# Causal factors of childlessness in Spain: leaving the parental home, economic independence, starting first relationships and career path 

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#### Abstract

The objective of this work is to study the evolution of childlessness among the female population in Spain, that is, the different situations and conditions that cause some women to not have children by the end of their reproductive life, which is around $20 \%$ of women who are 40 years old or older. The study focuses on analysing how academic and career trajectories, marital status and the formation of new households affect the decision to remain childless.


The study adopts a dual comparative perspective: first, by comparing the paths of couples who do not have children with those who have them (control group); second, by differentiating between couples who remain voluntarily childless and those who would have liked to have them, but for various reasons never did.

The data used for the analysis was taken from the 2018 Fertility Survey carried out by the Spanish National Statistics Institute (INE). This survey provides a complete history of births, marriages, creation of new households and the majority of the career paths, which allows the sequence of events to be ordered and for longitudinal-survival models to be applied in the analysis of those paths and how they impact reproduction.

The preliminary results show us very different trajectories between women with and those without children in terms of marital status, leaving the paternal home and career paths, transitions that directly affect reproduction choices.

## Extended abstract

Proposition

One of the main demographic challenges faced by Spanish society, as well as others in Southern and Eastern Europe is the low level of fertility or number of children per woman or couple. For several decades the total fertility rate has been under 1.5 children per woman and in some years it has even dropped below 1.3 children, which is within the so-called "lowest-low fertility rate" (Kohler, Billari \& Ortega, 2002). These statistics are well below the theoretical level of replacement of 2 children per woman. The decrease in fertility has been accompanied by delayed childbearing, an increase in the percentage of childless women and a decrease in the number of women with more than two children. A recent work by Esteve, Devolder and Domingo (2016) pointed out that among the generations born in the early 1970s, the largest cohorts in Spanish history, which are about to turn 50 years old, 1 out of 4 never had children.

The low level of fertility and the high percentage of childlessness in Spain is largely explained by the difference between the desired number of children and the number of children conceived (Van Peer, 2002; Castro-Martín y Martín-García, 2013). According to Castro-Martín and Martín-García (2013) the ideal number of children per woman in Spain is similar to that of nearby countries (the cases of France or Nordic countries with fertility levels near 2 children per woman), but the low fertility is explained by "missing births" or children not had despite being desired by women and their partners.

The early data just provided by Spanish National Statistics Institute in the 2018 Fertility Survey indicates that $19 \%$ of women 40 or over have remained childless (Table 1). Of these, $31.6 \%$ never wanted to have children, while $68.4 \%$ would have liked to have had them $(9.8 \%$ would have liked one child, $42 \%$ two children and $18.5 \%$ three or more). This is why it makes sense to focus on women who have not had children and analyse the causal factors, specifically the life transitions that may have affected their childbearing decisions.

Table 1. 40 year old women with or without children according to level of satisfaction with being childless (satisfied or unsatisfied).

|  | N | WITH | WITHOUT |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | CHILDREN | CHILDREN: | Unsatisfied | Satisfied |  |
| $18-19$ | 540 | $0.7 \%$ | $99.3 \%$ | $67.6 \%$ | $32.4 \%$ |
| $20-24$ | 1283 | $5.5 \%$ | $94.5 \%$ | $73.7 \%$ | $26.3 \%$ |
| $25-29$ | 1038 | $19.5 \%$ | $80.5 \%$ | $78.8 \%$ | $21.2 \%$ |
| $30-34$ | 780 | $47.2 \%$ | $52.8 \%$ | $78.2 \%$ | $21.8 \%$ |
| $35-39$ | 582 | $71.9 \%$ | $28.1 \%$ | $70.3 \%$ | $29.7 \%$ |
| $40-44$ | 474 | $80.7 \%$ | $19.3 \%$ | $59.5 \%$ | $40.5 \%$ |
| $45-49$ | 461 | $80.8 \%$ | $19.2 \%$ | $49.2 \%$ | $50.8 \%$ |
| $50-55$ | 572 | $80.7 \%$ | $19.3 \%$ | $46.0 \%$ | $54.0 \%$ |
| Total | $\mathbf{5 7 3 0}$ | $\mathbf{8 8 2 6}$ | $\mathbf{5 7 3 0}$ | $\mathbf{6 8 . 4 \%}$ | $\mathbf{3 1 . 6 \%}$ |

Source: National Fertility Survey 2018, Spanish National Statistics Institute.

## THEORETICAL FRAMEWORK: CHILDLESSNESS

Although childlessness is growing in virtually the entire European Union (OECD, 2011), little theoretical development has been made to understand it, generally using the same theories put forth for low fertility (Tanturri \& Mencarini, 2008). However, some theories explain the absence of offspring as a voluntary decision to not be parents.

Economic Theory suggests that due to the opportunity cost of having children (Becker, 1981), it could be expected that highly educated women with significant career aspirations would take the rational decision to not have children.

The Second Demographic Transition and the emergence of the Theory of Post-Materialist Values (van de Kaa, 1987) suggest that childlessness could be partially explained by shifting values, in which parenthood, backed by traditional forces such as religion, takes a back seat to selfrealization, personal satisfaction and freedom.

Catherine Hakim's Preference Theory $(2000 ; 2002)$ emphasizes preferences in lifestyles and personal values as the main factor determining fertility among women. Within the three models of women she defines (family oriented, career oriented and adaptive women) not having children would be more common among women who place their careers over family, although she does not discard the possibility that childlessness could also arise to a lesser degree in the other models.

Another theory is found in Gender Perspectives. McDonald (2000a; 2000b) argues that although women have received similar opportunities as men in education and work, this has not been
accompanied by the greater participation of men in the family in many countries. In other words, the fact that men do not participate in domestic work could end up affecting decisions to have children, because salaried work, domestic work and childrearing place a heavy burden on women. In a similar vein, Esping-Andersen (2009) points out that the entrance of women into the public sphere has not been "completed" by a similar presence of men in the private sphere, which could end up affecting the reproductive behaviour of couples.

The theories reviewed above can explain "desired" childlessness, that is, as result of a voluntary decision. However, situations of "undesired" childlessness caused by a series of postponements to childbearing that end up running into the end of the woman's reproductive period must also be taken into account. From this perspective, in which personal, social, economic and demographic factors interact, it is necessary to examine the life situations and/or transitions that lead to postponements in childbearing that run into the biological end of the reproductive period. In the case of Spain, $68.4 \%$ of childless women mainly point to issues related with relationships and economic conditions. But even some women who decided to remain childless indicate that the lack of adequate conditions in their work and family life was one of the reasons for not having children, so the decision also seems linked to their life trajectory.

Based on this theoretical review, our general hypothesis is that certain socioeconomic characteristics are tied to childlessness, such as level of education, religious beliefs or place of residence and certain characteristics derived from the family, such as number of siblings; we also hope to find effects derived from the age at which certain life transitions take place and in the order that they take place. In this sense, the decision to have children is affected by the age at which the parental home is abandoned, the age at which the labour market is entered or the age at which the first stable relationship begins, but at the same time, we expect that the order in which these transitions take place will also have a strong impact on the lack of children.

## METHODOLOGICAL APPROACH

The main source of data for this project is the 2018 Fertility Survey carried out by the Spanish National Statistics Institute. The survey is made up of 17,037 people, 14,446 women and 2,591 men with ages ranging between 18 and 55. Among the objectives of the survey are to provide information regarding aspects that condition the decision to have children, as well as the reasons for not having them.

The 2018 Fertility Survey is a retrospective source of information, which allows a longitudinal perspective to be applied to the study of male and female fertility. In other words, it provides a complete history of births, marriages and the creation of households, as well as the majority of the work history of the people interviewed. This means we are able to order each of the events and transitions that each person experiences throughout their life, which allows us to establish associations and interactions, in particular the birth (or not) of each child. Based on this, we adopt a longitudinal analytical perspective which mainly uses survival models to analyse the moment in which the parental home is abandoned, economic independence, the moment that the first relationship is formed and the first job, and their effect on the age of having the first child or remaining childless until 40 years old.

This work focuses on women 40 years or older, which includes 7,819 women aged 40-55. Of them, $88.7 \%$ have had at least one child, while the remaining $19.3 \%$ have not had any children.

## PRELIMINARY RESULTS

The preliminary results reveal heavy differences in the transitions to the creation of the first relationship, leaving the parental home and economic independence between women who have not had children and those that have had them (Figure 1). Two trajectories tend to occur simultaneously, leaving the parental home and economic independence. It is worth noting that obtaining the first job is not a factor that differentiates women with or without children and has no impact on maternity. This result reflects the instability and poor conditions of the first jobs of women 40 years or older, which is why it has no impact on having children.

The results of the Cox proportional-hazards model on the birth of the first child allows us to highlight certain variables as relevant to the decision to have children or not (Table 2): living in a rural or urban context, not practicing any religion, having Spanish nationality, having a high level of education and having few or no siblings favour not having children; on the contrary, living in a semi-urban environment, having a non-Spanish nationality, practicing a religion, having a low level of education and having had many siblings favours the transition to maternity.

Among the intermediate transitions, we find that leaving the parental home at an early age and economic independence have a strong impact on the transition to maternity, while the age at which the first stable relationship is formed and the age at which the first job was obtained do not have any importance for the transition to maternity.

Later analyses must consider the order and interaction of these transitions as determinants of maternity and, in the opposite sense, the lack of children.

Figure 1. Survival curves to different transitions among women with and without children: age of the first stable relationship, age parental home is abandoned, age of first birth, and age at which economic Independence was achieved (Kaplan-Meier Estimator).


Table 2. Cox Proportional Hazard Model Estimates - Age at First Birth.

|  |  | Model 1 <br> Exp (coef) | $\operatorname{Pr}(>\|z\|)$ | Sig. | Model 2 Exp (coef) | $\operatorname{Pr}(>\|z\|)$ | Sig. | Model 3 <br> Exp (coef) | $\operatorname{Pr}(>\|z\|)$ | Sig. | Model 4 <br> Exp (coef) | $\operatorname{Pr}(>\|\mathbf{z}\|)$ | Sig. | Model 5 <br> Exp (coef) | $\operatorname{Pr}(>\|\mathrm{z}\|)$ | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Context of residence | Urban | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Semi-urban | 1.10 | 0.00 |  | 1.09 | 0.00 |  | 1.10 | 0.00 | ** | 1.01 | 0.00 | ** | 1.10 | 0.00 | ** |
|  | Rural | 1.02 | 0.63 |  | 1.03 | 0.50 |  | 1.03 | 0.42 |  | 0.96 | 0.64 |  | 1.02 | 0.64 |  |
| Citizenship | Native | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Foreigner <br> Native + | 1.18 | 0.02 | * | 1.08 | 0.25 |  | 1.13 | 0.07 |  | 1.15 | 0.01 | ** | 1.20 | 0.01 | ** |
|  | foreigner | 1.24 | 0.00 |  | 1.10 | 0.17 |  | 1.18 | 0.03 | * | 1.26 | 0.00 |  | 1.25 | 0.00 |  |
| Religion | Catholic | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Other | 0.99 | 0.84 |  | 1.00 | 0.95 |  | 0.99 | 0.92 |  | 1.02 | 0.91 |  | 0.99 | 0.91 |  |
|  | Any DNA (does | 0.85 | 0.00 |  | 0.79 | 0.00 | *** | 0.81 | 0.00 | *** | 0.82 | 0.00 | *** | 0.84 | 0.00 | *** |
|  | not answer) | 0.75 | 0.00 |  | 0.73 | 0.00 | *** | 0.74 | 0.00 | *** | 0.79 | 0.00 | *** | 0.75 | 0.00 | *** |
| Education | Primary | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Secondary <br> High School <br> +Vocational | 0.92 | $0.03$ | * | 0.91 | $0.02$ | * | 0.90 | $0.01$ | * | 1.00 | 0.02 | * | 0.91 | 0.02 | * |
|  |  | 0.73 | 0.00 |  | 0.74 | 0.00 | *** | 0.72 | 0.00 | *** | 0.85 | 0.00 | *** | 0.73 | 0.00 | *** |
|  | Tertiary | 0.59 | 0.00 |  | 0.59 | 0.00 | *** | 0.60 | 0.00 |  | 0.80 | 0.00 | *** | 0.59 | 0.00 | *** |
| Cohort | 1962-69 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1970-79 | 0.99 | 0.65 |  | 0.97 | 0.22 |  | 0.96 | 0.18 |  | 1.05 | 0.48 |  | 0.98 | 0.48 |  |
| Number of siblings | $\mathbf{n}^{\mathbf{0}}$ | 1.04 | $0.00$ |  | 1.03 | 0.00 | *** | 1.03 | 0.00 | *** | 1.03 | 0.00 | *** | 1.04 | 0.00 | *** |
| Departure from paternal home |  |  |  |  | 0.96 | 2E-16 | *** |  |  |  |  |  |  |  |  |  |
| Economic independence |  |  |  |  |  |  |  | 0.974018 | 2E-16 | *** |  |  |  |  |  |  |
| Age at first couple |  |  |  |  |  |  |  |  |  |  | 0.917 | 0.060 |  |  |  |  |
| Age at frist job |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.997 | 0.060 | . |

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