



The economic
impacts of
child marriage

**ECONOMIC IMPACTS
OF CHILD MARRIAGE:
WOMEN'S DECISION
MAKING & SELECTED
OTHER IMPACTS BRIEF**



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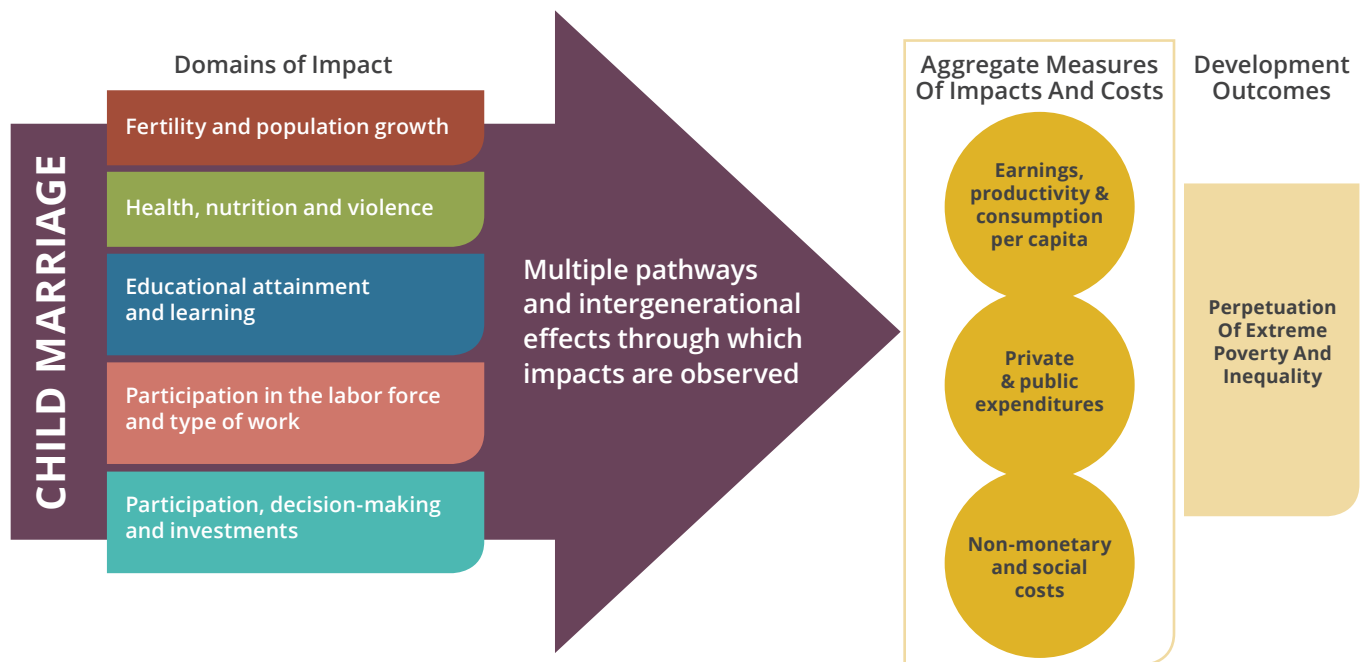
OVERVIEW

Each day, more than 41,000 girls worldwide are married while still children, often before they may be physically and emotionally ready to become wives and mothers. Child marriage, defined as marriage or a union taking place before the age of 18, endangers the life trajectories of these girls in numerous ways. Child brides are at greater risk of experiencing a range of poor health outcomes, having children at younger ages, having more children over their lifetime, dropping out of school, earning less over their lifetimes and living in poverty than their peers who marry at later ages. Child brides may also be more likely to experience intimate partner violence, have restricted physical mobility, and limited decision-making ability. Most fundamentally, these girls may be disempowered in ways that deprive them of their basic rights to health, education, equality, non-discrimination, and to live free from violence and exploitation, which continue to affect them into adulthood. These dynamics affect not only the girls themselves, but their children, households, communities and societies, limiting their ability to reach their full social and economic potential.

While child marriage is widely considered a human rights issue closely connected to gender inequality,¹ the significance of the practice's impacts at both the individual and societal levels suggests that ending child marriage may play an important role in alleviating poverty and in promoting economic development. Ending child marriage can improve health at the individual and population levels, increase productivity and enhance the opportunity to realize the gains in a country's economic growth that can result from declining birth rates and a shifting population age structure, commonly referred to as the 'demographic dividend.' To date, however, there has been relatively little in the way of rigorous assessment of the economic impacts of child marriage or how much child marriage may "cost" countries and societies.

To address this gap, the World Bank and the International Center for Research on Women (ICRW) collaborated on an extensive and innovative research project to assess the impacts of child marriage on a range of development outcomes, and to understand the economic costs associated with these impacts across countries. By establishing the effects that child marriage has on economic outcomes, the research project aimed to catalyze more effective and evidence-based action to prevent it. The conceptual framework that guided our work follows:

¹ As enshrined in UN General Assembly Resolution 71/175 (December, 2016), "child, early and forced marriage is a harmful practice that violates, abuses or impairs human rights."



This brief summarizes results from an analysis on the impacts of child marriage on women’s decision-making ability within the household, land ownership, knowledge of HIV/AIDS, and birth registrations. While these topics are all related to agency, it should be emphasized that they do not together provide a comprehensive measure of agency, which is beyond the scope of this study. This brief and selected other publications from the study can be found at: www.costsofchildmarriage.org

IMPACT OF CHILD MARRIAGE ON DECISION-MAKING

We first examined the impact of child marriage on women’s ability to make decisions within the household. To conduct the econometric analysis, we created an index that takes a value between zero and one hundred, based on a variety of factors that affect decision-making, using data from the Demographic and Health Surveys (DHS). Four types of variables were included to construct the index. First, currently married women were asked to respond to questions on household decision-making in four areas: health care, household purchases, visits to friends and relatives, and the use of husband’s earnings. For each question, women responded as to whether they make decisions alone, with their husband/partner, or if the husband or another person makes decisions for them. Second, women were asked if they can refuse to have sex with their husband and if they can request their husband to use a condom when having sex. In addition, women indicated whether they felt a husband was justified in beating his wife under the following circumstances: if the wife goes out without telling her husband, if she neglects her children, if she argues with her husband, or if she refuses to have sex with him. Finally, women were asked whether getting their husband’s permission to get medical help for themselves was a major problem.

What Do We Mean by Impacts and Associated Costs?

The aim of the study is to estimate the impacts of child marriage on development outcomes and the economic costs associated with some of these impacts. The term “impact” is used for simplicity, but one must be careful about not necessarily inferring causality. Most estimates of impacts are obtained through regression analysis in order to control for other variables that may affect the outcomes of interest. In some cases, simulations are used. What is measured are thus statistical associations, and not necessarily impacts as could be observed, for example, with randomized control trials. Since child marriage cannot be randomized, we must rely on regression analysis in order to estimate likely impacts, but there is always a risk of bias in the measures of the likely impacts of child marriage. Based on measures of likely impacts, costs associated with selected impacts are then computed. Note that we provide cost estimates only for some, and not all impacts. These costs rely on a number of assumptions, and are thus tentative. Overall, the costs represent an order of magnitude of potential costs rather than precise estimations. For more details on the methodology and how it relates to key empirical findings, see Wodon (2017).

For the purposes of this analysis, we first assessed the relationship between child marriage and decision-making directly. In addition, given that child marriage has a direct and negative association with girls' educational attainment, we consider the potential impact of child marriage on decision-making indirectly, through the effect that that child marriage has on reduced educational attainment.

Table 1 provides the main results in terms of the marginal effects that child marriage as well as educational attainment have on the decision-making index. The direct impact of child marriage on decision-making ability is statistically significant for about a third of the countries. In Mali, for example, being married as a child reduces women's decision-making capacity by 2.23 points on the index (on scale from zero to 100). In addition, child marriage may also have an effect on decision-making ability through its impact on education. We say "may have" because only associations and not impacts are measured in the regression analysis, and not all of the girls who marry early would have been able to achieve a higher level of education if they had married later. As shown in Table 1, higher educational attainment for girls is associated with increased decision-making ability, so by curtailing girls' schooling, child marriage may indirectly reduce a girl's decision-making ability. Note that when considering marriage by girls under the age of 15 (results not shown here), direct impacts on decision-making tend to be statistically significant and negative in more countries, albeit not all.

The conclusion from the analysis is that in many contexts, child marriage is likely to have, either directly or indirectly, a negative impact on women's decision-making ability within the household, but the magnitude of the impact depends on country context.

It is also worth noting that additional analysis, including analysis based on data collected for this study, suggests that child marriage may reduce the overall psychological well-being and other aspects of agency among women when they marry at a very early age.

TABLE 1: IMPACT OF CHILD MARRIAGE AND EDUCATIONAL ATTAINMENT ON DECISION-MAKING ABILITY

	Child	Education (vs. none)	Absolute reduction in total fertility (national)	Percentage reduction versus base (national)
Bangladesh	NS	NS	2.97	5.73
Burkina Faso	-1.55	2.50	8.73	15.48
Dem. Rep. of Congo	NS	1.92	4.35	15.37
Egypt	NS	1.37	7.80	11.61
Ethiopia	NS	5.66	11.88	21.61
Malawi	NS	NS	2.44	3.31
Mali	-2.23	NS	6.82	15.58
Mozambique	NS	1.60	4.07	4.16
Nepal	NS	NS	0.36	0.33
Niger	NS	NS	3.79	20.44
Nigeria	-1.13	1.50	3.01	6.39
Pakistan	2.04	4.83	8.03	11.19
Rep. of Congo	NS	4.86	9.10	14.26
Uganda	NS	NS	4.19	13.73
Zambia	-1.22	NS	5.62	11.37

Source: Onagoruwa and Wodon (2017a).
Note: NS = Not statistically significant at the 10 percent level.

"No, I cannot decide. I cannot decide on my children's education and regarding my family... We have to move according to the husband. He is the master. We don't have any rights. All the decisions about the home, family, studies of the children are taken by him."

"A boy from our community showed up and asked for my daughter's hand... I asked if she was interested in the marriage and if she loved the boy. She was too shy to speak and wouldn't say a word... After about three days my second wife reported to me that my daughter agreed to marry."

QUALITATIVE DATA COLLECTED BY ICRW AND THE WORLD BANK.

IMPACT OF CHILD MARRIAGE ON LAND OWNERSHIP

Although there is a very limited evidence base on this topic, we hypothesized that child marriage could affect decision-making ability for women as well as productivity through its effect on ownership of land and other assets. For this study, we examined the impact of child marriage on land ownership using DHS data. These data only provide information on whether a woman owns land by herself, jointly with her husband/partner, or under both types of ownership – they do not address the type or size of land or other assets.

To estimate the impacts, we used multivariate regression analyses for the various categories of ownership: alone, jointly, both and all types of ownership combined. Table 2 provides the results. The interpretation of the coefficients is in terms of percentage point gains or losses in the likelihood of ownership. In Nigeria, for example, the coefficient of 0.0097 suggests that marrying early actually increases the likelihood of land ownership alone by about one percentage point for women in comparison to marrying later. In most cases, when coefficients are statistically significant, they tend to be positive (the exception is Mali). That is, our analysis suggests that there appears to be a positive association between child marriage and land ownership. While further research is needed to better understand the effects at work, we do note that existing measures of land ownership from the DHS are very limiting, so we cannot make definitive conclusions about the relationship at this time.

TABLE 2: IMPACT OF CHILD MARRIAGE ON LAND OWNERSHIP BY CATEGORY OF OWNERSHIP

	Ownership alone	Joint ownership	Both types of ownership	All types combined
Burkina Faso	0.0218	NS	0.0043	0.0349
DRC	0.0100	NS	NS	NS
Egypt	NS	NS	NS	NS
Ethiopia	0.0240	NS	NS	0.0427
Mali	-0.0121	NS	NS	NS
Mozambique	0.0111	NS	NS	0.0320
Nepal	0.0145	NS	NS	0.0157
Niger	0.0185	0.0180	NS	0.0439
Nigeria	0.0097	NS	NS	0.0144
Pakistan	NS	0.0049	NS	NS
Rep. Congo	0.0121	0.0150	NS	0.0310
Uganda	0.0258	NS	NS	NS
Rep. of Congo	NS	4.861	9.097	14.26
Uganda	NS	NS	4.186	13.73
Zambia	-1.222	NS	5.622	11.37

Source: Savadogo and Wodon (2017).
Note: NS = Not statistically significant at the 10 percent level.

IMPACT OF CHILD MARRIAGE ON WOMEN'S KNOWLEDGE OF HIV/AIDS

Child marriage can have a direct or indirect impact on various forms of knowledge, apart from the knowledge acquired in school. An example is that of knowledge related to HIV/AIDS. Following the approach used for the decision-making index, we created an index of knowledge (from zero to 100) about HIV/AIDS using a range of questions from the DHS. Specifically, the DHS asks women if they agree or disagree with certain statements on HIV/AIDS preventive measures, transmission modes and symptoms.

The results of our analysis in terms of the impacts of both child marriage and education on this index are provided in Table 3. For most countries, the direct impact of child marriage on knowledge about HIV/AIDS appears to be statistically insignificant, but as is the case with decision-making, child marriage may have negative impacts on HIV/AIDS knowledge through education, with the effects growing the longer a girl remains in school. Across countries, girls with completed secondary education tend to score about five to 10 points higher on the index of HIV/AIDS knowledge than girls with only primary education. Specifically, as can be seen in the table, increased educational attainment is positively associated with knowledge gains on HIV/AIDS. In Egypt, for example, a girl who has completed secondary education scores 27 points higher on the index of HIV/AIDS knowledge than a girl with no education. While only a fraction of this effect would likely be realized if child marriage was ended today because not all girls who would have married early would have been able to complete secondary school, this does suggest an indirect effect of child marriage on HIV/AIDS knowledge.

TABLE 3: IMPACT OF CHILD MARRIAGE AND EDUCATIONAL ATTAINMENT ON KNOWLEDGE ABOUT HIV/AIDS

	Education (vs. none)			
	Child marriage	Primary	Secondary	Post Secondary
Bangladesh	NS	14.50	32.59	37.76
Burkina Faso	NS	NS	4.06	6.32
DRC	NS	NS	7.32	8.52
Egypt	-5.45	NS	26.99	44.86
Ethiopia	NS	6.67	7.29	5.29
Malawi	NS	2.38	4.11	4.09
Mali	NS	NS	11.00	6.17
Mozambique	-2.55	3.17	4.32	5.46
Nepal	NS	14.95	23.89	26.83
Niger	NS	8.00	12.14	19.94
Nigeria	NS	5.51	7.06	9.27
Pakistan	2.70	10.24	29.86	46.52
Rep. of Congo	-2.65	8.58	12.79	17.39
Uganda	NS	NS	4.91	4.17
Zambia	NS	5.02	6.85	9.13

Source: Onagoruwa and Wodon (2017b).
Note: NS = Not statistically significant at the 10 percent level.

IMPACT OF CHILD MARRIAGE ON BIRTH REGISTRATIONS

When girls who are below the minimum legal age of marriage have children, they and those around them may be hesitant to register the births of these children, as they may fear prosecution or punishment. Whether this type of disincentive is at work depends on the context of each country and whether the legal minimum age of marriage is enforced. Still, it is useful to test whether such effects may be at work, which we do here using DHS data.

As shown in Table 4, the analysis of the data suggests that child marriage does not have a statistically significant impact on birth registration in the countries used for our study for which the data include information on birth registration or certification.

TABLE 4: IMPACT OF CHILD MARRIAGE ON BIRTH REGISTRATIONS

	Observed share (%)	Impact of child marriage
Burkina Faso	76.9	NS
Democratic Republic of Congo	24.6	NS
Egypt	99.4	-
Mozambique	47.9	NS
Nepal	42.3	NS
Niger	63.9	NS
Nigeria	29.8	NS
Republic of Congo	90.8	NS
Uganda	29.9	NS
Zambia	11.3	NS

Source: Onagoruwa and Wodon (2017c).

Note: In Egypt, virtually all children are registered, so that the regression analysis does not apply.



CONCLUSION

Child brides are vulnerable—they are young, often poorly educated, and from disadvantaged socio-economic backgrounds. When they marry early, they may fall even more under the control of their husband and in-laws than would have been the case if they had married later. This can limit their aspirations, availability of resources, as well as their agency, including their ability to make basic decisions regarding education or accessing health care during pregnancy and delivery.

Our analysis as part of this study is too limited to make definitive conclusions about the impact of child marriage on women's agency, even if it is clear from the briefs in this series that this impact is likely to be consequential. Our analysis, as reported in this brief, does however suggest that child marriage is likely to reduce women's decision-making ability, both directly and through the impact that child marriage has on reducing girls' educational attainment. The impacts on other areas, such as knowledge of HIV/AIDS and birth registration, tend to be much less significant. Paradoxically, child marriage seems to be associated with an increase in the likelihood of land ownership, but additional work is needed to understand this effect and whether it remains when considering the amount and type of land owned.

This particular brief does not include cost estimates for some of the impacts being documented. This does not mean that the impacts have no costs. To the extent, for example, that a lack of decision-making for child brides may lead to higher fertility, these impacts could lead to substantial costs, as documented in the separate brief on fertility and population growth in this series.

Overall, the findings here, together with the other assessments of the impacts of child marriage, suggest the need for more and better programs and policies to end this harmful practice.

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