



### THE COST OF NOT INVESTING IN GIRLS

# CHILD MARRIAGE, EARLY CHILDBEARING, LOW EDUCATIONAL ATTAINMENT FOR GIRLS, AND THEIR IMPACTS IN UGANDA: AN UPDATE

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### BACKGROUND TO THIS SERIES

Despite substantial progress over the last two decades, girls still have on average lower levels of educational attainment than boys at the secondary level in many countries. This is in part because many girls are married or have children before the age of 18, often before they may be physically and emotionally ready to become wives and mothers. Educating girls, ending child marriage, and preventing early childbearing is essential for girls to have agency, not only as future wives and mothers, but also beyond those roles. It is also essential for countries to reach their full development potential.

Girls' educational attainment, child marriage, and early childbearing are closely linked. Ending child marriage and early childbearing would improve girls' educational attainment. Conversely, improving girls' educational attainment would help reduce child marriage and early childbearing. In addition, low educational attainment, child marriage, and early childbearing affect girls' life trajectories in many other ways. Girls marrying or dropping out of school early are more likely to experience poor health, have more children over their lifetime, and earn less in adulthood. This makes it more likely that their household will live in poverty. Other risks include intimate

partner violence and lack of decision-making ability within the household. Fundamentally, girls marrying, having children, or dropping out of school early are disempowered in ways that deprive them of their basic rights. This in turn affects their children. For example, children of young mothers often face higher risks of dying by age five, being malnourished, and doing poorly in school.

Overall, the economic and social costs of child marriage, early childbearing, and low educational attainment for girls are large. This note is part of a series that discusses trends in girls' education, child marriage, and early childbearing, their impacts on a wide range of development outcomes, and the policies and programs that could improve opportunities for adolescent girls. The analysis builds on work at the World Bank on the cost of not investing in girls, and on a previous global study on the economic impacts of child marriage conducted by the World Bank in partnership with the International Center for Research on Women. The conceptual framework for the analysis is provided in appendix.

#### **KEY MESSAGES**

To catalyze attention and investments in Uganda towards improving girls' education, ending child marriage, and preventing early childbearing, this note documents trends over time in these issues and their impacts on other development outcomes. Economic costs associated with selected impacts are also estimated. Finally, policies and programs that could improve outcomes for adolescent girls are discussed. The note updates with newly released data for 2016 findings that were prepared for the 10<sup>th</sup> World Bank Economic Update for Uganda. It is based on a more detailed background study. The main findings are as follows:

- ➤ Between 2011 and 2016, some progress has been achieved towards reducing child marriage and early childbearing, and improving educational attainment for girls. For example, in the case of child marriage, there was a reduction in prevalence of four percentage points between 2011 and 2016. For early childbearing, the reduction was at 2.6 percentage points. Gains in educational attainment are of a similar order of magnitude. This rate of progress is too small to achieve the targets set forth under the Sustainable Development Goals.
- According to the 2016 Demographic and Health Survey (DHS), less than 60 percent of girls aged 15-18 completed their primary education, and only one in four girls aged 18-21 completed their secondary education. This is in part because of high rates of child marriage (32.5 percent among girls aged 18-22) and early childbearing (26.0 percent). Girls from rural areas and disadvantaged socio-economic backgrounds tend to have worse outcomes in all these areas.
- ➤ Child marriage, early childbearing, and low educational attainment for girls have a wide range of negative impacts not only on the girls themselves, but also on their children, their families, and society at large. Estimates of many of these impacts have been updated for this note using the 2016 DHS, and findings are broadly similar to those obtained with the 2011 DHS.
- ➤ Some of the impacts with the largest economic costs relate to fertility and population growth, women's earnings, and the health of children born of young mothers. Other impacts range from losses in women's agency to higher risks of intimate partner violence.

- ➤ As noted in the World Bank report on which this brief is based, ending child marriage today could generate by 2030 up to US\$2.7 billion in annual benefits (in purchasing power parity terms) simply from lower population growth and a reduction in rates of underfive mortality and stunting for young children. In addition, women's earnings today would be higher if they had been able to avoid marrying early. This loss in earnings is estimated at more than US\$ 500 million. These estimates are not meant to be precise, but they give an order of magnitude of costs and benefits.
- Other benefits from lower population growth would include budget savings for the government for the provision of basic services. These savings could be invested to improve the quality of the services provided.
- ➤ To delay the age at first marriage and childbearing, adequate laws are a first step, but interventions are also needed. Interventions that alleviate economic constraints to girls' education tend to be the most proven. But there is also a role for interventions expanding economic opportunities for adolescent girls who dropped out of school and are not likely to be able to go back to school.
- Imparting adolescent girls with life skills and reproductive health knowledge is also essential, whether girls are in school or out of school. This can be done among others through safe space clubs that have proven effective for such purposes.
- ➤ To improve educational attainment for girls, basic conditions also must be met. At the secondary level, there is a need to build schools closer to where children (boys or girls) live. As an alternative, adequate modes of transportation to schools must be provided, or communities could identify responsible members to accompany girls to school and back and girls could be trained on the benefits of walking in groups. Providing separate water, sanitation and hygiene facilities for girls is also important, as is the need to reduce the risk of violence and sexual harassment in school.
- ➤ Finally, for the broader challenge of genderbased violence and inequality, community-based interventions to work with men, women, leaders and service providers can also be beneficial.

#### INTRODUCTION

The proportions of girls marrying or having children before the age of 18 have been declining slowly in Uganda according to data from the latest publicly available Demographic and Health Survey (DHS) for 2016. Using the latest data, this note updates findings initially prepared for the 10th Uganda economic update. While progress is encouraging, almost one third of girls still marry as children, and more than one in four girls have their first child before turning 18. Similarly, despite substantial efforts to improve educational attainment, only one in four girls completes lower secondary school, and an even smaller proportion completes upper secondary school.

The Government of Uganda has adopted a national strategy to end child marriage and teenage pregnancies. Improving girls' education is also a priority of the government. Unfortunately, the cultural, economic, and social conditions that have historically contributed to child marriage, early childbearing, and low educational attainment for girls remain strong (see Box 1 on social norms). More needs to be done to accelerate progress. To inspire greater investments in adolescent girls, this note analyses the economic and social impacts of these issues in Uganda. The note also suggests potential options for investments.

#### **BOX 1: SOCIAL NORMS, VOICE, AND AGENCY**

In 2014, the World Bank released a study on Voice and Agency: Empowering Women and Girls for Shared Prosperity (Kulgman et al., 2014). The report documents constraints facing women and girls worldwide, from high levels of gender-based violence to social norms and laws that curtail their decision-making in multiple areas such as working, owning property, working, or even making simple decisions within the household. Some of the findings in that report are similar to those documented here in terms of the negative impacts of low educational attainment for girls, child marriage, and early childbearing.

The Voice and Agency report notes that constraints faced by women and girls stem from their limited endowments (health, education, and assets) and economic opportunities. In addition, social norms about gender roles are also limiting. For example, even when women work outside of the home, they typically remain responsible for housework and child care. Social norms often restrict women's mobility and ability to network. They tend to be under-represented in politics and government. Unequal power relationships lead among others to gender-based violence, and legal discrimination remains pervasive, as is the case when women need their husband's consent to work. Lack of protection and discrimination under the law may interact with social norms interact, as is the case when women have limited land rights. While this report does not discuss the issues of the drivers of low educational attainment for girls, child marriage, and early childbearing in detail, there is no doubt that social norms play an important role.

Social norms tend to be reinforced by the community where girls live, including by teachers, schools, and the education system. This is recognized, among others, by the African union campaign to end child marriage. Even if child marriage were ended, for example if girls are kept in school and married immediately at age 18 and have children soon after that, women's voice and agency would still be curtailed. This is why beyond the necessity to end child marriage, social norms must be tackled.

# TRENDS IN CHILD MARRIAGE, EARLY CHILDBEARING AND EDUCATIONAL ATTAINMENT FOR GIRLS

Table 1 provides estimates of educational attainment for girls, child marriage (marrying before the age of 18), and early childbearing (having a first child before the age of 18) together with comparisons with East and Southern African countries based on the latest survey for each country. Educational attainment is determined in terms of three measures, based on the proportions of girls of various ages

who complete their primary, lower secondary, and upper secondary education respectively. The age groups are defined to allow girls a few more years beyond the normal age to complete a level, to account for the possibility of late entry and/or repetition. Due at least in part to the success of the Education for All initiative, significant progress has been made at the primary level over the last three decades. Yet progress between 2011 and 2016 is limited, with a gain in completion rates for girls aged 15-18 of only 2.9 percentage points.

Between 2011 and 2016, gains have also been achieved towards higher completion rates for lower and upper secondary education, but the gains are too small to achieve the Sustainable Development Goals. Furthermore, especially at the secondary level, girls still lag behind boys in terms of completion rates.

Table 1: Completion Rates for Girls by Education Level and Prevalence of Child Marriage and Early Childbearing by Age Group, Last Two DHS Surveys and Regional Averages (%)

Childbearing by Age G	roup, La	st Iwo D	HS Surv	eys and H	Regional A	verages (%	)			
			Pri	mary Con	npleted					
	15	-18	19-2	2	23-30	)	31-40		41-49	
East & Southern	64.4		65.2	2	55.9		48.2		42.9	
Uganda 2011	55.8		66.9	9	57.4		39.3		35.3	
Uganda 2016	58	3.7	73.8	3	68.4		46.1		38.0	
	Lower Secondary Completed (standardized at primary + 3 years)				Upper Secondary Completed (standardized at primary + 6 years)					
	18-20	21-24	25-30	31-40	41-49	21-24	25-30	31-40	41-49	
East & Southern	28.8	32.7	25.6	19.5	15.8	18.7	15.6	11.4	8.6	
Uganda 2011	20.4	26.4	20.5	12.4	8.9	12.0	10.1	6.9	4.4	
Uganda 2016	24.7	34.8	30.1	17.8	12.2	14.7	15.4	9.8	6.2	
	Child Marriage				Early Childbearing					
		18-22	23-30	31-40	41-49	18-22	23-30	31-40	41-49	
East & Southern		28.1	32.3	33.2	35.7	20.4	24.2	24.2	24.1	
Uganda 2011		36.5	46.3	53.3	52.8	28.6	39.2	42.6	40.4	
Uganda 2016		32.5	36.6	45.5	46.5	26.0	31.8	37.3	35.6	

Source: Authors

Notes: The regional average is not weighted by country populations. The fact that in some cases educational attainment estimates for the second age group are higher than for the first reflects delays in entering primary school as well as high repetition rates when in school.

The analysis in this note is updated using the 2016 DHS from previous work using the 2011 DHS. Apart from new estimates of child marriage, early childbearing, and educational attainment for girls provided in Table 1, estimates of impacts have been updated for the following areas: (i) relationships between child marriage and early childbearing; (ii) fertility; (iii) contraceptive use; (iv) typology of adolescent girls by schooling and marriage status; (v) under-five mortality; (vi) under-five stunting; (vii) decision-making ability, including specifically for healthcare; and (viii) birth registration. In most cases, estimates obtained with the 2016 DHS are similar to those obtained with the 2011 DHS.

### RELATIONSHIPS BETWEEN CHILD MARRIAGE, EARLY CHILDBEARING, AND GIRLS' EDUCATION

The issues of child marriage, early childbearing, and low educational attainment for girls are closely related. They all affect each other. In Uganda, child marriage is likely the cause of more than half of all instances of early childbearing. In some cases, early childbearing may lead to child marriage, but this is probably less likely. In addition, the causality between child marriage and early childbearing on the one hand, and girls' educational attainment on the other hand, goes both ways. Child marriage and early childbearing have a negative effect on educational attainment. Conversely, keeping girls in schools reduces the risks of child marriage and early childbearing. A summary of these relationships is provided in Table 2.

These mutual relationships are the reason why incentives for girls to remain in school or go back to school if they dropped out appear to be among the most effective interventions to delay the age at first marriage and prevent early childbearing.

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We are faced with long distances to primary schools. Girls on their way to school meet men who entice our daughters with money for sex. Later some get pregnant and drop out of school. Also, we have no vocational school that will train our girls after P7 and S4, so we see it as a waste of resources to educate a girl.

It is worth noting that achieving universal secondary completion for girls could dramatically reduce the prevalence of child marriage and early childbearing. On the other hand, while ending child marriage and early childbearing would help improve girls' educational attainment, this would not be sufficient by itself to ensure universal secondary completion.

Table 2: Relationships between Child Marriage, Early Childbearing, and Girls' Educational Attainment

Relationship between child marriage and early childbearing
Child marriage is likely the cause of more than half of girls having children before the age of 18
Child marriage is likely the cause of more than half of births of children from mothers younger than 18
Ending child marriage could reduce early childbearing for girls and early childbirths for children by half
Impacts of child marriage and early childbearing on girls' educational attains
Early pregnancies and marriages are major reasons for dropping out of school
Child marriage reduces the likelihood of completing secondary school by 12 to 23 percentage points
Once a girl is married, statistics suggest that it is very difficult for her to remain in school, whatever her age
Child marriage affects the education of the children of girls marrying early at least indirectly
Impacts of girls' educational attainment on child marriage and early childbe
Each year of secondary education leads to a reduction in the likelihood of marrying as a child of seven points
Each year of secondary education leads to a reduction in the likelihood of early childbearing of seven points
Note: Most estimates based on 2016 DHS, some based on 2011 DHS.

# IMPACTS ON OTHER DEVELOPMENT OUTCOMES

FERTILITY AND POPULATION GROWTH

Susan's mother died. With one sister and four brothers, she lives with her father. She dropped out of school became pregnant. She works as a casual laborer in people's gardens. Her job is much tougher than school, she said, but she explained that she could not go back to school any more. "I just want to take care of my young siblings and see them through primary school, and if possible up to secondary school", she said.

Child marriage, early childbearing, and girls' education have large impacts on how many children women have in their lifetime and on population growth. Women who marry earlier are likely to begin childbearing earlier and have more children over their lifetime. Depending on the age at marriage, child marriage increases by 17 percent to 29 percent the number of children women have over their lifetime (total fertility). Ending child marriage could reduce total fertility by 9 percent nationally. Higher educational attainment leads to even larger reductions in total fertility. For example, achieving universal secondary education could reduce fertility rates by 27 percent. While ending child marriage would not necessarily affect the use of modern contraceptives in a substantial way, improving educational attainment for girls would. Finally, simulations using demographic projection models suggest that ending child marriage and early childbearing could reduce annual rates of population growth by 0.17 percentage point. Substantial reductions would also probably come from better educational attainment for girls, but this effect has not been computed. Table 3 summarizes the findings.

Table 3: Impacts on Fertility and Population Growth

Impacts of child marriage and early childbearing	Impacts of girls' educational attainment
Depending on the age at marriage, child marriage increases total fertility for women by 17% to 29%	Partial/completed secondary education may reduce fertility rates by 17% and 28% respectively
Ending child marriage could reduce the national rate of total fertility by 9%	Achieving universal secondary education could reduce fertility rates by 27%
Marrying as a child does not have a substantial impact on modern contraceptive use	Partial/completed secondary education may increase contraceptive use of 6 and 13 percentage points
Ending child marriage would not affect national use of modern contraceptives substantially	Achieving universal secondary education may increase contraceptive use by 29% from the base value
Ending child marriage and early childbearing could reduce population growth by 0.17 percentage point	Achieving universal secondary education would likely lead to an even larger reduction in population growth

Note: All estimates based on 2016 DHS except impact on population growth based on simulation tools.



#### HEALTH, NUTRITION AND VIOLENCE

Early childbearing can impact the health of both girls and their children. For the girls, their physical immaturity may increase the likelihood of complications during pregnancy and childbirth, resulting in higher risks of maternal mortality and morbidity, although those risks are not measured in this study. Early childbearing may also affect the health of young children. In Uganda, children born of mothers younger than 18 have substantially higher risks of dying by age five and being stunted. The reductions in under-five mortality and

stunting that could result from preventing early childbearing are smaller because only a relatively small share of children are born of mothers younger than 18 at the time of birth. Still, many children would be affected. In addition, the impact of child marriage on intimate partner violence is also statistically significant in Uganda, and large with the 2011 DHS but smaller with the 2016 survey. For most measures, in Uganda the impacts of the educational attainment for girls tend to be lower than those of child marriage and early childbearing. Table 4 summarizes the main findings.

Table 4: Impacts on Health, Nutrition, and Violence

Impacts of child marriage and early childbearing	Impacts of girls' educational attainment
Being born of a mother younger than 18 increases the risk of underfive mortality by 2.4 percentage points	Educational attainment of the mother does not affect the risk of under-five mortality up to higher education
Ending all early childbirths would reduce under-five mortality by 0.17 points or 3.5% nationally	Universal primary or secondary education may not lead to a national decline in under-five mortality
Being born of a young mother did not affect under-five stunting in 2016 but there was an impact in 2011	Educational attainment of the mother does not affect the risk of under-five stunting up to higher education
Based on 2011 data, ending all early childbirths could reduce underfive stunting by one point nationally	Universal primary or secondary education may not lead to a national decline in under-five stunting
Child marriage had a large impact on intimate partner violence in 2011, accounting for $20\%$ of violence	Educational attainment for women does not reduce statistically the risk of intimate partner violence

Note: All estimates based on 2016 DHS except intimate partner violence (for 2011) and stunting (for both years).

#### WORK, EARNINGS, AND POVERTY

Ending child marriage could lead to a small increase in labor force participation (LFP) through its impacts on girls' educational attainment and total fertility. In contrast, the impact of ending child marriage on earnings for women in adulthood would be large. Women who married early could have benefited from an increase in earnings of 15 percent if they had married later, mostly because of the impact of child marriage on educational attainment. Nationally, this could

lead to an increase in the population's overall earnings of one percent. Through their impact on both total fertility and educational attainment for girls, ending child marriage and early childbearing would also have positive effects on welfare and poverty. Finally, the impacts on earnings and thereby poverty of universal primary or secondary education could be even larger. For example, universal primary education could raise earnings nationally by 18 percent, and the impact for universal secondary education for girls would be even larger. Table 5 summarizes the estimated impacts.

Table 5: Impacts on Work, Earnings, and Poverty

Impacts of child marriage and early childbearing	Impacts of girls' educational attainment
Ending child marriage could lead to a small increase in LFP indirectly through its impact on education	Universal primary and secondary education could increase LFP by one and five points, respectively
Ending child marriage could increase earnings in adulthood for women marrying early by 15%	Higher educational attainment for girls is associated with substantial increases in earnings in adulthood
Ending child marriage could increase the population's earnings and productivity nationally by one percent	Universal primary education could raise earnings by 18%. The impact for secondary would be larger
Ending child marriage could have large positive effects on welfare and reduce poverty	Universal primary or secondary education could have large positive effects on welfare and reduce poverty

Note: Estimates based on 2011 DHS and UNHS data for earnings - not updated with 2016 DHS.

#### AGENCY AND OTHER IMPACTS

Agency is complex, and only a few partial indicators of agency are considered in this note. The focus is on women's decision-making ability within the household, including their ability to seek care, as well as other aspects such as the likelihood of land ownership, knowledge of HIV/AIDS, and birth registration for young children. The direct impacts of child marriage on

these indicators of women's agency are not always statistically significant or tend to be limited. However, because child marriage as well as early childbearing reduce educational attainment for girls, they may have negative impacts on agency through education. Indeed, for most indicators, the impact of girls' educational attainment is often statistically significant at the secondary level or in some cases for higher education. Table 6 summarizes the estimated impacts.

Table 6: Impacts on Decision-making, Agency, and Other Areas

Impacts of child marriage and early childbearing	Impacts of girls' educational attainment
When statistically significant, the impact of child marriage on decision-making ability tends to be small	Universal secondary education could increase women's decision-making ability by 11 percent
Child marriage does not affect women's ability to seek care directly, but it matters through education	The impact of educational attainment on women's ability to seek care is substantial for higher education
Child marriage is associated with a higher likelihood of land ownership (two percentage points) for women	Educational attainment for women is associated with a higher likelihood of land ownership for women
Child marriage is not associated with a reduction in adulthood in women's knowledge of HIV/AIDS	Universal secondary education could increase women's knowledge of HIV/AIDS by two percent
Early childbearing is associated with a reduction of five points in birth registration rates for young children	Educational attainment for women is mostly not associated with higher birth registration rates
Note: All estimates based on 2016 DHS except land ownership based on 2011 DHS.	-

#### SUMMARY OF THE IMPACTS

Overall, the negative impacts of child marriage, early childbearing, and low educational attainment for girls are large. Table 7 summarizes the estimates. First, the mutual relationships between child marriage, early childbearing, and low educational attainment for girls are strong. Second, all three issues tend, in turn, to have negative impacts individually or collectively on a wide range of other outcomes. For all outcomes, either child marriage/early childbearing or secondary education completion have a statistically significant impact. Clearly, the negative effects of child marriage/early childbearing and educational attainment for girls are pervasive and widespread.

For all indicators except birth registrations, either child marriage/early childbearing or secondary education completion have a statistically significant impact. This shows how pervasive and widespread the impacts of a lack of opportunities for girls are.



Table 7: Summary of Statistically Significant Estimated Impacts by Domain

Domains and Indicators	Child marriage or early childbearing	Secondary education completion	Either one of the two
Mutual relationships		·	
Child marriage/ Early childbearing	-	Yes	Yes
Educational attainment	Yes	-	Yes
Fertility and population growth			
Fertility	Yes	Yes	Yes
Population growth	Yes	Yes	Yes
Modern contraceptive use	No	Yes	Yes
Health and nutrition			
Under-five mortality	Yes	No	Yes
Under-five stunting	Mixed	No	Yes
Labor force participation	No	Yes	Yes
Demand for healthcare	No	Yes	Yes
Work and productivity			
Intimate partner violence	Yes	No	Yes
Women's earnings	Yes	Yes	Yes
Household welfare	Yes	Yes	Yes
Women's agency			
Decision-making ability	Mixed	Yes	Yes
Land ownership	Yes	Yes	Yes
Knowledge of HIV/AIDS	No	Yes	Yes
Birth registration	Yes	Mostly No	Yes

Note: Based on 2016 data when estimates were updated with the 2016 DHS, except mention "mixed" when effects were not statistically significant with the 2016 DHS and statistically significant with the 2011 DHS.

# ECONOMIC COSTS AND BENEFITS: THE CASE OF CHILD MARRIAGE

While providing a monetary valuation of all the costs associated with child marriage, early childbearing, and a lack of educational attainment for girls is not feasible, costs for some of the largest impacts can be estimated. For this note on Uganda, the focus is on the costs of child marriage, or equivalently the benefits of ending the practice. The focus is on benefits related to a reduction in the rate of population growth, gains in educational attainment and thereby earnings, and reductions in under-five mortality and stunting. In most cases, we estimate both immediate gains and longer-term gains, looking at the benefits that would accrue by 2030. This allows for the estimates to account for the cumulative nature of some of the benefits of ending child marriage, especially in

The economic benefit from ending child marriage related to welfare gains from lower population growth is large. This benefit could reach \$2.4 billion (in purchasing power parity) by 2030

the case of population growth. It also allows valuations to adjust for increases in standards of living (GDP per capita) over time.

Estimates are provided in Table 8¹. The welfare benefits for Uganda from the lower population growth that would result from ending child marriage and early childbearing are very significant. If child marriage and early childbearing had ended in 2015, the immediate annual benefit could have been

<sup>1</sup>Most estimates of economic costs are not affected by the updated analysis with the 2016 DHS because losses in earnings are based on income surveys and effects related to population growth are based on demographic projection tools. Costs associated with under-five mortality and stunting are affected, but estimates based on the 2011 data have been kept as impacts of early childbearing on both outcomes were statistically significant with that survey.

equivalent to US\$ 95 million in purchasing power parity (PPP), increasing to US\$ 2.4 billion by 2030. In addition, there would be over time budget savings thanks to a reduced demand for public services due to lower population growth. In the education sector, ending child marriage and early childbirths could result in savings for the government of US\$ 257 million (current values) by 2030. As to the benefits from the reduction in under-five mortality and stunting, they could

be valued at US\$ 275 million (PPP) by 2030. By comparison, net official development assistance to Uganda has been of the order of US\$ 1.7 billion per year in recent years, and the latest budgets of the education and health sectors are of the order of US\$250 million and US\$309 million at current exchange rates. While some of these figures are in different units (Purchasing Power Parity versus current exchange rates), they help to show that the costs of child marriage are large.

Table 8: Order of Magnitude of Selected Monetary Benefits from Ending Child Marriage

Domains of Impact	Annual Benefit in 2015	Annual Benefit in 2030			
	[Most estimates in PPP o	[Most estimates in PPP or Purchasing Power Parity]			
Fertility and population growth					
(1) Welfare cost	US\$95 million (PPP)	US\$2.4 billion (PPP)			
(2) Budget savings for education	No benefit	Up to US\$257 million (current)			
Health, nutrition, and violence					
(3) Under-five mortality	US\$104 million (PPP)	US\$194 million (PPP)			
(4) Under-five stunting	US\$43 million (PPP)	US\$81 million (PPP)			
Education and earnings					
(5) Earnings loss for women	US\$514 million (PPP)	Not estimated			

Note: Estimates for education budget savings are an upper bound and actual savings are likely to be lower.

## POTENTIAL OPTIONS FOR POLICIES AND PROGRAMS

To end child marriage and early childbearing, and improve educational attainment for girls, basic conditions should be met. Laws should be such that marriage before the age of 18 is not permitted. For educational attainment, especially at the secondary level, there is a need to build schools closer to where children (boys and girls) live. As an alternative, adequate modes of transportation to schools could be provided, or communities could identify responsible members to accompany girls to school and back and girls could be trained on the benefits of walking in groups<sup>2</sup>. Providing separate water, sanitation and hygiene facilities for girls is also important, as is the need to reduce the risk of violence and sexual harassment in school. Finally, for specific challenges such as intimate partner violence or gender-based

The second largest economic benefit from ending child marriage is higher earnings for women in adulthood, estimated at \$514 million (purchasing power parity) in 2015.

violence more generally, community-based interventions with men, women, leaders and service providers are also needed, with successful pilots existing in Uganda. In addition, based on a literature review of programs intended to improve young women's sexual and reproductive health outcomes, delay marriage and childbearing, and improve girls' participation in education, a three-pronged approach can be recommended.

<sup>2</sup>Investment in alternative transportation for girls to school may not be achievable soon and may be costly. School based/home-grown community owned measures to enhance girls' safety to and from school are a promising alternative. Communities could identify responsible members to accompany girls to school and back, and girls could be trained on the benefits of walking in groups including other personal safety skills. In pilot programs in some communities, older persons sat strategically in the bush areas of the footpaths at specific times to watch over the girls on their way to and from school. These are low cost, sustainable home-grown efforts to reduce risks for girls.

### Programs to provide life skills and reproductive health knowledge:

These interventions often rely on safe space programs empowering girls through life skills training, better knowledge of sexual and reproductive health, and other skills. These programs have achieved important benefits for girls, not only in terms of knowledge acquired, but also through gains in self-esteem and confidence, among others. Yet, without additional livelihood opportunities or incentives for schooling, it is not clear that safe spaces by themselves are sufficient to delay marriage and childbearing.

#### Programs to expand economic opportunities:

Interventions that combine an emphasis on empowering girls, often through safe spaces, with a focus on providing livelihood opportunities have demonstrated some success in increasing earnings for participants, as well as employment and savings. In some cases, they may also improve reproductive health outcomes and delay marriage or childbearing, but not systematically so. In Uganda, there is evidence that such interventions have worked well.

#### Programs to keep girls in school or delay marriage:

Interventions to promote education, especially by reducing the opportunity and out-of-pocket cost of schooling, are among the most likely to help delay the age at marriage and childbearing. Some of these programs also enable girls who dropped out to return to school. Programs providing financial incentives to girls or families directly to delay marriage may also work.

#### Implications for policy:

While some of the programs work better than others to delay marriage and childbearing and to improve educational attainment for girls, all three categories of programs have benefits. By targeting different groups of girls, for example those in school or with the potential to return to school, and those who dropped out and may not be able to return, all three categories of programs should be considered when implementing a strategy aiming to improve opportunities for adolescent girls.

#### CONCLUSION

While investments to end child marriage, prevent early childbearing, and promote education for girls should not be based solely on economic considerations, this note demonstrates that the benefits from such investments would be large in Uganda. The primary motivation for ending child marriage, preventing early childbearing, and promoting education for girls should be to address the substantial risks and suffering faced by adolescent girls and their children. The evidence of the negative impacts of these issues on a wide range of development outcomes is clear. However, in addition, these issues have large economic costs.

Demonstrating the magnitude of these costs provides an additional justification for investments in adolescent girls in Uganda. While further work would be needed to identify the best policy options for investing in adolescent girls in the country, useful lessons can be learned from the international experience, including some programs implemented in Uganda. Ending child marriage, preventing early childbearing, and improving education opportunities for girls is not only the right thing to do from a moral and ethical standpoint, it is also a smart investment for Uganda's development.

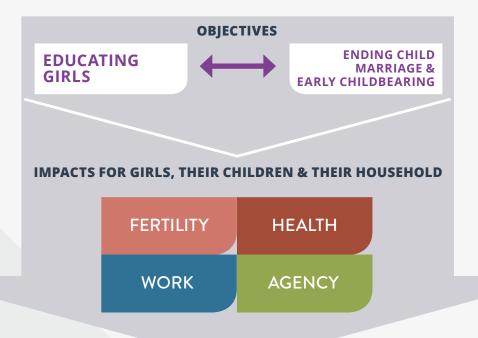
# APPENDIX: FRAMEWORK FOR ANALYZING IMPACTS AND COSTS OR BENEFITS

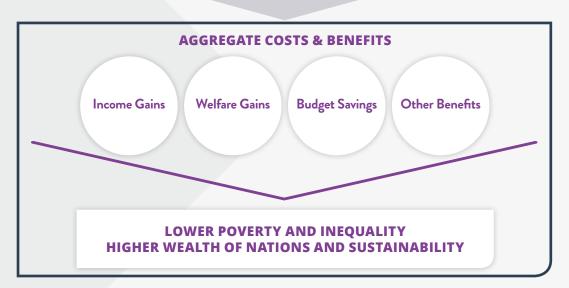
One of the aims of this series of notes is to document the impacts of girls' education and child marriage as well as early childbearing on a wide range of development outcomes.

Selected economic costs associated with those impacts are

then estimated. A simple framework guides the analysis. As shown in Figure 1, we recognize first that girls' education and child marriage as well as early childbearing are closely linked. The literature and estimates from this series suggest that keeping girls in school is one of the best ways to delay marriage and childbearing. In contrast, marrying early or becoming pregnant leads girls to drop out of school. Furthermore, child marriage is one of the main drivers of early childbearing. These relationships are acknowledged in the top part of Figure A1.

FIGURE A1: CONCEPTUAL FRAMEWORK



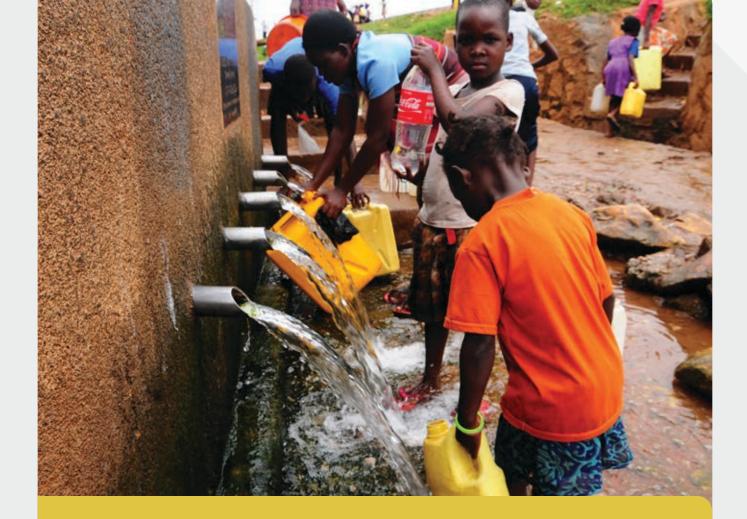


In turn, both girls' educational attainment and child marriage/early childbearing matter for other development outcomes. Four main outcomes are considered: fertility, health (including nutrition and the risk of exposure to intimate partner violence), work (including labor force participation and earnings), and agency (including decision-making and other impacts). While some of these impacts are estimated for girls marrying or dropping out of school early, others are estimated for their children.

Selected economic costs or benefits associated with the impacts of girls' education and child marriage or early childbearing are estimated next. Examples of benefits from educating girls, ending child marriage, and preventing early childbearing include (1) Higher growth in GDP per capita

thanks to lower population growth; (2) Higher labor earnings for women in adulthood; (3) Higher labor earnings for children in adulthood thanks to less stunting; (4) Valuation of the benefits associated with children's lives saved; and (5) Reduced budget needs thanks to lower population growth. This list of benefits is by no means exhaustive, but it includes some of the largest economic benefits that can be expected.

Finally, we note that the benefits from educating girls and ending child marriage at the level of individuals and households have broader implications at the national and even global level. By raising standards of living (through higher GDP per capita with lower population growth and higher earnings for women), educating girls and ending child marriage will reduce poverty as well as inequality.



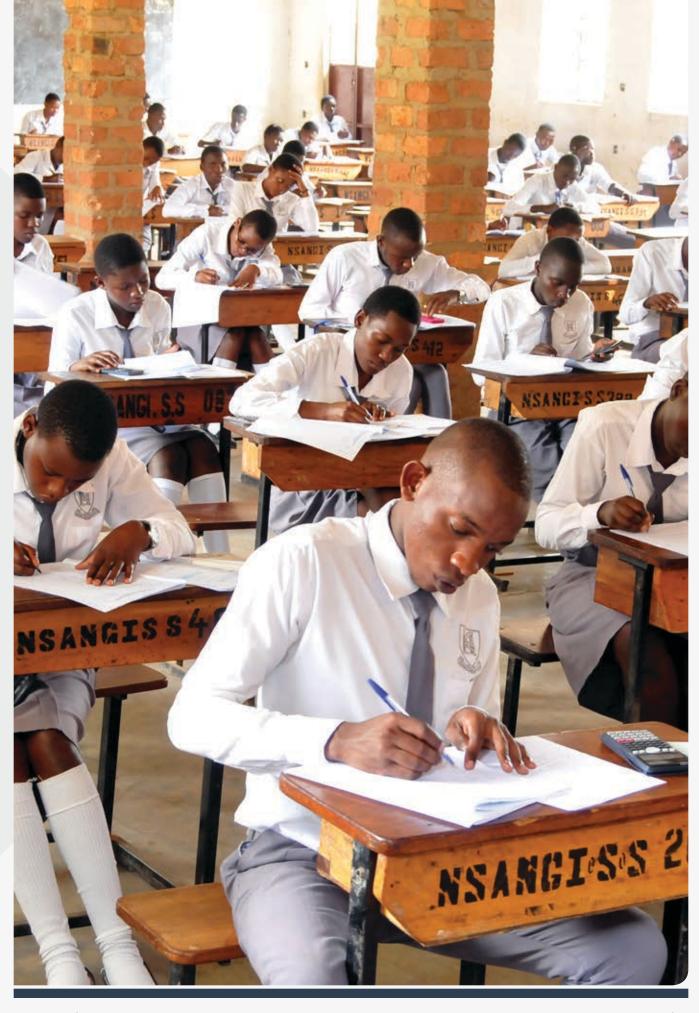
#### Recommended citation for this note:

Wodon, Q., C. Male, A. Onagoruwa, A. Savadogo, and A Yedan. 2019. The Cost of Not Investing in Girls in Uganda: Child Marriage, Early Childbearing, Low Educational Attainment for Girls, and their Impacts: An Update. *The Cost of Not Educating Girls Notes Series*. Washington, DC: The World Bank.

This note was originally prepared by World Bank staff as an update of analysis done for the 10th edition of the World Bank Economic Update for Uganda. It has been updated with more recent data. Funding for the update was provided by the Children's Investment Fund Foundation and the Global Partnership for Education. Findings, interpretations, and conclusions expressed in this note are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations or to members of its Board of Executive Directors or the countries they represent. The World Bank does not guarantee the accuracy of the data included in this work. Information and illustrations contained in this note may be freely reproduced, published or otherwise used for noncommercial purposes without permission from the World Bank. However, the World Bank requests that the original study be cited as the source.

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