Economic and Social Commission for Western Asia

The cost of child marriage over the life cycle: Evidence from Egypt, Jordan, Iraq and Tunisia

Findings

November 10th, 2021

Incidence of Child Marriage

Child Marriage Incidence by Age Cohorts

- Younger Cohorts ~ Current Situation

- Older Cohorts ~ Previous Situation

Age Cohorts	Child Marriage Incidence (%)			
	Egypt (2014)	Iraq (2018)	Jordan (2016-17)	Tunisia (2018)
15-19 Years	9.31	19.88	6.93	0.25
20-24 Years	15.62	42.26	9.97	1.30
25-29 Years	16.34	43.90	11.59	1.90
30-34 Years	20.42	32.18	12.64	2.22
35-49 Years	26.90	30.49	17.40	4.66

Interpretation of Results

➢ Essentially, we want to show how child brides are faring relative to their non-child brides counterparts.

➢ Our regressions use the counterparts as the omitted category, and thus, do not allow for readily visual comparisons.

➢ In order to best showcase the results in an intuitive way, we use marginal average effects to describe the relationships estimated with regressions.

Why Marginal Average Effects?

➢ Ideally, we want to understand what the model is saying in the probability scale and not in the odds scale.

➢ Marginal average effects can be use with most parametric models, such as, Poisson models, GLM and two-part models.

➢ They are truly indispensable when the scale of estimation is not the same as the scale of interest (Logit, Poisson, etc.) or when we have non-linear terms.

➢ Marginal average effects use model **prediction** for **interpretation**. We are using the estimated model to make predictions so we can better interpret the model in a reasonable scale.

Fertility and Modern Contraception Use

Early Birth Incidence

➤ If most early childbirths are due to child marriage, we would expect the measures of early childbirths for women to be lower than those for child marriage since a girl marrying at, say, age 17, is not likely to have her first child before 18.

➤ Across all 25 countries, the share of women having their first child before 18 due to child marriage is 75.2 percent (Wodon et. al., 2017).

Country	Share of Girls Ages 18- 22 Who Had their First Marriage Before Age 18 (%)	Share of Girls Ages 18- 22 Who Had their First Birth Before Age 18 (%)
Egypt	15.17	0.54
Jordan	9.21	0.43
Iraq	25.33	0.51
Tunisia	0.97	0.04

Theoretical Channels

➢ Limited knowledge of sexual and reproductive health and their rights (Walker, Mukisa, Hashim, & Ismail, 2013).

➢ Lack the bargaining power to negotiate sex with their husbands (Walker et al., 2013).

➢ Especially in Arab region, brides feel the pressure to prove their fertility upon marriage (Inhorn, 1994, 1996; El-Zanaty and Way, 2009).

➢ Lack of knowledge of or access to modern contraception (Raj, Saggurti, Balaiah, & Silverman, 2009).

Number of Live Births

➢ Child marriage contributes to higher total fertility as women marrying earlier tend to both have children earlier and more children over their lifetime than if they had married later (Nasrullah, Muazzam, Bhutta, & Raj, 2014; Raj et al., 2009; Yaya, Odusina, & Bishwajit, 2019).

➢ After controlling for other factors affecting fertility, marrying at age 13 increases the number of children that women are expected to have over their lifetime by 26.4 percent (Wodon et. al., 2017).
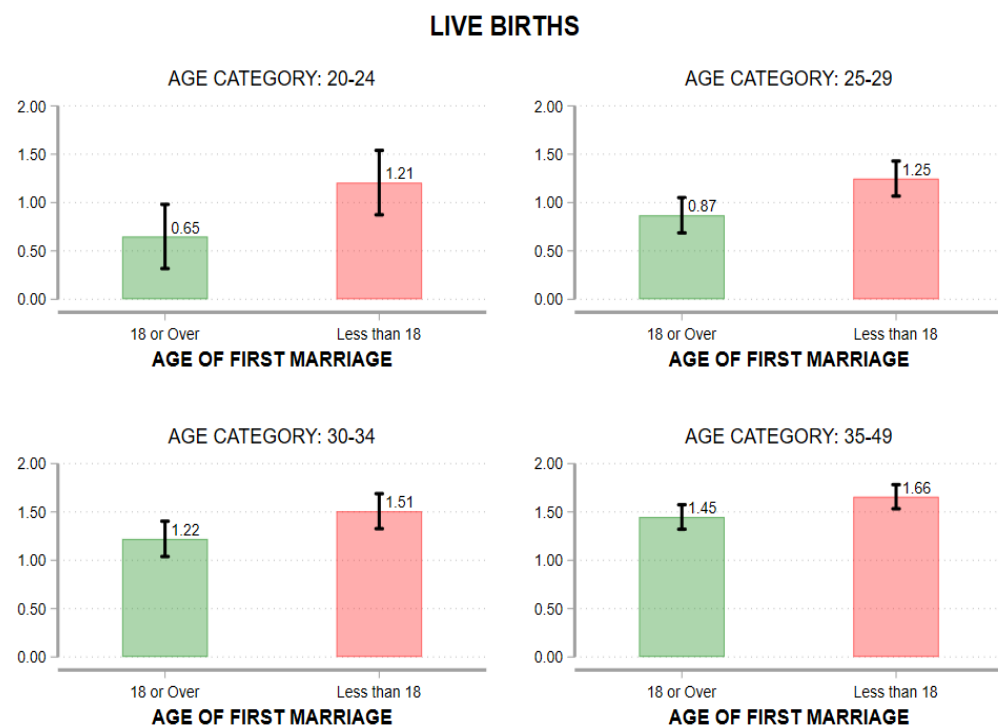
Average Number of Live Births

	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-49 Years
Egypt					
Married at 18 or later	0.205	1.001	1.775	2.488	3.282
Married less than 18	0.669	1.998	3.018	3.796	4.709
Difference	0.460***	0.973***	1.191***	1.234***	1.427***
Iraq					
Married at 18 or later	0.133	1.295	2.653	3.865	5.311
Married less than 18	1.065	2.705	4.013	5.216	6.994
Difference	0.932***	1.410***	1.360***	1.351***	1.683***
Jordan					
Married at 18 or later	0.101	0.805	1.741	2.730	3.944
Married less than 18	0.698	2.096	3.264	4.154	5.333
Difference	0.597***	1.291***	1.523***	1.424***	1.389***
Tunisia					
Married at 18 or later	0.200	0.906	1.419	1.901	2.638
Married less than 18	0.750	1.600	2.607	2.462	3.797
Difference	0.550***	0.694***	1.188***	0.560***	1.159***

Average Number of Live Births

Marginal average effect - Average number of live births over the lifetime by cohort (married women 20-49)

Egypt
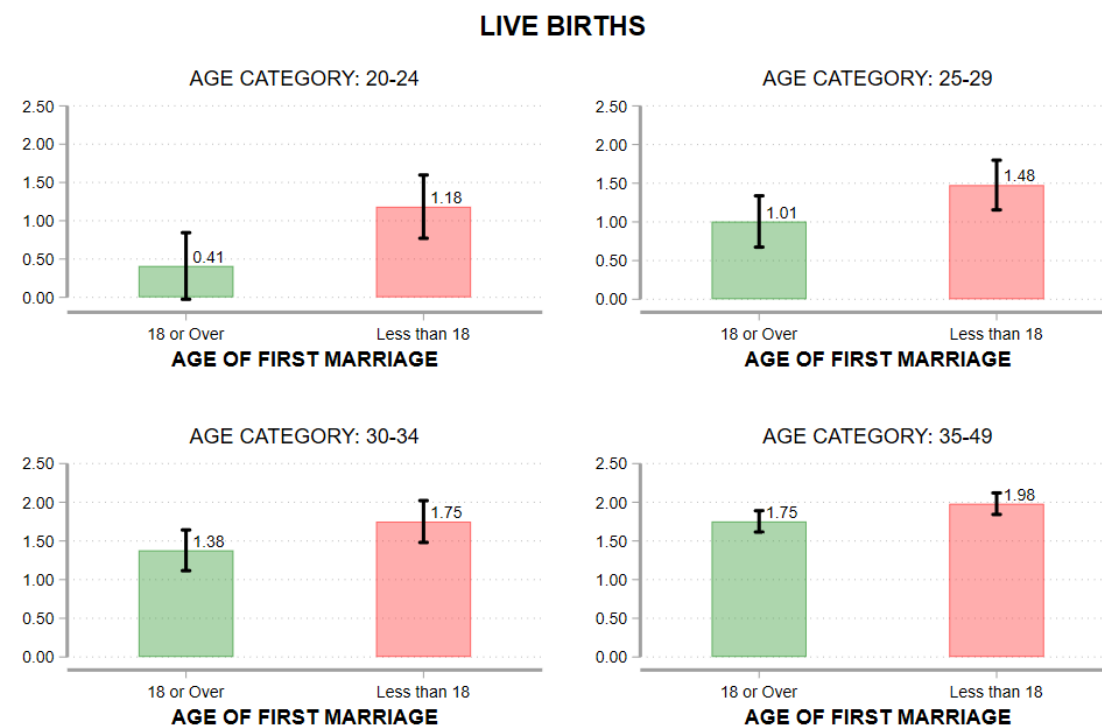
Jordan

Number of Live Births

➢The fertility rates may be underestimated as their fertile age goes beyond the age cohort they are currently in.

➢These results are consistent with De Bel-Air (2017), who associates the persistently high TFR in Egypt since the 1980s to an increase in early marriages that have driven up the fertility rates for very young age groups.

Use of Modern Contraception

➤ The evidence regarding the impact of child marriage on use of modern contraception is mixed in the literature. While in most countries child marriage reduces the use of modern contraception, in others it has increased.

➤ There are cases where impact of child marriage on use of modern contraception is positive (Godha, Hotchkiss, & Gage, 2013; Hampton, 2010; Kamal, 2012; Nasrullah, Muazzam, et al., 2014; Raj et al., 2009; Yaya et al., 2019).

➤ Wodon et. al. (2017) particularly found it to be the case in Burkina Faso, Nepal, and Pakistan, possibly because when women have reached their desired fertility.

Use of Modern Contraception

	Egypt	Iraq	Jordan	Tunisia
15-19 Years	18.21	2.47	7.73	0.13
20-24 Years	38.70	11.85	21.10	15.27
25-29 Years	50.63	24.03	31.89	21.33
30-34 Years	59.43	32.94	35.70	42.37
35-49 Years	56.75	32.99	38.17	53.66

Use of Modern Contraception

Marginal average effect - Use of Modern Contraceptive Methods by cohort (married women 15-49)
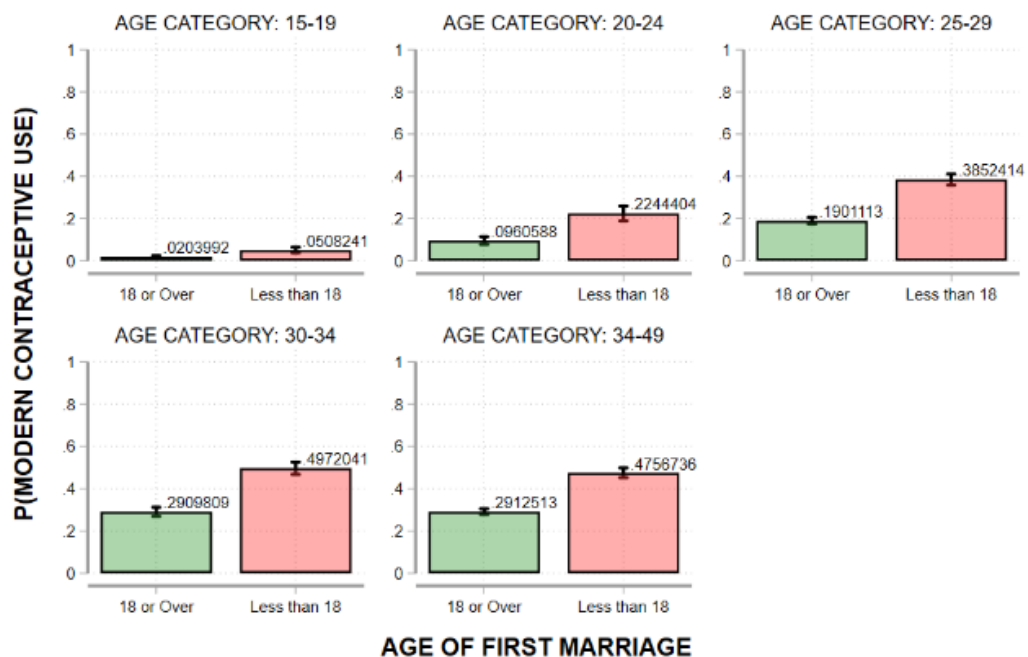
Iraq
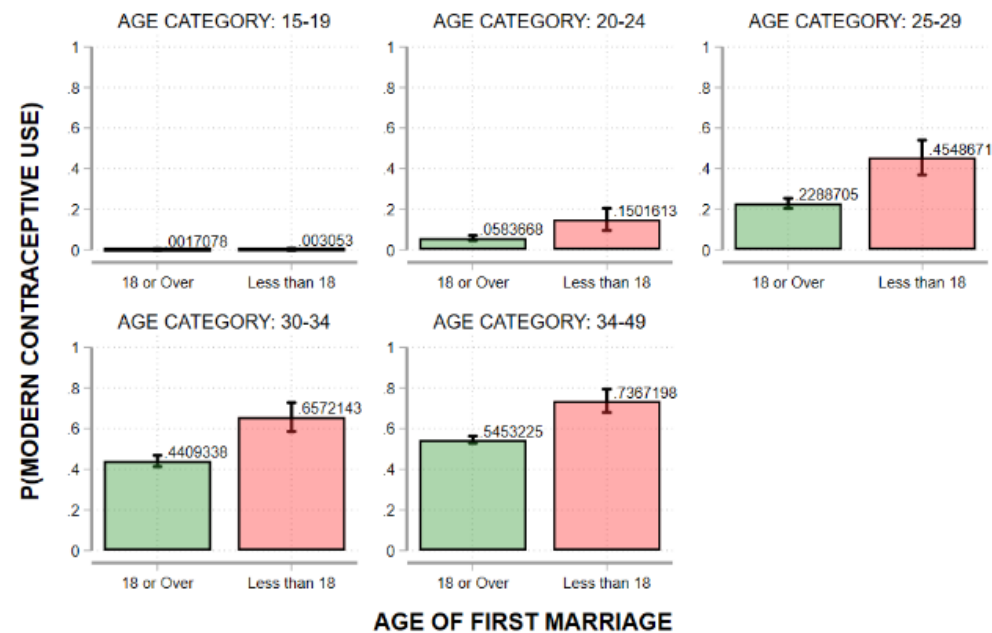
Tunisia

Health

Under-5 Mortality and Stunting

➢ Children born of young mothers tend to have higher risks of under-five malnutrition and mortality than children born of older mothers (e.g., Raj and Boehmer, 2013; Raj et al., 2014; Fall et al., 2015; Degarege et al., 2015).

➢ In the case of stunting for example, research suggests a loss in productivity of two percent or more for each percent loss in adult height (Caulfield et al. 2006, Strauss and Thomas 1998).

➢ Wodon et. al. (2017) find that when a child is born of a mother younger than 18, the risk of under-five mortality increases on average by 3.5 percentage points in the 15 countries, while the risk of under-five stunting increases by 6.3 percentage points.

Theoretical Channels

➢ Adolescent mothers have restricted mobility and access to health care.

➢ Limited decision-making power regarding pregnancy and childbirth decisions.

➢ Physically immature to bear a child, leading to further complications.

➢ Ignorance on nutritional practices given their low educational attainment.

➢ Lack of knowledge on child care and adequate feeding practices.

Under-5 Motality
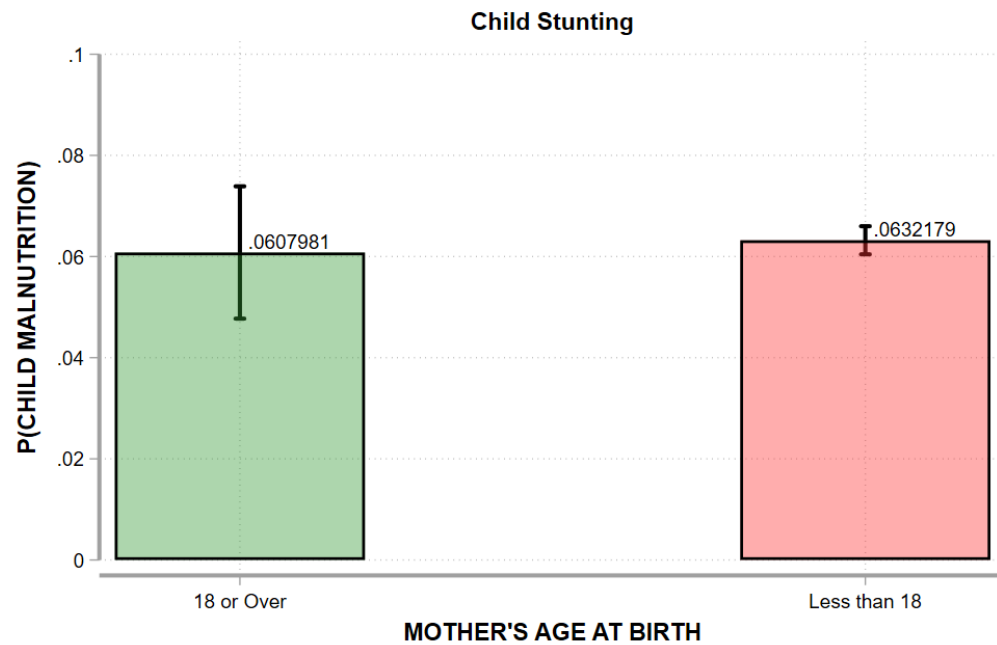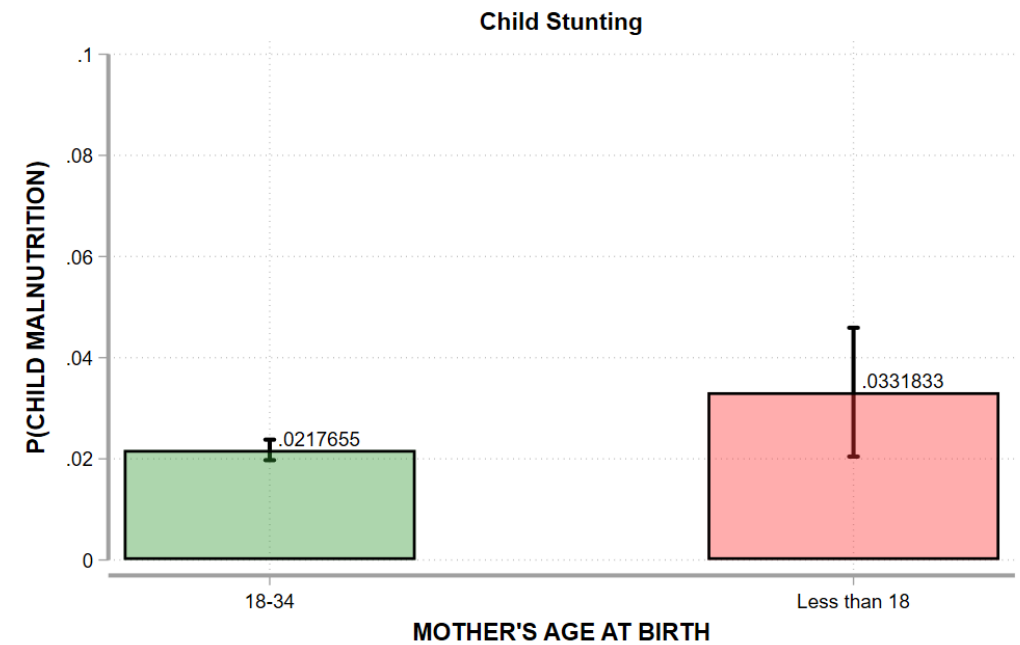
Marginal average effect - Under 5 Child Mortality
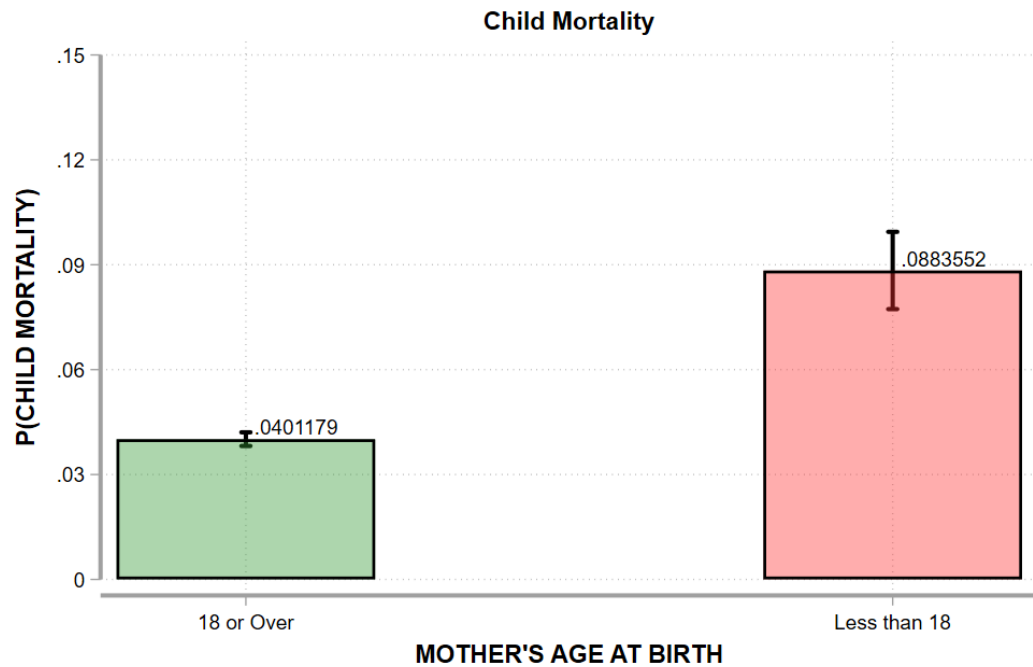
Egypt
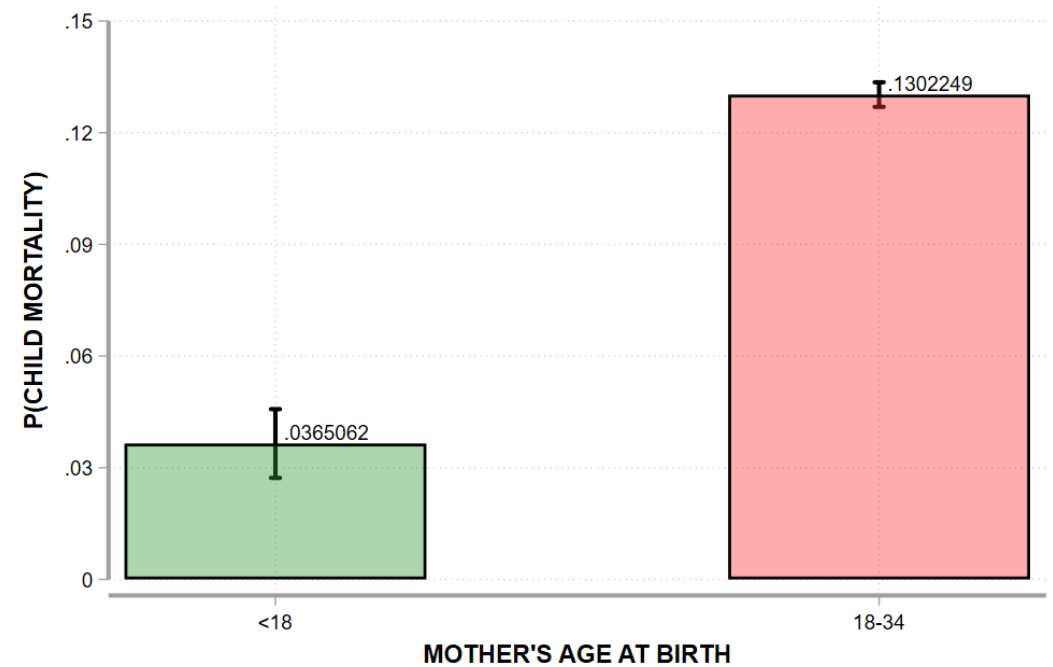
Tunisia

Under-5 Stunting

Marginal average effect - Under 5 Stunting

Egypt

Iraq

Decision Making

Decision Making

➢ Child marriage not only impacts women's voice, agency and decision making in the household after they are married, but it is also an expression of the lack of these characteristics for women in these societies (Parsons et al., 2015).

➢ Econometric analysis suggests that child marriage has a direct negative impact on decision-making ability in only a minority of countries, for the remaining it is statistically insignificant (Onagoruwa and Wodon ,2017e).

Theoretical Channels

Child brides are often 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 be the case if they had married later (Parsons et al., 2015).

➢ Large spousal age gap
➢ Lack the social support of friends or community
➢ Limited earning potential
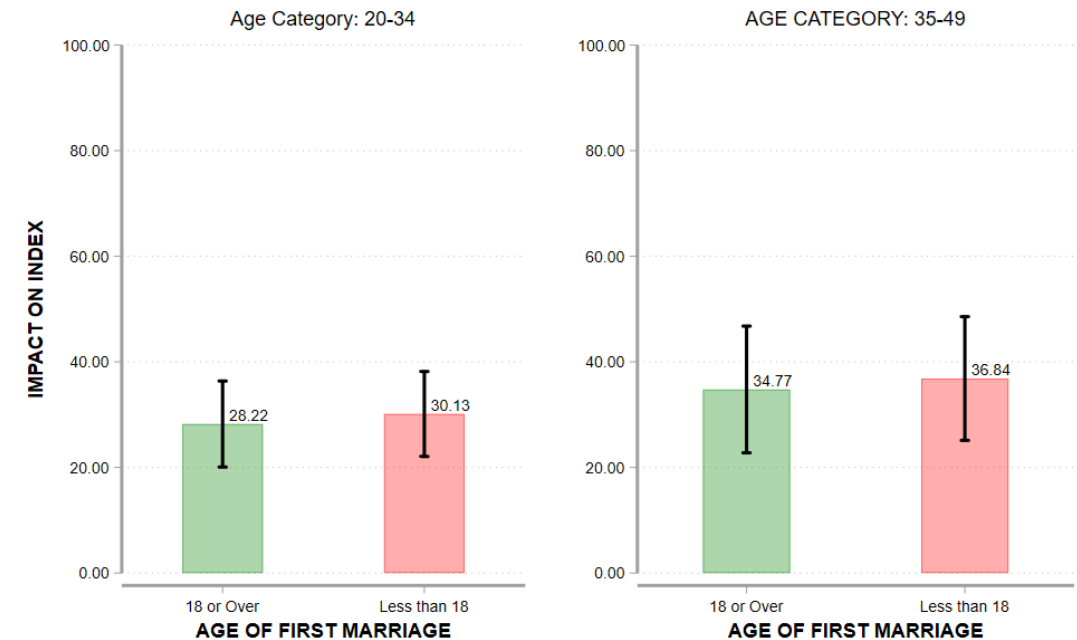➢ Lack of literacy, numeracy and financial skills
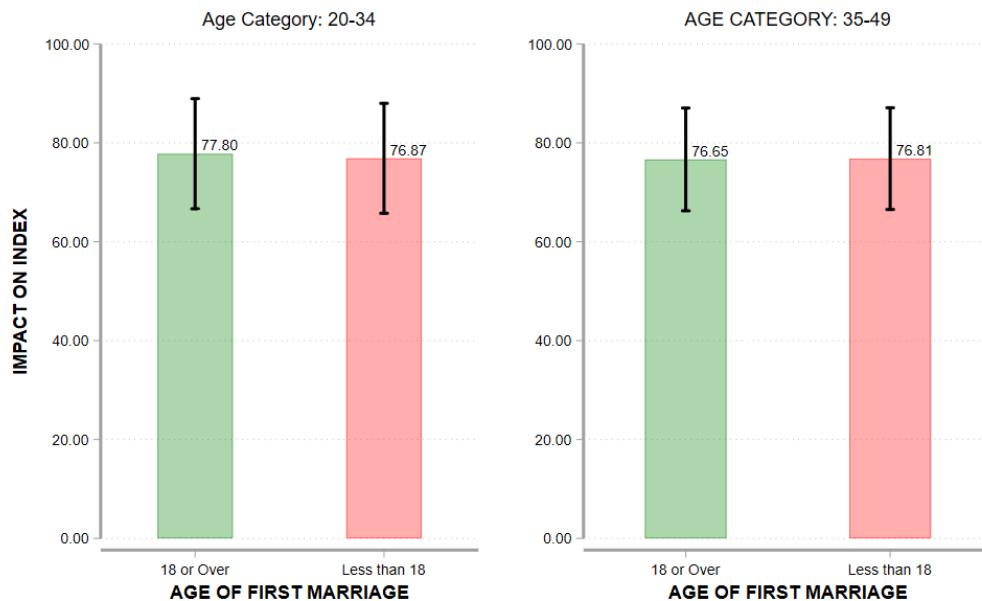
Decision-Making Index Components
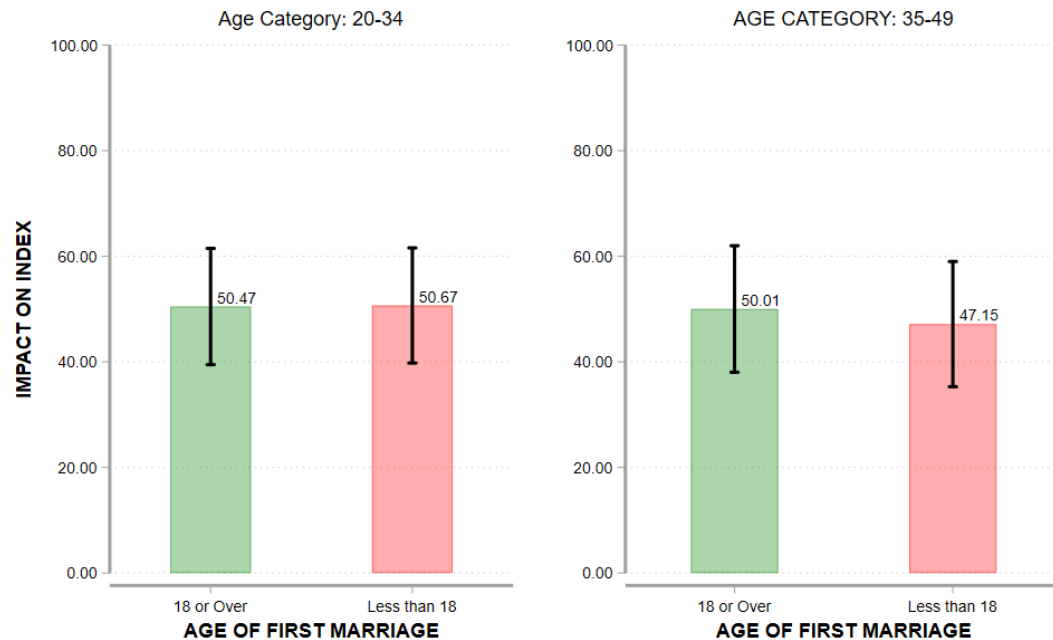
Egypt

Perceptions of Domestic Violence

Household Decision Making Index

Decision-Making Index Components

Egypt
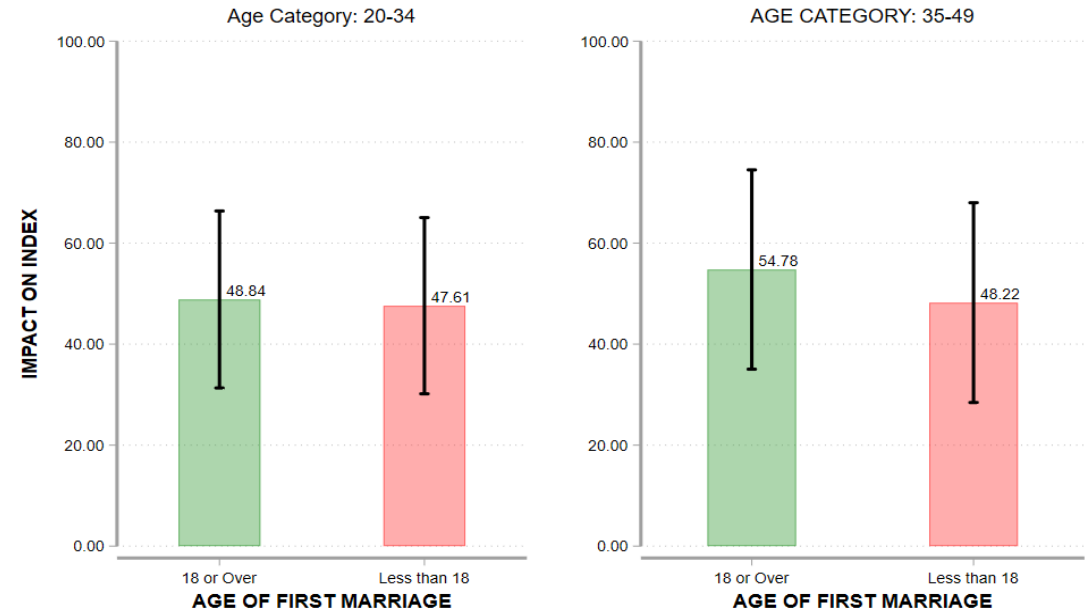
Marital Decision Making Index

Composite Decision Making Index

Domestic Violence

Intimate Partner Violence

➢ Child marriage is strongly associated with intimate partner violence (IPV) (both physical and sexual) (Irani and Latifnejad Roudsari, 2019; Raj et al., 2010a; Santhya et al., 2010, Clark et al. 2006; Carbone-Lopez, 2006; Solotaroff and Pande, 2014; Le et al., 2014).

➢ Child brides are 1.8 times more likely to be subjected to physical and sexual violence as compared to adult brides (Raj et al., 2010).

➢ Wodon et. al., 2017 suggests that across countries, marrying early does have an impact on IPV, which in some cases is large, but not always so.

Theoretical Channels

➢ The large spousal age gaps result in extremely unequal power dynamics (Santhya et al., 2010; Rashad, 2015).

➢ Lack social and human capital and limited earning potential, they primarily stay economically dependent on their husbands (Lakshmanan, 2008).

Physical Domestic Violence

Marginal average effect – Experienced Physical Violence by cohort (married women 15-49)
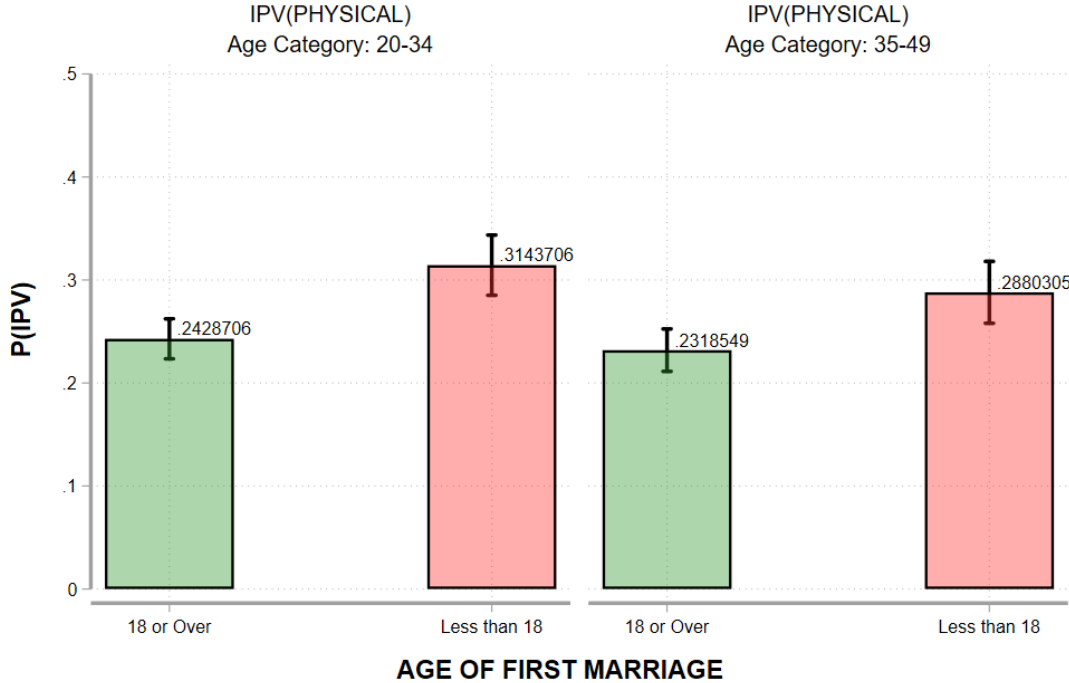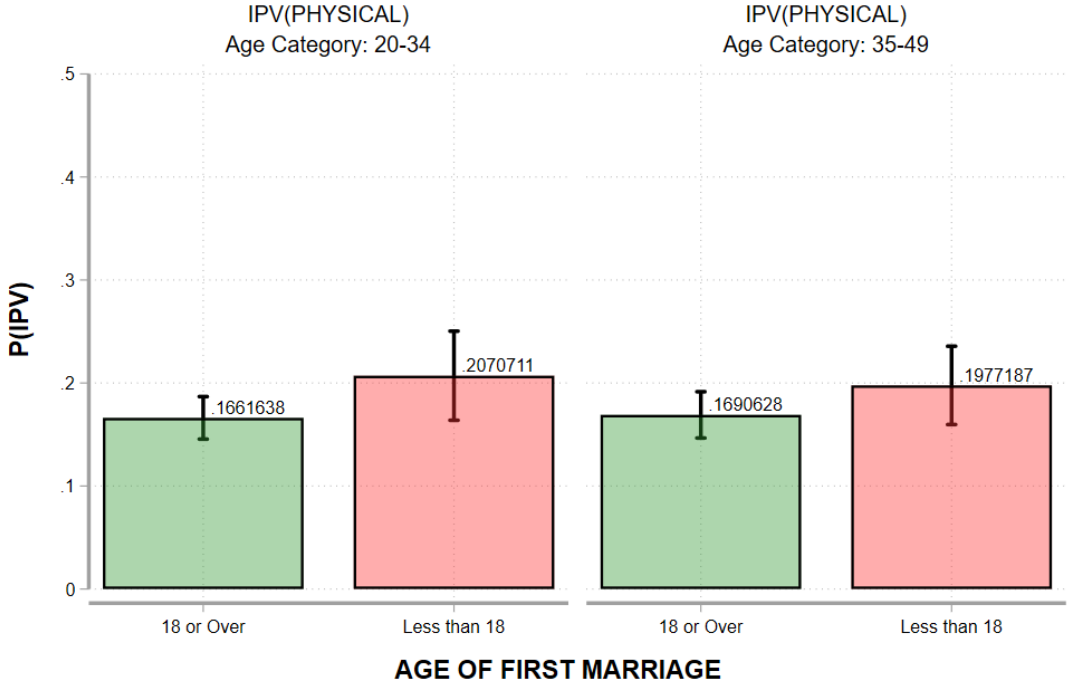
Egypt

Jordan

Decision-Making Index Components

Marginal average effect – Experienced Sexual Violence by cohort (married women 15-49)

Egypt

Jordan