Political Regime and Women's Marriage Outcomes*

Bipasha Maity† and Sumedha Shukla‡

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Abstract

We study the causal impact of theocratic political regime on women's age at first marriage. We leverage spatial variation of the first Taliban regime in Afghanistan and temporal variation in women's timing of marriage relative to the establishment of the regime in a difference-in-difference estimation framework. We find that exposure to the Taliban government reduced women's age at first marriage by nearly 9 months and this is accompanied by a concomitant reduction in the age at first birth. Likelihood of experiencing intimate partner violence was also higher among women exposed to the regime. Reduction in educational attainment due to the Taliban's policy of prohibiting access to education appears to be a plausible mechanism driving the results and influencing their persistence even after the fall of the regime. Our results demonstrate the detrimental effects of political regimes that curtail women's civil rights on their welfare.

Keywords: marriage age; age at first birth; education; women; Taliban; Afghanistan

JEL Codes: J12, J13, J16, Z12

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†Department of Economics, Ashoka University. Address: Plot No. 2, Rajiv Gandhi Education City, Sonipat (National Capital Region of Delhi), Haryana 131029 India. Email: bipasha.maity@ashoka.edu.in

‡Indraprastha Institute of Information Technology Delhi, India. Address: Okhla Industrial Estate, Phase III, New Delhi 110020, India. Email: sumedhas@iiitd.ac.in.

1 Introduction

Women's marriage market outcomes and in particular age at first marriage has important implications on women's overall well-being. Lower age at first marriage has been linked to a variety of adverse outcomes for women. For example, it has been found to lower autonomy, increase the likelihood of facing intimate partner violence within marriages (Jensen and Thornton, 2003; Roychowdhury and Dhamija, 2021) as well as adherence to traditional gender roles and inequitable intra-household resource allocation (Asadullah and Wahhaj, 2019). Additionally, interruption to education on account of early marriage has been demonstrated (Field and Ambrus, 2008); but expanding access to education (particularly secondary education) has also been shown to raise the age at first marriage (Gangadharan and Maitra, 2003; Ikamari, 2005; Kırdar et al., 2018; Marchetta and Sahn, 2016; Bhuwania et al., 2023). In most developing countries, almost all births take place within marriages and couples are expected to have a child soon after marriage (Jejeebhoy et al., 2014; Dixit et al., 2021). Therefore, lower age at first marriage has the potential to lower the age at first birth. However, lower maternal age at first birth is found to be associated with poor maternal and child health outcomes and child educational outcomes, implying long-term and intergenerational consequences of women's early marriage (Sekhri and Debnath, 2014; Delprato et al., 2017; Goli et al., 2015; Nguyen et al., 2019; Sunder, 2019; Chari et al., 2017; Li et al., 2021; Garcia-Hombrados, 2022). Hence studying the evolution of and factors that influence women's age at first marriage is of great policy relevance.

In this paper, we study the effect of political or governmental regime on women's age at first marriage. Our specific context is the exposure to the first Taliban government in Afghanistan for causal identification. Since the Taliban government was set up in 1996 in a subset of provinces in Afghanistan, we leverage this spatial variation as well as temporal variation in the year of marriage (relative to 1996) in a difference-in-difference estimation framework. Conceptually, there could be several pathways through which political regimes or specific forms of government can influence women's age at first marriage. Political regimes have the potential to influence marriage markets directly through legislation and the extent of their enforcement in their jurisdictions. The first Taliban regime provides an interesting set up for studying women's marriage outcomes. This is because a prominent characteristic of the Taliban regime was the laws governing the status of women. Severe curtailment of women's civil rights was imposed which included strict restrictions on women's mobility. Additional restrictions included restricting or even prohibiting accessing education, work and healthcare. The need of a male chaperone who was related either by blood or marriage to ensure mobility was emphasized (Griffin, 2000). In such circumstances, marriage could be

seen by parents as a coping mechanism to ensure the security and mobility of their daughters in provinces governed by the Talibans. Additionally, prohibiting access to education can provide further impetus to marrying girls relatively earlier. On the other hand, girls who are unable to continue their education and cannot be mobile outside their homes may contribute meaningfully to home production. This can motivate parents to marry off their daughters later, thereby raising women's age at first marriage. Political regimes, in general, may also result in displacement of families and poverty. This can reduce women's age at first marriage either on account of security concerns or financial constraints on the parents who are now themselves unable to take care of their daughter(s) (Lu et al., 2021). If marriage market payment customs dictate transfer of wealth from the groom's family to the bride's family, which is the case for Afghanistan, then parents can also decide to marry off their daughters earlier for the purpose of consumption smoothing (Corno et al., 2020).[1] Lastly, if laws make search costs in the marriage market harder (for example, laws prohibiting women from being in contact with unrelated males may disrupt formation of marital unions with such males even in settings of arranged marriages where potential grooms and brides cannot meet each other), women's age at marriage can rise. Alternatively, parents may take recourse to encourage cousin marriages to reduce search costs, which in turn has been demonstrated to lower age at marriage and reduce women's overall autonomy (Bahrami-Rad, 2021). Hence the impacts of political regime on women's age at first marriage is, a priori, unclear. This motivates us to study this research question empirically using the Afghan context.

As has been mentioned before, we exploit two dimensions of variation to estimate the causal impact of the Taliban regime on women's age at first marriage. Firstly, the Taliban government's jurisdiction did not cover the entire country.[2] Therefore, we use this spatial variation that some individuals belonged to provinces that were directly under the control of the Talibans; while others resided in provinces governed by political alliances opposed to the Talibans, popularly known as the Northern Alliance. The former set of provinces form our treatment group while the latter constitute our control group. The other variation that we consider is whether or not the individual is married in 1996 or later years. This is to leverage the variation in exposure to the Taliban government that was established in 1996. Here, we use the notion that age at first marriage for women who were already married before 1996 should not be impacted by the Taliban regime and hence form our control group with regard to temporal variation in exposure to the regime.[3] It is to be noted that while

[1] Qualitative discussion on marriage practices in Afghanistan can be found here: https://www.aljazeera.com/features/2022/8/14/ill-be-sacrificed-the-lost-and-sold-daughters-of-afghanistan, accessed on May 13, 2024.

[2] We discuss this in more detail in Section 2 below.

[3] In this regard, our estimation strategy is similar in spirit to La Mattina (2017).

the Taliban engaged in some efforts to bring more territory under their control after 1996, it is widely understood that 1996 is the watershed moment that marks the establishment of the Taliban government in Afghanistan. Further, most marriages in South Asia are decided by parents and women themselves have little say about when or who to marry (Jensen and Thornton, 2003). In our context, since the Taliban's rise to and fall from power were also sudden (Chung and Partridge, 2023); the timing of marriage, relative to the establishment of the Taliban government, is likely to be potentially exogenous.

For our analysis, we use the Afghanistan Demographic and Health Surveys data (AfDHS), 2015. The AfDHS is a nationally representative dataset on ever married women who were between 15 and 49 years old at the time of the survey. The AfDHS, like DHS surveys for all developing countries, provide rich information on marriage, exposure to domestic violence as well as several socio-economic variables on the surveyed women. Given the age profiles and marital history of the respondents in the AfDHS, we are able to construct their year of marriage as well as age at first marriage, our key outcome variable of interest. We find that the average age at first marriage is around 17 years while the average age at first birth is 19 years, which reflect respectively the prevalence of low ages at first marriage and birth in Afghanistan. Now, our difference-in-difference estimation framework relies on the assumption that there are no differential pre-existing trends in the age at first marriage for women who were married earlier than 1996 between provinces that eventually came to be governed by the Taliban and Northern Alliance. We provide evidence that indicate that this is unlikely to be a concern. Our estimation results show that relative to women who were married earlier than 1996, the age at first marriage for those who were married after the establishment of the Taliban government in Taliban governed provinces was around 9 months lower than their counterparts in the Northern Alliance controlled provinces. This translates to a 4% decline in the age at first marriage for women in the treatment provinces relative to those in the control provinces who married after the Taliban government was set up, relative to the sample mean. In general given the sample average, a nearly 9 month decline in the age at first marriage is likely to indicate a large decline in the age at which women enter their first marriages. Our finding is especially important as overall the average age at first marriage was rising (albeit modestly) in Afghanistan as, irrespective of the province of residence, the average age at first marriage for women who married earlier and after 1996 are 17 and 18 years respectively. Our results remain robust to addressing concerns about selective migration, any potential endogeneity in the timing of marriage and alternative definition of Taliban and Northern Alliance governed provinces.

We also study what the consequences of entering marriage early is on the women. We find that the lower age at first marriage is followed by a concomitant lowering of the age at

first birth by the same magnitude for women in the treatment group relative to those in the control group. Further, the likelihood of experiencing physical violence in marriage is also higher for women in the treatment group. These findings are important as they emphasize the significant detrimental impacts of entering marriage earlier, thereby echoing the findings of the existing literature in this regard. In terms of a potential mechanism that could influence our findings, we find that women in the treatment group have around 8 months of lower educational attainment relative to those in the control group and this appears to be largely driven by the reduced likelihood of finishing secondary (and not primary) education. These results are important and relevant as the Talibans sought to reduce access to education of particularly older girls and women and the role of education in delaying marriage has been demonstrated in the existing literature. Lastly, we find that the effects of the Taliban regime on women's age at marriage extend beyond the duration of the Taliban government. This indicates potential long term detrimental effects of the Taliban government on women's marriage outcome, plausibly on account of altered cultural perceptions about the role of women in society, bolstered by the prohibition on the access to education for women and girls.

Our paper attempts to contribute to the literature in several important ways. Firstly, we add to the branch of literature in economics that has studied how various shocks influence women's marriage outcomes and particularly age at first marriage. While studies in the existing literature have largely focused on environmental shocks or displacement induced by prominent historical events in influencing age at marriage (Corno et al., 2020; Khanna and Kochhar, 2023; Lu et al., 2021), our paper attempts to contribute to the role of institutions such as political regimes on women's marriage outcomes. Secondly, our paper attempts to extend our understanding of the role of conflict and conflict induced institutional changes that can have ramifications on households by influencing decisions concerning education, marriage, fertility and experience of domestic violence (Shemyakina, 2013; Buvinić et al., 2014; La Mattina, 2017). Thirdly, our paper adds to the growing literature on the impacts of religion and culture on a large range of outcomes (Iyer, 2016). Specifically, the imposition of religious institutions or government structures have not always resulted in negative impacts on women's and children's human capital outcomes (Meyersson, 2014; Alfano, 2022). In contrast, the role of extremist movements or governments grounded in religion in negatively impacting human capital outcomes have also been documented in the literature (Noury and Speciale, 2016; Bertoni et al., 2019; Chung and Partridge, 2023). In this spirit, our paper studies the impact of religious governmental institutions that drastically altered women's civil rights and mobility on their marriage outcomes. Lastly, our results are particularly topical on account of the Taliban's return to power in Afghanistan since August 2021.

This paper is organized as follows: Section 2 describes the institutional background; Section 3 describes the data used for analysis; Section 4 presents the empirical strategy, the potential threats to identification as well as mechanisms of addressing such challenges; Section 5 presents the results and the associated robustness/sensitivity checks; Section 6 presents the downstream effects of lower age at first marriage on account of exposure to the Taliban regime; Section 7 describes the potential channels that could explain our findings, while Section 8 concludes.

2 Context of the Analysis

Afghanistan has been categorized as one of the most fragile and conflict affected states in the world (World Bank, 2016). The country has been in constant conflict starting with the Soviet invasion in 1979. Wars fought by local warlords called the *mujahideen* against the Soviets resulted in the withdrawal of Soviet troops in 1989. However, the period after the withdrawal of the Soviets was marked by factional fighting between the different warlords and the interim governments were often short-lived. The emergence of the *Taliban* as an important faction in the Afghan Civil War took place in 1994 with the attack and capture of the southern city of Kandahar.[4] The Taliban successfully took control of Kabul in 1996 and established the Islamic Emirate of Afghanistan. A totalitarian government was established based on the strict interpretation of the *Sharia* law (Matinuddin, 2000). The Taliban governed Afghanistan between 1996 and 2001 and during this period controlled roughly 75% of the country's territory, consisting of largely the western, central and southern parts of the country.[5] The remaining parts of the country were controlled by warlords who were opposed to the Taliban. Together, they formed a unified military front against the Taliban called United Islamic Front for the Salvation of Afghanistan, or the Northern Alliance.[6]

One of the prominent characteristics of the Taliban regime were the laws governing the status of women. Girls older than eight years were prohibited from being in contact with males who were not their blood relatives or husband (Griffin, 2000). Further, other restrictions imposed on women included prohibition on travelling outside the home without a male relative/husband and without wearing a *burqa*; seeking education in schools and universities as well as working outside the home; being treated by male doctors; participating in sports;

[4]The word *Taliban* is the plural of the word *Talib* which means student in Pashto. Most of the supporters and members of the Taliban were students educated in religious schools of Afghanistan and neighbouring countries. The Talibans were dominantly of Pashtun ethnicity, the largest ethnic group in Afghanistan.

[5]The Islamic Emirate of Afghanistan was restored in 2021, nearly two decades after its fall.

[6]The Northern Alliance dominantly comprised of Tajik and eventually Uzbek and some leaders of Hazara ethnicities.

gathering for festivals and appearing on media outlets.[7] Failure to comply with the dress-codes and appearing outside the home without a male relative/husband were punishable offenses. Restrictions were also imposed on men's dress code and conduct. However, they appear to be less restrictive in curtailing men's rights and mobility relative to women. As girls were prohibited to continue their education and the need for a male relative/husband for mobility became crucial, marriage could be seen by parents as a coping mechanism to ensure the security and mobility of their daughters. Therefore the influence of the Talibans on Afghan society, particularly regarding the treatment of women, could be potentially long-lasting.

On the other hand, even though the Afghan society is overall culturally conservative; areas under the Northern Alliance represented significant divergence from the Taliban dominated areas with regard to the treatment of women. Anecdotal evidence suggests that Ahmed Shah Massoud, a prominent Tajik leader of the Northern Alliance promoted gender equality in mobility, access to education and jobs and opposed underage marriage of girls.[8] Therefore, the establishment of the Taliban regime and the simultaneous opposition represented by the Northern Alliance is indicative of significant heterogeneity with regard to institutions governing women's civil rights in an otherwise overall conservative society. This motivates us to study the impact of exposure to the Taliban regime on women's age at first marriage. As we have discussed before, this outcome variable has important welfare implications not only for women themselves, but also for the next generation.

3 Data

We use the Demographic and Health Surveys of Afghanistan (hereafter, AfDHS) 2015 for our analysis. The AfDHS provides a nationally representative sample of ever married women aged 15-49 years at the time of the survey. The survey also includes rich information on the socio-economic and demographic characteristics of the respondents.

There are 29,461 women in the sample and of them 97% are currently married and close to 99% of them have been married only once.[9] For our analysis, we exploit the variation in the year of marriage and province of residence of the respondent. The earliest year of marriage in the sample is 1974 (however, there are relatively few observations corresponding

[7] Additional restrictions also included prohibition on riding bicycles even with male relatives; standing on balconies and even laughing and talking loudly.

[8] https://asiatimes.com/2001/09/masoud-from-warrior-to-statesman/, accessed on April 27, 2023 and Grad (2009) provide some suggestive evidence in this regard.

[9] Given that nearly all women in the sample have been married only once, we use the term "age at first marriage" and "age at marriage" interchangeably.

to years of marriage before 1980) while the last year of marriage reported in the sample is 2015. We restrict our sample to currently married women who are the usual residents of the household (that is, not visitors). Table 1 provides the summary statistics for the variables used in our analysis.

Table 1: Descriptive Statistics

Variable	Mean	Standard Deviation	Observations
Outcome Variables:			
Age at First Marriage (yrs.)	17.91	3.51	28,436
Age at First Birth (yrs.)	19.28	3.51	25,691
If Faced any Physical Violence during the last 12 months	0.47	0.50	20,706
Years of Education (yrs.)	1.10	3.02	28,412
If Completed Only Primary School	0.07	0.25	28,436
If Completed Only Secondary School	0.06	0.24	28,436
Explanatory Variables:			
Taliban Administered Province in 1996	0.60	0.49	28,436
Married in 1996 or later	0.74	0.44	28,436
If Pashtun	0.43	0.49	28,385
If Tajik/Uzbek	0.37	0.48	28,385
If Hazara	0.09	0.29	28,385
If Rural	0.76	0.43	28,436
Not in Polygynous Marriage	0.93	0.25	28,245
Husband's Age (yrs.)	36.16	10.84	28,296
Husband's Years of Education	3.84	4.99	28,029
If Woman's Father Beat her Mother	0.36	0.48	20,645

Note: Data source is AfDHS, 2015. Sample restricted to currently married women who are usual residents (that is, not visitors) of the household.

We find that the average age at first marriage is around 17.9 years in the sample. Since our analysis also includes understanding the subsequent impacts of entering in marital unions such as age at first birth and experience of intimate partner violence, we report the summary statistics of these variables as well here. We find that the age at first birth, on average, is around 19 years, while 47% of women in the sample have reported that they have experienced some form of physical violence during the 12 months preceding the survey.[10] We study the role of educational attainment as a potential mechanism explaining our findings. Therefore, we report the summary statistics on various educational attainment variables here. We

[10]We choose to focus on the experience of physical violence because the prevalence in the experience of any emotional and sexual violence are found to be 31% and 8% respectively in the sample. This could arise from potential under-reporting of these instances of violence stemming from cultural differences in perceptions about what is acceptable within marriages and the notion of consent in Afghan society; whereas instances of physical violence are more readily perceived. A sub-sample is chosen for the domestic violence module for interview, preserving representativeness, as in all DHS surveys. The recall period of experience of violence is the last year preceding the survey to avoid recall bias.

find that the average number of years of education is 1.10 years. Additionally, two binary variables capture the extent of schooling completion. We find that around 7% women have completed primary schooling and 6% have finished secondary schooling.

In addition to the outcome variables, we also report the summary statistics of the explanatory variables, used in our regressions, in 1. Since we exploit the spatial and temporal variations in the exposure to the Taliban regime, we find that 60% of our respondents belong to provinces that were administered by the Taliban during 1996-2001 and 74% of women in the sample married after the imposition of the first Taliban government in 1996. It is to be noted that our definition of Taliban province (or, treatment province) is a binary variable that assumes the value 1 if the province was under the control of the Talibans in 1996 and is 0 otherwise.[11] Likewise, being married after 1996 is also a binary variable that assumes a value 1 if the individual was married in 1996 or later and is 0 otherwise. We also report the distribution of large ethnic groups in our sample. We find that 43% respondents are Pashtun, 37% are Tajik/Uzbek, 9% are Hazara with other ethnicities together comprising the remaining fraction of the sample. 76% respondents reside in the rural area and 93% are in a monogamous marital relationship. The average age and years of education of respondent's husband are around 36 and 3.8 years respectively. Additionally, for a sub-sample of respondents to whom the DHS asks questions pertaining to violence experienced, the survey asks whether the respondent's father ever beat her mother. We find that around 36% respondents in the sample report that their father beat their mother, indicating a significant exposure to domestic violence in childhood.

Appendix Table A.1 reports the summary statistics on the same set of variables as in Table 1, but by whether the province was administered (wholly or partially) by the Talibans or by the Northern Alliance in 1996. While the ages at first marriage and birth appear to be largely similar across these provinces, on average; stark differences appear especially in the average prevalence of experiencing physical violence, educational attainment and completion of different levels of schooling.[12] In particular while 53% women in Taliban administered provinces report having faced physical violence during the last year preceding the survey, only 38% report having the same experience in provinces administered by the Northern Alliance. Further, while 6% and 5% women report having completed primary and secondary

[11]The Taliban/treatment provinces include Kabul, Wardak, Logar, Nangarhar, Laghman, Bamyan, Ghazni, Paktika, Paktya, Khost, Kunarha, Ghor, Daykundi, Urozgan, Zabul, Kandahar, Helmand, Herat, Farah and Nimroz. The Northern Alliance/control provinces include Kapisa, Parwan, Panjsher, Baghlan, Nooristan, Badakshan, Takhar, Kunduz, Samangan, Balkh, Sar-e-Pul, Jawzjan, Faryab and Badghis. In subsequent analysis, we check our results using alternative definitions of treatment and control provinces.

[12]However, limited difference in the average ages at first marriage and birth across these types of provinces does not necessarily imply that there will be no significant differences when we consider the variation by both province and exposure to the Taliban administration at the time of marriage.

education in provinces governed by the Taliban respectively; the corresponding figures are around 8% for both types of educational completion in provinces that were administered by the Northern Alliance.

Differences are also found, on average, with regard to the proportion of women who were married in 1996 or later as well as distribution of ethnicities. While 76% women in the then Taliban governed provinces report getting married in 1996 or later; 72% report getting married during the same time period in provinces that were under the control of the Northern Alliance. The difference in the distribution of ethnicities across these provinces is not surprising. Taliban governed provinces are more likely to have a high proportion of individuals who are Pashtun; while those governed by the Northern Alliance are more likely to see a greater concentration of individuals of Tajik/Uzbek ethnicities. We find a similar difference, on average, between these types of provinces. While 64% of the respondents are Pashtun and 20% are Tajik/Uzbek in Taliban governed provinces, only 11% are Pashtun and 63% are Tajik/Uzbek in Northern Alliance governed provinces. A slightly higher proportion of individuals of Hazara ethnicity are found in the Taliban relative to the Northern Alliance governed provinces. The average differences in rural area of residence, husband's age and years of education and type of marital relationship are small across these two types of provinces. An important difference is, however, observed in terms of one's childhood exposure to domestic violence. We find that while 28% women in Northern Alliance provinces report that their father ever beat their mother, 42% women in the Taliban administered provinces report this experience from their childhood.

4 Empirical Strategy

Our baseline specification is a difference-in-difference estimation strategy where we exploit variation in the exposure to the Taliban government at the province level and whether or not our respondents' years of marriage were after the establishment of the Taliban government in 1996. The regression specification we use is as follows:

$$y_{i,p,t} = \beta_0 + \beta_1 TP_{i,p} \times Post1996_{i,t} + \beta_2 Post1996_{i,t} + \delta_{i,p} + \gamma X_{i,p,t} + \varepsilon_{i,p,t} \quad (1)$$

Here, $y_{i,p,t}$ refers to the outcome variable of individual i living in province p and who married in the year t. As has been discussed before, age at first marriage is our main outcome variable of interest. Here, $TP_{i,p}$ assumes the value 1 if the individual resides in a province that was occupied and administered by the Talibans in 1996 and is 0 otherwise. Here, the Taliban administered provinces are mostly located in southern, western and central Afghanistan and

include Kabul, Wardak, Logar, Nangarhar, Laghman, Bamyan, Ghazni, Paktika, Paktya, Khost, Kunarha, Ghor, Daykundi, Urozgan, Zabul, Kandahar, Helmand, Herat, Farah and Nimroz. Those administered by the Northern Alliance were mostly located in northern Afghanistan and include the provinces of Kapisa, Parwan, Panjhsher, Baghlan, Nooristan, Badakshan, Takhar, Kunduz, Samangan, Balkh, Sar-e-Pul, Jawzjan, Faryab and Badghis.[13] In this context, it is important to clarify that although the Talibans engaged in capturing some additional territory after 1996, the major event characterizing the establishment of the Taliban government was in 1996 at which time they came to control more than 75% of Afghanistan's area.[14] Hence, Taliban governed provinces comprise our treatment group, while those administered by the Northern Alliance consist of our control group provinces. $Post1996_{i,t}$ is also a binary variable that takes on the value 1 if the individual i was married in the year 1996 or later and is 0 otherwise. The interaction between $TP_{i,p}$ and $Post1996_{i,t}$ is the variable that captures the impact of exposure to the Taliban administration's policy on marriage outcome for women.[15] In other words, it captures the difference in the age at first marriage between women residing in Taliban controlled provinces and those controlled by the Northern Alliance before and after the establishment of the Taliban government in 1996. Therefore, β_1 is our coefficient of interest. The regression specification also includes province fixed effects, given by $\delta_{i,p}$ that captures time-invariant (eg: cultural or marriage market) differences across provinces. In some specifications we also include additional covariates that are represented by $X_{i,p,t}$. These include ethnicity fixed effects, indicator for rural area of residence, whether the individual entered in a polygynous marital relationship, the husband's age and years of education as well as whether the respondent's father has ever beat her mother as a metric of her childhood exposure to domestic violence. $\varepsilon_{i,p,t}$ is clustered at the province level, the level of treatment.

[13] Appendix Figure A.1 presents a map of Afghanistan for understanding the location of these provinces.

[14] We also explore alternative classification of treatment-control provinces by considering provinces wholly administered by the Talibans and the Northern Alliance and dropping the ones with partial control as a robustness exercise later in our analysis.

[15] Since the Talibans set up their government in the Fall of 1996, a concern could be that we should exploit the variation in the years of marriage between those that took place in 1997 or afterwards and those that occurred earlier than 1997. Using 1997 as the year of establishment of the Taliban government leaves the results largely unaffected; we have therefore omitted them for conciseness of presentation.

4.1 Potential Threats to Identification

Pre-existing Trends

An important issue to consider with regard to the difference-in-difference estimation framework is whether outcomes in the treatment and the control groups have evolved similarly before the treatment. In our set up, individuals residing in Taliban and Northern Alliance administered provinces constitute the treatment and control groups respectively and 1996 marks the beginning of the establishment of the Taliban government, that is, timing of treatment. Therefore, it would be relevant for us to examine whether age at first marriage of women who were married before 1996 evolved similarly between the provinces which would be eventually controlled by the Talibans and the Northern Alliance leaders respectively. We do this in two ways. Firstly, we examine whether age at first marriage was significantly different between women in Taliban and Northern Alliance administered provinces before the establishment of the Taliban government in 1996. Secondly, we conduct an event study analysis where we estimate the following regression specification:

$$y_{i,p,t} = \alpha_0 + \Sigma_{t\leq -3}^{-2}\beta_t TP_{i,p} \times Year_{i,t} + \Sigma_{t=0}^{\geq 3}\beta_t TP_{i,p} \times Year_{i,t} + \alpha_1 Year_{i,t} + \delta_{i,p} + \gamma X_{i,p,t} + \varepsilon_{i,p,t} \quad (2)$$

Here, the coefficients β_t for $t = -2, -3, < -3$ capture the difference in ages at first marriage between women residing in provinces administered by the Taliban and those controlled by the Northern Alliance 2 years, 3 years or more than 3 years before the actual establishment of the Taliban government. These coefficients, therefore, represent leads in the context of the dynamic difference-in-difference or event study model set up. If these coefficients are found to be statistically insignificant, then this provides suggestive evidence in support of the absence of any differential pre-existing trends between the treatment and the control groups prior to treatment. The event study model also helps us in understanding whether the effects of the treatment start immediately following treatment or with a lag. This is captured by the lag coefficients here, β_t for $t = 0, 1, 2, \geq 3$. Here, 0 signifies the year of the treatment, that is the establishment of the Taliban government while $t = 1, 2, 3, > 3$ indicate 1, 2, 3 or later years after the establishment of the Taliban government.[16] As is the convention in event study models, we treat the year -1, the year immediately before the establishment of the Taliban regime, as the omitted category for comparison purposes.

[16] For ease of exposition, we group all years that are 4 or more before and 4 or more after the establishment of the Taliban regime together.

Selective Migration

One concern that we could have in the analysis is selective migration. This can be an important concern since we only observe individual's province of residence at the time of the survey. For example, if we hypothesize that the Taliban rule has a potential negative impact on women's age at first marriage, we can think of a number of scenarios in which selective migration may bias our findings. For instance, individuals who grew up and married during the Taliban regime in Taliban controlled provinces may eventually selectively migrate to provinces that were controlled by the Northern Alliance. This would then result in a potential decline in the average age at first marriage in the Northern Alliance provinces and a concomitant increase in the average age at first marriage in the erstwhile Taliban administered provinces; potentially resulting in an underestimation of the true effect of the Taliban regime on women's age at first marriage. Additionally, if women who fled the Taliban regime as international refugees eventually came back and settled in provinces that were erstwhile administered by the Talibans, this has the possibility of raising the average age at first marriage in Taliban controlled provinces; thereby again resulting in a possible underestimation of the true impact of the Taliban regime on women's age at marriage.

Unfortunately we do not have access to an individual's childhood place of residence or migration history. Therefore, our estimated impact of the Taliban regime on women's age at marriage is likely to suffer from attenuation bias. Nevertheless, any estimated negative impact of the Taliban regime would indicate the "minimum" detrimental impact that the regime has had on women's marriage age, which would still continue to be policy relevant. In this context, it is also important to note that given logistical difficulties on account of geography and lack of well developed transport infrastructure and limited cross-ethnicity interactions, voluntary migration in Afghanistan is relatively small (Chung and Partridge, 2023).

Nevertheless, given this limitation imposed by the data, we adopt two alternative strategies to assuage concerns of attenuation bias in our estimation. Firstly, we drop provinces from our estimation sample that border Pakistan. This is because these provinces are more likely to witness movement of refugees. Secondly, we drop provinces that account for some of the highest proportions of internally displaced people (IDPs) and re-estimate our regression model. Relatedly, we also re-estimate our regressions after dropping provinces that include some of the largest cities which also account for some of the largest concentrations of IDPs. If the estimated impact of being exposed to the Taliban regime on one's age at marriage continues to be similar to what we have obtained without these strategies, then it can provide some suggestive evidence that selective migration is unlikely to be solely driving our

findings.

Potential Endogeneity of Timing of Marriage

Another potential concern that could arise is that the timing of marriage could itself be endogenous. However, there are two reasons for which this is unlikely to be a concern in our context. Firstly, women rarely choose their spouse or timing of marriage as arranged marriage is the dominant form of marriage custom in Afghanistan (Hakimi, 2023). This implies that parents are the chief decision makers about marriage outcomes of their daughters. Therefore, it would be important to understand whether parents would have the motivation of selectively choosing the timing of their daughters' marriages anticipating the type of policies that the Taliban were likely to impose governing women's rights, should they be successful in forming a government. Qualitative evidence suggests that the Talibans were largely welcomed by citizens who thought that the Talibans would ensure a period of peace following the turmoil that the country was facing since the time of the Soviet invasion.[17] Therefore, it is unlikely that there was any anticipation of the harsh codes of conduct that the Taliban were going to impose on women following the establishment of their government which would have prompted parents to marry off or delay the marriage of their daughters. Additionally, anticipating the Taliban's policies regarding women would also need to be heterogeneous across provinces that would eventually come under the control of the Taliban and the Northern Alliance for this issue to be a threat to our identification. Since it was nearly impossible to predict with certainty which provinces would be under the Taliban and which would be administered by the Northern Alliance, we think that heterogeneity in the anticipation of the Taliban's policies resulting in subsequent implications on women's timing of marriage is unlikely to be a concern. Similarly, the possibility of selective migration out of the provinces that would eventually come under the Taliban's control by anticipating their policies concerning women is also unlikely. Nevertheless, we adopt an alternative estimation framework where we exploit the variation in the age at exposure to the Taliban regime in 1996 (that is, a cohort level variation) instead of year of marriage and the type of province of residence to allay concerns regarding any potential endogeneity in the timing of marriage. Here, we adopt the following regression specification:

$$y_{i,c,p} = \beta_0 + \Sigma_{c=1}^{5}\beta_{1c}TP_{i,p} \times CST_{i,c} + \Sigma_{c=1}^{5}\beta_{2c}CST_{i,c} + \gamma X_{i,c,p} + \delta_{i,p} + \varepsilon_{i,c,p} \tag{3}$$

Here, $y_{i,c,p}$ is the age at first marriage of woman i belonging to age cohort c and residing

[17] See, for example, https://www.britannica.com/topic/Taliban, accessed on April 24, 2024.

in province p. $CST_{i,c}$ are five binary variables that each assume the value 1 if the respondent belongs to a particular age cohort c at the start of the first Taliban regime in 1996 (these age cohorts being mutually exclusive). These include being 0-5 years (that is, $c = 1$), 6-10 years (that is, $c = 2$), 11-15 years (that is, $c = 3$), 16-20 years (that is, $c = 4$) and 21-25 years old (that is, $c = 5$) at the start of the Taliban regime in 1996. The omitted category for this variable is those who were 26-31 years old at the start of the first Taliban regime. The reason for choosing these six age cohorts is because we roughly have equal number of observations across these age cohorts.[18] It is also worth noting that while 92% of 26-31 years old in 1996 were married by the age of 26 and 76% of 21-25 years old in 1996 were married by the age of 21; only 23% of 16-20 years old, less than 1% of 11-15 years old and no 6-10 years old in 1996 were married by the ages of 16, 11 and 6 respectively. This suggests that the incidence of marriage is relatively uncommon among the youngest age cohorts and additionally women older than 21 and especially over 26 years of age are considered "too old" to stay unmarried in the context of the Afghan society. For our purpose, those older than 26 years old are considered as control cohorts while younger cohorts are considered as treatment cohorts. In addition, we explicitly include the cohort aged 21-25 years in 1996 in our specification in the spirit of a falsification exercise, because most 21-25 year old women are also likely to have been already married from the above discussion. There are clearly five interaction terms, which are the interaction between being from a Taliban administered province in 1996 and each of the five age cohort dummies described above. The interaction terms capture the difference in the age of exposure to the first Taliban regime by province. The coefficients on the interaction terms β_{1c} are the coefficients of interest. The remaining terms and their associated explanations in equation (3) are analogous to those in equation (1). It is to be noted that although the regression specification in equation (3) is not equivalent to our specification in equation (1), the former attempts to capture the situation that women who were relatively younger at the start of the Taliban regime (and hence would be entering the marriage market) are more likely to be impacted by the Taliban regime's policies relative to women who were older (and hence may have already been married) and residing in Northern Alliance administered provinces.

Conflict After the Fall of the Taliban Regime

Since our analysis also includes understanding whether the impacts of the Taliban regime persist even after its fall on account of the changes in the role of women the regime mandated

[18] We drop individuals who were born after the start of the Taliban regime. Given the timing of the DHS survey, the oldest women at the time of the survey were around 31 years old in 1996.

through their laws, one concern that could arise is that it is the violence between Taliban insurgents and the Afghan/US army itself and not the long term cultural impacts of the Taliban's rule is what could be driving our findings. To tackle this issue, we first limit our sample to individuals who married by 2001, the last year of the Taliban regime. Although this exercise would not capture any long-term effects of the Taliban regime, it would help in demonstrating whether violent conflict between the Talibans and those opposed to them can be influencing our results vis-a-vis the laws imposed by the Talibans governing women's status. Additionally, we also re-estimate our regression for individuals who married by 2005 since most Taliban insurgency after the fall of the Taliban regime started only after 2005.[19]

Violent clashes between the Talibans and Afghan/US armed forces often concentrated in provinces that contain some of the largest cities that are also major economic centres. Additionally, violence is found to be more common in provinces where agro-climatic conditions favoured the cultivation of opium, a chief source of revenue for the Talibans (Piazza, 2012). Therefore, we drop provinces where violence was common and alternatively those that contain large cities and re-estimate our model to reduce concerns that it is only clashes between the Taliban insurgents and Afghan/US security forces that is driving our findings.

5 Results

We present our key estimation results in Table 2 here. Column (1) of Table 2 includes only a dummy variable indicating whether the woman was married in 1996 or later, province fixed effects as well as the interaction between the year of marriage being 1996 or afterward and whether the province was controlled by the Taliban in 1996. We add ethnicity fixed effects in Column (2) to this specification used in column (1). In Column (3) we include additional socio-economic and demographic controls such as whether the respondent resides in a rural area, she is in a polygynous marital union, her father ever beat her mother as well as her husband's age and years of education. In Column (4), we further include year of birth fixed effects. With regard to interpretation of the coefficients, our preferred specification is Column (2). This is because, while our covariates are relevant, some of them may be endogenous (for instance, the type of marital union and husband's characteristics). Since the covariates in Column (2) are exogenous and importantly ethnicity is likely to govern norms around marriages, we focus on this column for interpreting the magnitude and statistical significance of our findings.

Across all columns we find that women who were married after the establishment of the

[19]For qualitative evidence on this, please refer to https://www.sipri.org/commentary/blog/2017/afghan-people-observing-nearly-40-years-violent-conflict, accessed on May 21, 2024.

Table 2: Results: Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

	(1)	(2)	(3)	(4)
Taliban Controlled Province × Married in 1996 or Later	-0.75***	-0.75***	-0.84***	-0.79***
	(0.21)	(0.20)	(0.21)	(0.19)
R^2	0.08	0.08	0.15	0.36
Observations	28,436	28,385	20,162	20,162
Mean of the Dep Var	17.91	17.91	17.91	17.91
Province Fixed Effects	✓	✓	✓	✓
Ethnicity Fixed Effects		✓	✓	✓
Other Controls			✓	✓
Year of Birth Fixed Effects				✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). The decline in sample size in column (3) and (4) is on account of inclusion of the dummy variable indicating whether the respondent's father ever beat her mother; which is collected for a sub-sample of individuals in the survey who constitute the respondents in the domestic violence module.

Taliban regime were married at a lower age in Taliban administered provinces relative to their counterparts in provinces controlled by the Northern Alliance. The coefficient estimates in columns (1) and (2) are also similar in magnitude. Unconditional on covariates, Column (1) shows that women married after the establishment of the Taliban government have a lower age at first marriage by 0.75 years or equivalently nearly 9 months in Taliban controlled provinces relative to Northern Alliance controlled provinces. Inclusion of ethnicity fixed effects that attempt to capture time invariant cultural differences that influence marriage practices do not change our coefficient estimate as can be seen from Column (2). Relative to the sample mean, our results show a 4% decline in the age at first marriage for women who were married after the Taliban government was established in Taliban administered provinces relative to those that were administered by the Northern Alliance. Given the relatively low age at first marriage, on average, in the sample; a 9 month decline constitutes a potentially large and economically significant decline in the age at first marriage on account of exposure to the Taliban regime. Lastly instead of the $Post1996_{i,t}$ binary variable mentioned in equation (1), using year of marriage fixed effects and analogous specifications as the various columns of Table 2 (except year of birth fixed effects as we expect a high correlation between year of marriage and year of birth fixed effects), we obtain similar coefficient estimates on our coefficient of interest β_1. This is reported in Appendix Table A.2.

5.1 Placebo Year of Treatment

Although we found statistically significant results in Table 2, we need to be careful before ascribing our findings as the causal impact of the establishment of the Taliban regime on women's marriage outcomes without additional analysis. In this regard, we first consider

whether using a placebo year of establishment of the Taliban regime instead of the actual year in which the Taliban formed their government can give us statistically significant results as we found in Table 2. If it is indeed the establishment of the Taliban regime which causally impacts women's age at marriage, then we should not expect to find any significant impact on marriage age if we use a placebo year of treatment instead. We use 1986 as the placebo year of establishment of the Taliban regime and limit the sample to include women whose years of marriage is 1995 or earlier. This is to prevent the actual potential impacts of the Taliban regime from contaminating our findings here. We run an identical specification as equation (1) with the aforementioned sample restriction and placebo year of treatment. We report the findings in Table 3 here.

Table 3: Placebo Timing of Treatment: Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

	(1)	(2)	(3)	(4)
Taliban Controlled Province × Married in 1986 or Later	0.27	0.29	0.31	0.21
	(0.29)	(0.28)	(0.32)	(0.22)
R^2	0.13	0.14	0.22	0.62
Observations	7,289	7,277	5,378	5,378
Province Fixed Effects	✓	✓	✓	✓
Ethnicity Fixed Effects		✓	✓	✓
Other Controls			✓	✓
Year of Birth Fixed Effects				✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). The decline in sample size in column (3) and (4) is on account of inclusion of the dummy variable indicating whether the respondent's father ever beat her mother; which is collected for a sub-sample of individuals in the survey who constitute the respondents in the domestic violence module. Sample is restricted to individuals who were married in 1995 or earlier and the false year of the establishment of the Taliban government is taken to be 1986.

The specification in the four columns of Table 3 are identical to those of Table 2 above. We find that across all columns, our coefficient estimates are smaller in absolute magnitude relative to those found in Table 2, of the opposite sign and statistically insignificant. This finding is reassuring and indicates that using false years as timing of treatment do not yield the same findings as when the actual timing of treatment is used.

5.2 Pre-Trends Analysis

While using a placebo year of treatment is one way of trying to understand whether it is indeed our treatment that is affecting our outcome variable of interest, testing for the existence of differential pre-existing trends in the outcome variable across treatment and control groups is crucial for substantiating the validity of our difference-in-difference estimation strategy. For this purpose, we first plot the coefficient estimates that are the interactions of the dummy variables that represent whether the respondents are from provinces that would be eventually

controlled by the Talibans and years of marriage between 1980 and 1995, using 1980 as the base year.[20] The regression specification that we use is analogous to Column (2) of Table 2, that is, conditional on ethnicity fixed effects.

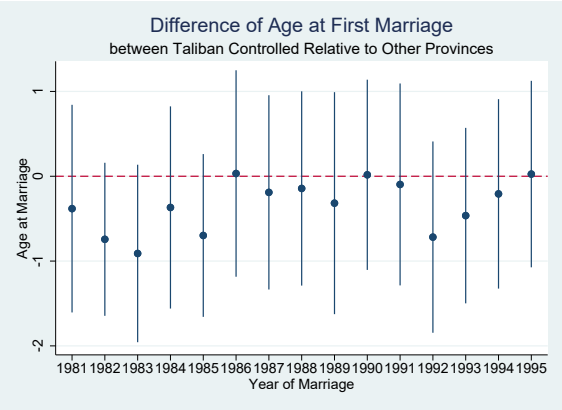

Figure 1: Pre-Trends in Age at First Marriage: Coefficient estimates & 95% confidence intervals on the interaction between dummies for year of marriage and Taliban controlled province (1980 is the base year).

Figure 1 depicts these coefficient estimates along with the 95% confidence intervals. Relative to 1980 as the year of marriage, none of the coefficient estimates are found to be statistically significant at the 5% level of significance. This indicates that during the pre-treatment period, that is before the establishment of the Taliban regime, the age at first marriages of women across what would be eventually Taliban and Northern Alliance controlled provinces were largely similar across multiple years.[21]

5.3 Event Study Analysis

We extend the pre-trends analysis of the previous subsection to an event study set up. We use equation (2) as our estimation equation and plot the coefficient estimates that depict the interaction of dummy variables that capture the time to and from treatment in terms of years and whether the province is controlled by the Talibans. The year before treatment, here 1995, is taken as the base year relative to which all coefficient estimates and their corresponding 95% confidence intervals are plotted. As before, these coefficient estimates are obtained conditional on ethnicity fixed effects. Figure 2 presents the findings.

[20] The earliest year of marriage is 1974. However, there are relatively few observations for the years of marriage corresponding to 1974-1979. Therefore, we consider year of marriages starting from 1980 while conducting this exercise.

[21] Absence of pre-existing trends are also obtained, unconditional on ethnicity fixed effects; which are omitted for ease of exposition.

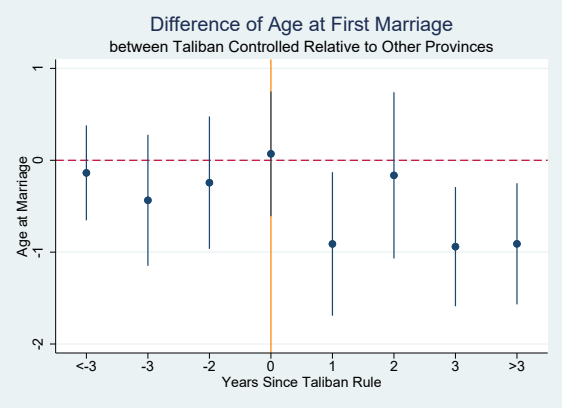

Figure 2: Event Study: Coefficient estimates & 95% confidence intervals on the interaction between dummies for year of marriage and Taliban controlled province before & after the establishment of Taliban rule (1995 is the base year).

The treatment year is represented by the yellow vertical line. We find that the coefficient estimates corresponding to none of the years leading upto treatment is statistically significant. Additionally, there appears to be no significant impact on the age at first marriage between women in Taliban and Northern Alliance administered provinces in the year of establishment of the Taliban regime. However, the negative impacts on the age at marriage for women belonging to the Taliban controlled provinces, relative to the Northern Alliance controlled provinces start showing up a year after the establishment of the Taliban regime. By and large, these negative impacts are persistent and appear to be largely similar in magnitude (except the second year after the establishment of the Taliban regime).[22] Our findings from the event study analysis demonstrate lack of pre-existing differences in ages at first marriage for women who were married prior to the establishment of the Taliban regime across treatment and control provinces as well as a persistent negative impact of the regime on marriage age across treatment and control provinces in the years after its establishment (although there is no instantaneous impact). These findings provide suggestive evidence in favour of parallel trends prior to treatment as well as depict the evolution of the treatment effect over time and increase our confidence in interpreting the findings from Table2 as plausibly causal.

5.4 Heterogeneity & Other Robustness/Sensitivity Analysis

We perform a number of heterogeneity and robustness/sensitivity related exercises, in addition to the placebo year of treatment and event study analyses reported above. We present

[22]Unconditional coefficient estimates corresponding to the leads and lags are analogous to what has been reported in Figure 2 here.

these findings here.

Heterogeneity by Wealth Levels

One may wonder whether our findings of the impact of the Taliban regime on women's age at first marriage holds for all sections of the wealth distribution. This is because a conjecture could be that richer households would be able to circumvent the harsh codes of conduct imposed by the Taliban government on women. Unfortunately we do not observe the wealth levels of the women's natal home, but that of their marital household. Assuming assortative matching in the Afghan marriage market, the wealth levels of one's husband's family can then serve as a proxy of the wealth level of the woman's natal household. Table 4 presents the results here.

Table 4: Heterogeneity by Wealth: Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

	Poorest (1)	Poorer (2)	Middle (3)	Richer (4)	Richest (5)
Taliban Controlled Province × Married in 1996 or Later	-0.77***	-0.65**	-1.06***	-0.92***	-1.19***
	(0.27)	(0.27)	(0.36)	(0.31)	(0.29)
R^2	0.06	0.10	0.11	0.09	0.09
Observations	5,447	6,472	6,123	6,043	4,300
Mean of the Dep Var	17.49	18.00	18.32	17.96	17.62
Province Fixed Effects	✓	✓	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓	✓	✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). Each column represents households in each wealth quintile reported by the AfDHS.

We use the wealth quintile classification provided by the DHS to categorize individuals into those belonging to poorest, poorer, middle, richer and richest households and use the regression specification as in Column (2) of Table 2 for estimation. Table 4 reports the findings. We find that across all wealth categories, the age at first marriage is lower for women married in years following the establishment of the Taliban regime in Taliban controlled provinces relative to those administered by the Northern Alliance. The magnitudes range from around 8 months to 1 year 3 months lower age at first marriage for women belonging to the treatment group after the Taliban set up their government. Relative to the means of the age at first marriage across these groups, these magnitudes correspond to a decline between 3.6% and 6.7% in the age at marriage for women who were married after the Taliban government was established in Taliban controlled provinces, relative to their counterparts in the Northern Alliance dominated provinces. Interestingly, the absolute magnitude of the decline is the highest for women from households that comprise the richest quintile of the

wealth distribution. Therefore, our findings suggest that even richest households could not escape from the harsh laws and codes of conduct that the Taliban imposed on women in provinces controlled by them. Additionally, our findings are also robust to using alternative estimation specifications analogous to Columns (1), (3) and (4) in Table 2. These estimates have been reported in Appendix Table A.3.

Robustness: Limiting the Sample to Specific Years Post Treatment

Two questions that may arise with regard to our analysis are the following. First, whether the impact of the imposition of the Taliban rule is only observed in the long term vis-a-vis during the time the Taliban were actually governing most of Afghanistan. Second, it is well documented that immediately after their fall and until 2005, the Talibans were largely engaged in regrouping themselves before starting an insurgency to usurp the new Afghan government that was established after 2001. Hence the period between the fall of the Taliban government in 2001 and 2005, large scale violence between Afghan/US security forces and the Taliban insurgents were largely non-existent. Violent attacks by Taliban insurgents, especially in major cities and urban centres which are economically and politically important started after 2005. Therefore, a concern of using the period after 2005 in our estimation could be that the age of marriage impacts of the Taliban regime could be contaminated by the occurrence of the potentially greater extent of violence in the erstwhile Taliban controlled provinces with a view to establishing control in these regions. Hence, it is not the policies of the Talibans while they were governing Afghanistan is what is driving the age of marriage impacts. Rather, violent insurgent attacks could be influencing our results.

Table 5: Limiting Sample to Specific Years: Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

Marriage Years	Upto 2001 (1)	Upto 2005 (2)
Taliban Controlled Province × Married in 1996 or Later	-0.42**	-0.51***
	(0.16)	(0.16)
R^2	0.07	0.07
Observations	12,660	16,937
Mean of the Dep Var	17.39	17.48
Province Fixed Effects	✓	✓
Ethnicity Fixed Effects	✓	✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). Sample is restricted to include individuals whose years of marriage are upto 2001 and 2005 in Columns (1) and (2) respectively.

Regarding the first concern, the event study analysis discussed before can provide evidence

in support that imposition of the Taliban rule had a causal impact on women's age at marriage as we see the effects showing up in the years immediately following the establishment of the Taliban government (see Figure 2). However, we also limit the sample to women whose years of marriage are upto 2001 to address this concern. With regard to the second concern, we limit our sample to women whose years of marriage were upto 2005. We use the estimation specification of Column (2) of Table 2 for these analyses and report the findings in Table 5 here.

We find that, qualitatively, our results remain unaffected irrespective of whether we limit the sample to years of marriage upto 2001 or alternatively 2005. We continue to find that women married after the imposition of the Taliban rule in provinces administered by the Talibans were married at a lower age by nearly 5 to 6 months relative to their counterparts from Northern Alliance controlled provinces (depending on which time period restriction we are focusing on in Table 5). Although the magnitude of the impacts are slightly lower than those found in Table 2, likely on account of restrictions imposed on the estimation sample, they continue to be highly statistically significant and in the same direction as those found in Table 2. Inclusion of alternative controls as found in the different columns of Table 2 continues to leave our coefficient estimates qualitatively similar to those found in Table 5 here (see Appendix Table A.4 for the details).

Robustness: Dropping Specific Provinces from Analysis

Concerns regarding migration and violence as important channels driving our results are pertinent and have been discussed in the "Empirical Strategy" section of the paper. As these need to be addressed, we adopt three strategies to address these concerns.

Firstly, we drop all provinces that border Pakistan from our analysis.[23] This is because the border between Pakistan and Afghanistan is considered to be highly porous and migration across the border was quite common. This is in contrast to borders with other neighbouring countries, notably Iran, with whom Afghanistan's diplomatic relationship significantly declined during the Taliban regime.[24] In addition, provinces bordering Pakistan also witnessed intense violence during and after the Taliban regime on account of cross-border movement of insurgents and ammunition.

[23]These include the provinces of Nimroz, Helmand, Kandahar, Zabul, Paktika, Khost, Paktia, Logar, Nangarhar, Kunar, Nooristan, Badakshan.

[24]A possible reason for such decline in diplomatic relationships is religious differences between the Talibans and Iran as the former are largely Sunni while the latter are largely Shia Muslims. Iran also offered support to the Northern Alliance leadership in response to the Taliban's oppression of ethnic minorities such as the Hazaras, who are also largely Shia Muslims.

Table 6: Dropping Specific Provinces: Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

Dropping	All Border Provinces (1)	Provinces with Most Violence & IDPs (2)	Province with 5 largest Cities (3)
Taliban Controlled Province × Married in 1996 or Later	-0.75***	-0.80***	-0.72***
	(0.23)	(0.21)	(0.21)
R^2	0.07	0.10	0.10
Observations	17,633	24,077	23,947
Mean of the Dep Var	17.79	17.95	17.94
Province Fixed Effects	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors).

Secondly, we drop all provinces that report high levels of violence as well as have a high fraction of the population who have been internally displaced since the fall of the Taliban regime in 2001. These provinces include Kabul, Kandahar, Helmand, Nangarhar and Kunduz. In particular, Kandahar and Helmand provinces are found to report some of the highest levels of insurgent violence since the fall of the Taliban regime in 2001 [25] Relatedly, we also drop provinces that contain some of the largest cities as most internally displaced persons (IDPs) are likely to move towards larger cities for the purpose of settlement. We, therefore, drop provinces that contain the five largest cities in Afghanistan in terms of population from our estimation sample. These include the provinces of Kabul, Kandahar, Herat, Balkh and Nangarhar that include the cities of Kabul, Kandahar, Herat, Mazar-i-Sharif and Jalalabad respectively.[26] It is also important to note that there is considerable overlap between provinces that report high levels of insurgency related violence and those with large cities as violent attacks with the aim of capturing urban centres that are also major economic, political and diplomatic centres have been common in Afghanistan after the fall of the Taliban regime in 2001. We run the estimation specification of Column (2) of Table 2 for these sample restrictions and report our findings in Table 6 here.

We find that across sample restrictions, the estimated effect of the Taliban regime on women's age at first marriage remains similar to what we found in Table 2. Women who were married after the Taliban government was established are found to have been married at a lower age in Taliban controlled provinces relative to those in the Northern Alliance

[25]See for example, https://www.wired.com/2012/08/afghanistan-violence-helmand/, accessed on May 2, 2024 for qualitative evidence. Additionally, https://data.unhcr.org/en/country/afg, accessed on May 2, 2024 provides suggestive evidence of the concentration of IDPs currently. We use this information to identify provinces that are likely to have high concentrations of IDPs.

[26]The choice of these cities and consequently these provinces is guided by studies such as Kamruzzaman et al. (2022).

controlled provinces. The magnitude and statistical significance is largely similar to what we obtained in Table 2. Hence, it is unlikely that our findings from Table 2 are solely driven by violent conflicts or migration (including internal displacement) after the fall of the Taliban regime that also likely impact marriage markets. Supplementing this analysis by including alternative controls analogous to the various columns of Table 2 leaves our coefficient estimates qualitatively similar to those found in Table 6 here (see Appendix Table A.5).

Robustness: Using Age at Start of Taliban Regime Instead of Marriage Year

We estimate equation (3) described in the empirical strategy section of the paper for performing this robustness exercise and report the results in Table 7 here. As the rationale for this exercise has already been discussed in detail in the "Empirical Strategy" section of the paper, we omit repeating the discussion here for conciseness. The estimation specifications across the columns are analogous to those of Table 2.

Table 7: Using Variation in Age at Exposure to the Taliban Regime: Age at First Marriage in Taliban vs Northern Alliance Provinces

	(1)	(2)	(3)	(4)
Taliban Controlled Province × 0-5 yrs old in 1996 (β_{11})	-0.87**	-0.87**	-0.85*	-0.82*
	(0.38)	(0.38)	(0.43)	(0.42)
Taliban Controlled Province × 6-10 yrs old in 1996 (β_{12})	-0.89**	-0.86**	-0.80*	-0.81*
	(0.39)	(0.38)	(0.42)	(0.42)
Taliban Controlled Province × 11-15 yrs old in 1996 (β_{13})	-0.72*	-0.70*	-0.73	-0.70
	(0.40)	(0.40)	(0.44)	(0.43)
Taliban Controlled Province × 16-20 yrs old in 1996 (β_{14})	-0.80**	-0.77*	-0.66	-0.65
	(0.38)	(0.38)	(0.41)	(0.39)
Taliban Controlled Province × 21-25 yrs old in 1996 (β_{15})	-0.29	-0.27	-0.15	-0.12
	(0.32)	(0.32)	(0.39)	(0.36)
R^2	0.10	0.10	0.13	0.14
Observations	27,849	27,798	19,843	19,843
Mean of the Dep Var	17.94	17.94	17.94	17.94
Province Fixed Effects	✓	✓	✓	✓
Ethnicity Fixed Effects		✓	✓	✓
Other Controls			✓	✓
Year of Birth Fixed Effects				✓
p-value: $H_o : \beta_{11} = \beta_{15}$	0.03	0.02	0.01	0.01
p-value: $H_o : \beta_{12} = \beta_{15}$	0.01	0.01	0.01	0.01
p-value: $H_o : \beta_{13} = \beta_{15}$	0.09	0.08	0.02	0.02
p-value: $H_o : \beta_{14} = \beta_{15}$	0.02	0.02	0.01	0.01

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). The omitted age cohort is those who were 26-31 years old in 1996. We drop those who were born after 1996 from the sample. For all other details, refer to table notes of Table 2.

We find that across all columns, women who were relatively younger at the start of the

Taliban regime in 1996 were married at a younger age in Taliban governed provinces relative to their counterparts in Northern Alliance administered provinces and age at first marriage do not appear to be significantly different between the oldest cohort (the omitted category, 26-31 years old in 1996) and the second oldest cohort (the 21-25 years old in 1996) across the two types of provinces. Additionally, the age at first marriage for women who were younger at the start of the Taliban regime in Taliban provinces is not only significantly different from those of the omitted age cohort, but also is found to be significantly different from the second oldest cohort. This can be seen from the relatively low p-values reported in the lowermost panel of Table 7 that tests whether each of the coefficient estimates β_{11}, β_{12}, β_{13}, β_{14} is significantly different from β_{15} or not. These findings show us that age at first marriage does not appear to be following a differential trend across provinces with different governance structures for cohorts of women who were considered already "too old" to remain unmarried at the start of the Taliban regime. Instead age at first marriage appears to be affected for women who were relatively younger at the start of the Taliban regime and who were also more likely to eventually enter the marriage market across these provinces. In particular, age at first marriage appears to be lower by nearly 10 months for women who were between 0-10 years old at the start of the Taliban regime in 1996 in Taliban governed provinces relative to their Northern Alliance administered counterparts. These estimates appear to be somewhat similar in spirit to those obtained in Table 2 before. This, therefore, indicates that using age cohort of exposure instead of variation in the year of marriage in our estimation is likely to yield similar implications.

Robustness: Alternative Definition of Treatment & Control Provinces

So far our treatment group consisted of provinces that the Taliban controlled, while the control group consisted of provinces under the control of the Northern Alliance. However, while defining our treatment and control provinces, we did not make a distinction between whether the province was wholly under the control of the Talibans or only partially. According to Chung and Partridge (2023), provinces under "incomplete" control (that is, under the control of both the Taliban and Northern Alliance) could pose to be a challenge as it may not be clear which type of policies might be prevalent in them. Additionally, violent clashes with the aim of establishing control over the territory could be a particular concern and violent conflict rather than Taliban/Northern Alliance specific policies could influence the marriage market in these provinces. Following their study, we only include provinces that were completely under the control of the Taliban in 1996 as our treatment provinces and those completely under the control of the Northern Alliance as our control provinces, while dropping provinces

that were under "incomplete" control from our analysis.[27] Appendix Table A.8 reports the summary statistics of the various variables that we have used in our analysis by Taliban and Northern Alliance administered provinces using this alternative definition and is, therefore, analogous to Appendix Table A.1 that we have described in the "Data" section of the paper. We find that the descriptive statistics of the various variables in Appendix Table A.8 are largely similar or close in magnitude to those we reported in Appendix Table A.1. We, then, replicate the estimation specifications used across the columns of Table 2; but use this new definition of treatment and control provinces and report the results in Table 8 here.

Table 8: Alternative Definition of Taliban/Northern Alliance Province: Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

	(1)	(2)	(3)	(4)
Taliban Controlled Province × Married in 1996 or Later	-0.94***	-0.92***	-1.05***	-0.86***
	(0.23)	(0.23)	(0.26)	(0.27)
R^2	0.09	0.09	0.16	0.36
Observations	20,654	20,612	14,071	14,071
Mean of the Dep Var	17.94	17.94	17.94	17.94
Province Fixed Effects	✓	✓	✓	✓
Ethnicity Fixed Effects		✓	✓	✓
Other Controls			✓	✓
Year of Birth Fixed Effects				✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). For all other details, refer to table notes of Table 2.

We find that across different specifications, our estimation results remain unaffected even after we use this alternative definition of treatment and control provinces. Focusing on Column (2), which was our estimation specification of choice in Table 2 as well for the purpose of interpretation of the coefficients, we find that women in Taliban controlled provinces whose years of marriage were after the establishment of the Taliban government have a lower age at first marriage by nearly 11 months. Relative to the sample mean, this corresponds to a nearly 5% lowering of the age at first marriage on account of exposure to the Taliban regime. Comparing this estimate to what we obtained in Column (2) of table 2 earlier, we find that using this alternative definition of treatment and control provinces magnifies the negative

[27] Treatment provinces include Kabul, Wardak, Logar, Nangarhar, Laghman, Bamyan, Ghazni, Paktika, Paktya, Khost, Kunarha, Nooristan, Ghor, Urozgan, Zabul, Kandahar, Helmand, Herat, Farah and Nimroz. The control provinces include Parwan, Panjsher, Badakshan and Takhar. The partially controlled provinces that we drop are Kapisa, Baghlan, Kunduz, Samangan, Balkh, Sar-e-Pul, Daykundi, Jawzjan, Faryab and Badghis.

impact of exposure to the Taliban regime on women's age at first marriage.[28] [29]

6 Downstream Effects

We now discuss some of the potential downstream effects of the marriage outcomes we found earlier on account of exposure to the Taliban regime. We focus on two specific outcomes, namely age at first birth and the likelihood of facing physical violence from one's partner. In particular, the possibility of facing physical violence during the 12 months preceding the survey is taken as an indicator of the overall likelihood of facing such form of violence. We use the regression specification of Column (2) of Table 2 and report the findings in Table 9 here.

Table 9: Downstream Effects: Age at First Birth & Exposure to Domestic Violence in Taliban vs Northern Alliance Provinces by Year of Marriage

	Age at First Birth	If Faced any Physical Violence During last 12 months
	(1)	(2)
Taliban Controlled Province × Married in 1996 or Later	-0.75***	0.08**
	(0.20)	(0.03)
R^2	0.08	0.24
Observations	28,385	20,673
Mean of the Dep Var	19.27	0.47
Province Fixed Effects	✓	✓
Ethnicity Fixed Effects	✓	✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors).

We find that the implications of exposure to the Taliban regime on age at marriage found before is reflected in age at first birth outcome as well. In particular, relative to women in Northern Alliance administered provinces, those in Taliban administered provinces who were married after the establishment of the Taliban rule are found to have around 9 months lower age at first birth. This translates to a 3.8% decline in age at first birth for the treatment group, relative to the sample mean of 19.3 years. Since almost all births take place within marriages in Afghan society, lowering of the age at marriage has a concomitant effect of

[28] Refer to Subfigure (a) of Appendix Figure A.3 for the event study plot for the outcome age at first marriage conditional on ethnicity fixed effects as in Figure 2 and using this alternative definition of treatment and control provinces. We find absence of differential pre-existing trends in this outcome prior to the establishment of the Taliban regime while the lag coefficients show, by and large, negative impacts of the regime on women's age at first marriage.

[29] Some tables and figures that appear later in the appendix are referred to earlier in the text. The reason for their location in the appendix vis-a-vis their reference in the main body of the text is largely for ensuring consistency in the presentation of their contents.

lowering the age at first birth as well. This finding is of importance as lower maternal age at first birth has been linked to a variety of poor maternal and child health outcomes in the existing literature.

Table 9 also demonstrates that the probability of having faced any form of physical violence within the last year preceding the survey is also higher for our treatment group. In particular, we find an 8 percentage points higher likelihood of facing physical violence for women who were married after the establishment of the Taliban regime relative to those married before in Taliban controlled provinces in comparison to those in provinces administered by the Northern Alliance. Since nearly half of the respondents surveyed under the domestic violence module in AfDHS report facing some form of physical violence during the year preceding the survey, we find a nearly 17% increase in the likelihood of experiencing physical violence for our treatment group, relative to the sample mean. This finding is relevant as the existing literature has demonstrated the link between women's early marriage and the increased risk of facing violence in such marriages.

Subfigures (a) and (b) in Appendix Figure A.2 show the corresponding event study graphs for the outcomes age at first birth and the likelihood of facing physical violence during the last year preceding the survey (conditional on ethnicity fixed effects as Figure 2). We continue to find the absence of differential pre-existing trends between Taliban and Northern Alliance governed provinces for women who were married before the establishment of the Taliban regime for both the outcomes. The lag coefficients showing the impact of the establishment of the Taliban regime on age at first birth follow a similar pattern to those found for age at first marriage (see Figure 2). This is not surprising as most births are expected to take place in marital unions and are likely to follow soon after marriage. The lag coefficients corresponding to our outcome that measures the likelihood of facing domestic violence show, by and large, persistently higher risk of facing physical violence for women who were married after the establishment of the Taliban regime in Taliban provinces vis-a-vis Northern Alliance controlled provinces.

Although Table 9 reports findings by using the estimation specification used in Column (2) of Table 2, inclusion of other controls and including year of birth fixed effects similar to Columns (3) and (4) of Table 2 does not alter our results regarding both age at first birth and likelihood of facing physical violence in the recent past. This can be see from Appendix Table A.6.

Further, Panels A and B of Appendix Table A.9 report our findings of the impact of the Taliban regime on these outcomes using the specification used in Table 9 here, but by considering an alternative definition of treatment and control provinces as in Table 8. We continue to find coefficients that are similar (or even somewhat larger in absolute term) for age

at first birth outcome, relative to that reported in Table 9 here. The coefficient estimate on the likelihood of facing physical violence continues to be positive, but is no longer statistically significant now. A potential explanation is that the DHS surveys a (representative) subsample for its domestic violence module and this alternative definition of treatment and control provinces results in further loss of observations. Therefore, it is possible that the precision of estimation is somewhat lower, resulting in lack of statistical significance for the physical violence outcome when we use the new definition of treatment-control provinces. Subfigures (b) and (c) of Appendix Figure A.3 portray event study graphs for these outcomes, but by using alternative definitions of treatment and control provinces as been used in Table 8 and conditional on ethnicity fixed effects. The figures are largely similar to those we found in Appendix figure A.2. However, the precision of the coefficient estimates for the lag variables are somewhat lower and the confidence intervals are wider relative to those reported in Appendix Figure A.2 and this is likely because of the lower sample size when we consider an alternative definition of treatment and control provinces.

7 Potential Channels

Here, we discuss a potential mechanism behind our findings. On one hand we can argue that since the the Taliban government placed severe mobility restrictions on women and required the presence of a male chaperon (who was also related by blood or marriage), parents of daughters are likely to use marriage as a mechanism to ensure their daughter's safety and mobility. On the other hand, the Taliban government also severely curtailed the access to education for girls and women. In particular, the closure of schools for girls is likely to have demonstrated the extremely limited opportunity that girls would have in the future in terms of participation in economic activities. This is likely to further motivate parents to marry off their daughters earlier than what they may have desired. Therefore, absence of educational opportunities could be an important channel influencing the age at marriage results that we have found.

We, therefore, test whether and how educational attainment was impacted for women whose years of marriage were after the Taliban government was established in Taliban controlled provinces relative to provinces under the control of the Northern Alliance. We consider three measures of educational attainment: years of education (a continuous measure) and two binary variables that capture whether a respondent has completed primary education and alternatively if she has completed secondary education.[30] We use the estimation speci-

[30]It is to be noted that the DHS asks these questions directly to the respondents in almost all its survey countries, including Afghanistan.

fication of Column (2) of Table 2 for the purpose of this analysis and report our findings in Table 10 here.

Table 10: Educational Attainment in Taliban vs Northern Alliance Provinces by Year of Marriage

	Years of Education	If Completed Primary Education	If Completed Secondary Education
	(1)	(2)	(3)
Taliban Controlled Province × Married in 1996 or Later	-0.63***	-0.007	-0.03***
	(0.22)	(0.009)	(0.01)
R^2	0.09	0.04	0.05
Observations	28,361	28,385	28,385
Mean of the Dep Var	1.10	0.07	0.06
Province Fixed Effects	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors).

We find that women in Taliban controlled provinces (in comparison to those in Northern Alliance controlled provinces) who were married after the establishment of the Taliban regime have lower number of years of education relative to their counterparts who married before the Taliban government was set up by nearly 0.6 years or equivalently 7.6 months. As the average number of years of education for women is low (1.10 years) in Afghanistan, this reduction translates to a decline of 57% in the number of years of education relative to the sample mean. Interestingly, we do not find any significant impact of the exposure to the Taliban regime on the likelihood of completing primary education. However, the likelihood of completing secondary education is negatively impacted. We find that relative to women in Northern Alliance controlled provinces, women in Taliban controlled provinces who were married after 1996 are 3 percentage points less likely to have completed secondary education. Given the sample mean, this translates to a nearly 50% reduction in the probability of having completed secondary education on account of exposure to the Taliban regime. The differences in findings regarding the likelihood of finishing primary vis-a-vis secondary education is plausibly because the Talibans were particularly keen on curbing access to secondary education as these would have been accessed by relatively older girls. Appendix Table A.7 demonstrates the same results with alternative specifications as in different columns of Table 2. The findings on years of education and the likelihood of completing primary education continue to hold as we found in Table 10. Although the coefficient on the likelihood of finishing secondary education is negative, it is not statistically significant here. Focusing on years of education as the outcome variable of interest for educational attainment we also report the event study estimates in the appendix. Subfigure (c) of Appendix Figure A.2 shows that

while there appears to be no differential pre-existing trends in years of education between women who were married before the Taliban regime was established in provinces that came to be eventually controlled by the Talibans and the Northern Alliance, we find that the negative effect of the Taliban regime on educational attainment set in after a few years of the establishment of the regime. Therefore, it is plausible that the concerns on women's mobility and safety may have motivated parents to marry their daughters at a lower age after the Taliban government was established; which manifested in the almost immediate negative effect of the Taliban government on women's age at marriage and the effect of curtailing access to education is likely to have eventually contributed to the negative effect of the regime on women's marriage age. Using an alternative definition of treatment-control provinces does not change our conclusions relative to what we found in Table 10 here (see Panels C and D of Appendix Table A.9 and Subfigure (d) of Appendix Figure A.3).

8 Conclusion

We study how exposure to the first Taliban regime affects age at first marriage for Afghan women by leveraging the variation in their province of residence and year of marriage. The Talibans imposed strict restrictions on women's rights and mobility, including prohibition on continuing education and stepping outside the home without a husband/male blood relative. These laws and regulations may have encouraged parents of girls to use early marriage as a coping mechanism that would ensure security and continuity of mobility of their daughters. Additionally, the curtailment of access to education is likely to have bolstered incentives to marry off daughters early. We find that women who were married after the Taliban regime was established in Taliban administered provinces had a lower age at first marriage by nearly 9 months relative to those in Northern Alliance administered provinces. We find that the change in age of marriage is also accompanied by a concomitant change in the age at first birth and a higher likelihood of experiencing physical violence. Further, these do not appear to be driven by differential pre-existing trends in these variables across these two types of provinces for women who were married before the Taliban government was established. Decrease in educational attainment and particularly the probability of decline in secondary school completion of women in the treatment group relative to those in the control group appear to be an important potential mechanism driving our findings. Overall our results also demonstrate the persistence of the negative impacts of the Taliban regime, even after the fall of the Taliban government. This is likely due to persistence of cultural norms about women's role in society on account of the harsh rules and regulations imposed by the Taliban government on women, in addition to curbing the access to education for

women and girls. Women's age at first marriage crucially influences women's welfare as well as holds intergenerational implications. Therefore, our findings are of great policy relevance and very topical given the re-establishment of the Taliban government in Afghanistan in 2021.

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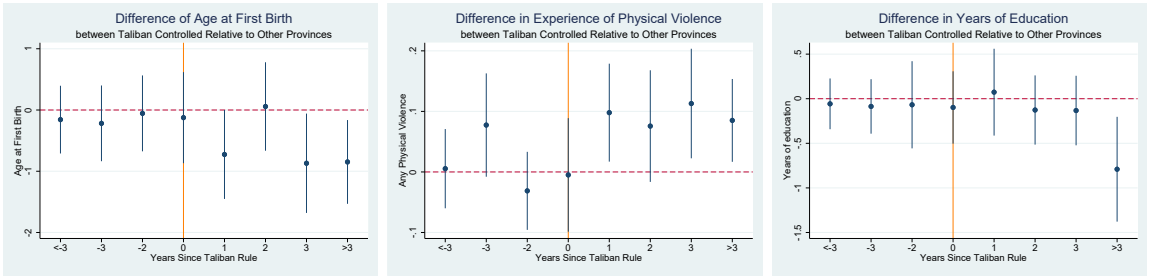
Appendix Tables & Figures

Figure A.1: Afghanistan Map showing different Provinces. Courtesy: Wikimedia Commons (Creative Commons Attribution-Share Alike 3.0 Unported license)



(a) (b) (c)

Figure A.2: Event Study Outcomes: (a) Age at First Birth (b) If Faced Physical Violence in Last 12 Months (c) Years of education. Coefficient estimates & 95% confidence intervals on the interaction between dummies for year of marriage and Taliban controlled province before & after the establishment of Taliban rule is depicted (1995 is the base year). Data source is AfDHS, 2015.

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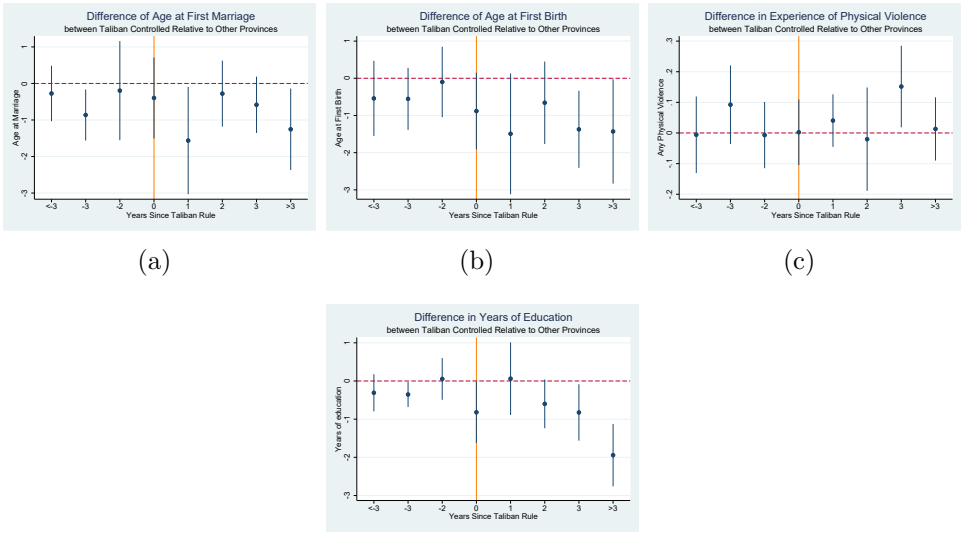

(a) (b) (c)

(d)

Figure A.3: Event Study Outcomes: (a) Age at First Marriage (b) Age at First Birth (c) If Faced Physical Violence in Last 12 Months (d) Years of education. Coefficient estimates & 95% confidence intervals on the interaction between dummies for year of marriage and Taliban controlled province before & after the establishment of Taliban rule (1995 is the base year) using an alternative definition of Taliban & Northern Alliance Controlled provinces. Data source is AfDHS, 2015.

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Table A.1: Descriptive Statistics

Variable	Mean	Standard Deviation	Observations
Panel A: Taliban Administered Provinces			
Outcome Variables:			
Age at First Marriage (yrs.)	17.94	3.44	17,122
Age at First Birth (yrs.)	19.27	3.47	15,378
If Faced any Physical Violence during the last 12 months	0.53	0.49	11,987
Years of Education (yrs.)	0.86	2.65	17,103
If Completed Only Primary School	0.06	0.23	17,122
If Completed Only Secondary School	0.05	0.22	17,122
Explanatory Variables:			
Married in 1996 or later	0.76	0.42	17,122
If Pashtun	0.64	0.48	17,095
If Tajik/Uzbek	0.20	0.40	17,095
If Hazara	0.12	0.32	17,095
If Rural	0.76	0.42	17,122
Not in Polygynous Marriage	0.93	0.25	16,983
Husband's Age (yrs.)	35.25	10.55	17,036
Husband's Years of Education	3.85	5.01	16,859
If Woman's Father Beat her Mother	0.42	0.49	11,954
Panel B: Northern Alliance Administered Provinces			
Outcome Variables:			
Age at First Marriage (yrs.)	17.86	3.62	11,314
Age at First Birth (yrs.)	19.28	3.56	10,313
If Faced any Physical Violence during the last 12 months	0.38	0.49	8,719
Years of Education (yrs.)	1.48	3.47	11,309
If Completed Only Primary School	0.08	0.28	11,314
If Completed Only Secondary School	0.08	0.27	11,314
Explanatory Variables:			
Married in 1996 or later	0.72	0.45	11,314
If Pashtun	0.11	0.31	11,290
If Tajik/Uzbek	0.63	0.48	11,290
If Hazara	0.06	0.23	11,290
If Rural	0.76	0.43	11,314
Not in Polygynous Marriage	0.94	0.24	11,262
Husband's Age (yrs.)	37.53	11.13	11,260
Husband's Years of Education	3.82	4.95	11,170
If Woman's Father Beat her Mother	0.28	0.45	8,691

Note: Data source is AfDHS, 2015. Sample restricted to currently married women who are usual residents (that is, not visitors) of the household.

Table A.2: Year of Marriage Fixed Effects - Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

	(1)	(2)	(3)
Taliban Controlled Province × Married in 1996 or Later	-0.60***	-0.59***	-0.52***
	(0.20)	(0.19)	(0.18)
R^2	0.12	0.12	0.33
Observations	28,395	28,344	20,142
Mean of the Dep Var	17.91	17.91	17.91
Province Fixed Effects	✓	✓	✓
Year of Marriage Fixed Effects	✓	✓	✓
Ethnicity Fixed Effects		✓	✓
Other Controls			✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). The decline in sample size in column (3) is on account of inclusion of the dummy variable indicating whether the respondent's father ever beat her mother; which is collected for a sub-sample of individuals in the survey who constitute the respondents in the domestic violence module of the survey. Year of birth fixed effects are omitted as they are nearly linearly correlated with year of marriage fixed effects. We consider marriage years from 1980 onwards and 1995 is the omitted year of marriage.

Table A.3: Other Specifications - Heterogeneity by Wealth: Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

	Poorest (1)	Poorer (2)	Middle (3)	Richer (4)	Richest (5)
Panel A:					
Taliban Controlled Province × Married in 1996 or Later	-0.76**	-0.65**	-1.10***	-0.91***	-1.19***
	(0.28)	(0.27)	(0.37)	(0.32)	(0.29)
R^2	0.06	0.10	0.10	0.09	0.09
Observations	5,454	6,486	6,131	6,060	4,305
Mean of the Dep Var	17.49	18.00	18.32	17.96	17.62
Province Fixed Effects	✓	✓	✓	✓	✓
Ethnicity Fixed Effects					
Other Controls					
Year of Birth Fixed Effects					
Panel B:					
Taliban Controlled Province × Married in 1996 or Later	-0.86**	-0.75**	-1.27***	-0.89**	-1.20***
	(0.32)	(0.30)	(0.33)	(0.34)	(0.30)
R^2	0.15	0.17	0.19	0.15	0.15
Observations	3,999	4,534	4,302	4,224	3,103
Mean of the Dep Var	17.49	18.00	18.32	17.96	17.62
Province Fixed Effects	✓	✓	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓	✓	✓
Other Controls	✓	✓	✓	✓	✓
Year of Birth Fixed Effects					
Panel C:					
Taliban Controlled Province × Married in 1996 or Later	-0.68**	-0.70**	-1.05***	-0.92***	-1.17***
	(0.26)	(0.28)	(0.23)	(0.32)	(0.19)
R^2	0.38	0.38	0.37	0.35	0.38
Observations	3,999	4,534	4,302	4,224	3,103
Mean of the Dep Var	17.49	18.00	18.32	17.96	17.62
Province Fixed Effects	✓	✓	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓	✓	✓
Other Controls	✓	✓	✓	✓	✓
Year of Birth Fixed Effects	✓	✓	✓	✓	✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). Each column is a separate regression and represents households in each wealth quintile reported by the AfDHS. Regression specifications in Panels A, B and C are analogous to Columns (1), (3) and (4) of Table 2 respectively.

Table A.4: Other Specifications- Limiting Sample to Specific Years: Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

Marriage Years	Upto 2001 (1)	Upto 2005 (2)
Panel A:		
Taliban Controlled Province × Married in 1996 or Later	-0.54***	-0.64***
	(0.18)	(0.18)
R^2	0.17	0.19
Observations	9,698	12,888
Mean of the Dep Var	17.39	17.48
Province Fixed Effects	✓	✓
Ethnicity Fixed Effects	✓	✓
Other Controls	✓	✓
Year of Birth fixed Effects		
Panel B:		
Taliban Controlled Province × Married in 1996 or Later	-0.61***	-0.53***
	(0.20)	(0.16)
R^2	0.59	0.54
Observations	9,698	12,888
Mean of the Dep Var	17.39	17.48
Province Fixed Effects	✓	✓
Ethnicity Fixed Effects	✓	✓
Other Controls	✓	✓
Year of Birth fixed Effects	✓	✓

Note: Data source is Demographic and Health Surveys of Afghanistan (or, AfDHS) 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). Sample is restricted to includes individuals whose years of marriage are upto 2001 and 2005 respectively. Regression specifications in Panels A and B are analogous to Columns (3) and (4) of Table 2 respectively.

Table A.5: Other Specifications - Dropping Specific Provinces: Age at First Marriage in Taliban vs Northern Alliance Provinces by Year of Marriage

Dropping	All Border Provinces (1)	Provinces with Most Violence & IDPs (2)	Province with 5 largest Cities (3)
Panel A:			
Taliban Controlled Province × Married in 1996 or Later	-0.70***	-0.93***	-0.86***
	(0.24)	(0.21)	(0.23)
R^2	0.12	0.16	0.16
Observations	13,249	17,110	16,899
Mean of the Dep Var	17.79	17.95	17.94
Province Fixed Effects	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓
Other Controls	✓	✓	✓
Year of Birth Fixed Effects			
Panel B:			
Taliban Controlled Province × Married in 1996 or Later	-0.52**	-0.79***	-0.83***
	(0.22)	(0.21)	(0.21)
R^2	0.34	0.36	0.37
Observations	13,249	17,110	16,899
Mean of the Dep Var	17.79	17.95	17.94
Province Fixed Effects	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓
Other Controls	✓	✓	✓
Year of Birth Fixed Effects	✓	✓	✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). Regression specifications in Panels A and B are analogous to Columns (3) and (4) of Table 2 respectively.

Table A.6: Other Specifications - Downstream Effects: Age at First Birth & Exposure to Domestic Violence in Taliban vs Northern Alliance Provinces by Year of Marriage

	Age at First Birth	If Faced any Physical Violence During last 12 months
	(1)	(2)
Panel A:		
Taliban Controlled Province × Married in 1996 or Later	-0.90***	0.06**
	(0.23)	(0.03)
R^2	0.11	0.28
Observations	18,592	20,160
Mean of the Dep Var	19.27	0.47
Province Fixed Effects	✓	✓
Ethnicity Fixed Effects	✓	✓
Other Controls	✓	✓
Year of Birth Fixed Effects		
Panel B:		
Taliban Controlled Province × Married in 1996 or Later	-0.86***	0.07**
	(0.23)	(0.03)
R^2	0.29	0.29
Observations	18,592	20,160
Mean of the Dep Var	19.27	0.47
Province Fixed Effects	✓	✓
Ethnicity Fixed Effects	✓	✓
Other Controls	✓	✓
Year of Birth Fixed Effects	✓	✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). Regression specifications in Panels A and B are analogous to Columns (3) and (4) of Table 2 respectively.

Table A.7: Other Specifications - Educational Attainment in Taliban vs Northern Alliance Provinces by Year of Marriage

	Years of Education	If Completed Primary Education	If Completed Secondary Education
	(1)	(2)	(3)
Panel A:			
Taliban Controlled Province × Married in 1996 or Later	-0.41**	0.002	-0.02
	(0.20)	(0.01)	(0.01)
R^2	0.22	0.05	0.11
Observations	20,147	20,162	20,162
Mean of the Dep Var	1.10	0.07	0.06
Province Fixed Effects	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓
Other Controls	✓	✓	✓
Year of Birth Fixed Effects			
Panel B:			
Taliban Controlled Province × Married in 1996 or Later	-0.44**	-0.0001	-0.02
	(0.20)	(0.01)	(0.01)
R^2	0.23	0.05	0.12
Observations	20,147	20,162	20,162
Mean of the Dep Var	1.10	0.07	0.06
Province Fixed Effects	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓
Other Controls	✓	✓	✓
Year of Birth Fixed Effects	✓	✓	✓

Note: Data source is AfDHS, 2015. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). Regression specifications in Panels A and B are analogous to Columns (3) and (4) of Table 2 respectively.

Table A.8: Descriptive Statistics: Alternative Definition of Treatment & Control Provinces

Variable	Mean	Standard Deviation	Observations
Panel A: Taliban Administered Provinces			
Outcome Variables:			
Age at First Marriage (yrs.)	17.99	3.35	17,708
Age at First Birth (yrs.)	19.31	3.39	15,943
If Faced any Physical Violence during the last 12 months	0.55	0.50	12,097
Years of Education (yrs.)	0.78	2.54	17,690
If Completed Only Primary School	0.05	0.23	17,708
If Completed Only Secondary School	0.04	0.21	17,708
Explanatory Variables:			
Married in 1996 or later	0.77	0.42	17,708
If Pashtun	0.62	0.48	17,675
If Tajik/Uzbek	0.19	0.40	17,675
If Hazara	0.08	0.27	17,675
If Rural	0.78	0.42	17,708
Not in Polygynous Marriage	0.93	0.25	17,566
Husband's Age (yrs.)	35.16	10.43	17,618
Husband's Years of Education	3.82	5.01	17,441
If Woman's Father Beat her Mother	0.41	0.49	12,063
Panel B: Northern Alliance Administered Provinces			
Outcome Variables:			
Age at First Marriage (yrs.)	17.66	3.68	2,946
Age at First Birth (yrs.)	19.11	3.53	2,680
If Faced any Physical Violence during the last 12 months	0.29	0.46	2,370
Years of Education (yrs.)	1.83	3.84	2,945
If Completed Only Primary School	0.08	0.27	2,946
If Completed Only Secondary School	0.10	0.30	2,946
Explanatory Variables:			
Married in 1996 or later	0.67	0.47	2,946
If Pashtun	0.04	0.21	2,937
If Tajik/Uzbek	0.89	0.31	2,937
If Hazara	0.05	0.23	2,937
If Rural	0.77	0.42	2,946
Not in Polygynous Marriage	0.95	0.22	2,926
Husband's Age (yrs.)	38.39	11.66	2,927
Husband's Years of Education	4.21	5.15	2,910
If Woman's Father Beat her Mother	0.21	0.41	2,363

Note: Data source is AfDHS, 2015. Sample restricted to currently married women who are usual residents (that is, not visitors) of the household. Dropping the provinces of Kapisa, Baghlan, Kunduz, Samangan, Balkh, Sar-e-Pul, Daykundi, Jawzjan, Faryab and Badghis from the sample as the Taliban had partial control over these provinces at the start of their regime.

Table A.9: Alternative Definition of Taliban/Northern Alliance Province - Downstream Effects & Mechanisms

	(1)	(2)	(3)
Panel A:	Age at First Birth	If Faced Any Physical Physical Violence during last 12 months	
Taliban Controlled Province × Married in 1996 or Later	-0.98***	0.01	
	(0.29)	(0.05)	
R^2	0.06	0.26	
Observations	18,623	14,467	
Mean of the Dep Var	19.27	0.51	
Province Fixed Effects	✓	✓	
Ethnicity Fixed Effects			
Panel B:	Age at First Birth	If Faced Any Physical Physical Violence during last 12 months	
Taliban Controlled Province × Married in 1996 or Later	-0.96***	0.01	
	(0.29)	(0.05)	
R^2	0.06	0.26	
Observations	18,586	14,442	
Mean of the Dep Var	19.27	0.51	
Province Fixed Effects	✓	✓	
Ethnicity Fixed Effects	✓	✓	
Panel C:	Years of Education	If Completed Primary Education	If Completed Secondary Education
Taliban Controlled Province × Married in 1996 or Later	-1.44***	-0.01	-0.08***
	(0.30)	(0.01)	(0.02)
R^2	0.09	0.03	0.05
Observations	20,635	20,654	20,654
Mean of the Dep Var	0.93	0.06	0.05
Province Fixed Effects	✓	✓	✓
Ethnicity Fixed Effects			
Panel D:	Years of Education	If Completed Primary Education	If Completed Secondary Education
Taliban Controlled Province × Married in 1996 or Later	-1.46***	-0.01	-0.09***
	(0.29)	(0.01)	(0.02)
R^2	0.11	0.04	0.06
Observations	20,593	20,612	20,612
Mean of the Dep Var	0.93	0.06	0.05
Province Fixed Effects	✓	✓	✓
Ethnicity Fixed Effects	✓	✓	✓

Note: Data source is AfDHS, 2015. Sample restricted to currently married women who are usual residents (that is, not visitors) of the household. Dropping the provinces of Kapisa, Baghlan, Kunduz, Samangan, Balkh, Sar-e-Pul, Daykundi, Jawzjan, Faryab and Badghis from the sample as the Taliban had partial control over these provinces at the start of their regime. Standard errors are clustered at the province level and reported in parentheses. *,**,*** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively. Sample is restricted to include women who are currently married and usual residents of the household (i.e. not visitors). Regression specification in Panels A and C are analogous to Column (1) of Table 2, while those in Panels B and D are analogous to Column (2) of Table 2.