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The effect of culture on the fertility decisions of immigrant women in the United States

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ABSTRACT

This paper examines whether culture plays a role in the number of children born. We use data on immigrant women who arrived in the United States when younger than age six. Since all these women grew up under the same laws, institutions, and economic conditions, then the differences between them by country of origin may be due to cultural differences. We identify the cultural effect, exploiting variations in the mean number of children born by country of origin, age, education level, and employment status. Results show that the home-country mean number of children born has a positive relationship to the number of children born of immigrants living in the US, suggesting that culture is important. Additionally, we extend this work to an analysis of both the decision to have children and the number of children born, finding again that culture appears to play a significant role.

1. Introduction

How many children would you like to have? According to the World Values Survey, the response should normally be between none and three, since around 80% of the individuals who responded to that survey during the period 1981–2004 chose that as their ideal number of children.[1] But how has the fertility rate evolved from the last decades of the 20th century? As shown in Fig. 1, the total fertility rate, calculated for all the countries with information on that rate, from 1980 to 2014, has fallen significantly (World Bank Data, 2014) and does not appear to be bottoming out.[2] In many countries, the total fertility rate has dropped to worrying levels, below the replacement rate, set at 2.1 children per woman. Even the media highlight the necessity to analyze these low levels of fertility (The Economist, 2014). Several studies have explored the factors that may explain the progressive decline in the fertility rate, focusing on the increase in the participation of women in the labor market (Ahn and Mira, 2002; Brewster and Rindfuss, 2000; Engelhardt et al., 2004; Michael, 1985), the increased opportunity cost of women's time (Becker, 1981), technological progress (Galor and Weil, 1996; Greenwood and Seshadri, 2002), the decline in infant mortality rates (Doepke, 2005; Sah, 1991), the reform of the laws that have made birth control and abortion more accessible (Ananat et al., 2007; Goldin and Katz, 2000, 2002; Guldi, 2008), the public debt (Fanti and Spataro, 2013), housing prices (Day and Guest, 2016), and the introduction of reforms in divorce laws (Bellido and Marcén, 2014), among others.

Although all of these factors, separately and together, can influence the evolution of fertility rates in the majority of countries, a global pattern of convergence of fertility behavior is not clearly observed (see Fig. 2). Those countries with low fertility rates in 1980 maintain those low rates in 2014. The same occurs in most of the countries with high fertility rates during the 1980s; their fertility rates remain high in 2014.[3] This leads us to ask whether there are social norms or cultural attitudes that affect the number of children that women decide to have, or are such economic and institutional differences the only things that matter. In this paper, we examine the possible effect of culture on the number of children being born.

Following the definition proposed by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2001), we define culture as *the set of distinctive spiritual, material, intellectual, and emotional features of society or a social group. Not only does this encompass art and literature,*

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[1] In the subsequent waves of the World Values Survey, that question or a similar one has not been included.

[2] The total fertility rate is defined as the mean number of children that would be born alive to a woman during her life time if she were to pass through her childbearing years conforming to the fertility rates by age of a given year.

[3] For those countries having high fertility rates in 1980, there are more variations in the fertility rates observed in 2014, although, as we mention above, most of them have maintained high fertility rates through 2014.

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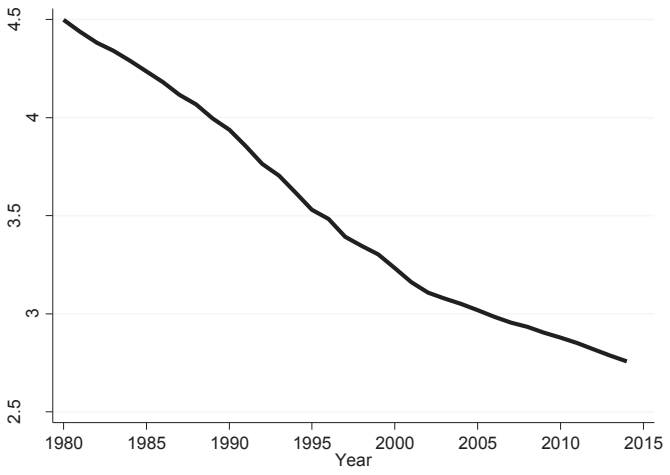

Fig. 1. Evolution of the total fertility rate from 1980 to 2014. Notes: Data come from the World Bank. The mean TFR represented in this figure has been calculated using information on all countries with available data for the period considered.

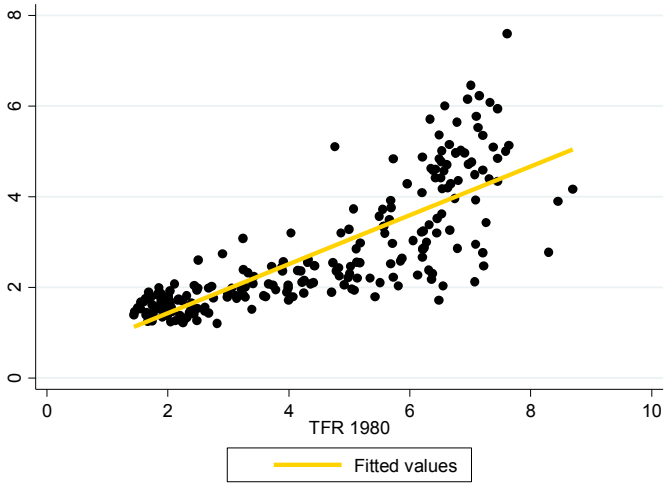

Fig. 2. Relationship between the TFR in 1980 and the TFR in 2014, by country. Notes: Data come from the World Bank.

but it also includes lifestyles, ways of living together, value systems, traditions, and beliefs. Nearly all researchers would agree that culture is an important determinant of human behavior (Giuliano, 2016), but it is not easy to measure. The interrelation among institutions, economic conditions, and social norms is one source of that difficulty (Fernández, 2007; Sevilla, 2010). In order to isolate the impact of culture from the effect of institutions and economic conditions, we follow the epidemiological approach (Fernández, 2007), by exploring the behavior of immigrant women who arrived in the US before age 6, and whose ethnicity or country of origin is known. To document the importance of the impact of culture on the number of children that women decide to have, we use dissimilarities in the number of children born by country of origin, since women's attitudes are probably similar to the preferences of their parents, forebears, and ethnic communities.

There is a growing literature analyzing the impact of culture on socioeconomic and demographic variables (Fernández, 2011; Giuliano, 2016). Utilizing empirical strategies analogous to ours, researchers have shown the substantial effect of culture on women's labor force participation and fertility (Contreras and Plaza, 2010; Fernández, 2007; Fernández and Fogli, 2006, 2009), self-employment (Marcén, 2014), the search for a job (Eugster et al., 2017), on living arrangements (Giuliano, 2007), divorce (Furtado et al., 2013), on the math gender gap (Nollenberger et al., 2016), and even on the fertility behavior of teen women (Bellido et al., 2016). We contribute to these lines of research by extending the analysis of the impact of culture on the number children born.

Our work is related to prior studies that examine the effect of culture on fertility decisions (Bellido et al., 2016; Fernández and Fogli, 2006, 2009). As Adserà and Ferrer (2015) highlight, much work is still to be done to explore this relationship. They note the necessity of improving data availability. Fernández and Fogli (2009) use data from the 1970 US Census, whereas Fernández and Fogli (2006) employ the General Social Survey for the years 1977, 1978, 1980, and 1982–1987, in both cases with almost all countries of origin being European countries. Bellido et al. (2016) include in the sample some developing countries, but using a final sample of 10 countries, using the NLSY79 and the NLSY97 to explore the relationship between culture and teen motherhood. In our case, we use data from the 5% Integrated Public Use Microdata Series (IPUMS) of the 1990 US Census (Ruggles et al., 2015), which is the last Census containing information on the number of children born per woman. Using this dataset, and following Blau et al. (2013), we expand the analysis to more recent data that allows us to incorporate more individuals originating from Latin America and Asia, who represent a substantial proportion of the immigrants arriving in the US in the latest waves of the 20th century, reducing the weight of those originating from Europe (which constitute the main sample of the prior literature). The incorporation of individuals from developing countries is interesting to check whether the cultural effect is maintained when we add those originating from countries with greater differences - not only cultural but also in markets and institutions - from the country of destination. It can be, arguably, that living in a more developed country, in our case, the US, could make the transmission of a fertility culture of a less developed country more problematic, which would decrease the importance of social norms in fertility decisions. Additionally, the utilization of more recent data permits us to examine whether the fertility culture is still observed after the changes in the participation of women in the labor force, which may affect the transmission of culture, making social norms less important than markets and institutions in the fertility decisions of women during the last decades of the 20th century. Heterogeneity within the countries of origin is also another relevant issue which, as Adserà and Ferrer (2015) claim, can also be more precisely considered in the more recent studies of fertility culture. Prior literature (Bellido et al., 2016; Fernández and Fogli, 2006, 2009) utilizes the TFR of each country of origin as the fertility cultural proxy. They use only one measure of fertility culture for each country of origin, assuming that fertility culture does not differ within each country of origin, which is a strong supposition (Adserà and Ferrer, 2015). In our case, to capture the effect of culture, we utilize data from the Integrated Public Use Microdata Series International (International IPUMS), Minnesota Population Center (2015). The International IPUMS provides rich information that, in contrast to prior research on the effect of culture on fertility decisions, permits us to measure the cultural variable by age, education level, and employment status, taking into account, at least in part, the heterogeneity of women's characteristics within countries of origin, which leads to better estimations of the effect of culture. The definition of the fertility culture also generates controversy since it is possible to suppose that not only differences in fertility culture across countries are captured by the cultural proxy, the total fertility rate (TFR), but also other dissimilarities across countries (Furtado et al., 2013). To tackle this issue, we introduce country of origin fixed effects. This is possible because of the way in which the cultural proxy is measured by age, education level, and employment status. As before, this improves the estimates on fertility culture. In addition, we contribute to the literature by exploring the effect of culture on both the decision to have a child and the number of children that women decide to have. To the best of our knowledge, this has not been previously studied in the literature. This is not a minor point, given the considerable increase in the number of women having no children (Abma and Martínez, 2006). The search for the underlying factors, such