. Retrieved from: nepal0916_insert_web (hrw.org).
- International Centre for Research on Women (ICRW). (2006). Too Young to Wed: Education & Action toward Ending Child Marriage, Brief on Child Marriage and Domestic Violence. Retrieved from Too Young to Wed: Education & Action toward Ending Child Marriage (icrw.org).
- International Center for Research on Women (ICRW). (2011). Delaying Marriage for Girls in India: A Formative Research to Design Interventions for Changing Norms. Retrieved from: ICRW | PASSION. PROOF. POWER.
- Jain, S., and Kurz, K. (2007). New insights on preventing child marriage: A global analysis of factors and programs. USAID. Retrieved from: New Insights on Preventing Child Marriage (icrw.org).
- Jewkes, R., Nduna, M., Levin, J., Jama, N., Dunkle, K., Wood, K., Koss, M., Puren, A. and Duvvury, N. (2007). Impact of Stepping Stones on incidence of HIV and HSV-2 and sexual behavior in rural South Africa: cluster randomized controlled trial. *BMJ Clinical Research* 337(7666):a506. doi:10.1136/bmj.a506.
- Johnson, B., and Christensen, L. (2014). *Educational Research: Quantitative, Qualitative, and Mixed Approaches*. (5th ed). Sage. Retrieved from: (PDF) Educational Research Quantitative, Qualitative, and Mixed Approaches Fifth Edition (researchgate.net).
- Jones, N., Tefera, B., Stephenson, J., Gupta, S. and Perezniето, P. (2014). Early Marriage and Education: The Complex Role of Social Norms in Shaping Ethiopian Adolescent Girls' Lives. London: Overseas Development Institute. Retrieved from: 9483.pdf (resource-centre-uploads.s3.amazonaws.com).
- Karumbi, J., Gathara, D., and Muteshi, J. (2017). Exploring the Association between FGM/C and Child Marriage: A Review of the Evidence. Evidence to End FGM/C: Research to Help Women Thrive. Population Council. Retrieved from: Exploring the association between FGM/C and early/child marriage: A review of the evidence (popcouncil.org).
- Kidman, R., and Heymann, J. (2018). Prioritizing action to accelerate gender equity and health for women and girls: Micro-data analysis of 47 countries. *Glob Public Health*, 13(11), 1634-1649.
- Koch, J. and N'kolo, K. (2011). Final Report: Vrai Djo Project. A Campaign to Promote Positive Male Role Models in the Fight against Sexual and Gender Based Violence in the Democratic Republic of the Congo'. Kinshasa: Search for Common Ground. Retrieved from: Microsoft Word - Final Report SFCG COD078 Vrai Djo July 2011 Final_ch (3).

- Koski, A., Clark, S., and Nandi, A. (2017). Has child marriage declined in Sub-Saharan Africa? An analysis of trends in 31 countries. *Population Development Review*, 43(1):7–29.
- Kothari (2004). *Research methodology: Methods and Techniques*. (2nd ed.). New Delhi; New age international (P) limited publisher.
- Leerlooijer, J., Bos, A., Ruiter, R., Reeuwijk, M., Rijdsdijk, L., Nshakira, N., and Kok, G. (2013). Qualitative Evaluation of the Teenage Mothers Project in Uganda: A Community-Based Empowerment Intervention for Unmarried Teenage Mothers. *BMC Public Health* 13(816). doi: 10.1186/1471-2458-13-816.
- Low, C., McGinn, K., and Ashraf, N. (2012). The Impact of Teaching Negotiation Skills on Girls' Education and Health Outcomes'. London: International Growth Centre, LSE. Retrieved from: [Ashraf-Et-Al-2013-Working-Paper.pdf \(theigc.org\)](#).
- Malhotra, A., Warner, A., McGonagle, A., and Lee-Rife, S. (2011). Solutions to End Child Marriage. What the Evidence Shows. Washington, DC: ICRW. Retrieved from: [Solutions to End Child Marriage - What the Evidence Shows \(healthynewbornnetwork.org\)](#).
- Marchus, R and Page, E. (2014). Changing discriminatory norms affecting adolescent girls through communication activities. A review of evidence. London: Retrieved from: [Changing discriminatory norms affecting adolescent girls through communication activities: A review of evidence | ODI: Think change](#).
- Marcus, R., and Harper, C. (2014). Gender Justice and Social Norms – Processes of Change for Adolescent Girls. Towards a Conceptual Framework 2. Report. London: Overseas Development Institute. Retrieved from: [8831.pdf \(odi.org\)](#)
- Marcus, R., and Harper, C. (2015). Social norms, gender norms and adolescent girls: a brief guide. London: Overseas Development Institute: Retrieved from: [Social norms, gender norms and adolescent girls: a brief guide - - Toolkits \(odi.org\)](#).
- Mathur, S., Greene, M. and Malhotra, A. (2003). Too Young to Wed: The Lives, Rights and Health of Young Married Girls. Washington, D.C: International Center for Research on Women (ICRW). Retrieved from: [Too Young to Wed: the Lives, Rights and Health of Young Married Girls \(icrw.org\)](#).
- Mathur, S., Malhotra, A., and Mehta, M. (2004). Youth Reproductive Health in Nepal: Is Participation the Answer? Washington, DC: ICRW. Retrieved from: [Youth Reproductive Health in Nepal: Is Participation the Answer? \(icrw.org\)](#).
- McAdams, RH. (2000a). A Focal Point Theory of Expressive Law. *Virginia Law Review*, 86(), 1649-1729. DOI:[10.2139/ssrn.254420](#)
- Michau, L., Horn, J., Bank, A., Dutt, M., and Zimmerman, C. (2015). Prevention of violence against women and girls: Lessons from practice. *The Lancet*, 385(9978), 1672–1684. doi:10.1016/S0140-6736(14)61797-9.
- Min, S., and Suran, L. (2005). Program efforts to delay marriage through improved opportunities: Some evidence from rural Bangladesh. Paper presented at the International Union for the Scientific Study of Population (IUSSP). Tours, France, 18-23 July. Retrieved from: [paa2005 \(princeton.edu\)](#).

- Ministry of Women, Children and Youth Affairs (MoWCY). (2019). National Costed Roadmap to End Child Marriage and FGM/C 2020–2024. Retrieved on April 7, 2022 from [National Roadmap to End Child Marriage and FGM.pdf \(unicef.org\)](#).
- Munoz, A., Petesch, P., and Turk, C. (2012) On Social Norms and Agency. The World Bank. Retrieved from: [2012 On Norms and Agency Conversations.pdf](#).
- Nambusi, K., Starmann, E., Devries, K., Michau, L., Nakuti, J., Musuya, T., Watts, C., and Heise, L. (2014). SASA! Is the Medicine That Treats Violence? Qualitative Findings on How a Community Mobilization Intervention to Prevent Violence Against Women Created Change in Kampala, Uganda. *Global Health Action* 7(10): 1260–11. doi:10.3402/gha.v7.25082.
- Nathani, V., Acharya, R., Kalyanwala, S., and Jejeebhoy, J. (2009). Broadening Girls' Horizons: Effects of a Life Skills Education Programme in Rural Uttar Pradesh. New York: Population Council. Retrieved on April 9, 2022 from [Broadening girls' horizons: Effects of a life skills education programme in rural Uttar Pradesh \(issuelab.org\)](#).
- Nour, N. (2009). Child marriage: A silent health and human rights issue. *Reviews in Obstetrics & Gynecology*, 2(1):51-56.
- Ortner, SB. (1978). *The Virgin and the State*. *Feminist Studies*, 4(3), 19-35. Retrieved from: [The Virgin and the State on JSTOR](#).
- Papa, M., Singhal, A., Witte, K., Muthuswamy, N., Duff, D., Vasanti, P.N., Harter, L., Sharma, D., Pant, S., Sharma, A.K., Worrell, T., Ahmead, M., Shrivastav, A., Verma, C., Sharma, Y., Rao, N., Chitnis, K., Sengupta, A. (2004). Effects of Taru, A Radio Soap Opera, on Audience in India: A Quantitative and Qualitative Analysis. New York: Population Communications International. Retrieved from: [EFFECTS OF TARU, A RADIO SOAP OPERA, ON AUDIENCES IN INDIA \(utep.edu\)](#).
- Pathfinder International. (2011). Pragma – Multisectoral, Gendered Approach to Improve Family Planning and Sexual and Reproductive Health for Young People: A Research Study. Watertown, MA: Pathfinder International. Retrieved from: [PRAGYA: Multisectoral, Gendered Approach to Improve Family Planning and Sexual and Reproductive Health for Young People: A Research Study \(convio.net\)](#).
- Petroni, S., Steinhaus, M., Fenn, N.S., Stoebe, K., and Gregowski, A. (2017). New Findings on Child Marriage in Sub-Saharan Africa. *Annals of Global Health* 83(56), 781–90.
- Plan International. (2010). Because I'm A Girl: Because I am a Girl: Digital and Urban Frontiers. Woking: Plan International. Retrieved from: [Because I am a Girl: Urban and Digital Frontiers - Plan International \(yumpu.com\)](#).
- Poynton, C., Paluck, E., Ball, E., and Siedloff, S. (2010). Social Norms Marketing aimed at Gender-Based Violence: A Literature Review and Critical Assessment. New York: International Rescue Committee. Retrieved from: [Social norms marketing aimed at gender based violence: a literature review | Eldis](#).
- Pure, C., Ferrando, D., and Serrano, N. (2002). Mid-Term Impact Evaluation of the Reproductive Health in the Community (ReproSalud) Project. Washington, DC: USAID.

- Raj, A., Saggurthi, N., Winter, M., Labonte, A., Decker, MR. and Balaiah, D. (2010). The effect of maternal child marriage on morbidity and mortality of children under 5 in India: Cross sectional study of a nationally representative sample. *BMJ*, 340. doi: 10.1136/bmj.b4258
- Rasmussen, B., Maharaj, N., Sheehan, P., Friedman, HS. (2019). Evaluating the Employment Benefits of Education and Targeted Interventions to Reduce Child Marriage. *J Adolescent Health*. 65(1S),S16-S24. doi: 10.1016/j.jadohealth.2019.03.022.
- Rogers, E., Vaughan, P., Ramadhan, M.A., Rao, N., Svenkerud, P. and Sood, S. (1999). Effects of an Entertainment Education Radio Soap Opera on Family Planning Behaviour in Tanzania'. *Studies in Family Planning* 30(3): 193-211
- Rozan. (2012). Evaluation Study: Working with Men and Boys on Prevention of GBV'. Islamabad: Retrieved from: Evaluation Study: Working with Men and Boys on prevention of GBV (rozan.org).
- Schultz, T., (2002). Why governments should invest more to educate girls. *World Development, Elsevier*, 30(2), 207-225.
- Selim, M., Nahla A., Khaled E., Asmaa, E., and Heba, E. (2013). The Ishraq program for out-of-school girls: From pilot to scale-up. Cairo: Population Council. Retrieved from: The Ishraq Program for out-of-school girls: From pilot to scale-up (popcouncil.org).
- Shakya, H., Christakis, A. and Fowler, H. (2014). Association between social network Communities and health behavior: An observational sociocentric network study of latrine ownership in rural India. *American Journal of Public Health*, 104(4), 930–937.
- Sunstein, C.R. (1996). On the expressive function of law. *University of Pennsylvania Law Review*. Retrieved from: On the Expressive Function of Law (harvard.edu).
- The Federal Democratic Republic of Ethiopia. (2000). The Revised Family Code. Proclamation No. 213/2000. Federal Negarit Gazetta Extra Ordinary Issue No. 1/2000.
- Toyo, N. (2006). Revisiting Equality as a Right: The Minimum Age of Marriage Clause in the Nigerian Child Rights Act, 2003. *Third World Quarterly* 27(7), 1299-1312.
- UNFPA. (2012). Marrying Too Young: End Child Marriage. Retrieved from: End Child Marriage | United Nations Population Fund (unfpa.org).
- UNFPA. (2020). State of the World's Population 2020. Retrieved from: UNFPA State of the World's Population 2020 (who.int).
- UNFPA. (2020). *State of World Population 2020: Against My Will*, United Nations Population Fund, New York.
- UNFPA–UNICEF. (2020). Global Programme to End Child Marriage, Global Consultation on Child Marriage in Humanitarian Settings, 4–5 February 2020, Amman, Jordan. Meeting Report, New York, Forthcoming.
- UNICEF. (2016). Early Marriage: A Harmful Traditional Practice. Retrieved from: Early Marriage: A traditional harmful practice - A statistical exploration - UNICEF DATA.
- UNICEF. (2015). State of the World's Children. Retrieved on April 8, 2022 from http://www.unicef.org/sowc2013/
- UNWOMEN. (2016). *Reforming the legislation on the age of marriage: Successful experiences*

- and lessons learned from Latin America and the Caribbean.* Retrieved from https://www.unicef.org/lac/child_marriage_finalversion_23092016.pdf Crossref.
- Vaughan, p., Regis A., and Catherine, E. (2000). Effects of an Entertainment-Education Radio Soap Opera on Family Planning and HIV Prevention in St. Lucia. *International Family Planning Perspectives*, 26 (4), 148-157. DOI:[10.2307/2648250](https://doi.org/10.2307/2648250).
- Wahhaj, Z. (2018). An Economic Model of Early Marriage. *Journal of Economic Behaviour and Organization*, 152(C): 147-176. <https://doi.org/10.1016/j.jebo.2018.06.001>.
- Watson, C. (2014). Understanding Changing Social Norms and Practices around Girls' Education and Marriage: Lessons Learned and Emerging Issues from Year 2 of a Multi-Country Field Study. London: Overseas Development Institute. Retrieved from [9572.pdf \(resource-centre-uploads.s3.amazonaws.com\)](#).
- Watson, C., Harper, C., and Jones, N. (2012). Gender Justice for Adolescent Girls: Tackling Discriminatory Social Norms. Towards a Conceptual Framework. Shaping policy for development. London: Retrieved from: [Gender justice for adolescent girls: tackling discriminatory social norms. Towards a conceptual framework: Research reports and studies; Journal articles or issues \(odi.org\)](#).
- Watson, C., Jones, N., and Harper, C. (2010). Stemming Girls Chronic Poverty: Catalysing Development Change by Building Just social Institutions. Chronic Poverty Research Centre, Manchester: Retrieved from: [Full_report.pdf \(chronicpoverty.org\)](#).
- Westoff, C. (2003). Trends in marriage and early childbearing in developing countries. DHS Comparative Reports No. 5. Calverton, MD: ORC Macro. Retrieved from: [Microsoft Word - CR5-text.doc \(dhsprogram.com\)](#).
- Winder, J. (2015). Writing Case Studies: Science of Delivery. Princeton University. Retrieved on April 7, 2022 from [Writing Case Studies: Science of Delivery | edX](#).
- World Bank Group. (2012). Voice and Agency: Empowering Women and Girls for Shared Prosperity.

Kamsahamnida!!!