

4-12-2019

The Effect of a Changing Marriage Age on Marriage Continuity

Sarah Gargan
Hope College

Follow this and additional works at: https://digitalcommons.hope.edu/curca_18



Part of the [Economics Commons](#)

Recommended Citation

Repository citation: Gargan, Sarah, "The Effect of a Changing Marriage Age on Marriage Continuity" (2019). *18th Annual Celebration of Undergraduate Research and Creative Activity (2019)*. Paper 11.
https://digitalcommons.hope.edu/curca_18/11
April 12, 2019. Copyright © 2019 Hope College, Holland, Michigan.

This Poster is brought to you for free and open access by the Celebration of Undergraduate Research and Creative Activity at Hope College Digital Commons. It has been accepted for inclusion in 18th Annual Celebration of Undergraduate Research and Creative Activity (2019) by an authorized administrator of Hope College Digital Commons. For more information, please contact digitalcommons@hope.edu.

The Effect of a Changing Marriage Age on Marriage Continuity

Sarah Gargan

Advisor: Dr. Steven McMullen

Senior Research Project in Economics

Abstract

Marriage stability has a wide range of determinants, such as education, marital history, and demographic characteristics. Age at marriage, however, has repeatedly been cited as one of the most important influences. Since the 1950s, divorce rates and the mean age at marriage for both men and women have seen a great deal of change. Past studies suggest that an early age at marriage is associated with a higher risk of divorce. Studies also propose that this relationship only holds up to a certain point. Changes to marriage age and divorce rates can have unforeseen interactions with cohabitation, fertility, educational attainment, and labor force participation. This research examines the significance of the relationship between the changing age at marriage and the changing rates of divorce. The data come from the American Community Survey from 2008 to 2017. A multivariate regression approach is implemented to estimate the probability of divorce within the past year for a given age at marriage. The analysis concludes that age at marriage does have a statistically significant effect on the probability of divorce. Older age at marriage is associated with an increase in the probability that an individual was divorced within the past year.

Introduction

- There have been observable changes to the rate of marriages ending in divorce as well as changes to the median ages of marriage for men and women.
- Past studies suggest that age at marriage is an important determinant of divorce and the changing trends in marriage.
- This research provides insight on the significance of this relationship. Specifically, this research analyzes the probability of divorce in the past year, given the age at which an individual was married.

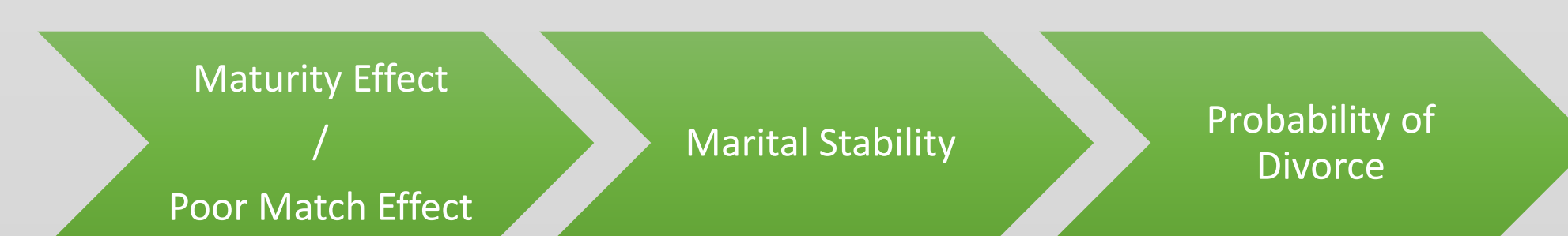
Theory

Maturity Effect

- Younger individuals lack maturity which can result in inadequate predictions about their own potential as well as that of their partner.
- Increased likelihood of mistaken expectations will result in more unstable marriages.
- If there is an effect of age on marriage continuity such that a younger age at marriage corresponds with a higher probability of divorce, an inverse relationship will be observed.
 - Theory predicts a decrease in probability of divorce as age at marriage increases.

Poor Match Effect

- As individuals get older, especially women approaching the age in which child-bearing capacity begins to decline, a sense of desperation may lead to lowering of standards when searching for a compatible spouse.
- Altering preferences/standards may result in individuals settling for potentially incompatible mates, which would result in an increased likelihood of marital instability.
- If there is an effect of age on marriage continuity such that an older age at marriage corresponds with a higher probability of divorce, a positive relationship will be observed.
 - Theory predicts an increase in probability of divorce as age at marriage increases.



Literature

- **Marriage age and marriage stability:** Lehrer (2008), Lampard (2013)
- **Dimensions of marriage and divorce:** Lutz, Wils, & Nieminen (1991), Stevenson and Wolfers (2007), Kalmijn (2007)
- **Role of female age at marriage:** Rotz (2016)



Data and Summary Statistics

This study implements cross-sectional data from the American Community Survey, collected by the U.S. Census Bureau. For the purpose of this research, ACS data from 2008 to 2017 was used to analyze the interaction between age at marriage and probability of divorce. Information was gathered on divorce, age at marriage, marital history, educational attainment, employment status, personal income, presence of children, and race. Observations were restricted to individuals who have been married at least once, which resulted in a total of 18,207,029 observations.

Dummy Variables:

- Divorce (=1 if divorced in the past year)
- Young age at marriage (=1 if 20 years old or below)
- Old age at marriage (=1 if 40 years old or above)
- Marital history (=1 if married more than once)
- Employment (=1 if employed)
- Children (=1 if at least one child in the house)
- Race variables: black and other (white as comparison)

Variable Summary Statistics:

Variables	Obs.	Mean	Std. Dev.
Divorce	18207029	0.0116	0.1069
Age at Marriage	18207029	28.72	10.21
Educational Attainment	18207029	14.24	3.23
Income (in thousands)	18207029	43.25	58.98
Marital History	18207029	0.198	0.39848
Children Present	18207029	0.4322	0.495388

Empirical Model

This analysis implements Ordinary Least Squares regression to form a linear probability model. Two regressions were run. The first explores the overall effect of an increase in age at marriage on the probability of divorce within the past year, *agemarr*. The second includes two dummy variables indicating individuals married at 20 or younger, *lowagemarr*, and individuals married at 40 or above, *highagemarr*. These variables represent subsets containing marital ages that are below or above the U.S. average.

Regression I:

$$divorce_{it} = \beta_0 + \beta_1 agemarr_{it} + \beta_2 educattain_{it} + \beta_3 children_{it} + \beta_4 emp_{it} + \beta_5 incthou_{it} + \beta_6 marrhistory_{it} + \beta_7 black_{it} + \beta_8 other_{it} + \epsilon_{it}$$

Regression II:

$$divorce_{it} = \beta_0 + \beta_1 lowagemarr_{it} + \beta_2 highagemarr_{it} + \beta_3 educattain_{it} + \beta_4 children_{it} + \beta_5 emp_{it} + \beta_6 incthou_{it} + \beta_7 marrhistory_{it} + \beta_8 black_{it} + \beta_9 other_{it} + \epsilon_{it}$$

- **Regression I:** β_1 represents the estimated probability of divorce in the past year associated with a one year increase in age at marriage.
- **Regression II:** β_1 indicates the estimated probability of divorce in the past year associated with individuals married at 20 or younger as opposed to any other age. β_2 indicates the estimated probability of divorce within the past year associated with individuals married at 40 or older as opposed to any other age.

Results

- **Regression I:** results indicate that changes to age at marriage have a significant effect on probability of divorce, such that the probability that an individual was divorced within the past year increases slightly with an increase in the age at which that individual was married.
- **Regression II:** results indicate that the probability of divorce within the past year is lower for marriage ages of 20 and below than for other ages of marriage, and that the probability of divorce within the past year is higher for marriage ages of 40 and above than for other ages of marriage.

VARIABLES	(1)	(2)
	divorce	divorce
marriage age	0.00015*** (0.0000)	
low marriage age		-0.00178*** (0.0001)
high marriage age		0.00234*** (0.0001)
Constant	0.00629*** (0.0001)	0.01065*** (0.0001)
R-squared	0.00205	0.00199

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Each specification also controlled for marital history, employment status, presence of children, educational attainment, income, and race

Conclusion

- The analysis indicates that additional years delayed before marriage increases the probability that an individual was divorced within the past year.
- The inclusion of two age at marriage dummy variables in the second regression allows for further analysis of this relationship:
 - The probability of divorce is lower for those married at ≤ 20 than if otherwise
 - The probability of divorce is higher for those married at ≥ 40 than if otherwise
- The net relationship between probability of divorce and age at marriage is positive, indicating that this analysis lends most support for the poor match effect.
- Main limitation of this study was the inability to account for unobservable individual characteristics, such as personality traits, morals/values, and attitudes toward marriage and divorce. Future research should consider implementing an appropriate instrumental variable to capture this effect. Additionally, future research could be strengthened by considering observations across more populations and time periods.