Decline in Marriage Associated with the COVID-19 Pandemic in the United States

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Abstract
In the social upheaval arising from the coronavirus disease 2019 (COVID-19) pandemic, we do not yet know how union formation, particularly marriage, has been affected. Using administration records—marriage certificates and applications—gathered from settings representing a variety of COVID-19 experiences in the United States, the authors compare counts of recorded marriages in 2020 against those from the same period in 2019. There is a dramatic decrease in year-to-date cumulative marriages in 2020 compared with 2019 in each case. Similar patterns are observed for the Seattle metropolitan area when analyzing the cumulative number of marriage applications, a leading indicator of marriages in the near future. Year-to-date declines in marriage are unlikely to be due solely to closure of government agencies that administer marriage certification or reporting delays. Together, these findings suggest that marriage has declined during the COVID-19 outbreak and may continue to do so, at least in the short term.

Keywords
marriage, COVID-19, administrative data

More than 7.9 million infections and 212,000 coronavirus disease 2019 (COVID-19) deaths have been recorded in the United States (Johns Hopkins Coronavirus Resource Center 2020). In addition to its health impacts, the COVID-19 pandemic has had a profound impact on all aspects of social life. Interestingly, little is known about how COVID-19, and the resulting governmental and social responses, may influence union formation, particularly marriage.

How the coronavirus pandemic may shape marriage is unclear because past studies examining the impact of disasters on marriage offer mixed accounts. Some researchers have documented increases in marriage following earthquakes and hurricanes (Cicatiello et al. 2019; Xu and Feng 2016). Others have found the opposite following earthquakes (Hamamatsu et al. 2014; Prati and Pietrantoni 2014) and floods (Ahmed 2018). The overall implication of these studies is that the impact of disasters is sensitive to duration, the timing of events, and location.

Drawing on existing relationship models, scholars have suggested that the stresses of the COVID-19 pandemic will likely threaten romantic relationships (Pietromonaco and Overall 2020). Documented relationship consequences of COVID-19 include increased relationship conflict (Luette et al. 2020), reduced sexual frequency (Lehmiller et al. 2020), and high rates of contacting alternative sexual and romantic partners (Lehmiller et al. 2020). COVID-19 has also created uncertainty in income, employment, or housing stability, which may threaten single men’s and women’s ability to meet the economic prerequisites to marriage and delay transitions into marriage (Oppenheimer 1988). Governmental policies may also reduce marriages. For example, gathering limitations may prevent weddings and office closures may prevent marriage certification. Nonetheless, there are also COVID-19-induced changes that may increase single people’s need to transition into marriage. Prior to COVID-19, approximately a quarter of married, working-age men and half of such women reported receiving health insurance through a household member’s private coverage (U.S. Census Bureau 2019). These plans are commonly employer based and employers that provide health insurance to employees almost universally extend coverage to spouses as well (Kaiser Family Foundation 2019). As millions of

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Americans lost jobs in 2020 (U.S. Bureau of Labor Statistics 2020) and potentially access to employer-based insurance, demand for marriage may have increased as a function of demand for spousal health plans. Dependence on health insurance provided by the spouse’s employers could incentivize marriage in response to the pandemic.

Using administrative data from several different locations across the country, we provide a basic description of changes in marriage rates following COVID-19. Although the pandemic and its aftershocks will continue, we provide a description of how the pandemic has shaped marriage patterns, at least in the near term.

**Data**

We rely on administrative data—marriage certificates and applications—from multiple locations in the United States. The novelty of COVID-19 and delays in survey collection due to the pandemic mean that existing survey data sets have not yet captured meaningful variation in recent marriage behavior, constraining our ability to examine changes in marriage behavior coinciding with COVID-19. Administrative data on marriages can fill this void by providing us access to real-time sources of data with no additional respondent burden.

The general administrative process of marriage tends to be similar across different regions and states in the United States. This process generally occurs in two stages. First, the couple appears in person at the relevant local office to apply for their marriage license. In places that release administrative data on marriage, the marriage license application date is available with a minimal delay. All localities in our study from which we use application data make complete information on applications available with a processing delay of two days at most. After the ceremony, the newlyweds need to return their marriage licenses within the amount of time specified by the granting agency, which then reviews and processes the marriage certificate. Unlike the marriage application data, there is a lag between the marriage date and the time when marriage data become available, even before the pandemic. For example, for marriages formed in April 2019 in Dallas County, Texas, the median lag between marriage date and availability of marriage license data online was approximately 13 days; of the 1,408 non-common-law marriage in this period, 1,360 (96.6 percent) were registered by the end of the next month (May).\(^1\) Processing delays for marriage records—delays that represent both the time until the license is returned and the time to process returned licenses—for a typical source of county-level marriage data in 2019 are graphed in Supplemental Figure 1. For states that report provisional marriage data, an additional delay is caused by state offices’ collating county-level marriage data. Despite this delay, state-level estimates appear relatively stable within 60 days. For example, recorded marriages in Florida for June 2020 increased by only 21 marriages (0.2 percent) between September and October 2020.

During the pandemic, most county clerks’ offices continued their record processing, including marriage applications and licenses. Local governments, including those we examine in our study, have not changed eligibility requirements for marriage, the expiration date of the marriage license, or the allowed amount of time for couples to return the marriage certificate after the ceremony. One notable change in the administration marriage process has been that, in many places, couples are now required to file their marriage application online and make an appointment before appearing in person to verify their identities and receive their license. There has been surprisingly little increase in the amount of lag between the marriage date and the time when data become available. For example, in Dallas County, the median delay in processing time for recording marriages is lower following the pandemic than it was in 2019 (Supplemental Table 1). The overall implication is that processing delays are, at worst, similar to delays prior to the COVID-19 pandemic.

Using existing administrative data imposes the limitations inherent in such collections. Federal collection of administrative marriage data has not been undertaken in the United States for decades, resulting in patchwork collection nationwide. To examine how marriage behavior has changed before and after the start of the pandemic, we focus on administrative marriage data from four locations: Florida, Hawaii, the Dallas–Fort Worth–Arlington (DFW) metropolitan statistical area (MSA), and the Seattle MSA. Collection of data from online sources occurred on October 6, 2020. A complete list of data sources is available in Supplemental Table 2. It is worth noting that we relied on marriage license data for the first three locations but marriage application data for the Seattle MSA.

We focus on Florida and Hawaii because these two states have publicly available data on marriages statewide. These states also offer interesting comparisons, as they capture two extremes in COVID-19 responses. Relative to other states, Florida was both late to announce stay-at-home orders (April 1) and early to begin reopening (May 4). In contrast, Hawaii mandated quarantine for all visitors and returning residents and imposed a stay-at-home order in March. Florida and Hawaii also differ in their experience of the pandemic to date, with Florida reporting 3,450 COVID-19 cases per 100,000 population (the fourth worst state) and Hawaii reporting 970 cases per 100,000 population (the fifth best state). Marriage data in these states are available as monthly totals. Although current state counts are provisional, as noted, we have observed that state-level marriage counts are relatively stable two months following marriage (e.g., July marriages are subject to only minor changes as of the end of October). We restrict our state samples to data through July 2020.

Using state-level data ignores population heterogeneity that could obscure the effects of COVID-19 on marriage. Specifically, cases and fatalities in the early COVID-19 experience have been primarily located in large urban areas (Zhang...
and Schwartz 2020). To focus on marriage in such a setting, we explore marriage data in the DFW MSA. The DFW MSA is fourth largest MSA in the United States, with an estimated 2019 population of more than 7.5 million (U.S. Census Bureau 2020) and the largest with publicly available marriage data. We gathered marriage certificates for both formal and common-law marriages from 8 of the 11 counties in the MSA (details are available in Supplemental Table 1). We use data from the entire metropolitan area rather than from a single county to address couples applying in neighboring counties where the application and license process may be seen as easier, a process observed in other Texas metropolitan areas (A. Marcus, personal communication, August 7, 2020). Because couples in Texas have 30 days to return their completed marriage licenses, we restrict the sample to marriages that occurred through August 2020 (i.e., all marriage for which marriage certification should be completed). The delay between this end point and our data collection also minimizes marriage under-counting through processing delays. On the basis of 2019 administrative rates in the area’s largest county (Supplemental Figure 1), this delay would correspond to less than 2.5 percent outstanding marriages for September 2020 and even fewer for each prior month. Although marriage information is unavailable in three counties, missing counties represent fewer than 5 percent of the area’s population and marriages.

Our final data source is marriage applications in the Seattle MSA. Seattle was home to the first recorded COVID-19 fatality in the United States (Taylor 2020). Seattle was affected early by the COVID-19 pandemic and may have had more time to adjust. Marriage applications are the first step in a potentially months-long process of marrying, as marriage licenses are valid for months. Thus, changes in the number of marriage applications offer a hint on future marriage trends. Furthermore, changes in the number of marriage applications in locales that experienced the pandemic early may also serve as an early indicator of the potential “recovery” in marriage once the initial shock of a pandemic subsides and/or major events can no longer be postponed. To the extent that they have normalized to prepandemic levels, this might suggest that any changes in marriage observed in our other cases represent short-term interruptions. We limit our sample to marriage applications from counties constituting the Seattle MSA, as of September 30, 2020, to allow for delays in administrative processing.

For each setting, we compare marriage record data from 2020 against data from the same period in 2019. This direct comparison helps us address the seasonal variation in marriage rates in the United States. All data and analysis files are available online (Center for Open Science 2020).

Results

The left panel in Figure 1 shows the year-to-date cumulative number of marriages in Florida for each month in 2019 and 2020. The cumulative number of year-to-date marriages was slightly larger in February 2020 than in February 2019. Starting in March 2020, Florida has issued fewer new marriages certificates than in 2019, resulting in fewer year-to-date cumulative marriages in 2020 than in 2019. As seen in the right panel, monthly differences in the cumulative number of marriages increased steadily between March and July. As of July, there were 23,627 fewer marriages recorded in Florida in 2020 than in 2019, representing a 26 percent decrease relative to 2019.

Our results for Hawaii are like those for Florida (Figure 2). As in Florida, there were slightly more year-to-date marriages in Hawaii in February 2020 than for the same period in 2019 but virtually no differences as of March. From April 2020 onward, a deficit in the year-to-date cumulative number of marriages emerged and increased (Figure 2, right panel). By July 2020, 5,183 fewer marriages had occurred in Hawaii than by the same point in 2019, which represents a 44 percent decline in the total number of marriages. A reduction in nonresident marriages (e.g., destination weddings) is responsible for much of this decrease, but marriage of Hawaiian residents also decreased across this period (Supplemental Figure 2).

A similar picture emerges for the DFW MSA (Figure 3). For context, we superimpose the timing of the governor’s emergency declaration. The count of 2020 marriages tracked closely with that of 2019 marriages until the state’s emergency declaration (Figure 3, left panel). Following this declaration, fewer new marriages occurred. As of the end of August, there were 9,410 fewer marriages in 2020 than in 2019 in the DFW MSA, which represents almost a 27 percent reduction in marriages (Figure 3, right panel). Much like marriages in Florida and Hawaii, marriages in this Texas metropolitan area continue to decline relative to their prepandemic level.

We assess the prospects of the “recovery” of marriage by comparing the year-to-date cumulative number of marriage applications in 2020 with that of the same period in 2019 in the Seattle metropolitan area. Figure 4 presents the results. Even slightly before the governor’s stay-at-home order, marriage applications in the Seattle area began to fall relative to the preceding year (Figure 4, left panel). The deficit increased following this order; as of September 30, there were 3,060 fewer marriage applications than in the preceding year, which represents a 15 percent decrease in marriage applications (Figure 4, right panel). Although the gap between marriage applications in 2020 and 2019 continues to widen, it appears that the rate at which it is increasing has slowed in recent months, at least compared with the period of the early pandemic.

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2Common law marriages are marriages which have occurred without prior licensing or ceremony. Instead, a couple lives together and presents themselves as married. In some jurisdictions, these couples may subsequently petition the state for recognition of their status. Though relatively rare in Texas, these marriages are described in Texas Family Law §2.401-2.402.

3An increase possibly attributable to an anticipatory response to coronavirus closures, the availability of numerically interesting wedding dates (e.g., 2/20/20), the presence of a leap day, or Valentine’s Day falling on Friday rather than Thursday.
Figure 1. Number of marriages in Florida (2019–2020).

Figure 2. Marriages in Hawaii (2019–2020).
Figure 3. Marriages in the Dallas–Fort Worth–Arlington metropolitan statistical area (2019–2020).

Figure 4. Marriage applications in the Seattle metropolitan statistical area (2019–2020).
The decrease in marriage applications we observe in Seattle (15 percent) is noticeably smaller than the decreases in marriage licenses we observe in other contexts. This smaller gap might suggest that marriages in other locations are likely to bounce back soon, albeit to levels slightly lower than prepandemic levels. However, the deficit in the year-to-date cumulative number of marriage applications relative to the same period in 2019 in the Seattle area also continues to increase, suggesting that the relatively smaller decline in marriage applications is unlikely to be a harbinger of imminent returns to observed 2019 marriage levels. It is, however, worth noting that the deficit is smaller for marriage applications than for marriage licenses. This finding suggests that not only are fewer couples seeking to marry (i.e., applying for a marriage license), fewer couples are marrying even after they get their licenses. Furthermore, the magnitude of the marriage deficit in King County, which has the largest population in the MSA, was 33 percent, which is in line with the deficits observed in Florida, Hawaii, and DFW.

Conclusions

The COVID-19 pandemic and policies to curb the spread of the virus have profoundly affected society. This article contributes to this emerging body of research a description of short-term marriage pattern changes following the onset of COVID-19. We find that fewer people are marrying in 2020 than in 2019. Observing this pattern in a variety of different settings, including a state with a limited governmental intervention (Florida), a geographically isolated state that took strong quarantine measures (Hawaii), and a large metropolitan area (DFW), suggests that this may be a common experience across the United States. Furthermore, we find a persistent deficit in marriage applications in a metropolitan area six months after the first outbreaks were noted. Taken together, our results indicate a steep decline in marriage formation in the United States following the outbreak of the COVID-19 pandemic. This decline has thus far shown few signs of stopping, or even slowing, and leading indicators are consistent with continued declines relative to prepandemic levels.

The magnitude of the decline is too big to attribute solely to the temporary shock in the availability of marriage certification (i.e., closed governmental offices). Many local governments, including those included in this sample, continued to process marriage application throughout the pandemic. For example, in one large county in the Dallas MSA, Tarrant County (with a 2019 population of 2.1 million), marriage applications were processed every business day throughout the governor’s emergency declaration. Even in areas with more restrictive government mandates (e.g., shelter-in-place orders), restrictions have been limited in duration, resulting in relatively minor restrictions to access in governmental services like marriage licensing.

This gap is also not solely attributable to unprocessed marriage licenses. Lags between marriages and our data collection are sufficient to minimize this threat. For marriages in the DFW area, the delay between August 2020 marriages and our data collection is consistent with less than 2.5 percent undercounted marriages on the basis of the previous year’s processing timelines (Supplemental Figure 2). The actual undercount is likely even smaller because prior months are even more complete and administrative processing appears to be faster in 2020 than it was in 2019 (Supplemental Table 1), possibly because of reduced caseload. Counts of marriages in Florida are also unlikely to be dramatic undercounts. Comparing June 2020 marriages on the basis of provisional reports collected in September and October, only 21 (0.2 percent) additional marriages were added to the count of the latter, suggesting a stability of the count as we would expect given few unreported marriages. Finally, the decline in marriage applications we observe in Seattle suggests that the difference in marriages we observe between 2020 and 2019 is likely due, at least in part, to fewer couples seeking to marry.

Although marriages have declined in the aggregate, this outcome could have arisen from two distinct mechanisms that we are unable to differentiate. Many couples may have simply postponed marriages because of COVID-19-induced barriers to marriages, including inaccessible public services (such as county clerk offices), shuttered facilities (such as churches), travel restrictions, and the like. For others, the experience of the COVID-19 pandemic may result in foregone marriages. Researchers have documented that social shocks can produce declines in births, only some of which are recouped after postponement (Currie and Schwandt 2014), but whether such a process occurs in the context of marriage remains an open question. The extent to which delayed marriages represent a temporary delay or foregone unions will likely depend on the strength of the relationships, the duration of the pandemic, mortality rates among young adults, and other social factors, including the size of the economic fallout from COVID-19. As an institution, marriage has important implications for the well-being and health of couples and their offspring (McLanahan and Jacobsen 2015), individual behaviors (e.g., Wagner 2019), and legal protections for partners. Therefore, understanding the impact of COVID-19 on marriage formation not only showcases how the pandemic has, even if temporarily, upended key dimensions of our social life, it also highlights a wide array of potential effects of COVID-19 on adults and children. We recommend that future research with more long-term data address the extent to which these missing marriages have been delayed rather than foregone and identify the mechanisms contributing to this effect, irrespective of its duration.

Although the tenor of the findings is unmistakable, we should be clear about their implications. First, though we document a decline in the number of marriages following COVID-19, this analysis should not be taken to mean that the pandemic has upended marriage as a social institution. Our research offers the first view of how the year-to-date cumulative number of marriage transitions has changed over a short period of time. The preference for marriage among Americans has been historically robust (Cherlin 2009), so future research...
would be necessary to explore whether the COVID-19 pandemic may have shifted the desirability, content, or meaning of marriages for those who experience them. Second, the counts of marriages we report are indicative of marriage trends but may differ slightly from final counts of marriages in these locations. As discussed above, these data are unlikely to change substantially, but early-access administrative data are inherently provisional and subject to subsequent revisions. Third, although our data cover approximately 10.4 percent of the United States population, we should be cautious in generalizing the observed decrease in marriage, because U.S. jurisdictions have varied widely in terms of pandemic experience (CDC COVID-19 Response Team 2020) and government response (Hale et al. 2020). We are also unable to disentangle the possible causes for the observed decrease in marriage. The COVID-19 pandemic has included covarying experiences: health, policy, economic, and social. In this article, we demonstrate the decrease in marriages following the outbreak of COVID-19, but future work should seek to explain the cause for the observed declines. Finally, this article represents only a first description of the short-term impacts of COVID-19 on marriage in the United States. Future work should seek to extend this description, not only geographically but further in time as the pandemic, and its response, continues to unfold.

Nonetheless, our study offers a first glimpse at the dramatic decline in the number of marriages in a variety of different settings across the United States, with varying experiences and responses to the COVID-19 pandemic. It also contributes insights to our understanding of the impact COVID-19 has had on social life. Although it is unclear whether this decline will represent a temporary delay in marriage timing or an exacerbation of the long-term trend in marriage decline, what is clear is that marriage, like many other dimensions of our social life, has been dramatically influenced by the COVID-19 pandemic.

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**Supplemental Material**

Supplemental material for this article is available online.

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