



The economic
impacts of
child marriage

ECONOMIC IMPACTS OF CHILD MARRIAGE

ETHIOPIA COUNTRY BRIEF

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ECONOMIC IMPACTS OF CHILD MARRIAGE: ETHIOPIA COUNTRY BRIEF



OVERVIEW

Each day, tens of thousands of 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 lifetimes, 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 inequality¹, 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 challenge, the International Center for Research on Women (ICRW) and the World Bank 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.

This brief describes research undertaken for Ethiopia to better assess the impacts of child marriage on a range of development outcomes and the costs associated with these impacts. The full country report for Ethiopia, as well as other country and thematic studies and papers, can be requested from the authors.

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

CHILD MARRIAGE IN ETHIOPIA

The proportion of girls marrying as children is declining at the global level, and there has also been progress in Ethiopia in recent decades. Nevertheless, according to the 2016 Demographic and Health Survey², more than a third of girls aged between 18 and 22 (36.7 percent) still marry before turning 18, and progress towards ending child marriage has slowed down in recent years. Many of the cultural, economic and social factors that have historically contributed to high rates of child marriage in Ethiopia persist, at least in some communities, leading many girls to marry when they reach puberty, or soon thereafter.

Almost one in five women (17.4 percent) aged between 18 and 22 give birth before they turned 18, but the proportion is only at 2.5 percent before they turned 15. As for child marriage, the rates of early childbearing have declined substantially over time, but they remain too high. The vast majority of births by adolescents in Ethiopia takes place within marriage.

The international community has become increasingly aware of the negative consequences of child marriage, yet investments to end the practice remain limited. While ending child marriage by 2030 is now a target under the Sustainable Development Goals (SDGs), relatively few countries have adopted comprehensive strategies to end the practice, and investments in programs and policies focusing on preventing and ending child marriage remain limited. In some respects, the government of Ethiopia has demonstrated a commitment to ending child marriage through both policy and programmatic efforts, including the adoption of a strategy against harmful traditional practices. Further, Ethiopia is included in a multi-country initiative, coordinated by UNFPA and UNICEF, to tackle child marriage. It is also part of several other initiatives, including large projects funded by the World Bank, which aim to address child marriage either directly or through broader initiatives to empower women and provide education for girls. While these efforts represent good progress in addressing child marriage in Ethiopia, given the very significant negative impacts and high associated costs of the practice, more could and should be done.

"I was depressed and cried all the time...How do you think it feels to be forced into a marriage and a life with someone you didn't choose or know?"

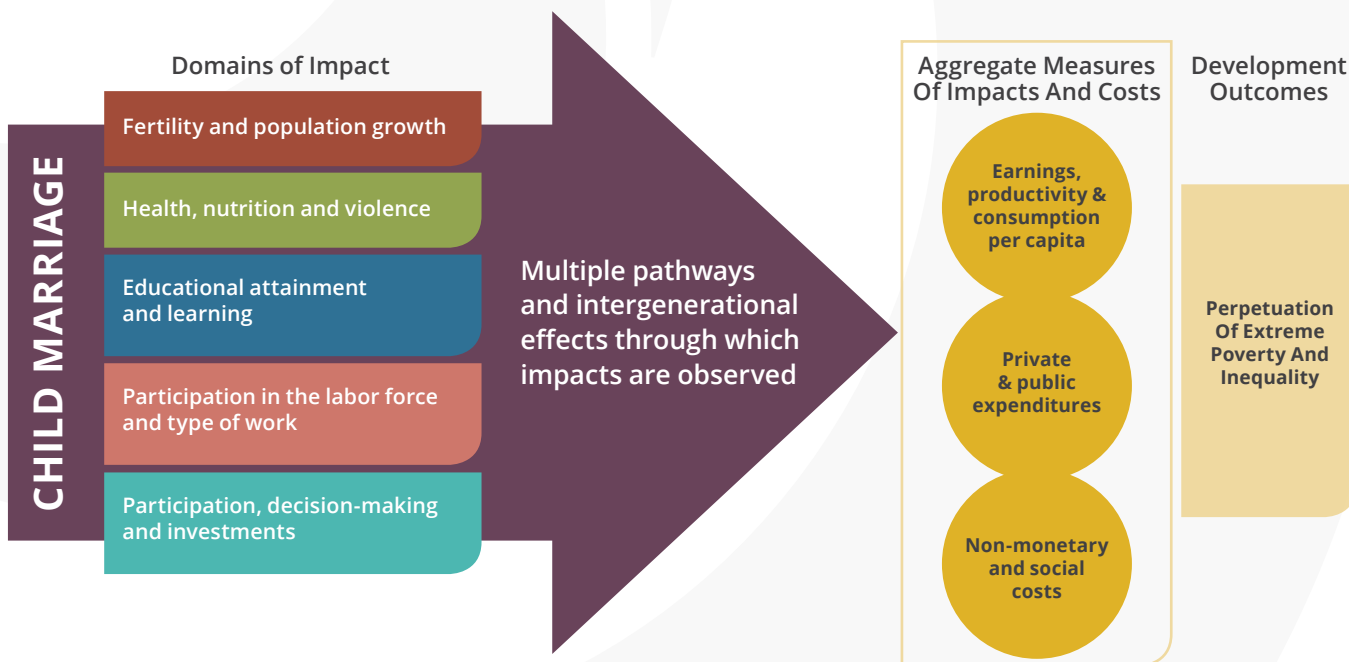
A CONCEPTUAL FRAMEWORK: THE ECONOMIC IMPACTS OF CHILD MARRIAGE

The conceptual framework guiding this study, based on an extensive literature review and expert consultations, is shown in Figure 1. Five domains or areas of impact were identified as capturing the core impacts of child marriage on economic outcomes: (i) Fertility and population growth; (ii) Health, nutrition and violence; (iii) Educational attainment; (iv) Labor force participation, earnings and productivity; and (v) Decision-making and other areas. We hypothesize that, through these domains, child marriage influences three main areas of impacts and/or costs that are measurable at the aggregate level: (i) Earnings, productivity and consumption per capita; (ii) Private and public expenditures; and (iii) Non-monetary and social costs. Each of these areas in turn influence broader development outcomes, particularly the perpetuation of extreme poverty and inequality.



² The analysis for this report was initially based on data from the 2011 Demographic and Health Survey (DHS), but most estimates have been updated with data from the 2016 DHS.

Figure 1: Framework for Assessing the Economic Impacts of Child Marriage



The following sections summarize the main findings from the Ethiopia country report under the global study across each of the five key domains of impact and their associated costs. While we refer to many estimates these as “impacts,” it should be noted that the complexity of the interrelationships between child marriage and these domains makes determining a clear causal relationship very difficult. Thus, these should be viewed as representing statistical associations obtained from regression analysis, rather than definitively indicating a causal relationship. Furthermore, the cost estimates included here are not meant to be precise, given the many assumptions involved. They are only meant to convey orders of magnitude. In addition, not every impact has a clear monetary cost, and not every monetary cost can be estimated. Nonetheless, the analysis suggests that both the impacts and costs of child marriage are high in Ethiopia, making ending child marriage a worthwhile investment not only for protecting the rights and wellbeing of girls and their families, but also in terms of economic outcomes and development.

IMPACTS OF CHILD MARRIAGE IN ETHIOPIA

Fertility and Population Growth

Child marriage has a large impact on how many children women will have in their lifetime and on overall population growth in Ethiopia. For example, based on data from the 2016 DHS, in terms of total fertility, marrying at age 13 rather than at 18 or later increases the number of children a woman will have by an average of 24 percent. Impacts remain large (13 percent) when marrying at 17 instead of at 18 or later. At the national level, ending child marriage could reduce the total fertility rate by 13 percent. Considering that the average woman in Ethiopia in the estimations will have 6 children, this would result in a significant decrease – just under one birth per woman.

One of the reasons that child marriage has such a significant impact on total fertility is that in many countries women who marry earlier are also likely to begin childbearing earlier than those who marry later. This is also the case in Ethiopia, where child marriage is the primary cause of early childbearing for more than four in five women who had a birth before turning 18. In Ethiopia as a whole, ending child marriage would not have a large effect on use of contraception at the national level, but results

suggest that early marriage has a small negative impact on use of modern contraception later in life.

Ending child marriage and early childbearing in Ethiopia today would result in a reduction in the population growth rate of 0.10 percentage points, roughly equivalent to four percent of the current growth rate. By 2030, Ethiopia's population would be reduced by one percent if child marriage and early childbirths were ended today. This would have significant impacts on national budgets and welfare.

TABLE 1: IMPACTS OF CHILD MARRIAGE ON FERTILITY AND POPULATION GROWTH

Estimated Impacts for Ethiopia

- Ending child marriage could reduce the total fertility rate by 13% nationally
- Ending child marriage could reduce the share of girls having a child before 18 by more than four fifths
- Ending child marriage could increase national use of modern contraceptives from 37.8% to 38.6%
- Ending child marriage and early childbirths could reduce population growth by 0.1 percentage points

Health, Nutrition and Violence

Child marriage can impact the health of both the girl who is married early and her children. While a number of factors influence how child marriage influences health, giving birth at a very early age is particularly risky. For the girls themselves, their physical immaturity may increase the likelihood of complications during pregnancy and childbirth, resulting for them in higher risks of both maternal mortality and morbidity even if ending child marriage and early childbirths would not necessarily reduce maternal mortality ratios at the national level.

Through early childbirths, the effect of child marriage on the health of the children born of mothers younger than 18 is substantial, particularly in terms of under-five mortality or having delayed physical development due to a lack of appropriate nutrition (stunting). Taking into account a wide range of other factors, our analyses show that being born to a mother younger than 18 increases the risk of death before reaching age five by four percentage points in Ethiopia, and the risk of stunting by 13 percentage point. These impacts are large, indicating that child marriage has a negative effect on child wellbeing through early childbearing. However, it is unlikely that ending child marriage itself would substantially improve the rates of under-five mortality and stunting at the national level in Ethiopia, mainly because at the aggregate level, only a small share of children are born of mothers younger than 18. In other words, early childbearing can have significant consequences for child health for those children born to mothers before age 18, but there are not enough of these children to significantly reduce under-five mortality rates at the national level. Separately, child marriage also leads directly for very young brides to higher risks of intimate partner violence in Ethiopia, and it may also have an additional impact on intimate partner violence indirectly through its effect on girls' education.

TABLE 2: IMPACTS OF CHILD MARRIAGE ON HEALTH, NUTRITION, AND VIOLENCE

Estimated Impacts for Ethiopia

- Child marriage is the likely cause of four fifths of births of children to mothers younger than 18
- Ending early childbirths could reduce under-five mortality by 0.15 percentage points nationally
- Ending early childbirths could reduce under-five stunting by 0.4 percentage points nationally
- Child marriage is associated with a higher risk of intimate partner violence for women
- The impact of ending child marriage on maternal mortality is not fully clear



Educational Attainment

As is the case globally, there is a strong relationship between child marriage and poor educational outcomes in Ethiopia. Child brides are much more likely to have dropped out of school than their peers who married later and tend to have completed fewer years of education, both of which have important implications for their ability to enter the formal labor force and to earn money once they do so. Parents in Ethiopia surveyed about the reasons their daughter dropped out of school suggest that marriage was the main reason for dropping out of school for more than one in ten adolescent girls. Once a girl is married, statistics suggest that it is very difficult for her to remain in school, whatever her age. Our analyses also find that every year of early marriage before the age of 18 reduces the likelihood to be enrolled in secondary school by one percentage point, an effect that is smaller than for many other countries but still statistically significant.

Together, the analyses suggest that child marriage has a large effect on education for girls. As the quote above indicates, girls often face gender-based constraints to staying in school. Schools may be far away and along routes that are considered dangerous for girls, families may prioritize investments in boys' rather than girls' education, and due to a perceived or real lack of opportunities other than marriage and motherhood, some girls become uninterested in remaining in school, with effects that vary in size depending on the survey used for estimation but remain statistically significant.

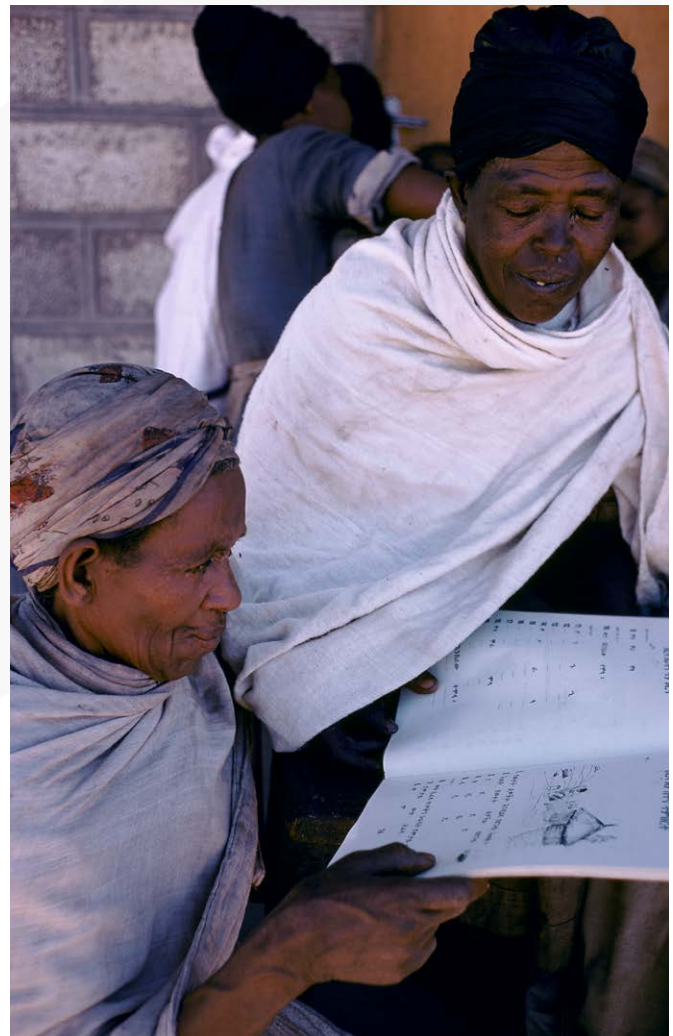
Conversely, continuing schooling helps in reducing child marriage, as girls who are in school are less likely to marry. Our analyses show that each additional year a girl completes in secondary school reduces the likelihood of marrying as a child by six percentage points, and the likelihood of having a first child before age 18 by four percentage points.

TABLE 3: IMPACTS OF CHILD MARRIAGE ON EDUCATIONAL ATTAINMENT

Estimated Impacts for Ethiopia

- Child marriage is cited as the reason for dropping out of secondary school for more than 1 in 10 girls
- Each additional year of early marriage may reduce the likelihood of secondary school enrolment
- Each year of secondary school education may reduce the risk of child marriage by 6 percentage points

○ ***"If she wasn't going to be attending school, then she should at least be married. She comes from a poor family; it's either education or marriage. What other options does she have? Is she going to beg on the street? So, then I decided to have her get married."***



³ Based on the 2011 DHS.

Work, Earnings and Welfare

The effect that child marriage has on educational outcomes affects the type of work women who were married as children are able to do and how much they earn later in life. In Ethiopia, we do not find a large impact of child marriage on labor force participation³. But we do find that child marriage lowers women's expected earnings in adulthood by nine percent, and that ending child marriage would have the effect of increasing earnings for the country as a whole by 1.5 percent. These are substantial effects both nationally and for the individuals affected.

In general, controlling for household size and education levels, child marriage may not affect substantially household consumption per capita, perceptions of poverty, and food security. However, because of its impact on fertility and thereby increased household size, as well as through lowering educational attainment for married girls, child marriage is likely to reduce household welfare.

TABLE 4: IMPACTS OF CHILD MARRIAGE ON WORK, EARNINGS, AND WELFARE

Estimated Impacts for Ethiopia

- Through education, child marriage reduces women's earnings in adulthood by 9%
- Ending child marriage could increase national earnings by 1.5%
- Child marriage affects consumption and food adequacy through larger household sizes and lower education for girls who marry early and their children

- **One of the largest economic benefits from ending child marriage is related to welfare gains from lower population growth. This benefit could reach close to \$5 billion (purchasing power parity) by 2030**

Decision-making, Agency and Other Impacts

In addition to the types of effects above, which are easier to conceptualize in terms of economic impacts and cost, child marriage may have negative effects that extend to other areas. While the magnitude of the impact on these other factors is estimated to be smaller, the effects still matter to understanding the overall impact and cost of child marriage. Child brides in Ethiopia are often young, 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 be the case if they had married later, thus possibly limiting their agency and decision-making ability. Across surveys, we typically do not find a negative direct effect. However, child marriage may also have indirect effects related to the lower educational attainment of child brides, given that a higher education level is associated with a higher decision-making ability in Ethiopia as in other countries.

Child marriage may also cause psychological stress that impacts girls' and women's wellbeing as they grow older. There is some evidence that being married very early (at age 12 or less) may lower women's psychological wellbeing, with the effect measured in terms of the incidence of depressive symptoms, anxiety and other indicators later in life. Child marriage on the other hand is associated with an increase in the likelihood of land ownership. The practice is not directly associated with a loss in knowledge about HIV/AIDS. But again, through its impact on women's education, child marriage may affect this and other outcomes indirectly.

TABLE 5: IMPACTS OF CHILD MARRIAGE ON DECISION-MAKING AND OTHER IMPACTS

Estimated Impacts for Ethiopia

- Child marriage reduces women's decision-making ability indirectly through educational attainment
- Very early marriage (at age 12 or less) may reduce psychological wellbeing
- Child marriage is associated with an increase in the likelihood of land ownership
- Child marriage is not directly associated with a loss in women's knowledge of HIV/AIDS in adulthood

ECONOMIC BENEFITS OF ENDING CHILD MARRIAGE IN ETHIOPIA

While providing a monetary valuation of all the costs associated with child marriage is not feasible, we have estimated costs for some of the largest impacts of the practice, or equivalently benefits that could be reaped by ending the practice. The estimated costs are related to the impacts on fertility and population growth, as well as education and earnings, since these are also the areas where larger impacts are observed. In some cases, we estimate both immediate gains associated with ending child marriage and longer-term gains, looking specifically at the benefits that would accrue by 2030. This allows for the estimates to account for the cumulative nature of many of the benefits of ending child marriage, especially in the case of population growth. It also allows valuations to adjust for increases in standards of living (GDP per capita) over time.

The welfare benefits for Ethiopia from the lower population growth that would result from ending child marriage and childbearing are very significant. If child marriage and early childbearing had ended in 2014, the estimated annual benefit in the subsequent year (2015) would have been equivalent to \$117 million, increasing to \$4.9 billion by 2030 in purchasing power parity (see Table 6). The rapid increase in the benefits stems from the fact that the impact of child marriage and early childbirths on population growth is cumulative. That is, each year the gains become larger because the cumulative reduction in population growth keeps growing from one year to the next. In addition, as standards of living (GDP per capita) improve, the valuations also become larger.

In most countries, ending child marriage would prevent child deaths before the age of five and would also help avoid under-five stunting. While the benefits of these gains are not primarily monetary, monetary benefits can be estimated based on the value of future wage gains for those who would avoid stunting due to the elimination of child marriage, and levels of welfare for mortality. In Ethiopia, these gains are estimated at \$0.9 billion in the first year and \$2.5 billion by the year 2030 for under-five mortality. For under-five stunting, the gains are estimated at \$0.2 billion in the first year and \$0.5 billion by the year 2030.

TABLE 6: ORDER OF MAGNITUDE OF THE BENEFITS FROM ENDING CHILD MARRIAGE – SELECTED ESTIMATES

	Annual Benefit in 2015	Annual Benefit in 2030
Welfare benefit	\$0.1 billion (PPP)	\$4.9 billion (PPP)
Under-five mortality	\$0.9 billion	\$2.5 billion
Under-five stunting	\$0.2 billion	\$0.5 billion

(*) Estimates in purchasing power parity.

In addition, there would be increasing budget savings to the government, largely because of reduced demand on public services due to lower population growth. As one example, when looking just at the education sector, ending child marriage and early childbirths could result in savings for the government of up to \$288 million per year by 2030, if the country were to achieve universal secondary education by that time (this is however an upper bound for potential savings based on convergence in educational attainment and cost of provision with other countries).

The strong relationship between child marriage and educational attainment has significant implications for the earning potential of child brides as they age. This is reflected in gains in earnings and productivity that would have been observed today if the women who married as children had been able to marry later. In Ethiopia, the value of the additional wages that women would have earned in 2015 if they had not married early is estimated at \$1.6 billion in purchasing power parity.

Another large economic benefit from ending child marriage is higher earnings for women in adulthood, estimated at \$1.6 billion (purchasing power parity) in 2015.

HOW LARGE ARE THESE COSTS?

While this study has looked at only some of the many economic costs of child marriage, it demonstrates that the magnitude of these combined costs is high in Ethiopia. Looking only at the impacts of slower population growth, education spending, health-related costs and earnings losses, we estimate that child marriage could cost Ethiopia in the tens of billions of dollars (in purchasing power parity) from now to 2030.

To better understand the extent of these costs, we can look at Ethiopia's net Official Development Assistance (ODA), which includes loans and grants from a variety of sources and which is a key component of international funding for development. In recent years, net ODA has amounted to six to eight percent of Ethiopia's Gross National Income. Our analyses suggest that by 2030, solely through the welfare benefits from slower population growth, the benefits of ending child marriage and early childbearing could be roughly equivalent to up to one sixth of the net ODA received by Ethiopia.



CONCLUSIONS

Child marriage is widely considered as a violation of girls' human rights. It curtails the opportunities provided to girls and their children. The primary motivation for ending the practice should thus remain the fact that ending child marriage would alleviate suffering and improve the lives of the girls who marry early and those of their children. At the same time, there is significant evidence of the negative impacts of the practice on a wide range of outcomes for girls and their families, and this study demonstrates that the practice has large economic costs at the national level for Ethiopia. Our hope is that the demonstration of these costs will help generate greater and more focused investments to end child marriage and early childbirths and thereby empower all girls and young women. Such investments are critical in Ethiopia, including to reap benefits from a demographic dividend, which will depend both on a decline in fertility rates and effective investments in youth for the development of the country.

While this study does not explicitly focus on interventions and policies to prevent child marriage, the results provide strong support for the promotion of girls' education, which has been demonstrated in many settings to be effective in protecting girls from marriage while also having other longer-term economic benefits. A number of promising interventions aimed at preventing child marriage are already being tested and implemented in Ethiopia, with the potential to generate evidence on what works to end the practice. Investing in more such interventions, documenting their impacts and implementing girl-friendly policies, including in terms of legislation related to child marriage, will be key to ensuring a better future both for Ethiopia's girls and for the country as a whole.





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For more details on the analysis and references for the estimates quoted in this brief, see the full report *Economic Impacts of Child Marriage: Ethiopia Synthesis Report* available at www.costsofchildmarriage.org

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