DeAnna L. Gore
University of South Carolina Aiken
PAA Abstract 2011

Woman's Status and the Transitions to First, Second, and Third Births in Turkey

Turkey is a unique case in the study of gender equity and fertility. Over the past century, the country has experienced both social and economic changes that have led to an alteration in women's status, which in turn has affected demographic behavior, specifically fertility behavior. The coexistence of modern and traditional attitudes and behaviors is prevalent in the social and cultural life in Turkey. Turkey is noted as one of the few Muslim countries to achieve both near replacement level fertility and equality for men and women in terms of legal rights. Despite being a secular government, the old traditions of the Islamic patriarchal family continue to thrive – especially in the rural areas (Obermeyer 1992; Jejeebhoy and Sathar 2001; Morgan et al 2002). As of 2003, the total fertility rate in Turkey was around 2.2 children per woman, but fertility continues to vary significantly according to social class, cultural background, and geographic location. This heterogeneity makes Turkey a particularly interesting context within which to examine the relationship between gender and fertility. In this project, I will use the 2003 Turkish Demographic and Health Survey to examine how different aspects of women's status affect the risk of first, second, and third births.

Status is often used to measure gender inequality and "refers to women's overall position in the society" (Safilios-Rothschild 1982: 122). An increase in gender equality within the family, as measured by status, can be a fundamental force in the transition from high to replacement level fertility (Abadian 1996; McDonald 2000). Previous studies show an inverse relationship between status and fertility, where women with higher status have fewer children (Cain 1984; Balk 1994; Basu 1996; Gwako 1997). When women have a higher status, they typically have more decision-making power and control over household resources, and they also exercise greater power in their sexual and reproductive relations. In this context, they often make decisions which may result in delaying marriage, having fewer children, and spacing pregnancies farther apart.

The data analyzed in this project are from the 2003 Turkish Demographic and Health Survey (TDHS-2003) – a comprehensive, nationally representative survey to collect data on

demographic topics including fertility, family planning, and maternal and infant health. All married women aged 15 to 49 who were present in the household the night before the interview or who generally lived in the households were eligible for this survey. The 2003 survey obtained detailed information from a sample of 8,075 ever-married women in their reproductive ages. I restrict the sample to only women in their first marital union at the time of the interview. It is also important to note that virtually all recorded childbearing in the TDHS sample occurred within marriage. Approximately 0.5 percent of the women had their first child before marriage and these women are also dropped from the sample. Therefore, my final sample size is 7,824 ever-married women.

The dependent variable in this study is the duration hazard of a birth occurring for each of the first three birth intervals (i.e. marriage to first birth, first to second birth, and second to third birth. The exposure time ends when the next child is born or, for right censored cases, with the survey date. The mean interval duration is 20 months for the first birth interval. Among those who go on to have at least two children, the mean interval duration is 34 months for the second birth interval. Among those who have at least three children, the mean interval duration is 38 months for the third birth interval. The mean age at birth was 21.2 years for the first birth, 23.5 years for the second birth and 25.3 years for the third birth. Figure 1 shows the cumulative proportions of women who had a first, second, or third child.

As mentioned in earlier, status refers to the position a woman has in society. While the social status of women is increasing, women in Turkey continue to be viewed primarily as wives and mothers. In a patriarchal society such as Turkey, a woman's position within the family has an integral role in determining her ability to participate in decisions about childbearing. Status is a multidimensional concept and difficult to classify as a single index item, as different dimensions of status may vary from one society to another. Therefore, multiple measures are used for status, including highest education level, premarital work experience, age at first marriage, the arrangement of marriage, and the type of marriage ceremony. I also include various background variables as controls, including: age, ethnicity (mother tongue), urban/rural residence at childhood and childhood region of residence. Controls for these concepts allow us to examine the effect of status on fertility net of these influences.

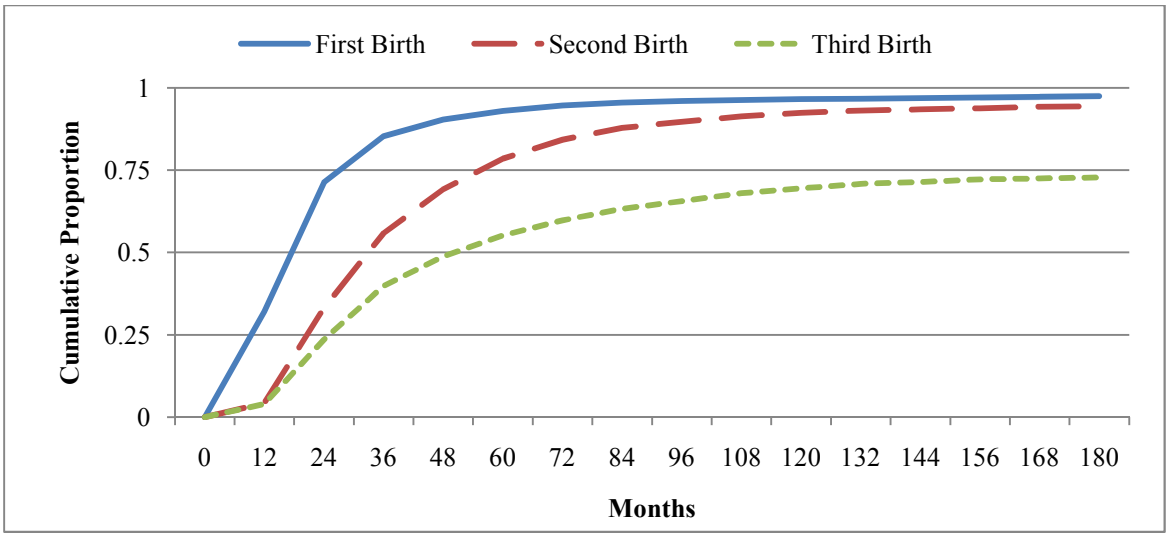

Figure1 Cumulative Proportion of Women Closing the First, Second, and Third Birth Intervals using Life Table Method

This analysis uses survival analysis to examine the relationship between women's status and fertility from a birth order perspective. Piecewise-constant exponential proportional hazard regression models are used in this analysis of birth transitions. At each duration, t, measured from a previous k^{th} birth, the woman is at risk of having her $(k+1)^{th}$ birth. This risk, also known as a hazard h(t), gives the intensity of experiencing an event (e.g. birth) at time t. The hazard rate for the transitions from marriage to first birth, first to second birth, and second to third births are estimated with respect to the status and the background measures (x). The risk, h(t), for a woman with a set of X characteristics at duration t can be expressed by equation 1:

$$h(t|X) = h_0(t) * \exp(\beta x) \quad (1)$$

where $h_0(t)$ is the hazard at duration t by all women and is called the baseline hazard function and $\exp(\beta x)$ is the exponential expression of the linear sum of $\beta_i x_i$ where β is the beta coefficient and x stands for the covariates.

Preliminary results show that the woman's highest completed educational level is one of the most important status measurements affecting the risk of birth for each parity progression. However, it is important to note that education affected the first parity progression differently compared to the second and third. In the transitions to second and third births, women with no completed education had a shorter duration time and a higher risk of birth than women with an education (either completed primary or completed secondary level). When examining the cumulative proportions and hazards from marriage to first birth, women with no education had a

longer duration between the two events while women with a primary education had the shortest. While women who did not work before marriage have a higher risk of a first birth than women who worked and were covered by social security, premarital work experience does not have a significant effect on the risk of second and third birth.

The marriage characteristics have an interesting relationship with the risk of birth for each interval. An inverted U-shaped trend is seen with the age at marriage, where women who were 16 years or younger at marriage had a significantly lower risk of first birth than women who were 19 to 21 years old at marriage. Some of the women who married at younger ages may not have reached menarche when they were first married due to their young age, which can prolong time between entry into marriage and entry into motherhood. The arrangement of marriage only has significant effects for the second and third intervals. Women who had a familial arranged marriage have a higher risk of second and third births than women who were able to choose their own spouse. Women who had a religious marriage ceremony first had a significantly higher risk of second and third birth than women who had a civil ceremony first. Additionally, women who only had a religious marriage had a *lower* risk of first birth compared to women who had the civil ceremony before the religious ceremony, whereas those with only a religious ceremony had a significantly *higher* risk of third birth.

The preliminary analysis in this study brings further insight to the relationship between women's status and the risk of first, second and third birth. To date, this is the first study that has examined and compared the effect of status on the first three parity progressions in Turkey. The preliminary results shed light on the different pattern of effects that education and age at marriage have on fertility for the first birth interval compared to the second and third birth intervals.