The present article shows the results concerning marriages in Spain during the first wave of the COVID-19 pandemic, and its associated lockdown, that took place in 2020. The Government of Spain declared an initial State of Alarm and National Lockdown on 14\textsuperscript{th} March 2020, that was further extended until 21\textsuperscript{st} June,
due to the development of the COVID-19 pandemic. The three months of lockdown, and its severe measures, had a great impact on many aspects of Spanish society. Besides having major impacts on the economy, health and work-life balance, consequently it also affected the demographic dynamics. One of the main impacts was on the number of marriages, that decreased in Spain during the first semester of 2020, as a logical consequence of the pandemic’s limitations and restrictions. In order to fully document the impact of pandemia, a quantitative analysis was made using secondary sources. Data serial since 1950 for NUTS-1 and since 1975 for NUTS-2 has also been considered, as well, an econometric model was used.

**Determinants of nuptiality and the impacts from COVID-19**

Nuptiality is considered a demographic determinant on fertility. It began to be studied as an intermediate variable on the natural growth of population, as it is connected to fertility.

Key factors affecting nuptiality are average age for first marriage, proportion of single people compared to overall population and high mortality rate. More recently, other determinants that have gained importance are the separation between sexuality and procreation in marriages, as well as the process of family deinstitutionalization (Sobotka, 2008). Other factors to take into account are the decrease of adolescent fertility and delays in the nuptial calendar and consolidation of couples (Mills, Blossfeld & Klijzing, 2005). This last determinant has, in many cases, an effect in delaying maternity, although it is important to remark that marriage is no longer a key factor in biological reproduction, as it was in previous decades. In fact, motherhood outside of marriage has grown considerably in many European countries (Díaz-Fernández, Llorente-Marrón & Méndez-Rodríguez, 2015).

It is useful to remember that, in the XVIII century, Malthus affirmed that a high mortality leads to a subsequent increase in marriages.

The decline in marriage associated with the COVID-19 pandemic has been a global trend within the countries which had restrictions, limitations and lockdowns. Although it is too early to study the impacts of COVID-19 on marriages, some researchers have shown some initial results in the United States and Italy (Guetto et al., 2020; Wagner et al., 2020).
First Wave of COVID-19 pandemic in Spain: initial results related to marriages

Taking as a base secondary sources from National Statistics Institute of Spain (INE), such as Vital Statistics (in Spanish: Movimiento Natural de la Población), an analysis for the period 1950-2020 was made, considering the data at both national level and by each Spanish region. A special input is made on the first semester of 2020, the same period as the first wave/lockdown of the COVID-19 pandemic in Spain.

Since 1975, the evolution of marriages had a decreasing trend in Spain. In fact, looking at the descriptive data, the unemployed data serial of Spain proves that an increase in unemployment is related to a decrease of marriages. This has occurred on previous crisis, such as the Spanish Democratic Transition (1975) and the financial crisis of 2007.

Figure 1 shows the deaths’ evolution in Spain during the COVID-19 pandemic in the year 2020, and the peak of deaths, shown with provisional data, during the first lockdown in Spain. It is a good introduction to the Spanish context and evolution, just taking a glimpse of the data, especially to understand the first wave and lockdown.

During the first semester of 2020, 28,327 marriages were registered, 60.8% less than the same period of 2019. Therefore, nuptiality was deeply affected by COVID-19 during the first lockdown in Spain (March-June 2020), as the Government of Spain declared the first State of Alarm and National Lockdown on 14th March 2020. The country was paralyzed for almost all non-essential activities and the marriage data reflects it. As an example, in April 2020, just 286 marriages were registered in Spain (Figure 2).

Figure 1. Evolution of Deaths in Spain during COVID-19 (year 2020)
Source: own elaboration supported by Ministry of Health, INE Spain data.

Figure 2. Marriages during COVID-19 in Spain

*Provisional data for 2020.

Source: own elaboration supported by INE Spain data.

Looking at the regional data, it is apparent that all regions were affected with a decrease of more than 50% (Table 1). Among the ones showing the highest decrease were Melilla (-68.3%), Castile-La Mancha (-67.7%) and Madrid (-66.9%). On the other hand, the regions showing a lower decrease were: La Rioja (-51.1%),
Canary Islands (-51.8%), Basque Country and Valencian Community (-56.4%).

Although it is too early to establish a pattern that will help understand the regional difference, Madrid was the region most affected by the COVID-19 pandemic across the country. However, it was also one of the epicentres of the pandemic in the world during the first wave of COVID-19. Madrid is an urban area, densely populated and key to the nation’s economy by contrast to other areas like Castile-La Mancha, more rural and with an older population.

Table 1. Marriages on the 1st semester (2019 vs 2020)
It is important to point out that, in the year 2020, 94.21% of marriages were civil/legal and just 5.63% were Catholic marriages. The rest were marriages from other religions (0.03%) or other data (0.13%). Regarding homosexual unions, it

*Provisional data for 2020.

Source: own elaboration supported by INE Spain data.
can be highlighted that they have been increasing since 2005 (when Spain started to collect some data for this issue).

In addition, a bivariable analysis with some correlations between the decreasing trend in marriages with COVID-19 cases and deaths by 100,000 inhabitants has been produced, and the results have been a negative and weak correlation (see Figures 3, 4 and 5). As a result, the reduction of marriages could be explained by COVID-19 mortality rates across Spanish regions.

**Figure 3. Marriages growth-COVID-19 Deaths**

Source: authors’ elaboration supported by INE Spain data and Datosmacro.com.

**Figure 4. Marriages growth-Total Deaths/100k**
Source: authors’ elaboration supported by INE Spain data and Datosmacro.com.

Figure 5. Marriages growth-COVID-19 Cases /100k
Besides the lockdown, other reasons that explain the decrease of marriages were the prevention measures and restrictions, such as: limitations of groups, social distancing, quarantine, difficulties to travel, the crisis in the hospitality and catering sector, or other subjective restrictions like the fear of catching COVID-19.

**Economic variables in marriages: an econometric model**

Looking at the first semester of 2020, marriages decreased in Spain just due to the COVID-19 pandemic. As noted before, during the first semester of 2020, there were only 28,327 marriages registered (-60.8% less than the same period of 2019). In addition, the increase in unemployment rates and lack of economic development is still happening, which it going to have other consequences.

It is known that difficulties in the labour market can influence a delay on unions, which is an important point related to the current pandemic economic crisis. During 2020, the number of unemployed people increased by 8.72% (+283,100 new unemployed).

According to our results about nuptiality research in Spain since 1950, marriages were very determined with macro-economic indicators (Sanchis, 2020). An
econometric model was made by us with the GDP per capita and unemployment rates:

$$\Delta \text{Marriages} = \Delta 1 + 2 \Delta \text{GDP} + 3 \Delta \text{Unemployment Rate} + \Delta$$

This econometric model suggests that an increase of marriages must be explained by an increase of GDP per capita and a decrease of unemployment. This model was tested in Spain for NUTS-1 (with unemployed data for the period 1950-2017) and NUTS-2 (with unemployment rates for the period 1975-2017) and the results confirmed that the model was significant at 1% (Prob > F=0) for NUTS-1. For NUTS-2, the number of observations multiply for each region (Autonomous Community in Spain) being n=266 years. The p value of F statistic (Prob > F=0) was significant to 1% and the Chi Square (Prob>Chi2=0.1936) was significant to 5%.

**Conclusions**

Some causes of decreasing marriages during COVID-19 are related to prevention measures and restrictions such as limitations of groups, social distancing, quarantine, difficulties to travel, or the fear of catching COVID-19.

In Spain, during the 1st Semester of 2020, marriages were 60.8% less than the year before in 2019. Every Spanish region was affected with a decrease of more than 50% of marriages, compared to the data of the previous year.

Divorces in Spain have been decreasing since 2017, but still there are no official data for 2020, in the Spanish Institute of Statistics (INE) to know the COVID-19 effect.

According to our results with econometric models in previous research, marriages were very determined by macro-economic indicators in Spain since 1950. Consequently, facing this pandemic, it can be thought that the expected trend in the future was a decrease of marriages because of economic reasons. Other possible behaviors could be a *nuptial boom* (due to delay “Pent-up demand”, or the risk of mortality thinking about some rights and widow’s pensions), a decrease of marriages because of couple ruptures or an increase of divorces.

In the future, researchers should evaluate the impact of the COVID-19 pandemic on divorces, and the regional patterns by comparing Spain with other European
regions (e.g., using regional data from other EU countries).

References


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