

The Impact of Child’s Right Act Adoption on Adolescent Fertility and School Enrolment in Nigeria

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1.0 INTRODUCTION

Globally, about 14 percent of adolescent girls and young women give birth before age 18 in 2021 (UNICEF Report, 2022). Nigeria is the 11th out of the top 20 countries with the highest rates of child marriage globally. As at 2017, 43% of girls are married off before age 18, and 17% before they turned 15 (UNICEF Report, 2017). These figures are higher in the Northern part of Nigeria, especially in the Northwest and the Northeast where the incidence of child marriage is 68% and 57% respectively¹. The issue of early marriage, as well as childbearing though, has received some attention from the government of Nigeria, yet it remains an issue.

Child marriage has been found to be the key driver of adolescent pregnancy, and this has implications for adolescent mothers and their children. Some of the consequences of child marriage as identified in literature include; high risk pregnancy and childbirth, depression, emotional distress, lack of access to a job and educational opportunities (Lebni et al., 2023). Hence, reducing the incidence of child marriage may help to improve the health of millions of girls and women, and their children. Recent studies have examined the impact of increase in minimum age of marriage on fertility and school enrolment (Bharadwaj, 2015; Rokicki, 2021; Belles-Obrero and Lombardi, 2023), however, the evidence remains inconclusive. Some of the studies, for example, Belles-Obrero and Lombardi (2023), provided empirical evidence on the impact of increase in minimum age of marriage to 18 on child marriage, early motherhood and school enrolment in Mexico. The study found that the increase in minimum age of marriage has no effect on school attendance or early fertility rates and this is as a result of the substitution of formal marriage for informal unions (Belles-Obrero and Lombardi, 2023).

About a decade after the United Nations General Assembly adopted the Convention on the Rights of the Child (CRC), Nigeria signed and ratified the African Union Charter on the Rights and Welfare of the Child (CRCW). In the year 2003, the National Assembly passed the Child Rights Act (CRA). This was not the first domestic bill passed in Nigeria as relating to the rights of children. The previous one which marked the first domestic bill was passed in 1993, however, witnessed oppositions from fundamentalist religious groups (Ikpebe, 2019). This study seeks to evaluate the impact of the change in marriage laws in Nigeria on adolescent fertility and school enrolment, contributing to the existing body of knowledge in a number of important ways.

¹ <https://www.girlsnotbrides.org/learning-resources/child-marriage-atlas/atlas/nigeria/>

The CRA as adopted in the Nigerian context stipulated that the minimum age of marriage is 18. One of the limitations usually encountered in previous studies seeking to evaluate the impact of age-of-marriage laws is the absence of counterfactual for credibly identifying the causal impact, given that such policies are commonly passed at the national (federal) level. However, the Nigerian context provides a compelling case study given that as at 2018 (i.e., 15 years later), only 24 out of Nigeria's 36 states have domesticated the policy (please see the appendix for details). It is also important to mention that Nigerian states which have adopted the policy did not do so at the same time. This provides a justifiable reason to exploit variation across states and overtime, evaluating the impact of the policy by comparing states before adoption of the policy and after adoption, using a staggered difference-in-differences model.

In addition to this, one of the studies in Nigeria that has examined teenage pregnancy and childbirth is Kupoluyi, Njoku and Oyinloye (2015). This is similar to many other studies in Nigeria, many of which adopt predominantly descriptive methods of analysis such as chi-square fits, percentages, and frequencies, as well as probability models such as probit and logit (Maduforo and Ojebode, 2011; Ezegui *et al.*, 2011; Isa and Gani, 2012; Envuladu *et al.*, 2014). However, we cannot draw inferences regarding causal effects from these studies due to the limitations of the analysis of the model possessing weak explanatory power. Therefore, the study seeks to focus on causal relationship between the child marriage law and fertility and school enrollment.

In Nigeria, about 20 million children aged 6-14 years are out of school (UNICEF Report, 2013). Specifically, UNESCO reported that one in any five of the out-of-school children in the world resides in Nigeria. The picture is also pervasive in the northern part of the country, where the net attendance is estimated to be 53%. Factors that have been found accountable for such educational marginalization include: gender, poverty, religion, early marriage, adolescent childbirth etc. Girls are mostly at the receiving end of this menace, as UNESCO statistics reported that about half of the girls in North East and North West of Nigeria are out of school.

Policies specifically targeted at delaying childbirth might also help in achieving the goal of poverty reduction across generations. Furthermore, given the poverty incidence in Nigeria, and how previous efforts to eradicate poverty has not yielded many results, understanding how the socio-economic implications of adolescent childbirth and the role of educational attainment and labour participation could better help channel policies aimed at poverty reduction. Hence the findings of this study are expected to provide insights to the socio-economic outcomes of adolescent childbearing across geopolitical zones in Nigeria, and also to understand the role of education in explaining the AC-poverty nexus. Majority of the studies on the consequences of adolescent childbirth were conducted in developed countries, hence, this study will provide the situation in the Nigerian context.

1.1 Research Objectives

The broad question of this study asks whether change in marriage law matters for fertility and school enrollment. Hence, this study wishes to achieve the following specific objectives:

- (1) To examine the trend of adolescent fertility across CRA Adopters and Non-Adopters in Nigeria.
- (2) To determine the impact of CRA on adolescent fertility in Nigeria.

(3) To determine the impact of CRA on school enrolment in Nigeria.

2.0 THEORETICAL FOCUS

Poverty is related to poor reproductive health outcomes (Garwood *et al.*, 2015). This is because poor reproductive health outcomes - such as early pregnancy, unintended pregnancy, excess fertility, poorly managed obstetric complications – adversely affect the chances of poor women, their children and families to escape poverty (Greene and Merrick, 2005). The girls who get married early are usually forced into multiple pregnancies. Specifically, adolescent mothers are more likely to have another birth within two years of the first, leading to large family size. Since fertility has been found to influence time allocation for productive economic activities among households, adolescent childbearing (AC) could influence education, labour market participation and poverty through large family size, which reduces the time available for productive activities. Klepinger, Loundberg and Plotnick (1997) and Fletcher and Wolfe (2008) revealed that young mothers are less likely to be healthy, more likely to have a large family size, more vulnerable to dropping out of school and more likely to have low labour market potential (Klepinger *et al.*, 1997; Fletcher and Wolfe, 2008). This may increase the likelihood of low income, leading to low household welfare, the intergenerational transmission of poverty and widening inequality in society.

3.0 DATA AND METHODOLOGY

3.1 Estimation Technique

This study will employ a staggered difference-in-differences modelling technique. In addition to this, it will also make use of probabilistic models such as binary probit, multinomial and ordered.

Just like earlier explained in the background, only 24 out of Nigeria's 36 states have domesticated the CRA. It is also important to mention that Nigerian states which have adopted the policy did not do so at the same time. This presents a justification for the adoption of a special type of difference-in-differences modelling technique known as the Staggered difference-in-differences. We recognize that there are 3 groups according to adoption/non-adoption; those who never adopted, the early adopters, and the late adopters. The equation can be represented as follows;

$$Y_{it} = \omega + \alpha_i + \varphi_t + \delta \mathbb{I}(t \geq g \cap G_{ig} = 1) + \gamma^T X_{it} + \epsilon_{it} \text{ for } i = 1, \dots, n, t = 1, \dots, T$$

Where α_i is the unit fixed effect for unit i , φ_t is the fixed effect for time t , the above estimator has been shown to be a weighted average of all possible two-by-two DiD estimates that are produced by comparing outcomes of a group of units whose treatment status changes between two time periods to a group of units whose treatment status does not change (Goodman-Bacon, 2021; Callaway and Sant'Anna, 2022). In some of these comparisons, units that have already been treated are used as comparators for later treated units.

3.2 Description of data sources

In order to conduct this empirical analysis, data from the Nigeria Demographic and Health Survey (NDHS) in this study. Even though the DHS questionnaires have overtime been adjusted to reflect changes, the survey data are largely consistent in terms of structure and methodology. The standard survey has been conducted by the DHS in Nigeria for the years 1990, 2003, 2008 and 2018. The unit of observation for this study will be the household within the state government areas (which correspond to the first subnational level) in both the northern and southern states of Nigeria. In all, this covers the whole 36 states in Nigeria. Fertility will be proxied by *adolescent childbirth* which will take the value of 1 if a woman had a live birth before 18 and takes the value of 0 if a woman within that age range had a child after age 18. Education variable will be constructed from the question on the number of years of education attained by the woman. Labour market participation will be captured by the occupation of the respondent and whether/not the respondent is in a paid job.

Household welfare will be constructed from the household questionnaire relating to wealth category to which the household belongs. The measure of household wealth that will be used in this study is the wealth index as constructed by NDHS is an aggregate of household assets which then allows each household to be classified as poorest, second, middle, fourth or richest. The demographic and socio-economic variables relate to parental education, religion, ethnicity and geopolitical zone, these have been found to have a significant influence on the incidence of adolescent childbearing. These variables, as will be constructed in this study, follow the Sustainable Development Goal (SDG) methodology as applicable and also follow previous studies that have modelled issues around child marriage and adolescent childbearing.

The child's health-related variable in this study is constructed from child mortality related questions from the questionnaire, which includes whether the household has recorded incidence of child death and how many of this has been recorded. Furthermore, the NDHS contains other information regarding the number of children born by the woman. This will help us to assess whether low or high fertility is associated with early childbearing.

4.0 PRELIMINARY FINDINGS

Preliminary findings from descriptive analysis of adolescent fertility across states which have adopted the CRA and those who have not (please, see the appendix section) reveals that the incidence of adolescent childbearing is higher among states that have not adopted CRA but lower among states that have adopted the policy both among women between 15-29 and women within the age bracket 15-24. However, these descriptive analyses are insufficient to draw a causal relationship. There will be a need for a more detailed analysis which will consider these states before the adoption of the policy and after the adoption of the policy. The staggered difference-in-differences estimation method will aid us in this exercise and will help us to address the different timings of adoption.

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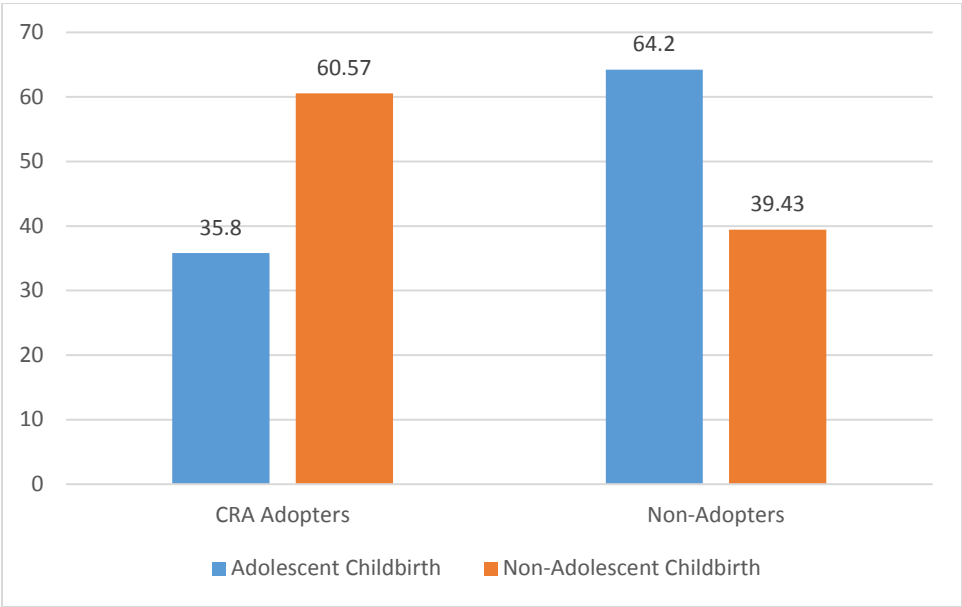
APPENDIX

Table 1

S/N	STATE	YEAR OF ADOPTION
1	ABIA	2006
2	AKWA IBOM	2008
3	ANAMBRA	2008
4	BAYELSA	2015
5	BENUE	2008
6	CROSS RIVER	2009
7	DELTA	2008
8	EBONYI	2007
9	EDO	2007
10	EKITI	2007
11	ENUGU	2016
12	IMO	2007
13	KOGI	2009
14	KWARA	2006
15	LAGOS	2007
16	NASSARAWA	2007
17	NIGER	2010
18	OGUN	2013
19	ONDO	2007
20	OSUN	2007
21	OYO	2006
22	PLATEAU	2005
23	RIVERS	2010
24	TARABA	2007

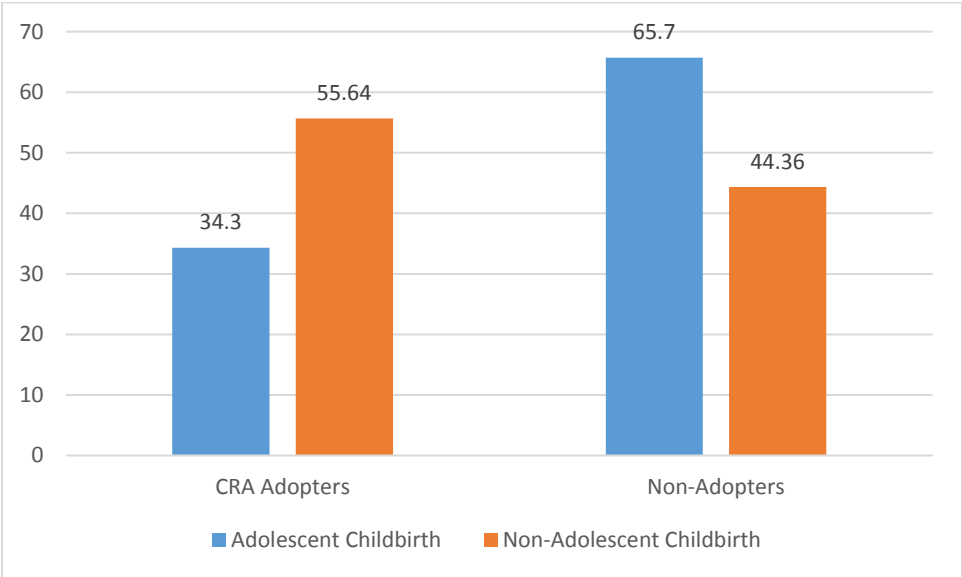
Source: Ikpebe (2019)

Figure 1: Adolescent Childbirth across CRA Adopters and Non-Adopters (15-29)



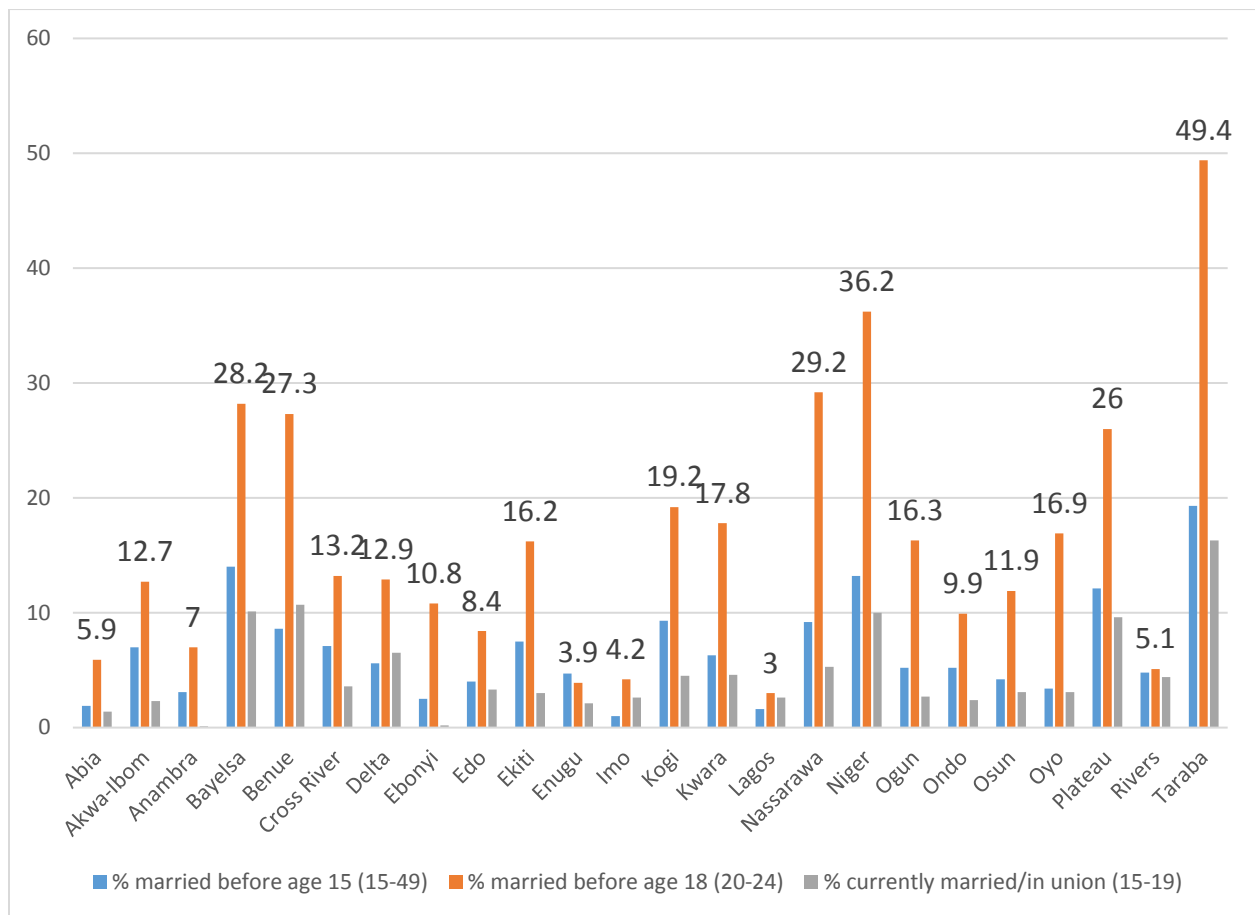
Source: Author's Computation (NDHS 2018)

Figure 2: Adolescent Childbirth across CRA Adopters and Non-Adopters (15-24)



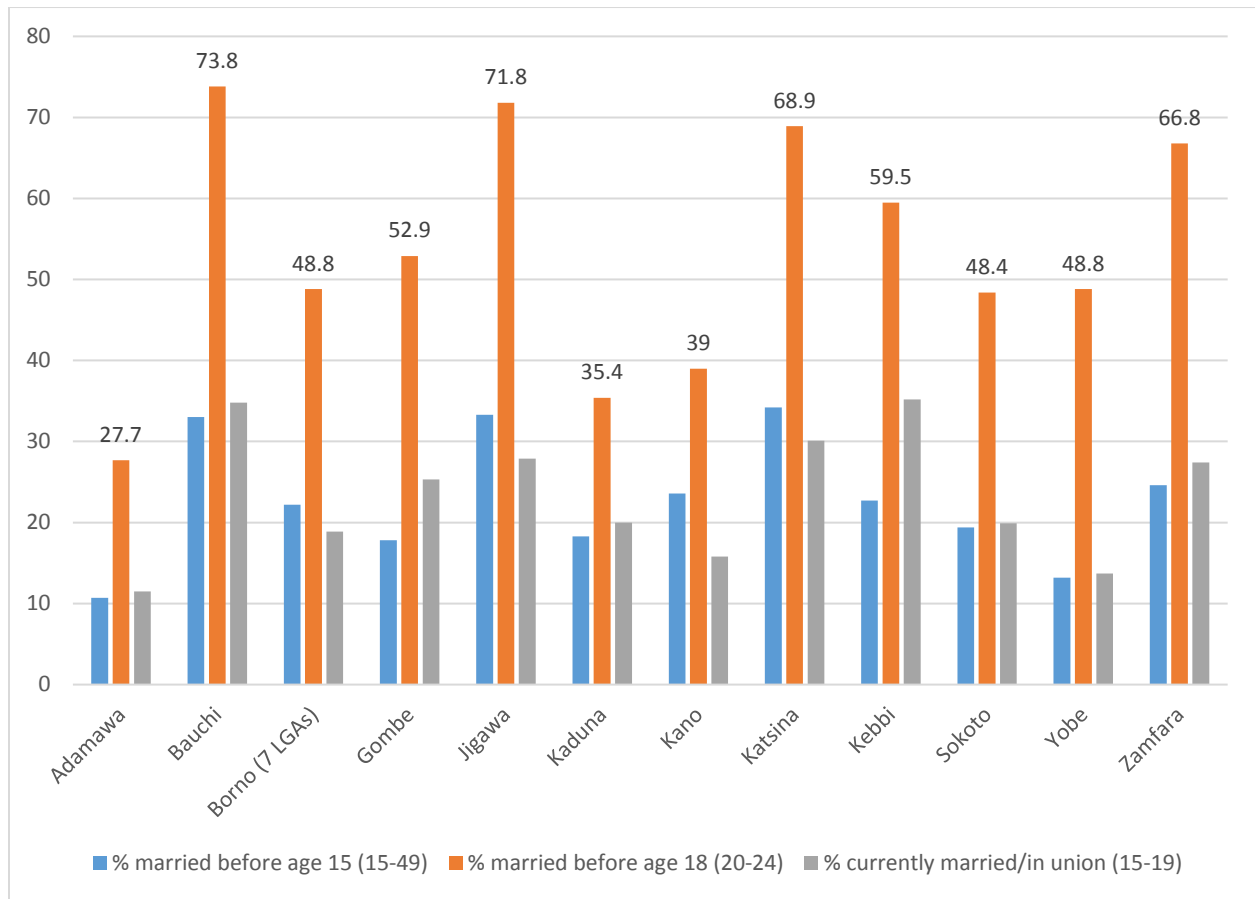
Source: Author's Computation (NDHS 2018)

Figure 3: Adolescent Childbirth across States that have adopted the Child’s Right Act



Source: Authors Computation (Multiple Indicator Cluster Survey Dataset, 2021)

Figure 4: Adolescent Childbirth across States that are yet to adopt the Child’s Right Act



Source: Authors Computation (Multiple Indicator Cluster Survey Dataset, 2021)