The Pill and Marital Stability

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Abstract

Better contraception will have competing impacts on marital stability and divorce rates. Preexisting marriages are likely to become less stable as better contraception raises the value of reentering the dating market. Subsequent marriages are likely to be more stable as couples delay marriages and use better contraception to search for better partners. I investigate this hypothesis using variation in access to the birth control pill by state and cohort as developed by Goldin and Katz (2002). Access to the pill decreased stability of preexisting marriages and increased stability of subsequent marriages.

1 Introduction

Improvements in contraceptive access change couples' incentives and decision making in dating and marriage. The importance of the birth control pill in particular has been well-documented in changing women's investment in human capital and lifetime fertility decisions. Changes in access to the pill also play an important role in young women's search for a potential mate. As access to the pill improves, the value of dating and search in the marriage market are increased, and young women may increase their sexual activity in both number of acts and in number of premarital partners. She becomes more willing to leave relationships and reenter the dating market and match with a new partner. This is because the expected costs of dating and premarital sexual behavior fall when contraceptive access improves.

Contraception change will also impact marriage quality, marital stability, and divorce rates. As contraceptive technology improves, rocky marriages that are on the margin of divorce will be more likely to divorce and reenter the dating market. This comes from contraception's impact on increasing the value of the dating market which in turn increases the outside option value within marriages. The surplus of the marriage falls and for the marginal married couple, divorce is now an attractive option. Improvements in contraception can encourage marital instability for preexisting marriages.

The effects of better contraception on subsequent marriages will causes delays in marriage, as women will be less willing to marry and leave the dating market. These delayed marriages will result in higher quality marriages, as women require better matches before they choose to marry.

To evaluate the disparate effects of contraceptive access on these types of marriage,

I study how variation in access to the birth control pill in the 1960s and 1970s influenced divorce rates. Using changes across states and time in the age of majority - which influenced whether unmarried women could acquire the birth control pill - I estimate the impact of access to the birth control pill on divorce rates. To test the hypothesis of a differential impact of the birth control pill on marital stability, I separately look at the divorce rates of young women who were married when they received access and the divorce rates of young women who were single when they received access.

The results are consistent with the hypothesis. I find a significant increase in divorce rates for young women who were already married when states adopted policies that allowed them to purchase birth control pills if they divorced and reentered the dating market. Young women who were single and subsequently married after gaining access to the pill have significantly lower divorce rates as a result of this improved access. Results are similar for both black and white women, as well as for all education groups. These results are robust to changes in abortion access and unilateral divorce laws that were also changing during this time period.

There have been several studies analyzing how the introduction of the birth control pill in the 1960s affected women's career decisions and fertility. Goldin and Katz (2002) is the seminal paper in this literature, using variation in access by state and cohort in the introduction of the pill to study how women's careers and family planning changed after the pill was introduced. Bailey (2006) finds that better access to the pill reduced early fertility and increased labor force participation. Ananat and Hungerman (2008) find evidence that the pill had a larger impact on households of above average socioeconomic characteristics who had the most to gain from retiming births and investing more in human capital. Guldi (2008) looks specifically at minors, again finding a large impact of the pill in reducing

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fertility.

This paper follows Goldin and Katz (2002) directly in identification and estimation strategies in using variation in state law changes for access to young single women in the late 1960s and early 1970s. As Goldin and Katz (2002) argue, these changes in age of majority tended to follow a general period of emancipation for women and young people during the time period. For instance, the passage of the 27th amendment lowering the minimum voting age led several states to change their age of majority. The identifying assumption is that the timing of these changes in laws are unrelated to the exact timing of divorce probabilities for young women born during the baby boom.

The contribution of this paper to the robust literature on the impact of the birth-control pill is its focus on the transition into marriages. It is also implicitly testing the implications of the model of contraception's impact on dating search developed in Zuppann (2012). In that paper, I develop a model of decisions facing a young woman as she tries to find an acceptable long-term partner. The model yields predictions about timing and stability of marriages, as well as sexual behavior decisions. Data on sexual practices from this time period are scarce and unreliable, but the model can still be tested on its predictions about marital stability.

This paper is organized as follows. Section 2 describes how improvements in contraception will change marriage and divorce probabilities. Section 3 discusses the history of the birth control pill and how changes in the age of majority support my estimation strategy. Section 4 discusses Census data on divorce rates. Section 5 presents results and Section 6 concludes.

2   Contraception's Role in Marriage and Divorce

When a women's ability to acquire effective contraception improves, her costs and benefits of dating can change quite dramatically. Before the improvement in contraception, high levels of sexual activity made premarital pregnancy and being forced to choose between a shotgun wedding and single motherhood a virtual certainty. Once better contraception is available, all these risks involved with premarital sexual activity decline. A woman can now increase her sexual activity and the number of people she is romantically involved with at lowered risk.

As contraception improves, then, the desirability of being single and sexually active will increase for young women. Women who are single at the time of improved access, then, will become less willing to marry. They will increase their activity in the dating market and sample more frequently from the pool of available men.[1] This improvement in search for a match will increase the average marriage quality of eventual matches. Since women now value dating more than they did before, it will take a better quality match before she is willing to forego the opportunity of meeting other partners and choose to marry her current partner.

We might expect, then, for divorce rates to decline following the introduction of better contraceptive technology. However, this is only the case for women who were single or dating when the shock occurred. Women who were married when contraceptive technology improved will actually see an increase in divorce rates. Since improvements in contraception increase the value of being single and dating many partners, women who were already married may find divorce and reentering the dating market more valuable. Better contraception

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[1]This effect has been shown empirically in Zuppann (2012) following improvements in access to emergency contraception.

has raised the outside option of marriage, so couples close to the margin of divorce with low levels of marital surplus are likely to divorce.

Changing contraception access on divorce rates will effect marital stability differently for preexisting and subsequent marriages.. For preexisting marriages, the model predicts an increase in divorce rates, while for subsequent marriages the model predicts a decline in divorce rates so long as those subsequent marriages were delayed by the shock to contraception technology.

3   Estimation Strategy: Age of Majority and Birth Control Pill Usage

Access to the birth control pill was tightly regulated following its introduction in the 1960s. Regulations were particularly stringent for unmarried, minor women. As Goldin and Katz (2002) document in detail, these regulations provide a quasi-experimental setting researchers to use to evaluate how the birth control pill effected women's fertility and marriage decisions. Identification of the impact of the pill comes from states changing the age of majority in the late 1960s and early 1970s. Due to political concerns surrounding the Vietnam War and the passage of the 26th Amendment lowering the voting age to 18, many states lowered the age of majority from 21 to 18 in the years between 1969 and 1974. This change in legal adulthood had the indirect effect of giving unmarried women aged 18-21 better access to the birth control pill. Goldin and Katz (2002) document that this change in access had a substantial impact on pill use for 17-19 year old women. Using data from the National Survey of Young Women, they find that lowering the age of majority and in turn improving

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access to the pill increased pill usage rates by approximately 5-7% for all women aged 17-19 and 10% for sexually active 17-19 year old women. I directly follow the approach adopted in Goldin and Katz (2002) in coding states' legal changes to the age of majority and access to the birth control pill. Table 1 summarizes these codings and the age of access over the time period.

Table 1: State Laws Regarding Contraceptive Access to Minors, 1969-74

	Earliest legal age to obtain contraception		
State	1969	1971	1974
AL	21	17	17
AK	19	19	14 or 19*
AZ	21	18	18
AR	18	14	14
CA	15	15	15
CO	21	14	14
CT	21	18	18
DE	21	21	18
DC	21	14	14
FL	21	21	14
GA	14	14	14
HI	20	20	20
ID	18	18	14
IL	21	14	14
IN	21	21	18
IA	21	21	14 or 18*
KS	21	21	14
KY	18	18	14 or 18*
LA	21	21	14
ME	21	18	18
MD	21	18	14
MA	21	21	18
MI	21	14	14
MN	21	18	18
MS	14	14	14
MO	21	21	21
MT	21	19	18
NE	20	20	19

Continued on the next page.

	Earliest legal age to obtain contraception		
State	1969	1971	1974
NV	18	18	18
NH	21	14	14
NJ	21	21	18
NM	21	18	14 or 18*
NY	21	16	16
NC	21	18	18
ND	21	18	18
OH	21	21	14
OK	18	18	14 or 18*
OR	21	15	15
PA	21	18	18
RI	21	21	18
SC	21	21	16
SD	21	12	18
TN	21	14	14
TX	21	21	18
UT	18	18	18
VT	21	18	18
VA	21	21	14
WA	21	18	18
WV	21	21	14 or 18*
WI	21	18	18
WY	21	21	14 or 19*

Data from Goldin and Katz (2002).
*The state in question has a family planning program that does not exclude contraceptive provision, but no statutory decision had been formally made by the state attorney general on contraceptive provision.

These changes provide variation in access to the birth control pill across states, time, and birth cohorts, which I use as a quasi-natural experiment to estimate the role contraceptive access had in changing marital stability. I test the hypothesis that improvements in pill access had a differential impact on divorce probabilities depending on the timing of the access relative to when a woman was married. We expect to see divorce rates increase for women who are already married when they received access, but a decline in divorce rates

for women who married after. Further, we expect to see interactions between the impact of pill access and marriage durations. Women who were recently married when they received access should have higher divorce probabilities than women who had been married for longer periods of time. Women who wait longer to marry after getting access to the pill should have lower divorce probabilities than those who married soon after the change in access.

To estimate these differential effects, I construct the difference between the age when a woman first married and the age she received access to the pill. I then estimate the impact of pill access for each of these differences. The estimation equation for these effects is

$$p(divorce_{1980,is}) = \alpha + \sum_{t=-3}^{t=3} \gamma_t \cdot I\{\text{Age of 1st marriage}_i \text{ - Age of pill access}_{is} = t\}_{is} + \lambda_s$$
$$+ \beta_1 \cdot \text{Age of 1st marriage}_i + \beta_2 \cdot \text{Birth year}_i + X_i\beta_3$$

where γ_t captures the differential impact of access to the birth control pill on preexisting and subsequent marriages, with γ_0 omitted. X_i are other demographic characteristics. The estimation includes fixed effects for state, age of first marriage, birth year, education, and race, so the γ_t are identified from variation in the changes of state laws.

Table 2 summarizes the predictions in terms of γ_t. The predictions of the model can be tested by looking at differences in the estimates of γ_t which capture how pill access differentially affected marital stability depending on marital timing and duration.

Table 2: Predictions of pill's effect on divorce probabilities depending on marital timing

Testable Implication	Description
$\gamma_t > 0$ for $t < 0$	divorce probability is higher for women already married
$\gamma_t < 0$ for $t > 0$	divorce probability is lower for women who subsequently marry
$\gamma_{-1} > \gamma_{-2} > \gamma_{-3}$	divorce probability is higher for women who have been married a shorter amount of time
$\gamma_1 > \gamma_2 > \gamma_3$	divorce probability is lower for women who wait the longest to marry after access

4 Data

I use data from the 1980 IPUMS Census 5% sample to construct cohort marriage and divorce rates by state. The 1980 Census asks about current marital status, age of first marriage, and number of times married, as well as standard demographic information on race, age, and highest grade completed. Table 3 summarizes the marriage variables used from the 1980 Census.

Using these questions, I form three measures of "having ever divorced by 1980" as summarized in Table 4. My preferred measure codes an individual as divorced if they report their 1980 marital status as "Divorced" or "Separated" or if they report more than

Table 3: Marriage variables in the 1980 IPUMS Census 5% sample

Variable	Question Text	Possible Answers
MARST	"Marital Status, fill one circle"	Now married Separated Widowed Never Married Divorced
MARRNO	"Has this person been married more than once?"	N/A (never married) Once More than once
AGEMARR	"Month and year of (first) marriage?"	Month and year

Table 4: Measures of divorce in 1980 IPUMS 5% Census sample

	Definition
D1	(Marital status either Divorced or Separated) OR (Times married > 1)
D2	(Marital status either Divorced or Separated)
D3	(Times married > 1)

one marriage (regardless of current marital status). The second measure more conservatively codes individuals as divorced only if they report their marital status as "Divorced" or "Separated". The third measure only relies on information on the number of marriages and codes an individual as divorced if the respondent reported 2 or more marriages, regardless of their 1980 marital status.

To calculate when a woman received access to the birth control pill, I combine information on state law changes (see Table 1) with her 1980 age. I use 1980 reported state of residence to match individuals with the law changes that occurred in the previous decade, which is assuming no inter-state migration. This matching allows me to construct the age at which a woman received access to the birth control pill. Most of the women in the sample received access to the pill by naturally reaching the age of majority within her state. For example, if a woman living in Alaska turned 21 in 1970, she legally became an adult and her access to the pill improved. Some women, however, received access due to state law changes. Suppose an 18 year old woman was living in Alaska in 1971. She received access at age 18 then, as Alaska lowered the age of contraceptive access from 21 to 17 in 1971. The timing of state law changes and a woman's 1980 age are sufficient to construct the age at which she received access.

Having measured the age when a young woman received access to the birth control pill, I use her reported age of first marriage to calculate the relative timing between age of pill access and age of marriage. Since data is only available for age of first marriage and

current marital status, all these these measures unfortunately miss some marital paths. Most notably, the Census only asks about the number of marriages if a woman did not report her marital status as "Never married", so I incorrectly omit any divorced woman who is single in 1980 and incorrectly reports her marital status. I also misassign the treatment of birth control pill access for people who have potentially already divorced between the years of their first marriage and receiving pill access. For example, if a person married and divorced in 1968 and remained single until 1980, I effectively treat them as having been married in 1969 when perhaps they received access to the birth control pill. This is a necessity due to the lack of information on year of divorce in the 1980 Census data. This incorrect assignment should bias results towards zero as it is effectively measurement error.

I restrict the full 1980 5% sample to a smaller sample of women. I exclude all women who report "Never Married." I only include women aged 18-21 at the age of their first marriage. The women were born between 1948 and 1956 so that the oldest cohort was 21 in 1969 and the youngest cohort was 18 in 1974. I drop any woman with a missing value for the number of times she was married.

Table 5: Summary statistics

	1980 average
% Divorced OR multiple marriages (D1)	30.3%
% Divorced (D2)	17.2%
% Multiple marriages (D3)	15.5%
Age of pill access	20.0
Age of marriage	19.3
1980 age	28.6
% Black	8.3%

Data from 1980 IPUMS 5% Census sample of women born from 1948 and 1956 who were 18-21 years old at first marriage. Never married women are not included.

Table 5 describes summary statistics of this sample. The women are, on average, 28.6 years old in 1980 and have had access to the birth control pill for around 8 years. Using the broadest definition of divorce, a little over 30% of the sample had divorced from their first marriage by 1980. Both of the alternative measures of divorce are substantially lower indicating two effects: First is the remarriage rates for divorced women, who are missed in the divorce measure that just uses 1980 marital status. The second effect is the flip side, divorced women who do not remarry are accurately measured using 1980 marital status but not by their answer number of marriages.

5 Results

Table 6 presents OLS estimates of γ_t - the impact of pill access on the probability of divorce in 1980 as a function of when marriages occurred relative to the pill access. I use the broadest measure of divorce (D1), including women who report their marital status as divorced or separated as well as women who report multiple marriages. The estimates include controls for state fixed effects, age of marriage fixed effects, and birth year fixed effects, as well as the race and education of the respondent. These estimates confirm the prediction that access to the birth control pill had different effects on preexisting and subsequent marriages. Divorce probabilities increased for women who were already married when their access to the pill improved. For women who married following the improved access to the pill, I estimate that divorce probabilities declined by 1-2%.

Table 6 also confirms the prediction that there are interactions between marriage duration and the effect of improved contraceptive access. Looking at women who were already married when they received access to the birth control pill ($\gamma_t < 0$), the increase in divorce

Table 6: Estimated impact of birth control access on 1980 divorce probability

	t	γ_t	
Pill access after marriage	-3	0.005	(0.003)
	-2	0.009**	(0.004)
	-1	0.031***	(0.007)
	0	-	
Pill access before marriage	1	-0.014**	(0.005)
	2	-0.024***	(0.007)
	3	-0.029**	(0.012)
N	316,225		

Dependent variable is either reporting being divorced or reporting a number of marriages greater than 2 in 1980 (D1). Data from 1980 IPUMS 5% Census sample of women born from 1948 and 1956 who were 18-21 years old at first marriage. Never married women are not included. Controls include state fixed effects, age of first marriage fixed effects, birth cohort fixed effects, education and race. Results are weighted using IPUMS person weights. Robust standard errors are clustered at the state level.
$*$: significant at 10% level. $**$: significant at 5% level. $***$: significant at 1% level.

rates is higher the shorter the marriage. Marriages only one year long when pill access improved have significantly higher divorce rates than marriages that were two or three years long.[2]

There also appears to be an interaction between marriage timing and pill access for women who married after receiving access to the pill. Looking at the estimates of $\gamma_t > 0$, women who married 3 years after improved access have lower divorce probabilities than those who married 2 years or 1 year after the access change. This is consistent with the prediction that women who significantly delayed their marriages and stayed in the dating market because of the birth control pill saw improvements in their eventual marriage quality. None of these differences are statistically significant, however.[3]

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[2]The difference between γ_{-1} and both γ_{-2} and γ_{-3} is significant at the 1% level.

[3]However, an alternative specification that fits a time trend instead of relative year fixed effects finds a significant downward impact of access for later marriages.

Table 7 shows estimates of using the two alternative measures of 'divorced'. Column 1 replicates Table 6 using the broadest measure of divorce. Column D2 treats remarried women as having never divorced while column D3 ignores women who never remarried following their divorce. Both of these more conservative measures paint a similar picture on the effect of pill access on divorce probabilities. The signs of the estimated coefficients are the same and the interaction between marriage timing and pill access is still apparent. However, the magnitudes are generally lower when using the more restrictive constructions. This is likely due to the increase in measurement error in the restrictive definitions of divorce. I focus exclusively on the broadest measure of divorce (D1) for the rest of the analysis.

I next consider how these results vary with women's race and education. Goldin and Katz (2002) establish that usage rates of the birth control pill differs by these demographics. Young black women were 5-10% more likely to have used the birth control pill than white women. Similarly, women with a college degree were more likely to have used the pill in their life than less educated women, even after controlling for age effects. There are reasons beyond the differences in usage rates to suspect that the pill changed marital stability for differing demographic groups. Marriages are typically homogamous within race and socioeconomic status groups. If black and white women are competing in different marriage markets, then improvements in pill access may differentially affect black and white women. One reason to suspect this differential effect is that the cost of premarital pregnancy to a young woman will depend on the conditions in her marriage market and her bargaining position with the father. Since better contraception changes the risks of contraception and the relative bargaining position between men and women in relationships, one might expect that the improvements in access to the pill would differ across marriage markets. I investigate this hypothesis by looking at how the pill changed divorce rates across races and

Table 7: Estimated impact of birth control access on 1980 divorce probability, alternative definitions of divorce

	t	(D1) Divorced OR multiple marriages		(D2) Divorced		(D3) Multiple marriages	
Pill access after marriage	-3	0.005	(0.003)	-0.000	(0.003)	0.001	(0.002)
	-2	0.009**	(0.004)	0.002	(0.003)	0.012*	(0.007)
	-1	0.031***	(0.007)	0.013**	(0.005)	0.043***	(0.009)
	0	-		-		-	
Pill access before marriage	1	-0.014**	(0.005)	-0.006	(0.004)	-0.007**	(0.003)
	2	-0.024***	(0.007)	-0.011*	(0.006)	-0.012**	(0.004)
	3	-0.029**	(0.012)	-0.013	(0.010)	-0.015**	(0.006)
N		316,225		316,225		316,225	

Dependent variable is either reporting being divorced or reporting a number of marriages greater than 2 in 1980 (D1). Data from 1980 IPUMS 5% Census sample of women born from 1948 and 1956 who were 18-21 years old at first marriage. Never married women are not included. Controls include state fixed effects, age of first marriage fixed effects, birth cohort fixed effects, education, and race. Results are weighted using IPUMS person weights. Robust standard errors are clustered at the state level.

$*$: significant at 10% level. $**$: significant at 5% level. $***$: significant at 1% level.

across education categories.

Table 8: Estimated impact of birth control access on 1980 divorce probability by race

	t	(1)		(2)	
		White women		Black women	
Pill access after marriage	-3	0.008	(0.005)	0.002	(0.008)
	-2	0.014***	(0.004)	0.014	(0.013)
	-1	0.031***	(0.007)	0.044**	(0.021)
	0	-		-	
Pill access before marriage	1	-0.014**	(0.006)	-0.006	(0.012)
	2	-0.022***	(0.007)	-0.038	(0.027)
	3	-0.027**	(0.011)	-0.030	(0.035)
N		290,022		26,359	

Dependent variable is either reporting being divorced or reporting a number of marriages greater than 2 in 1980 (D1). Data from 1980 IPUMS 5% Census sample of women born from 1948 and 1956 who were 18-21 years old at first marriage. Never married women are not included. Controls include state fixed effects, age of first marriage fixed effects, birth cohort fixed effects, and education. Results are weighted using IPUMS person weights. Robust standard errors are clustered at the state level.
∗: significant at 10% level. ∗∗: significant at 5% level. ∗ ∗ ∗: significant at 1% level.

Table 8 presents separate estimates for white and black women and Table 9 shows estimates by education level. The patterns in all groups is the same as the overall pattern found in the population. There are not substantial differences across races in the estimates. However, there are many fewer black women in the sample, so estimates are not precise enough to fully answer this question. A similar result is seen when the sample is divided by a woman's education. The pattern for high school dropouts is the same as for high school graduates and women with a college education, and all three are consistent with the estimates in the full sample. It does not appear that the access to the birth control pill had differential impact on women of different race or education groups, even though they all participate in different marriage markets.

Table 9: Estimated impact of birth control access on 1980 divorce probability by education

	t	(1)		(2)		(3)	
		Less than HS		High School		Some college+	
Pill access after marriage	-3	0.009	(0.009)	0.011**	(0.004)	-0.001	(0.005)
	-2	0.012	(0.012)	0.019***	(0.004)	0.010	(0.008)
	-1	0.031**	(0.013)	0.038***	(0.008)	0.047**	(0.015)
	0	-		-		-	
Pill access before marriage	1	-0.004	(0.010)	-0.013*	(0.007)	-0.013**	(0.006)
	2	-0.028	(0.017)	-0.020**	(0.009)	-0.021**	(0.009)
	3	-0.019	(0.021)	-0.025	(0.017)	-0.025**	(0.010)
N		39,290		175,442		101,649	

Dependent variable is either reporting being divorced or reporting a number of marriages greater than 2 in 1980 (D1). Data from 1980 IPUMS 5% Census sample of women born from 1948 and 1956 who were 18-21 years old at first marriage. Never married women are not included. Controls include state fixed effects, age of first marriage fixed effects, birth cohort fixed effects, and race. Results are weighted using IPUMS person weights. Robust standard errors are clustered at the state level.

*: significant at 10% level. **: significant at 5% level. ***: significant at 1% level.

Potentially confounding factors

A maintained assumption in the preceding analysis is that the timing of law changes to the age of pill access is unrelated to other changes within states. This assumption may be unrealistic since the period of the late 1960s and early 1970s were one of great social change. Improved contraception was only one piece of a larger movement intent on improving women's rights. Two primary examples of other expansions in women's rights are the legalization of abortion in the early 1970s and several states' adoption of unilateral divorce laws.

The legalization of abortion is a potential confounding factor because abortion availability provides several of the similar benefits to women as the birth control pill. A woman who knows that she can obtain an abortion, even at a cost, faces lower costs of being sexually

active and remaining in the dating market. As Donohue and Levitt (2001) and others have shown, the changes in abortion availability in the early 1970s had a significant impact on fertility decisions of young women. I control for this concern using average state abortion rates when a woman was 18. This proxies for the availability and demand for abortion within the state.[4]

Another concern is the change in unilateral divorce laws in the 1960s and 1970s. As Friedberg (1998) documents, 28 states adopted unilateral divorce laws between 1968 and 1980. Friedberg also estimates that adopting unilateral divorce policies led to increased divorce rates. If the adoption of these policies was similarly timed with the lowering of the age of pill access, then my estimates may be confounding the impact of pill access with the impact of changing divorce laws. By including a measure of whether a woman married when her state had a unilateral divorce policy in place, I can control for the impact that these divorce laws had on divorce while still estimating the effect of pill access.

Estimates including controls for these two potentially confounding factors are shown in Table 10. Column (2) includes the average abortion rate in a women's state when she was 18 and Column (3) includes a control for whether a woman was married when a unilateral divorce law in place. Estimates of γ_t are not significantly changed by including these controls. It appears that the impact of access to the birth control pill on marital stability is in addition to any effects that abortion access or unilateral divorce may have had.

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[4]Abortion data from Donohue and Levitt (2001), and only exist from 1970.

Table 10: Estimates, controlling for abortion and divorce

		(1)		(2)		(3)	
	t						
Pill access after marriage	-3	0.005	(0.003)	0.007	(0.005)	0.009**	(0.003)
	-2	0.009**	(0.004)	-0.002	(0.006)	0.016***	(0.004)
	-1	0.031***	(0.007)	0.021***	(0.005)	0.030***	(0.007)
	0	-		-		-	
Pill access before marriage	1	-0.014**	(0.005)	-0.002	(0.004)	-0.013**	(0.005)
	2	-0.024***	(0.007)	-0.015**	(0.007)	-0.024**	(0.005)
	3	-0.029**	(0.012)	-0.030**	(0.013)	-0.028**	(0.011)
Age 18 state abortion rate				X			
Married w/ unilateral divorce						X	
N		316,225		102,559		316,225	

Dependent variable is either reporting being divorced or reporting a number of marriages greater than 2 in 1980. Abortion data from Donohue and Levitt (2001). Unilateral divorce definition follows Friedberg (1998). Data from 1980 IPUMS 5% Census sample of women born from 1948 and 1956 who were 18-21 years old at first marriage. Never married women are not included. Controls include state fixed effects, age of first marriage fixed effects, birth cohort fixed effects, education and race. Results are weighted using IPUMS person weights. Robust standard errors are clustered at the state level.

∗: significant at 10% level. ∗∗: significant at 5% level. ∗∗∗: significant at 1% level.

6   Conclusion

Better access to contraception increases the value of being in a dating market for young women. It lowers the risk of premarital pregnancies and lets women search longer and better for potential marriage partners. We expect that women who take advantage of this improved search should find better mates and that their marriages to be more stable. For women who were already married when contraception improves, the increased desirability of the dating market can actually increase instability. Couples on the margin of divorce now find separating and reentering the dating world more attractive than in a world where contraceptive access is poor and dating carries a lot of risks.

In this paper, I have documented that giving young women access to the birth control pill in the 1960s and 1970s had this complex effect on marriage stability. Women who were married before they received access were more likely to have divorced by 1980, while women married afterwards were less likely to have divorced. These results are similar across races and education levels, and are robust to changes in abortion access and unilateral divorce laws. Although the net effect is a decline in divorce probability, these results suggest that ignoring how contraception affects couples within existing marriages may miss important changes to marital quality and stability.

References

Elizabeth Ananat and Daniel Hungerman. The power of the pill for the marginal child: Oral contraception's effects on fertility, abortion, and maternal & child characteristics. NBER Working Paper, 2008.

Martha J. Bailey. More power to the pill: The impact of contraceptive freedom on women's life cycle labor supply. *Quarterly Journal Of Economics*, 121(1):289–320, February 2006.

John J Donohue and Steven D Levitt. The impact of legalized abortion on crime. *Quarterly Journal of Economics*, 116(2):379–420, May 2001.

Leora Friedberg. Did unilateral divorce raise divorce rates? Evidence from panel data. *American Economics Review*, 88(3):608–27, June 1998.

Claudia Goldin and Lawrence F. Katz. The power of the pill: Oral contraceptives and women's career and marriage decisions. *Journal of Political Economy*, 110(4):730–770, August 2002.

Melanie Guldi. Fertility effects of abortion and birth control pill access for minors. *Demography*, 45(4):817–827, November 2008.

C. Andrew Zuppann. Contraception's Role in Dating and Marriage. 2012.