Mexican Fertility Transition in the American Mirror

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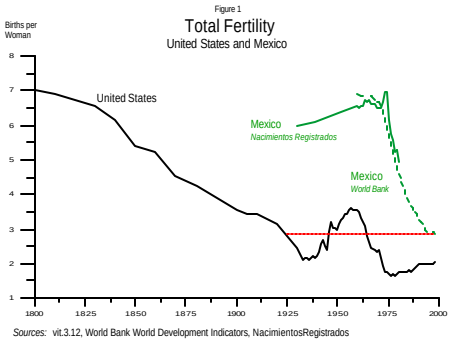
The Mexican fertility decline is one of the most precipitous in world history. As late as 1970 total fertility was approximately seven; thirty years later it was less than three.



While few countries besides Mexico have exhibited total fertility as high as seven; as it happens, the United States is one of them. Annual statistics on total fertility for the United States from 1800 and for Mexico from 1930 are shown in Figure 1. Because some women never marry and others are infertile or develop secondary infertility, or because their husbands are infertile or develop secondary infertility, total fertility of seven children per woman is close to the biological maximum for large, heterogeneous populations such as those of the United States and Mexico. From these high levels, the series for each country show a largely continuous and steady decline.[1]

The consequences of these transitions were profound. Slower population growth facilitated the growth of the capital-labor ratio and reduced the dependency rate, contributing to more rapid economic growth. Lower fertility was accompanied by increasing education, later marriage, and greater labor force participation for women.[2]

The analytical literature on the Mexican fertility decline is surprisingly limited.[3] Almost all of the available quantitative studies rely on data collected in the United Nations' World Fertility Surveys conducted in Mexico in 1976/77 and in 1987. The focus of this literature is on the implications of a reversal of the government's population policy in 1973. The government's initial policy, formalized in 1947, actively encouraged high fertility by promoting marriage, prohibiting the sale and use of contraceptives, and making abortion a crime. In 1973 a new law put modern family-planning services into public hospitals and clinics, advertised their availability, and encouraged their use. Special efforts were added to facilitate women's access to these services even when her husband disapproved (Alba and Potter 1986). Not surprisingly, all available studies find increased contraceptive use following this decisive policy reversal.

Our own interest in this story is with the forces prompting the demand for reduced fertility. One of the points on which economists agree is that making contraceptives available will not, by itself, assure that they are used. Couples and/or women must have some desire to avert births before they adopt these technologies. The available literature suggests that between 1940 and 1970 demand for fertility control was largely absent. This is because high fertility seemed to enhance the economic well-being of rural families. Large families were better able than small ones to take advantage of off-farm employment opportunities in Mexican commercial agriculture, in Mexican urban construction and services, and in U.S. agricultural labor under the auspices of the Braceros Program which operated

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[1] The exception for the United States is the post-World War II "Baby Boom"; the exception for Mexico is the fertility rise in the 1960s. There is an extensive literature on the American Baby Boom (see Easterlin 1987). The Mexican fertility rise in the 1960s is generally attributed to improved fecundity. See Feliciano (2000).

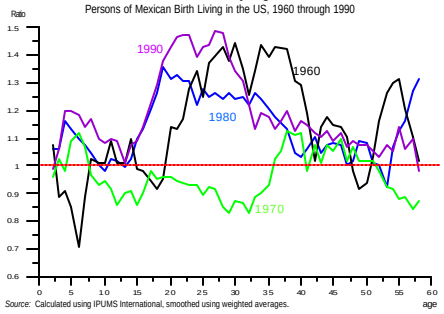
[2] See Mier y Terán (1993) for Mexico and Carter, Ransom, and Sutch (2003) for the United States.

[3] We have reviewed the English language literature ourselves but rely on Feliciano (2000) for a characterization of the literature in Spanish.

between 1942 and 1964. While these jobs paid good wages relative to those available in most of rural Mexico, they were temporary positions that required expensive and risky investments in information and in migration. Larger families were better positioned than smaller ones to manage these risks and thereby benefit from the opportunities.[4]

We are particularly interested in exploring the role of the Braceros Program in contributing to the incentives for high fertility and in the implications of its conclusion in 1964 for undermining the logic of the high-fertility regime. Quantitatively, the Braceros Program played an important role in the Mexican economy. At its height in about 1960, the Braceros Program engaged almost 500,000 persons annually, virtually all of them young-adult males born in Mexico. This flow is equivalent to approximately 15 percent of the entire Mexican male population between the ages of 18 and 30 years of age.[5]

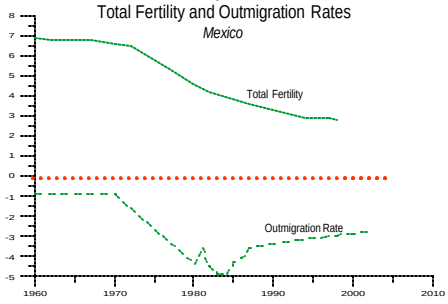
Figure 2
Sex Ratio by Age
Persons of Mexican Birth Living in the US, 1960 through 1990



Source: Calculated using IPUMS International, smoothed using weighted averages.

Propitiously, from the Mexican point of view, the unilateral U.S. conclusion of the Braceros Program took place at a time of rapid economic growth and prosperity within Mexico. Many Mexican-born residents of the United States took that opportunity to return to their home country and reestablish their lives there. While we have no accurate figures on the extent of the return migration at this time, the sex ratio data for Mexican-born U.S. residents in the decennial census of 1970, shown in Figure 2, hints at the story. It displays sex ratios by age for the Mexican-born population living in the United States at the time of the censuses of 1960, 1970, 1980, and 1990. High sex ratios in the young-adult age groups are apparent in 1960 and then again in 1980 and 1990. In 1970, however, the sex ratio is below one in these age groups, suggesting a fairly substantial return of Mexican-born males back to their home countries sometime during the 1960s.

Figure 3
Total Fertility and Outmigration Rates
Mexico



Sources: U.S. Census Bureau, International Data Base and World Bank, World Development Indicators.

When the Mexican economy began to falter in the 1970s, temporary jobs in the urban construction and service sectors and even in Mexican commercial agriculture vanished. This put pressure on families to send young adult males back into the United States in search of work. World Bank estimates of these outflows, expressed as a share of the population, are shown in Figure 3. We are intrigued by the strong connection between these outflows and the fertility decline.

This paper is an effort to explore the role of out migration as a stimulus for the Mexican fertility reduction under two regimes: the Braceros Program which facilitated both out and return migration and the informal system of undocumented movements in which U.S. government policies acted as a damper on both of these flows. Our approach is inspired by our earlier work with Roger Ransom (forthcoming 2003) on the fertility transition in the United States in the early nineteenth century. There we argue that the fertility decline was prompted by a reversal of the flow of services away from children to parents and toward parents to children in the wake of the heavy migration of young adults out of the northeast following the Louisiana Purchase and the opening of the West. We make use of a variety of sources, especially data from the Mexican censuses of 1960, 1970, 1990, and 2000, recently made available by the IPUMS International project (see Sobek, Ruggles, et al., 2002).[6] We find that the Mexican fertility reduction was an overwhelmingly rural phenomenon, concentrated in those states that experienced the most extensive out-migration of

[4] For an overview of the extensive literature on this topic see Alba and Potter (1986).
[5] Mexican population estimated from IPUMS International; Braceros Program flows from Barde, Carter, and Sutch (forthcoming 2004).
[6] The Mexican Census of 1980 is not available in electronic format

youth, and already underway before the government-financed program that made contraceptive technologies readily available to the mass of the population.

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