

**DOES YOUNGER AGE AT MARRIAGE AFFECT DIVORCE?
EVIDENCE FROM THE “MIDNIGHT MARRIAGES”¹²**

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Abstract: This paper’s objective is to characterize the effect of younger marriages on the likelihood of divorce using U.S. President Lyndon Johnson’s August 26, 1965, Executive Order, which eliminated lower draft priority for married men. A deluge of “midnight marriages” followed. Using interrupted time series and a differences-in differences design, the paper shows that marriages to draft-eligible men increased by more than 350 percent after the policy change, reducing men’s average age at marriage by 8 to 10 months and shifting their choices of partners. Consistent with the midnight marriages being determined by idiosyncratic factors, the 1980 Census shows that men induced to marry by the policy change were no more likely to attain a college degree or become Vietnam veterans. Contrary to the idea that younger marriages are less stable, midnight marriages—formed hastily and under duress for men ages 19 to 26—were *less* likely to result in divorce 15 years later. Standard methods suggest that selection on unobservables is unlikely to drive this result. Whereas previous literature has found detrimental effects of very young teen marriages on women, this paper shows little evidence of this.

Keywords:

Marriage timing, divorce, Vietnam War, conscription

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Since 1960, U.S. marriage and divorce patterns have changed dramatically. Historically, American men married at around age 25 and women at around age 22 (Online Appendix Figure A1). After falling during the baby boom (cohorts born from 1910 to the 1935), age at first marriage has now risen to 26 for men and 24 for women—a historic high in the United States, even as the share of those ever married remains close to its historic mean of 90 percent (Bailey, Guldi, & Hershbein, 2014; Manning, Brown, & Payne, 2014).

This trend in marital delay corresponds to significant declines in divorce rates (Stevenson & Wolfers, 2007), leading many scholars to argue that the rising age of marriage is an important causal factor (Rotz, 2016). Economic models provide simple rationales for this claim. Looking longer for a mate may provide individuals with more opportunities to find a good match (Becker, 1991; Becker, Landes, & Michael, 1977). Those who marry later may have larger social networks and a larger pool of potential mates (Glenn, Uecker, & Love, 2010). A later age at marriage means individuals are more mature and self-aware, increasing the odds that they choose more suitable mates and their marriages survive (Oppenheimer, 1988). To the extent that delaying marriage facilitates greater investments in both women and men's human capital and careers (Bailey, Hershbein, & Miller, 2012; Goldin & Katz, 2002; Hock, 2008), later marriage may reduce financial hardship and, thus, ameliorate an important source of marital stress (Dew, Britt, & Huston, 2012).

Evidence on the causal link has been more limited. Descriptive evidence shows that marriages formed at older ages are less likely to result in separation and divorce (Becker et al., 1977; Oppenheimer, 1988), and that the negative relationship between age at marriage and the probability of divorce is strongest for individuals married in their teens and early twenties (Bumpass, Castro Martin, & Sweet, 1991; Bumpass & Sweet, 1972; Glenn et al., 2010; Heaton,

1991; Lampard, 2013; Lehrer & Chen, 2011, 2013; Teachman, 1983, 2002). However, estimating the *causal* effect of marital delay on marital stability is confounded by the correlation of marital timing with a host of observed (and likely unobserved) characteristics (Hahn, Islam, Nuzhat, Smyth, & Yanga, 2015; Kirdar, Dayioglu, & Koc, 2012; Oppenheimer, 1997).

For this reason, empirical tests of the causal relationship between younger marriage and long-run outcomes have relied on natural experiments driven by policies or environmental factors that induce some women to marry at younger ages. But these policies are rare in the United States, and most rely upon policy variation affecting marriages before the age of 17. For instance, Dahl (2010) uses the increase in state age-of-consent laws (from 16 to 18) to show that early marriage is associated with a 28 percentage-point decrease in the probability of living in poverty later in life. Rotz (2016) uses these same marriage restrictions (in addition to two other empirical strategies) to show that delayed marriage reduced divorce rates. Similarly, Bharadwaj (2015) exploits a 1957 change in Mississippi marriage laws that increased the minimum legal age at marriage from 12 to 15 years for women (from 14 to 17 for men) to show that these laws increased girls' school enrollment and reduced subsequent birth rates. Today, however, only 3.5 percent of women (who married by age 40) were married before the age of 17 (Bailey et al., 2014), potentially limiting the relevance of these findings for marital delay for individuals in their twenties. For instance, individuals in their twenties may be more mature and these marriages may be less likely to disrupt educational attainment (Frimmel, Halla, & Winter-Ebmer, 2014). The extent to which recent increases in age at marriage in the United States at later ages have impacted marriage stability remains an open empirical question.

This paper studies this question using a one-time 1965 policy change that occurred during the escalation of the Vietnam War. Widespread draft dodging through college enrollment, crime,

and paternity is well documented (Bailey, Chyn, & Genadek, 2017; Card & Lemieux, 2001; Kutinova, 2009; Kuziemko, 2010); less well documented is that men also married early to receive lower priority draft status. As the war escalated in the summer of 1965, the New York Times (NYT) reported that officials had “been concerned by a noticeable increase in the number of marriages among 19-year-olds, some of which are apparently made to escape the draft” (Eder, 1965). In response, President Lyndon Johnson issued Executive Order 11241 late in the day on August 26, 1965, which abruptly eliminated the lower-priority status for married men but grandfathered in men married on or before that date. Responding to this powerful incentive, the NYT reported a deluge of “midnight marriages” that very night.

Using new microdata from marriage certificates and the 1980 Census, this paper quantifies the number of midnight marriages and the resulting shifts in marriage timing as the marriage market tightened in the following months. The paper also documents the relationship of these earlier marriages with subsequent divorce. Our research design compares marriages (or the characteristics of those married) on August 26, 1965, to those in Augusts in other years—after accounting for day-of-the-week, month, and year fixed effects. Consistent with reports at the time, we find that a deluge of “midnight marriages” resulted from Johnson’s Executive Order 11241. The number of daily marriages on August 26, 1965, was more than 190 percent higher than it would have been—an increase due almost entirely to marriages of draft-age men between the ages of 18 and 26, which increased by more than 350 percent. Men married on August 26, 1965, were 8 months younger, a change similar to around one-third of the 30-year national increase in the age at first marriage among men (Online Appendix Figure 1). We also show that this policy-induced increase in marriage was not just a hastening among future would-be

partners. We find evidence consistent with earlier marriage matching as well, as the average age difference for couples married on August 26, 1965, fell by three months.

In the restricted, 20-percent long-form sample of the 1980 Census, our research design compares the durability of marriages formed in the third quarter of 1965 (aggregation to quarter is necessitated by Census data availability) to those in the third quarter for two comparison periods: 1964 only and 1960 to 1970. Under the assumption that seasonal patterns in marriages would have been similar to comparison periods in the absence of Executive Order 11241, this design recovers the reduced-form effects of a hastily decided reduction in the age at first marriage (induced by the policy change) on divorce. Consistent with the midnight marriages being largely determined by idiosyncratic factors (i.e., happened to be in a relationship at the time, a woman happened to agree, being able to get to a sympathetic pastor or justice of the peace in time), men induced to marry by the policy change were no more likely to attain a college degree. Moreover, consistent with marrying to dodge the draft being an ineffective avoidance strategy, men induced to marry by the policy change were no less likely to be Vietnam veterans.

Our most striking result is that midnight marriages—formed hastily and under duress—were no more likely to result in divorce 15 years later. Relative to the 1964 third quarter marriages, midnight marriages were less likely to result in divorce 15 years later. Men who married in the third quarter of 1965 appear similar in terms of long-term outcomes to men who married in the third quarter of 1964 or relative to men married in any third quarters of the 1960s. Similarly, women who married younger due to Executive Order 11241 appear similar in terms of family income and poverty rates in 1980. These women, however, appear to have fewer children and slightly higher college graduation rates.

Interpreting these results as the effect of early marriage requires that those induced to marry by the policy change and those in our comparison group are otherwise similar. One violation of this requirement would be that a midnight marriage may have helped men avoid serving in Vietnam. Because wartime stress and extended separations are very strong predictors of marital distress and divorce, midnight marriages might be more likely to survive if they were less likely to experience these separations and stress. Another violation could occur if midnight marriage grooms disproportionately desired avoiding military service. If these men pursued additional draft-dodging strategies such as enrolling in college, their actions may have independently reduced the likelihood of later divorce. Our tests of both hypotheses, however, show that men entering into midnight marriages were neither less likely to serve in Vietnam nor more likely to enroll in college—characteristics that, if correlated with the likelihood of a midnight marriage, could offset the potentially negative effects of earlier marriage. For our analysis to falsely reject the literature’s best estimates of early marriage on the likelihood of divorce, selection on unobserved characteristics would need to be 1.7 to 5.3 times more important than selection on observables using Oster's (2017) rule-of-thumb. In short, unobserved characteristics that are known correlates of education or military service (patriotism, risk aversion, etc.) are unlikely to drive our results.

We speculate that the difference between our findings and those in the existing literature result from heterogeneous effects of early marriage by age at first marriage. For example, studies of the impact of marital timing using age-of-consent laws capture changes in marriages at very early ages, well before most men and women had completed their education. Marrying to dodge the draft, however, tended to happen at later ages and appeared to have little adverse effect on the likelihood of marriage survival or women’s outcomes.

I. AN OVERVIEW OF DRAFT POLICY AND DRAFT DODGING DURING THE VIETNAM WAR

In the early 1960s, U.S. men ages 18 to 26 were eligible for induction into the U.S. military. The U.S. Selective Service classified all registrants as available for civilian or military service, deferred, or ineligible for service. For example, men who enrolled in college could receive a II-S deferment and men who could prove a “bona fide” relationship with their children could receive a III-A deferment. Men would not be drafted so long as they maintained deferred status.

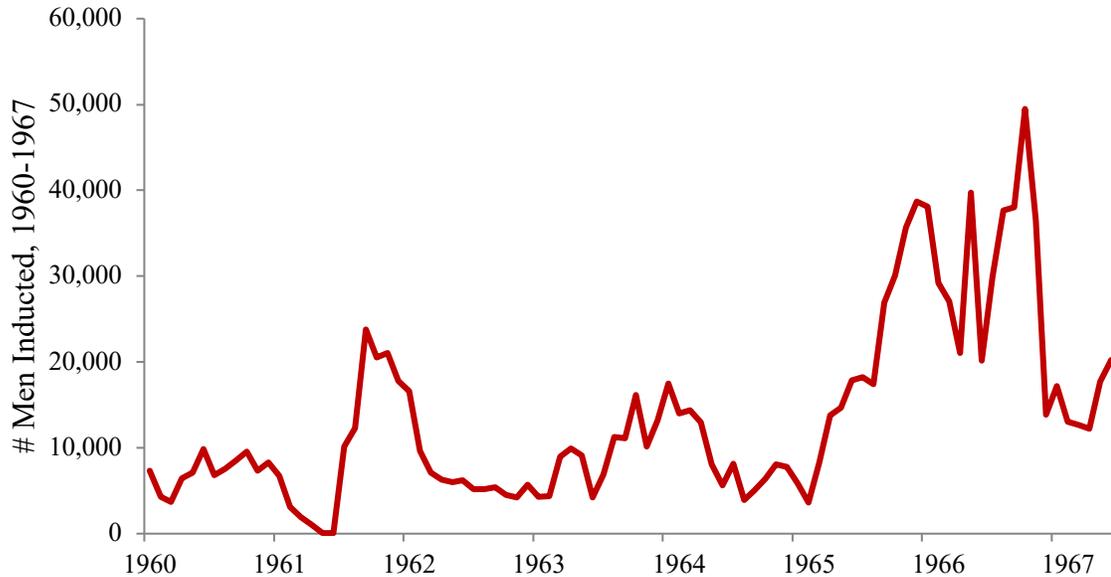
The U.S. Selective Service also classified available individuals by priority status (see Online Appendix Table 1 for the priority ordering of classifications as of June 30, 1965). Although all men classified I-A were considered available for military service, local draft boards were instructed to prioritize within the I-A class beginning with (as highest priority) delinquents, volunteers, single men, and married men; the oldest in each category were to be selected first and, within each local draft board jurisdiction, each category was exhausted before any men from the next category were drafted. The Annual Report of the Director of Selective Service (1966: p. 17) notes that the first four categories included men ages 19-25 only. There were two additional priority categories within the I-A and I-A-O classification after married men: men age 26, youngest first, and men between age 18 and six months and age 19, oldest first. (See Online Appendix Table 1.) In the summer of 1965, two important policy shifts significantly changed the likelihood a man would be drafted.

The first was the significant escalation in the scale of the Vietnam War. President Johnson supplemented the 23,000 “military advisers” already on the ground by 1965 with the first brigade of combat troops in March and rapidly increased ground-force levels throughout 1965 (VanDeMark, 1991). Figure 1 shows that the escalation of the war resulted in sharp increases in inductions, from an average of around 10,000 per month before June 1965 to around

30,000 per month between June 1965 and June 1967. Increases in inductions increased the risk of being drafted for those with higher-priority classification, which affected many behaviors.

Figure 2 shows that monthly marriage rates among 18- and 19-year-old men (panel A) increased sharply in the second half of 1965 and in August in particular. In the early 1960s,

Figure 1. Monthly Inductions, 1960-1967

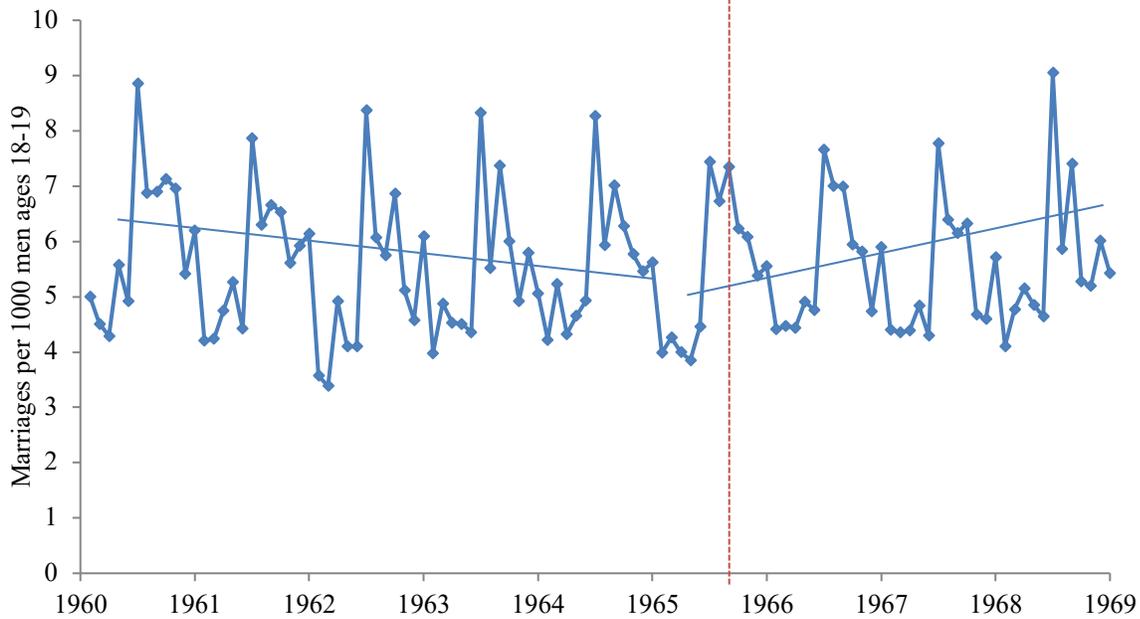


Sources: Hand-entered monthly induction data from annual and semi-annual Selective Service reports (Selective Service System, 1960-1967). These figures exclude U.S. territories.

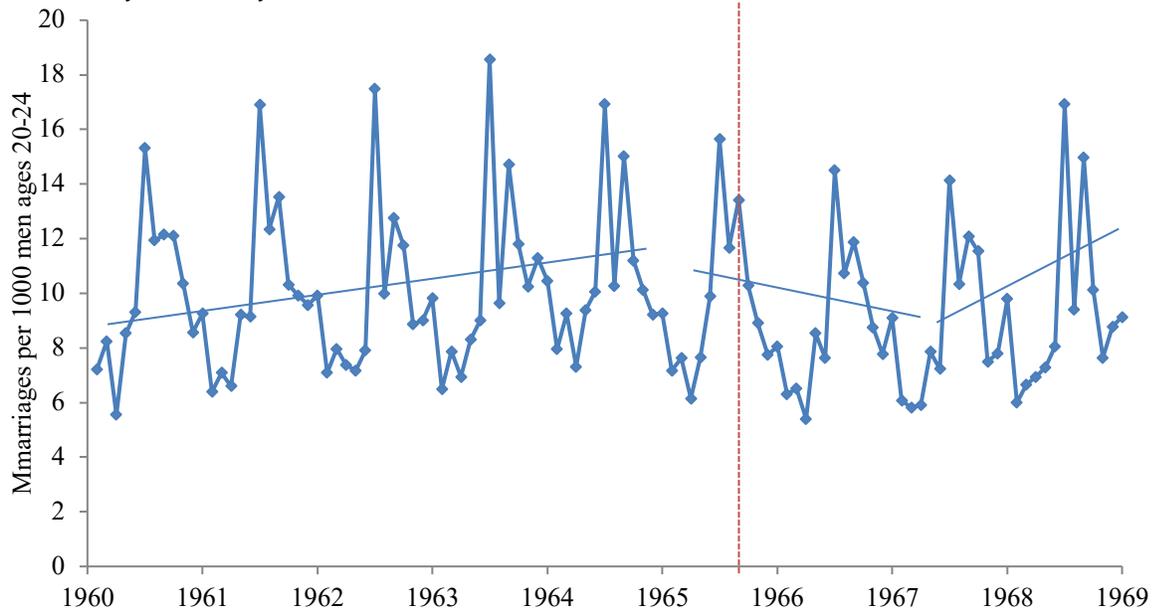
marriage rates to men in their late teens had been stable or falling slightly as the age at first marriage rose from its trough at the height of the baby boom. In a reversal of these trends, marriage rates to 18- and 19-year-old men began *increasing* from 1965 to 1969 as inductions rose. In addition, the rise in marriage rates of 20- to 24-year-olds reversed briefly from 1965 to 1968—as many men who would have married at these ages had already married at younger ages—before resuming its longer-term increase. Survey evidence supports the claim that draft-avoidance was an important determinant of these trends. One survey of 1,586 men in Indiana, Michigan, and Washington, D.C. found that one out of every eight husbands reported marrying early to avoid the draft (Baskir 1978: p. 33).

Figure 2. Monthly Marriage Rates of Men, Vital Statistics

A. Eighteen to Nineteen-Year-Old Men



B. Twenty to Twenty-Four-Year-Old Men



Source: Hand-entered monthly data from the Vital Statistics on all marriages of men ages 18-19 and 20-24 (National Office of Vital Statistics, 1963-1971). The monthly marriage rate is the number of marriages of men in the specified age group occurring during the month per 1000 men in that age group in that year. Population figures for the denominators are calculated using the 1960 IPUMS (Ruggles, Genadek, Grover, & Sobek, 2015). For example, the marriage rate in September of 1966 for 18-19-year-old men is 1000 times the number of marriages to 18-19-year-old men in 1966 (reported in Vital Statistics) divided by the number of men who were 12-13 years old at the 1960 census and born in states that were a part of the Marriage Registration Area in 1966.

The second major policy change occurred when President Johnson issued Executive Order 11241 at 5 pm Eastern Standard Time on August 26, 1965, eliminating lower draft priority for men married *after* midnight on the same day. Going forward, men married after August 26, 1965, received the same draft prioritization as single men among I-A classified men.

Urban legend and newspaper articles maintain that this Executive Order resulted in a deluge of midnight marriages. Even before the policy change, anticipation of the announcement may have exacerbated this midnight rush: according to a news report one week prior, Assistant Secretary of Defense for Manpower, Norman S. Paul, indicated that the policy was under evaluation due to increased draft calls (Eder, 1965). The day after the new policy went into effect, the NYT reported that hundreds had flocked from California to Las Vegas and Carson City on August 26 to be married before the midnight deadline. In the two locations covered by NYT reporters, the Justice of the Peace conducted 171 marriage ceremonies—112 of them between 10 p.m. and midnight (United Press International, 1965). Figure 3 presents the photo accompanying the article. One newlywed was quoted: “Sure, I’m not ready to get married, but I’m not going to fight in some dirty jungle.”

Figure 3. *The New York Times* Coverage of the “Midnight Marriages” on August 26, 1965



Associated Press Wirephoto
JUST IN TIME: Couples waiting in line Thursday night outside the Clark County Courthouse in Las Vegas. The President's announcement that men married after midnight of Aug. 26 would be eligible for the draft caused the rush.

Source: United Press International (1965).

Although some secondary sources claim that lower priority for men married before August 27, 1965, was short-lived (Hanson, 2011; McCombs, 1991; Seelye, 2004), Tatum and Tuchinsky's (1969) *Guide to the Draft*—the era's bible of draft dodging—noted that the official policy maintaining lower priority for men married before this date persisted. (We have also confirmed this in Selective Service rules.) As the war escalated, however, many local draft boards were forced to call even low-priority individuals. The National Advisory Commission on Selective Service (1967) reported that between 45 and 90 percent of boards surveyed in Alabama, Maryland, Minnesota, Tennessee, Utah, and Washington had drafted low-priority married men between January and May 1966. Out of the seven states in the survey, only Connecticut had not begun drafting men married before August 26, 1965.

II. QUANTIFYING THE EFFECTS OF EXECUTIVE ORDER 11241 ON MARRIAGE RATES, MARRIAGE TIMING, AND SPOUSE CHOICE

The first step in this analysis is to document the magnitude of the response to Executive Order 11241. We use two complementary data sources. The first is the printed Vital Statistics data on marriages by month and age group between 1960 and 1968 (National Office of Vital Statistics, 1963-1971), which suggest that August marriage rates deviated from their seasonal pattern in 1965, particularly for men ages 18-19 (Figure 2). The other data sources include roughly two million newly compiled individual marriage records from state archives and genealogical sites. The benefit of using these microdata is that they report the exact day of marriage and the ages of the bride and groom. A disadvantage is that they are not available for all states, and they may not comprise the universe of marriages of included states.

Table 1 summarizes these new data resources and compares them the 1980 Census (Ruggles et al., 2015). By necessity, we exclude from our Census samples those individuals born and married in the same quarter because we cannot calculate their year of marriage in public

data. Column 1 presents results for records from 1960 to 1970 for men ages 16 to 54. Column 2 limits the sample to men of draft-eligible ages 18 to 26. For comparison, column 3 presents estimates from the 1980 Census, including all lower 48 states. Although the Census is a much smaller sample, the characteristics of the records are extremely similar. The very slight age differences between the two samples may be due to the fact that age was misreported on marriage certificates (Blank et al., 2009), the fact that we cannot identify and exclude second marriages from the microdata (Census data includes only first marriages), or our inability to compute date of marriage in the Census for individuals born and married in the same quarter. The quarter at marriage and the age difference between the bride and groom appear almost identical in both samples, which suggests that the marriage microdata are broadly representative of the population in those 16 states in our period of interest. Finally, the marriage microdata appear very similar to the population of all of the lower 48 states (compare columns 3 and 4). In the 16 states represented in the marriage microdata, the age at marriage for men and women are negligibly different as are the quarter of marriage, year of marriage, racial composition, and share living in poverty. Meanwhile, divorce rates are slightly higher and college graduation rates are slightly lower in all states compared to the 16 marriage microdata states. Finally, the characteristics of marriages in 1964 and 1965 (column 5) are very similar to the marriage microdata (column 2).

Because we later examine the effects of early marriages on women (who were at very low risk of dying in Vietnam), and because this change affected many women outside the 18 to 26-year-old age range, columns 6 and 7 present the characteristics of these broader samples: women born in the lower 48 states who married at ages 16 to 34 between 1960 and 1970 (column 6), and the narrower group of women married between 1964 and 1965 (column 7). Both samples

Table 1. Summary Statistics for Marriage Certificate Microdata and 1980 Census Samples

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Marriage microdata		1980 Census			1980 Census	
Individual sample	Men 16-54	Men 18-26	Men 18-26			Women 16-34	
Marriage year sample	1960-1970	1960-1970	1960-1970	1960-1970	1964-1965	1960-1970	1964-1965
Total marriages	1,922,288	1,183,507	299,080	650,336	114,218	808,438	143,187
States	16	16	16	48	48	48	48
Age at marriage							
Man ^a	27.1	21.7	21.9	22.1	22	22.9	23
Woman ^a	24.5	20.2	20	20.1	20.1	20.9	20.8
Quarter of marriage	2.58	2.57	2.57	2.57	2.55	2.58	2.56
Year at marriage	1965.27	1965.3	1965.5	1965.5	1964.5	1965.4	1964.5
Share white			91.4	91.6	91.7	89.3	89.2
Share divorced or remarried			28.6	27.5	28.2	31.3	32.1
Share college graduate			27.2	29.1	27.4	19.2	18.2
Share living in poverty			5.11	5.06	5.3	9.3	9.7
Family income (med.)			23,080	23,510	24,005	22,005	22,110
Children born						2.3	2.4

Notes: The table numbers represent the mean of the variable (i.e., age at marriage, month at marriage, or year at marriage) or the share of the total records with a specific characteristic. All samples are restricted to marriages between 1960 to 1970 that have complete information on marriage date and the age of both the bride and the groom. Census results are from IPUMS data, which were nearly identical to summary results from the 20 percent restricted Census sample and included here in order to disclose as few restricted results as possible. The marriage microdata sample (columns 1 and 2) contains information from marriages in 16 states. Column 1 contains information on marriages between men ages 16-54 (inclusive) and women ages 14-54 (inclusive). Our main sample (column 2) excludes marriages to men over age 26 to focus on draft-age men. The 1980 census samples in columns 3, 4 and 5 include men born in all of the lower 48 states whose age at first marriage is between 18 and 26, and the sample in columns 6 and 7 include women born in all of the lower 48 states whose age at first marriage is between 16 and 34. The 1980 census samples in columns 5 and 7 additionally restrict the samples to individuals married in 1964 and 1965. All census samples exclude individuals born and married in the same quarter because we cannot calculate age at marriage for these individuals.

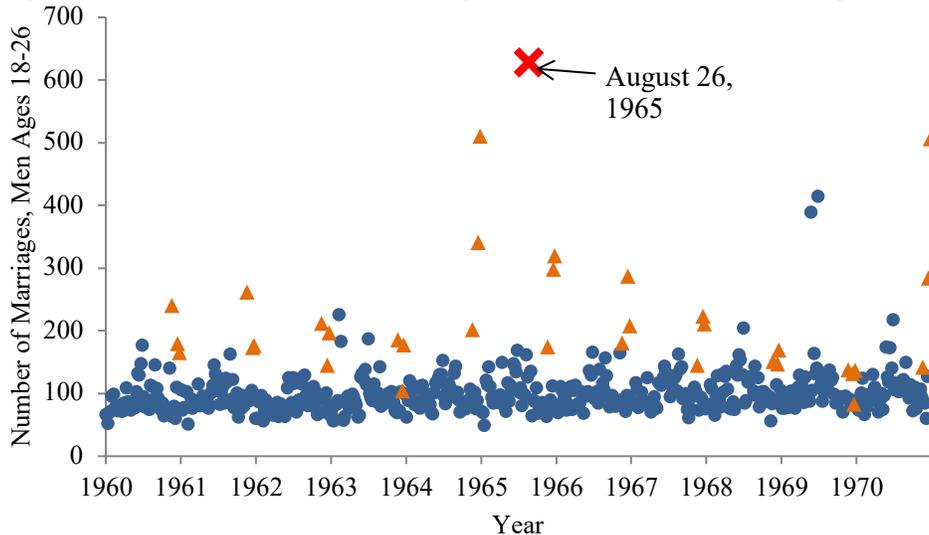
^a The age at marriage for men (women) in the microdata is the age on the marriage certificate. The age at marriage in the census is computed for men and their wives at the time of the census, or vice versa if the sample is of women.

of women are slightly older than the brides of men in columns 2 to 5, foreshadowing the fact that some of these women married men outside the draft-eligible ages (and, therefore, were not captured in columns 2 to 5). Overall, these summary statistics highlight the similarities of these samples across a broad range of characteristics and suggest the representativeness of the marriage microdata for the purposes of this analysis.

C. How Large Was the “Midnight Marriage Rush” of August 26, 1965?

Using the marriage microdata, we first quantify the magnitude of the response to Executive Order 11241. Noteworthy in Figure 2 is that the August 1965 peak in marriage rates (vertical dashed lines) for 18- to 19-year-olds is higher relative to the June peak than in any other year in the 1960s. We also use the marriage microdata to examine how much of this August peak is driven by draft policy. Because August 26, 1965, was a Thursday and marriages are less likely to occur on weekdays, Figure 4 plots the number of marriages to 18 to 26-year-old men on *Thursdays* between 1960 and 1970. The volume of marriages on August 26, 1965, is a clear outlier relative to any other Thursday in the 1960s.

Figure 4. Daily Number of Marriages on Thursdays to Men Ages 18-26



The figure plots the number of marriages to men ages 18-26 on Thursdays (column 2 in Table 2). Source: 1960-1970 Marriage Microdata. See Table 1 notes for more information.

We formalize this test by aggregating individual data into state-date cells, *st*, and running the following regression, first for all marriages to men ages 16 to 54 and then separately by age group:

$$(1) \quad \log(M_{st}) = \beta EO_t + f_{sm(t)} + g_{sy(t)} + h_{sd(t)} + \varepsilon_{st}.$$

The dependent variable is the log of the number of marriages, M , in state s occurring on date t , adding one to state-day cells with zero marriages. The regressions account for potentially confounding factors by comparing the log number of marriages on August 26, 1965, to average number in a given state- month, $f_{s,m(t)}$, state-year, $g_{s,y(t)}$, and state-day-of-the-week, $h_{s,d(t)}$, averages (or fixed effects), with $m=1, 2, \dots, 12$; $y=1960, 1961, \dots, 1970$ or 1964 and 1965 ; $d=1, 2, \dots, 7$ (for Monday, Tuesday, \dots , Sunday). The log-point divergence in the number of marriages taking place on August 26, 1965, and these averages is captured in the indicator variable on the date of Executive Order 11241, $EO = 1(t = \text{August } 26, 1965)$. All specifications report standard errors that account for autocorrelation within states across time (Arellano, 1987; Bertrand, Duflo, & Mullainathan, 2004).

The regression results confirm the urban legend of the midnight marriage deluge. After accounting for a set of year, month, and day-of-the-week fixed effects and their interaction with state-level fixed effects, marriage rates across men of all ages (16 to 54) were an extraordinary 194 percent higher on August 26, 1965 (1.08 log points, Table 2A, column 1). This increase was concentrated among young men most susceptible to the draft. Marriages among men ages 18 to 26 were 356 percent higher (1.52 log points, column 3). But the marriage rush spilled over to slightly younger and older men as well. Marriages among men ages 16 to 17 were 58 percent higher (0.46 log points, column 2) and, among men ages 27 to 34, marriages were 25 percent higher (0.22 log points, column 4). These spillovers likely reflected measures by 16 to 17 and 27 to 34-year-olds (with extended age liability, see Online Appendix Table 1) to minimize their draft risk, but also—as Table 3 will show—the substantial increase in marriage market pressure from their prospective brides getting proposals from draft-age men. If anything, older men (ages 35 to 54) were less likely to marry (column 5), likely reflecting capacity constraints together with the overwhelming rise in demand for marriages on August 26 by younger men. Under the assumption that the 1964 and 1965 data allow for the construction of a better

counterfactual than using the data for all marriages over the 1960s, panel B re-estimates the same model on marriages in these two years. The estimates in all cases are statistically indistinguishable from the longer sample of years and qualitatively very similar. Marriage certificate microdata for marriages to men ages 14-34 who married women ages 14-54 in 1964-1965, with exact date of marriage (described in column 1 of Table 1). Log number of daily marriages estimated at the state-by-

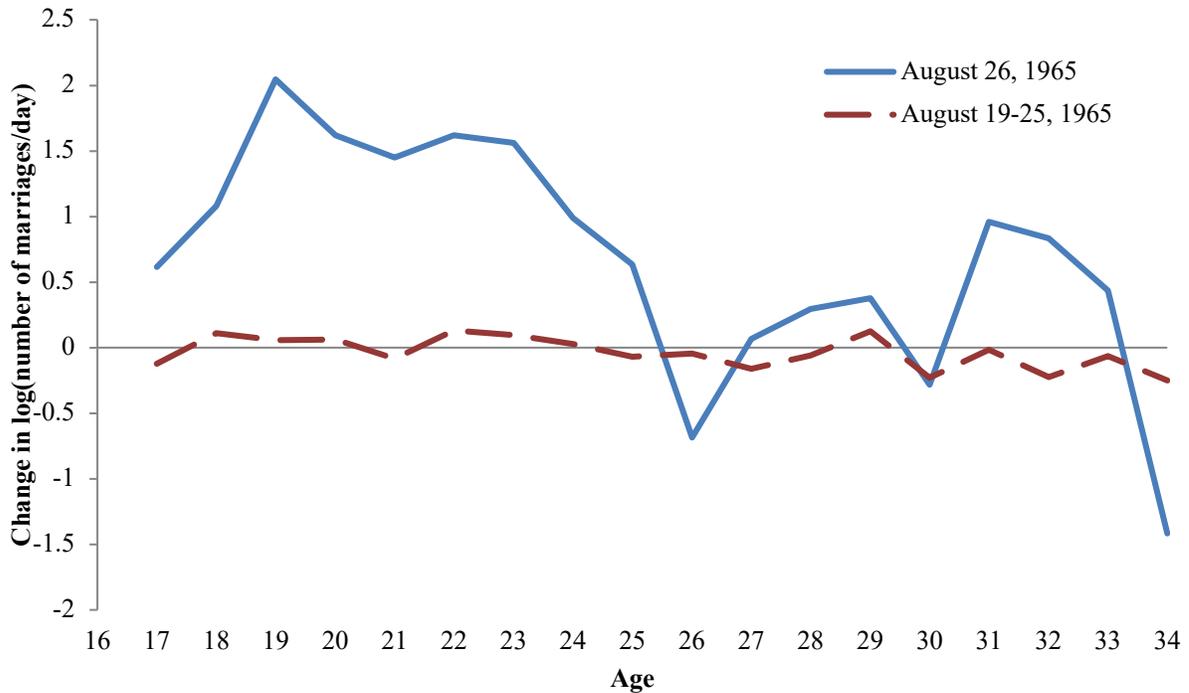
Table 2. The Effect of Executive Order 11241 on Men’s Daily and Quarterly Marriage Rates

	(1) Ages 16-54	(2) Ages 16-17	(3) Ages 18-26	(4) Ages 27-34	(5) Ages 35-54
<i>A. Log Daily Marriages, 1960-1970</i>					
1(August 26, 1965)	1.080 [0.0342]	0.456 [0.115]	1.518 [0.0942]	0.224 [0.0420]	-0.362 [0.0346]
Number of men	1,922,288	25,908	1,183,057	353,530	359,793
<i>B. Log Daily Marriages, 1964-1965</i>					
1(August 26, 1965)	1.059 [0.0342]	0.472 [0.0979]	1.509 [0.0885]	0.215 [0.0416]	-0.406 [0.0338]
Number of men	352,246	4,902	216,147	63,587	67,610
<i>C. Log Quarterly Marriages, 1960-1970</i>					
3 rd Quarter 1965	0.002 [0.005]	-0.0005 [0.0704]	0.014 [0.0065]	0.0039 [0.0059]	-0.0308 [0.0127]
Number of men	1,922,288	25,908	1,183,057	353,530	359,793
<i>D. Log Quarterly Marriages, 1964-1965</i>					
3 rd Quarter 1965	0.0356 [0.0037]	-0.0277 [0.1520]	0.062 [0.0046]	0.0172 [0.0158]	-0.0292 [0.0095]
Number of men	352,246	4,902	216,147	63,587	67,610
<i>E. Log Quarterly First Marriages (1980 Census, All States), 1960-1970</i>					
3 rd Quarter 1965	0.0264 [0.015]	-0.138 [0.124]	0.037 [0.016]	0.002 [0.046]	-0.082 [0.099]
Number of men ¹	6,292,800	176,600	5,148,000	718,200	250,000
<i>F. Log Quarterly First Marriages (1980 Census, All States), 1964-1965</i>					
3 rd Quarter 1965	0.0564 [0.0294]	-0.31 [0.186]	0.077 [0.029]	-0.02 [0.111]	-0.135 [0.148]
Number of men ¹	1,106,700	31,100	902,100	126,800	46,700

Notes: Panels A and B use the specification described in equation 1 and Panels C through F use the specification described in equation 2. Columns include marriages to men ages 16-54 (column 1) or the indicated age groups (columns 2 to 5) for the sample described in Table 1. All columns include state, year, month, day-of-week, state-by-year, state-by-month, and state-by-day-of-week fixed effects. Standard errors clustered at the state level are reported in the second row in brackets. See Table 1 notes for more information on samples and sources. Sample: Panels A-D: Marriage Microdata, all marriages from 1960-1970 (Panel A and C) or 1964-1965 (Panel B and D), weighted by the number of marriages in the state-age cell; Panel E-F: 1980 Census, restricted data, *first* marriages between 1960-1970 (Panel E) or 1964-1965 (Panel F)

¹ Restricted census data disclosure requires the number of observations to be rounded to the nearest hundred.

Figure 5. The Impact of Executive Order 11241 on Marriages by Individual Age



day level, including state-by-year, state-by-month, state-by-day of week, and state-by-age fixed effects. See Table 2 notes for more information.

Figure 5 further disaggregates the effects of the August 26 announcement into individual ages (plotted on the x-axis). For brevity, we present only the results for the sample of marriages in 1964 and 1965. However, using all marriages from 1960-1970 yields nearly identical results. The estimates show large increases on August 26 primarily among draft-age men (19 to 25), with estimates ranging from 85 percent (0.62 log points) for 25-year-olds to 688 percent (2.06 log points) for 19-year-olds. These estimates are consistently elevated for men younger than 24, who were less likely to be married and may have been facing the end of their college deferments. The higher spike for 19-year-olds likely reflects the fact that they were experiencing their first year of high draft priority. (18-year-olds were the last group to be called, after 26-year-olds.) To test for anticipation effects, we estimate a placebo specification that replaces the dummy variable for August 26 (EO_i) with a dummy variable for days including August 19 to 25—the entire preceding week. Consistent with the historical accounts, Figure

5 indicates little anticipation effect. The estimates for the week before August 26 are much smaller in magnitude and in no case individually statistically significant.

One limitation of Census data, which we subsequently use to investigate the long-term effects of the midnight marriages, is that they do not contain information on the exact *date* of marriage. Census data only contain information on marriage quarter and age at *first* marriage. Although we find little evidence of anticipation effects in Figure 5, Census specifications that aggregate by quarter could include other confounders (for instance, factors that we cannot account for with detailed fixed effects due to the aggregation of the data). To investigate this concern directly, we aggregate the microdata into quarterly marriage counts by state and replace month and day-of-the week fixed effects in equation 1 with state-by-quarter and state-by-year fixed effects as follows:

$$(2) \quad \log(M_{sqy}) = \tilde{\beta}EO_{qy} + f_{sq} + g_{sy} + \varepsilon_{sqy}.$$

The dependent variable is the log of the number of marriages (plus 1, to avoid dropping state-day cells with no zeros), M , in state, s , occurring in each quarter, q , and year, $y=1960, 1961, \dots, 1970$ or 1964 and 1965. $\tilde{\beta}$ captures the log-point divergence from the model-based counterfactual in the number of marriages taking place in the quarter of Executive Order 11241, $EO_{qy} = 1$ (3rd Quarter 1965). Even appropriately scaled, this specification may yield quantitatively different results from equation 1 due to the failure to account for month and day-of-the week fixed effects and aggregation bias.

Despite these potential limitations to comparability, Table 2C suggests that the aggregated vital statistics recovers very similar estimates for 1960 to 1970 period. In an average August in our marriage microdata, Thursday marriages comprise 5.4 percent of marriages, and August marriages make up 37.5 percent of third-quarter marriages. Assuming an equal distribution of marriage by weeks and that marriages for 18- to 26-year-olds increased only on August 26 implies that the 356-percent increase (1.52 log points) should be scaled by 0.005, resulting in a 1.8-percent change quarterly. A similar

exercise, using the typical Thursday in a third week of August rather than treating all weeks equally, yields a scaling factor of 0.004. By comparison, column 3 of panel C shows a slightly smaller 1.4-percent change in the aggregated models, which is statistically indistinguishable from the estimate implied by the microdata regression of 1.8 percent.

Although using 1964 and 1965 matters little for the daily estimates in panels A and B, this refinement increases the magnitude of the estimate by four times in the quarterly estimation strategy. This increase reflects that using 1964 provides a better counterfactual for 1965 (relative to other years in the decade, which may also be inflated due to the escalation of the war) and that the quarterly estimation strategy likely picks up subsequent (endogenous) changes in marriage due to the increasing drafts and deployments as well as the effects of both on the subsequent midnight market. Panels E and F show that these results are not statistically different in the 1980 Census, which use all states. The upshot is that using Census information on quarterly marriages allows us to measure the *combination* of policy-induced changes in marriages that occurred on the same day (the “midnight marriages”) as well as the down-stream effects of the policy through the resulting tightening in the marriage market in the subsequent months.

In summary, this evidence implies that the additional August 26 marriages were not simply the result of already engaged couples moving up their weddings by a few months or weeks. Had the midnight marriage rush been driven solely by speeding up marriages for soon-to-be-married couples, the quarterly marriage rates would register a much smaller change than the daily rates. The next section examines directly how the rush to get married on August 26 led to substantial changes in marriage timing.

D. How Did Executive Order 11241 Change the Age at Marriage and Spouse Choice?

Whether midnight marriages had long-run implications depends on how much they altered marriage timing as well as the choice of spouse. We provide direct evidences on this question by examining changes in the age at marriage and the age difference to one’s spouse. Consistent with draft

dodging, Table 3 shows that Executive Order 11241 induced significantly earlier marriages among both men and women. Table 3A replaces the dependent variable from equation 1 with the age of the groom and shows that the average age of 18- to 26-year-old men (draft-eligible ages) married on August 26 fell significantly. Using the 1960 to 1970 sample, men married on August 26, 1965, were, on average, 8 months younger (-0.672×12 , column 1) than predicted by the month-state-year counterfactuals. This estimate from the model including state, year, month, and day-of-the-week fixed effects (column 1) is for all practical purposes identical to the estimate from a considerably more demanding specification that includes state-by-year, state-by-month, and state-by-day-of-the-week fixed effects (column 2).

Additionally, the estimates are robust to limiting to the sample years to 1964 and 1965 only (columns 3 and 4). The motivation for this narrower comparison sample is that the broader 1960 to 1970 sample may misstate the counterfactual age at marriage, because age at first marriage was changing rapidly in the 1960s. Restricting to our preferred sample (marriage years 1964 to 1965) has a very small effect on the estimates, changing the magnitude of the delay to 7.5 months (or -0.625×12 , column 4) rather than 8 months. But not all marriages on August 26, 1965, were induced by Executive Order 11241. Table 2 suggests that only 78 percent of the marriages to men ages 18 to 26 resulted from the policy change. To see this, note that a 356-percent increase in marriages means that the “additional” number of marriages equals 3.56 times the “counterfactual” number of marriages, and that the share of 1965Q3 marriages that are induced by EO1965 is $\text{additional}/(\text{counterfactual} + \text{additional})$. To recover the age changes among those who participated in the midnight marriage rush, we scale the coefficient to obtain a reduction of just over 10 months ($-0.672/0.78 \times 12$).

Table 3B repeats this analysis for the age of the bride (married to the sample of men indicated in panel A). If the midnight marriages among draft-aged men were simply taking place earlier with the same spouses (even if 7.5 to 8 months earlier), one would expect the changes in the ages of women married to the same sample of men to change by a similar magnitude. Estimates in columns 1 to 4,

Table 3. The Effect of Executive Order 11241 on Age at Marriage and Spouse Choice, Marriage Microdata

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Ages 18-26				Ages 16-17		Ages 27-34	
<i>A. Men's Age at Marriage</i>								
Mean dep. var.	21.3		21.3		16.8	16.9	29.7	29.7
1(Married Aug. 26, 1965)	-0.672 [0.018]	-0.672 [0.017]	-0.625 [0.026]	-0.626 [0.026]	0.0449 [<0.001]	0.0173 [0.0061]	0.125 [<0.001]	0.193 [0.0103]
<i>B. Women's Age at Marriage (for indicated sample of men in panel A)</i>								
Mean dep. var.	19.4		19.4		17	16.8	24.7	24.8
1(Married Aug. 26, 1965)	-0.437 [0.072]	-0.434 [0.075]	-0.39 [0.062]	-0.388 [0.064]	-0.421 [<0.001]	-0.476 [0.0051]	-1.547 [<0.001]	-1.416 [0.0196]
<i>C. Age Difference within Couple (for indicated sample of men in panel A)</i>								
Mean dep. var.	1.85		1.88		-0.124	-0.007	5.04	4.98
1(Married Aug. 26, 1965)	-0.236 [0.066]	-0.238 [0.068]	-0.235 [0.067]	-0.238 [0.071]	0.466 [<0.001]	0.493 [0.0108]	1.672 [<0.001]	1.609 [0.0295]
Sample years	1960-70	1960-70	1964-65	1964-65	1960-70	1964-65	1960-70	1964-65
# Marriages	1,175,725	1,175,725	214,786	214,786	25,892	4,898	316,759	56,695
Covariates	S, Y, M, D	S, Y, M, D, SxY, SxM, SxD	S, Y, M, D	S, Y, M, D, SxY, SxM, SxD	S, Y, M, D, SxY, SxM, SxD	S, Y, M, D	S, Y, M, D, SxY, SxM, SxD	S, Y, M, D

Notes: Each panel uses the specification in equation 1 to estimate the deviation in age of the groom (panel A), bride (panel B for women ages 14 to 34 married to the sample of grooms in panel A) or the age difference between the groom and the bride (panel C) from the model-based counterfactual. Columns 1 through 4 include marriages to men ages 18 to 26. Columns 5 and 6 include marriages to men ages 16 to 17, and columns 7 and 8 include marriages to men 27 to 34. All columns include state (S), year (Y), month (M), and day-of-week (D) fixed effects. In addition, we include state-by-year (SxY), state-by-month (SxM), and state-by-day-of-week (SxD) fixed effects in columns 2, 4, 5, and 7. Standard errors clustered at the state level are reported in the second row in brackets. Regressions are weighted by the relevant number of marriages. Sample: Marriage Microdata observations on *all* marriages from 1960-1970 in columns 1, 2, 5 and 7 and only marriages from 1964 to 1965 in columns 3, 4, 6, and 8. See Table 1 notes for more information on samples and sources.

however, suggest otherwise. In contrast to the 7.5- to 8-month reduction in age at marriage for men, the average ages of women married on August 26, 1965, fell by only 4.6 to 5.2 months (-0.388 to -0.437×12 , columns 2 and 4). Rescaling by the 78 percent, this implies a reduction of around 6.0 to 6.7 months for those participating in the midnight marriage rush. Consistent with large shifts in spousal matching, Table 3C shows that the change in the age difference between grooms and brides married on August 26 fell by a statistically significant 2.9 months (-0.236×12 , column 1) or 3.6 months rescaled for the midnight marriage rush participants. Neither adding in a more demanding set of covariates (including state-by-year, state-by-month, and state-by-day-of-the-week fixed effects, column 2) nor limiting the sample years to 1964 and 1965 (columns 3 and 4) appreciably alters the magnitudes of these estimates.

This marriage rush among draft-age men also appears to have affected marriage age among older and younger men and their spouses. The average age for men ages 16 to 17 and 27 to 34 (Table 3A, columns 5-8) married on August 26 increased slightly, whereas the average age of women married to these men decreased (Table 3B, columns 5 to 8). The pattern of these changes is consistent with the marriage rush pressuring older and younger men to marry women in the same marriage pool. In contrast to the decreases in the age gap among draft-age men, changes in the marriages of older and younger grooms led to substantial *increases* in the age gap for non-draft-age men married on August 26. The age difference between 16- and 17-year-old men and their spouses married on August 26 grew by 6 months. For the oldest group of men, the age difference with their partners *increased* by an enormous 1.6 years, or 19 months. Because significantly fewer 16- and 17- year-olds were induced to marry by Executive Order 11241, these effects imply substantially larger changes in age among those 16- to 17-year-old men participating in the midnight marriage rush. In particular, Table 3 implies that only 36.6 percent of marriages to 16- to 17-year-old men and 20.0 percent of marriages to 27- to 34-year-old men on August 26 were midnight marriages. The average age of women married to 16- to 17-year-old men who married because of Executive Order 11241 fell by 13.8 months (or $-0.421/0.366$).

Similarly, the average age of women married to 27 to 34-year-old men because of Executive Order 11241 fell by *7.8 years* (or $-1.55/0.20$). These results are nearly identical when we restrict to the 1964 to 1965 comparison, as shown in columns 6 and 8.

In summary, the escalation of the Vietnam War and Executive Order 11241 had significant effects on marriage decisions of draft-aged men (as well as older men competing for the same spouses in the marriage market). The shift in average age at marriage that occurred among draft-aged men induced to marry on August 26 is approximately one-third the size ($-0.86 / 2.6$) of the *30-year*, national increase in the age at first marriage among men for the birth cohorts born between 1940 and 1970 (Online Appendix Figure 1). As evinced by the sizable change in the age gaps within married couples, Executive Order 11241 had dramatic effects on spouse choice as well. The following sections use the 1980 Census samples to examine how these dramatically earlier marriages to different partners affected marital stability and the economic outcomes of men and women over the subsequent 15 years.

III. THE RELATIONSHIP OF EARLIER, DRAFT-INDUCED MARRIAGES, MARITAL STABILITY, AND LONG-RUN ECONOMIC OUTCOMES

If, all else equal, younger marriages are more likely to fail, then one would expect marriages begun in the third quarter of 1965 to have been disproportionately likely to fail. Moreover, if younger age at marriage tended to make women economically worse off (limiting their education or work experience, for instance), then women marrying in the third quarter of 1965 should be disproportionately likely to experience worse economic outcomes. Our results first demonstrate that midnight marriages were no more likely to end in divorce within 15 years. Next, we present the results of two tests that suggest it is unlikely that our results are driven by selection into marriage on unobserved characteristics. Lastly, we show that the brides of midnight marriages are no worse off in the long-run in terms of their education or socio-economic status.

A. *The Relationship between Early Marriages and Marriage Stability*

We examine whether the midnight marriages were, indeed, more likely to fail using the restricted, 20-percent, long-form sample of the 1980 Census, which asks all men and women if they have ever been divorced or remarried. This allows us to construct a measure of whether each ever-married individual was ever divorced by 1980—almost 15 years after the midnight marriage rush. For this and subsequent analysis, we estimate the following specification, which differs only from equation (2) in that we use individual controls available in the 1980 Census:

$$(3) \quad Y_{isqy} = \theta EO_{qy} + f_{sq} + g_{sy} + X_i' \gamma + \varepsilon_{isqy}.$$

The dependent variable is our outcome variable of interest for individual i born in state s and married in quarter, q , and year, $y= 1960, 1961, \dots, 1970$ or 1964 and 1965 . We include state-marriage quarter and state-marriage year fixed effects, as well as a set of individual-level controls, which include state-birth year and quarter (with fixed effects for being born in 1920Q1, 1920Q2, ... 1955Q4) and state-race fixed effects. Individual control variables do not affect the results but do improve precision. The divergence from the predicted outcomes for those who married in the third quarter of 1965 ($EO_{qy} = 1(3rd\ Quarter\ 1965)$) is captured by θ .

Table 4A presents the results. Contrary to the empirical literature for very young marriages, marriages initiated in the third quarter of 1965 appear to be less likely to result in divorce for men in the 1960 to 1970 and our preferred 1964 to 1965 samples. In fact, men married in the third quarter of 1965 are 1.3 percentage points less likely to be divorced (column 4), and the point estimate is statistically significant at less than the one-percent level. Including a limited set of fixed effects (column 3) or estimating the more demanding specification (column 4) yields virtually identical results. Table 4B repeats this analysis for women because very few served or died in the Vietnam War. Although unlikely for men, it is even less likely that women are differentially represented in the 1980 Census due to military service or a Vietnam era death. For the sample of women ages 16 to 34 at the

Table 4. The Effect of Executive Order 11241 on Divorce and Long-Run Outcomes, 1980 Census

	(1)	(2)	(3)	(4)
<i>A. Mean ever divorced for men</i>	0.293		0.298	
First married Q3 1965	-0.0066 [0.0034]	-0.0071 [0.0033]	-0.0133 [0.0040]	-0.0133 [0.0042]
Ages in sample period	18-26	18-26	18-26	18-26
Number of men	5,148,000	5,148,000	902,000	902,000
<i>B. Mean ever divorced for women</i>	0.345		0.353	
First married Q3 1965	-0.0097 [0.0033]	-0.0099 [0.0033]	-0.0158 [0.0041]	-0.0150 [0.0041]
<i>C. Family income (median) for women</i>	22,568		22,711	
First married Q3 1965	201.5867 [96.1661]	207.3736 [96.6439]	215.46 [144.23]	243.51 [148.13]
<i>D. Share living in poverty for women</i>	0.105		0.110	
First married Q3 1965	-0.0037 [0.0025]	-0.0036 [0.0025]	-0.0039 [0.0034]	-0.0045 [0.0034]
<i>E. Share of women graduating college</i>	0.161		0.150	
First married Q3 1965	0.0097 [0.0026]	0.0097 [0.0027]	0.0151 [0.0042]	0.0160 [0.0042]
<i>F. Number of children born</i>	2.272		2.360	
First married Q3 1965	-0.005 [0.0079]	-0.005 [0.0078]	-0.029 [0.0113]	-0.027 [0.0115]
Ages in sample period (panels B-F)	16-34	16-34	16-34	16-34
Number of women (panels B-F)	6,620,000	6,620,000	1,169,000	1,169,000
Sample years	1960-70		1964-65	
Covariates	S, Y, Q, Race, BYQ	S, Y, Q, Race, BYQ, SxY, SxQ, SxRace, SxBYQ	S, Y, Q, Race, BYQ	S, Y, Q, Race, BYQ, SxY, SxQ, SxRace, SxBYQ

Notes: The specification is described in equation 3. Standard errors clustered at the state level are reported in brackets. The census sample necessarily excludes individuals born and married in the same quarter. See Table 1 notes for more information on samples and sources. Sample: 1980 Census, restricted data. The sample in columns 1 and 2 is restricted to men married at ages 18 to 26 from 1960 to 1970 (Table 1, column 4) and women married at ages 16 to 34 from 1960 to 1970 (Table 1, column 6). The sample in columns 3 and 4 is restricted to men married at ages 18 to 26 from 1964 to 1965 (Table 1, column 5) and women married at ages 16 to 34 from 1964 to 1965 (Table 1, column 7).

time of marriage, the results appear 15 to 50 percent larger than for men. Midnight marriages were 1 percentage point *less likely* to result in divorce in the 1960-1970 sample and 1.5 percentage points less likely in the 1964 to 1965 sample (column 4). In all specifications, our 95-percent confidence interval can rule out that the substantially earlier marriages induced by Johnson's Executive Order 11241 increased 15-year divorce rates.

Given the small share of marriages in the third quarter of 1965 induced by the Executive Order, a natural question is whether these estimates are significantly different from the local average treatment effects (i.e., treatment effects on the treated) for *very* young marriages documented elsewhere in the literature. That is, is the causal effect of marrying earlier that we document different than for marriages among women under age 18? To answer this question, we compare our Table 4 estimates to estimates in Rotz (2016). She finds that marrying before age 18 (relative to later ages) is associated with a 50-percent increase in divorce probability by couples' 10th anniversary and at least a 25-percent increase in divorce by couples' 20th anniversary (p. 986). The data in Table 4 reject this hypothesis at the 5-percent level in every specification. Because our results are negative and statistically significant, scaling the coefficients and standard errors by the share of marriages on August 25, 1965 out of the entire quarter will widen our confidence intervals, but it will not affect the (negative) statistical significance of our estimates. Restricting our comparison to group to 1964 and 1965, however, results in point estimates that are even more negative and precise, with a 99-percent confidence interval of [-0.004, -0.023] for men and [-0.005, -0.025] for women.

B. Evaluating the Role of Selection into Marriage in the 1980 Census

Could selection on observed or unobserved characteristics explain these results? On the one hand, the 1965 midnight marriages were entered into hastily, potentially under great duress, as young men sought to limit their exposure to the Vietnam War. This would compound any negative effects of younger marriage. One would expect the midnight marriages to more likely be marriages of convenience, worse matches, and, therefore, less likely to survive for 15 years.

On the other hand, midnight marriages may have fared better than others formed around the same period. First, beating the Executive Order 11241 deadline may have helped men avoid serving in Vietnam. Because wartime stress and extended separations are very strong predictors of marital distress and divorce, midnight marriages might be *more* likely to survive if they were less likely to experience these separations and stress. Hanson (2011), however, finds that marital stability was no different during periods when Vietnam War marriage deferments were and were not in effect. Second, men who married on August 26 may have been disproportionately selected on their desire to avoid military service. If these men pursued additional draft-dodging strategies such as enrolling in college, these actions may have reduced the likelihood of later divorce.

Table 5. The Effect of Executive Order 11241 on Men’s Veteran Status and Educational Attainment, 1980 Census

	(1)	(2)	(3)	(4)
<i>A. Share of Men Who Are Vietnam Veterans in 1980</i>				
Mean dependent variable	0.292		0.222	
First married Q3 1965	0.0084	0.0087	-0.0053	-0.0049
	[0.0033]	[0.0033]	[0.0059]	[0.0060]
Number of men	5,148,000	5,148,000	902,000	902,000
Ages	18-26	18-26	18-26	18-26
<i>B. Share of Men Graduating from College by 1980</i>				
Mean dependent variable	0.256		0.239	
First married Q3 1965	0.0094	0.0098	0.0046	0.0052
	[0.0028]	[0.0028]	[0.0036]	[0.0037]
Number of men	5,148,000	5,148,000	902,000	902,000
Ages	18-26	18-26	18-26	18-26
Sample years	1960-70	1960-70	1964-65	1964-65
Covariates	S, Y, Q, Race, BYQ	S, Y, Q, Race, BYQ, SxY, SxQ, SxRace, SxBYQ	S, Y, Q, Race, BYQ	S, Y, Q, Race, BYQ, SxY, SxQ, SxRace, SxBYQ

Notes: The specification is described in equation 3. Standard errors clustered at the state level are reported in brackets. Table 1 notes for more information on samples and sources. Sample: 1980 Census, restricted data. The sample is restricted to men married at ages 18 to 26 from 1960 to 1970 (Table 1, column 4) in columns 1 and 2. The sample in columns 3 and 4 is restricted to men married at ages 18 to 26 from 1964 to 1965 (Table 1, column 5). The census sample necessarily excludes individuals born and married in the same quarter.

Table 5 first investigates changes in the likelihood of having served in Vietnam as a function of marriage quarter. The specifications correspond closely to Tables 2 and 3, as they limit the Census sample to men who were first married between 1960 and 1970 (columns 1 and 2) or 1964 and 1965 (columns 3 and 4) and were ages 18 to 26 in the same period. Panel A shows that men who married in the third quarter of were not more successful in dodging the draft. Using the 1960 to 1970 period to construct counterfactuals, we find that men married in this period were *more* likely to be veterans when including only state, year, and quarter, race, and birth-year-quarter fixed effects (column 1) as well as when including a more demanding set of covariates (column 2). Restricting our data to the 1964 to 1965 period yields a precisely estimated zero. Consistent with histories of the period, local draft boards turned to low-priority men to fulfill their monthly draft calls as the war progressed.

A second analysis investigates the possibility that men married in the third quarter of 1965 had different educational outcomes. If these men were especially keen to avoid the draft, then they may have been more likely to enroll in or complete college (Card & Lemieux, 2001), or the increased likelihood of military service could have led to additional education through the G.I. bill. While we do see some evidence of this pattern in the 1960 to 1970 data, the results using the 1964 to 1965 sample yield a precisely estimated zero.

Although we cannot rule out harder-to-detect forms of selection, the evidence does not support the conclusion that men entering into midnight marriages were less likely to serve in Vietnam or dodged the draft by enrolling in college—characteristics that, if correlated with the likelihood of a midnight marriage, may have offset the potentially negative effects of marrying younger. The fact that we find little difference in college going and military service should also reassure readers that other unobserved characteristics that are *correlated* with education or military service are unlikely to drive our results. For instance, although Census data limitations mean that we cannot test for differences in risk aversion, patriotism, or idealism, it is well known that these characteristics (as well as many others) are correlated with college going and military service. In short, if midnight marriage grooms

were more likely to have *unobserved* characteristics correlated with marital stability and other long-run outcomes, these *unobserved* characteristics would need to be *uncorrelated* with education and veteran status and have *very* large, positive effects to lead to our results.

To evaluate the role of these unobserved characteristics in driving our results, Table 6 presents our results following Oster's (2017) method of proportional selection, which builds on Altonji, Elder, and Taber (2005). For our results to be consistent with Rotz's (2016) estimate or lower 95-percent confidence interval estimate of the effect of earlier marriage on younger teens (presented at the bottom of Table 6), the effect of selection on unobserved factors would have to be 1.7 to 5.3 *times as important* as observed correlates of divorce, including education, income, race, birthplace, and birth cohort, using Oster's (2017) rule-of-thumb. The same results hold for men as well. Taken together, there is little reason to conclude that—apart from occurring at younger ages and under potential duress—the midnight marriages of 1965 should be more or less likely to result in divorce.

Table 6. Summary of Proportional Analysis of Selection on Unobserved Factors, 1980 Census

	Women				Men			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Importance of selection on unobserved vs. observed factors	5.29	5.30	1.73	1.73	5.25	5.26	1.75	1.74
Rotz's effect size: β	0.140	0.169	0.140	0.169	0.140	0.169	0.140	0.169
R_{\max}	0.133		0.144		0.129		0.138	
Sample years	1960-70		1964-65		1960-70		1964-65	

Notes: The table reports an analysis of the importance of unobserved factors to achieve Rotz's (2016) estimates that marriage before age 18 leads to a 16.9 percentage point increase in the likelihood of divorce (even columns), or her lower 95-percent confidence interval estimate of 14.0 percentage points (odd columns). We estimate the maximum variation explained by observables and unobservables using Oster's (2017) rule-of-thumb. See Table 1 notes for more information on samples and sources. All specifications include the full set of observables from columns 2 and 4 of Table 4: state-by-year, birth-year-quarter, state-by-quarter, and state-by-race fixed effects, along with education fixed effects and continuous measures of household income and income as a share of the poverty line. Sample: 1980 Census, 9-percent public use sample (in order to minimize data disclosure requirements). 1960-70 data includes 855,544 women and 800,649 men, and 1964-65 data includes 151,806 women and 141,467 men. The sample in columns 1 through 4 is restricted to women who married at ages 16 to 34; the sample in columns 5 through 8 is restricted to men who married at ages 18 to 26.

C. *The Relationship between Early Marriages and Women's Long-Run Outcomes*

Even if the early midnight marriages were no less durable than their counterparts, these marriages may have imposed substantial costs on the affected men and women. As other studies document, marrying at younger ages may disrupt or limit women's education or career investments and result in these families being more economically disadvantaged in the long run. Our final analysis examines how changes in the age at first marriage (and changes in spouse) affected women's longer-term outcomes. Again using the restricted, 20-percent long-form sample of the 1980 Census, Table 4 shows the relationship between midnight marriages and other outcomes considered in the literature: median family income (panel C), living in poverty (panel D), college graduation (panel E), and childbearing (panel F). Consistent with little selection among women married in the third quarter, the midnight marriages did not result in higher family income or reduce poverty rates. The results for these outcomes are virtually identical across different specifications and covariates. However, women marrying in the third quarter of 1965 had higher rates of college completion. Contrary to the findings of previous work that women married at younger ages gain less education, panel E shows that women married in the third quarter of 1965 were 1.6 percentage points (10.6 percent) *more likely* to graduate from college (column 4), an estimate that is statistically significant at the 1-percent level. Women's increased likelihood of graduating from college likely reflects other factors, perhaps owing to shared resources within the marriage itself (Edlund & Machado, 2015). In accordance with their increased education, women who married in the third quarter of 1965 had fewer children (panel D). The magnitude of the estimate is, however, small, implying only that 1.1 percent of couples had one fewer child (column 4).

IV. CONCLUSIONS

For many years now, scholars have speculated that the rising age at marriage in the United States is causally related to decreasing divorce rates and improvements in the economic status of

women. This causal relationship is consistent with the age at first marriage rising by around 3 years for men and 4 years for women over the past 30 years, while divorce rates have sharply fallen.

Evidence from the rush of midnight marriages during the Vietnam-draft era provides little evidence to support this claim. Although Executive Order 11241 catalyzed around 9,500 marriages to draft-age men nationwide on August 26, 1965, we find no evidence that policy-induced earlier marriages were more likely to end in divorce or remarriage 15 years later. In fact, midnight marriages appear slightly *less* likely to result in divorce, a finding that is statistically significant and robust across men and women in multiple specifications.

New microdata show that marriages induced by Executive Order 11241 occurred at significantly younger ages for men and women, and they also formed with different partners. In contrast to a large literature documenting how earlier (mostly teen) marriages have deleterious effects on women's long-run outcomes, we find that women who married younger (but on average around age 19 and a half) as part of the midnight marriage rush did not experience lower family incomes or higher poverty rates. In fact, these women appear slightly *better* off in terms of their college graduation rates. These earlier marriages for men, however, have little measurable relationship to outcomes. Marrying to dodge the draft is not significantly related to becoming a Vietnam veteran, suggesting that this strategy had little effect on the likelihood of being called for service. Marrying to dodge the draft is also unrelated to graduating from college, suggesting that the men involved in the midnight marriages are not more likely to dodge the draft in other ways (e.g., seeking an education deferment). The effect on college education could affect marriage survival independently. In order for our results to be consistent with effects in the literature for first marriages earlier in the teens, selection on unobservables using Oster's (2017) rule-of-thumb would have to be *1.7 to 5.3 times as important* as selection on observables like education, income, race, birthplace, and birth cohort.

Alongside the existing literature, these findings suggest that there may be considerable heterogeneity in the effects of early marriage on marriage stability and women's outcomes. In our

sample, men and women induced to marry by the policy are in their late teens and early twenties, whereas past literature finds the relationship between age at marriage and divorce is strongest for individuals who marry at much younger ages (Lehrer, 2008). Relative to the teenage brides and grooms of Dahl (2010) and Bharadwaj (2015), the men and women who married in August 1965 would have had more of their lives to search for a suitable mate, to invest in their own human capital, and mature as individuals. Moreover, while an unexpected pregnancy may drive some early teenage marriages, straining relationships from the start, the midnight marriages were not motivated by this difficult financial and emotional circumstance. For the 1946 cohort of women, 33 percent of those who married at ages 16 to 19 were pregnant at the time of marriage, compared with one-sixth and one-thirteenth for those who married between ages 20 to 21 and 22 to 23, respectively (Kiernan, 1986). Although marriage postponement in recent decades has been cited as a main driver in the fall in divorce rates, our results indicate that other factors may be more consequential for men and women in their late teens and early twenties who are driving marriage delays today.

V. REFERENCES

- Altonji, J. G., Elder, T. E., & Taber, C. R. (2005). "Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools. *Journal of Political Economy*, 113(1): 151-184.
- Altonji, Joseph G., Elder, Todd E., & Taber, Christopher R. (2005). Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools. *Journal of Political Economy*, 113(1), 151-184. doi:10.1086/426036
- Arellano, M. (1987). Computing Robust Standard Errors for Within-Groups Estimators. *Oxford Bulletin of Economics and Statistics*, 49(4), 431-434.
- Bailey, M. J., Chyn, E., & Genadek, K. (2017). *How America Dodged the Draft: The Demographic Legacy of Vietnam*. Retrieved from http://www-personal.umich.edu/~baileymj/Bailey_Chyn_Genadek.pdf
- Bailey, M. J., Guldi, M., & Hershbein, B. J. (2014). Is There a Case for a "Second Demographic Transition": Three Distinctive Features of the Post-1960 U.S. Fertility Decline. In L. P. Boustan, C. Frydman, & R. A. Margo (Eds.), *Human Capital and History: The American Record*. Cambridge, MA: National Bureau of Economic Research.
- Bailey, M. J., Hershbein, B. J., & Miller, A. R. (2012). The Opt-In Revolution? Contraception and the Gender Gap in Wages. *American Economic Journal: Applied Economics*, 4(3), 225-254.
- Baskir, L., & Strauss, W. (1978). *Chance and Circumstance: The Draft, the War, and the Vietnam Generation*. New York: Knopf.

- Becker, G. S. (1991). *A Treatise on the Family (Enlarged Edition)*. Cambridge, MA: Harvard University Press.
- Becker, G. S., Landes, E. M., & Michael, R. T. (1977). An Economic Analysis of Marital Instability. *Journal of Political Economy*, 85(6), 1141-1187.
- Bertrand, M., Duflo, E., & Mullainathan, S. (2004). How Much Should We Trust Differences-in-Differences Estimates? *Quarterly Journal of Economics*, 119(1), 249-275.
- Bharadwaj, P. (2015). Impact of Changes in Marriage Law: Implications for Fertility and School Enrollment. *Journal of Human Resources*, 50(3), 614-654.
- Blank, R. M., Charles, K. K., & Sallee, J. M. (2009). A Cautionary Tale about the Use of Administrative Data: Evidence from Age of Marriage Laws. *American Economic Journal: Applied Economics*, 1(2), 128-149.
- Bumpass, L. L., Castro Martin, T., & Sweet, J. A. (1991). The Impact of Family Background and Early Marital Factors on Marital Disruption. *Journal of Family Issues*, 12(1), 22-42.
- Bumpass, L. L., & Sweet, J. A. (1972). Differentials in Marital Instability: 1970. *American Sociological Review*, 37(6), 754-766.
- Card, D., & Lemieux, T. (2001). Going to College to Avoid the Draft: The Unintended Legacy of the Vietnam War. *American Economic Review*, 91(2), 97-102.
- Dahl, G. B. (2010). Early Teen Marriage and Future Poverty. *Demography*, 47(3), 689-718.
- Dew, J., Britt, S., & Huston, S. (2012). Examining the Relationship Between Financial Issues and Divorce. *Family Relations*, 61(4), 615-628.
- Eder, R. (1965, August 19). Draft Call Seen for Married Men: Induction of Those Without Children Is Under Study. *New York Times*. Retrieved from <https://query.nytimes.com/gst/abstract.html?res=9905E4DB173EE03ABC4152DFBE666838E679EDE&legacy=true>
- Edlund, L., & Machado, C. (2015). How the Other Half Lived: Marriage and Emancipation in the Age of the Pill. *European Economic Review*, 80, 295-309.
- Frimmel, W., Halla, M., & Winter-Ebmer, R. (2014). Can Pro-Marriage Policies Work? An Analysis of Marginal Marriages. *Demography*, 51(4), 1357-1379.
- Glenn, N. D., Uecker, J. E., & Love, R. W. B. (2010). Later First Marriage and Marital Success. *Social Science Research*, 39(5), 787-800.
- Goldin, C., & Katz, L. F. (2002). The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decisions. *Journal of Political Economy*, 110(4), 730-770.
- Hahn, Y., Islam, A., Nuzhat, K., Smyth, R., & Yanga, H.-S. (2015). *Education, Marriage and Fertility: Long-Term Evidence from a Female Stipend Program in Bangladesh*. Monash Business School Discussion Paper. Retrieved from http://business.monash.edu/_data/assets/pdf_file/0008/339371/education,_marriage_and_fertility_long-term_evidence_from_a_female_stipend_program_in_bangladesh.pdf
- Hanson, D. (2011). *Incentives to Marry: Draft Deferments during the Vietnam War*. Retrieved from <https://www2.bc.edu/devlin-hanson/JobMarketPaper.pdf>
- Heaton, T. B. (1991). Time-Related Determinants of Marital Dissolution. *Journal of Marriage and Family*, 53(2), 285-295.
- Hock, H. (2008). *The Pill and the College Attainment of American Women and Men*. Florida State University Working Paper. Retrieved from ftp://econpapers.fsu.edu/RePEc/fsu/wpaper/wp2007_10_01.pdf

- Johnson, L. B. (August 26, 1965). *Executive Order 11241—Amending the Selective Service Regulations*. Santa Barbara, California: The American Presidency Project.
- Kiernan, K. E. (1986). Teenage Marriage and Marital Breakdown: A Longitudinal Study. *Population Studies*, 40(1), 35-54.
- Kirdar, M., Dayioglu, M., & Koc, I. (2012). *The Effect of Compulsory Schooling Laws on Teenage Marriage and Births in Turkey*. Retrieved from <https://mpra.ub.uni-muenchen.de/38735/>
- Kutinova, A. (2009). Paternity Deferments And The Timing Of Births: U.S. Natality During The Vietnam War. *Economic Inquiry*, 47(2), 351-365.
- Kuziemko, I. (2010). *Did the Vietnam Draft Increase Human Capital Dispersion? Draft-Avoidance Behavior by Race and Class*. Princeton University Working Paper. Retrieved from <https://law.yale.edu/system/files/area/workshop/leo/document/Kuziemko.pdf>
- Lampard, R. (2013). Age at Marriage and the Risk of Divorce in England and Wales. *Demographic Research*, 29, 167-202.
- Lehrer, E. L. (2008). Age at Marriage and Marital Instability: Revisiting the Becker-Landes-Michael Hypothesis. *Journal of Population Economics*, 21(2), 463–484.
- Lehrer, E. L., & Chen, Y. (2011). Women's Age at First Marriage and Marital Instability: Evidence from the 2006-2008 National Survey of Family Growth. *IZA Discussion Paper*, No. 5954.
- Lehrer, E. L., & Chen, Y. (2013). Delayed Entry into First Marriage and Marital Stability: Further Evidence on the Becker-Landes-Michael Hypothesis. *Demographic Research*, 29, 521-541.
- Manning, W. D., Brown, S. L., & Payne, K. K. (2014). Two Decades of Stability and Change in Age at First Union Formation. *Journal of Marriage and Family*, 76(2), 247-260.
- McCombs, P. (1991, April 3). The Unsettling Calm of Dick Cheney. *Washington Post*. Retrieved from https://www.washingtonpost.com/archive/lifestyle/1991/04/03/the-unsettling-calm-of-dick-cheney/9b1e7d68-a1c5-413d-8f4e-2a22cd409afa/?utm_term=.9e383636e7ef
- National Advisory Commission on Selective Service. (1967). *In Pursuit of Equity: Who Serves When Not All Serve?* Washington, D.C.: U.S. Government Printing Office.
- National Office of Vital Statistics. (1963-1971). *Volume III-Marriage and Divorce, 1960-1968*. Rockville, Maryland: U.S. Department of Health, Education, and Welfare.
- Oppenheimer, V. K. (1988). A Theory of Marriage Timing. *American Journal of Sociology*, 94(3), 563-591.
- Oppenheimer, V. K. (1997). Women's Employment and the Gain to Marriage: The Specialization and Trading Model. *Annual Review of Sociology*, 23(1), 431-453.
- Oster, E. (2017). Unobservable Selection and Coefficient Stability: Theory and Evidence. *Journal of Business & Economic Statistics*, 1-18. doi:10.1080/07350015.2016.1227711
- Rotz, D. (2016). Why Have Divorce Rates Fallen? The Role of Women's Age at Marriage. *Journal of Human Resources*, 51(4), 961-1002.
- Ruggles, S., Genadek, K., Grover, J., & Sobek, M. (2015). Integrated Public Use Microdata Series (Version 6.0) [Machine-Readable database]. In U. o. Minnesota (Ed.). Minneapolis: University of Minnesota.
- Seelye, K. Q. (2004, May 1). Cheney's Five Draft Deferments During the Vietnam Era Emerge as a Campaign Issue. *New York Times*. Retrieved from http://www.nytimes.com/2004/05/01/us/2004-campaign-military-service-cheney-s-five-draft-deferments-during-vietnam-era.html?mcubz=1&_r=0

- Selective Service System. (1960-1967). *Annual Report of the Director of the Selective Service*. Washington: Government Printing Office.
- Stevenson, B., & Wolfers, J. (2007). Marriage and Divorce: Changes and Their Driving Forces. *Journal of Economic Perspectives*, 21(2), 27-52. doi:10.1257/jep.21.2.27
- Tatum, A., & Tuchinsky, J. S. (1969). *Guide to the Draft*. Boston: Beacon Press.
- Teachman, J. D. (1983). Early Marriage, Premarital Fertility, and Marital Dissolution: Results for Blacks and Whites. *Journal of Family Issues*, 4(1), 105-126.
- Teachman, J. D. (2002). Stability Across Cohorts in Divorce Risk Factors. *Demography*, 39(2), 331-351.
- United Press International. (1965, August 27). 171 Beat the Draft in Las Vegas; Wedding March Is on the Double. *New York Times*. Retrieved from <https://iht-retrospective.blogs.nytimes.com/2015/08/27/1965-marriage-mania-in-las-vegas>
- VanDeMark, B. (1991). *Into the Quagmire: Lyndon Johnson and the Escalation of the Vietnam War*. New York: Oxford University Press.