

Intra-family Exchange and Europe's Low Fertility

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Abstract

Correlated fertility outcomes among family members has been attributed to the effects of parents' behaviors and common family characteristics. This paper examines the importance of resource exchanges among family members fertility decline in Europe. We hypothesize that shifts in exchanges among family members of material support and labor played an important role in fertility decline. A new dataset of over 500 kinships collected in eight European countries is analyzed to evaluate intra-family influences from a set of family members that extends beyond first degree siblings and parents. We first show that individual completed fertility is significantly correlated within kinships. We then estimate multilevel models of completed fertility to account for the variance in individual fertility across kinships. Childcare exchanges have modest positive associations with completed fertility. By contrast, the intensity of aggregate exchanges of labor among kin members is negatively associated with completed fertility. Additional evidence suggests that aggregate exchange intensity also contributed to fertility decline between 1947 and 2007. These results suggest that family influences on individual fertility may partly originate with intra-family exchanges and the broader social structure of kinship.

I. Introduction

The persistence of below replacement fertility in Europe poses critical challenges for labor market policies and social insurance planning that jeopardize long-run economic growth and social cohesion. Consensus over the seriousness of these consequences is reflected in the array of policy innovations across Europe for increasing birth rates. Yet, there remains a large gap between theories of fertility and the empirical record in Europe which underscores the growing uncertainty concerning the causes of low fertility. Prevailing explanations of low fertility extend the standard economic framework for understanding fertility (Becker 1960, Willis 1973) and emphasize institutional factors such as labor market uncertainty and the costs of childbirth (e.g., Rindfuss et al. 2003, Adsera 2004, Apps and Rees 2004, Liebroer 2005, Del Boca 2006). The effects of these factors on household income, the opportunity costs of child birth and general economic outlook imply large economic tradeoffs with fertility which favor postponing births as well as common gateways to fertility such as household formation and marriage. However, it has also been shown that fertility rates in Europe often lag behind economic growth (Ahn and Mira 2002), display weakening and even positive relationships with female labor force participation (Rindfuss and Brewster 2000, Engelhardt et al 2004) and have become less responsive to changes in marriage (Kohler et al. 2006). While there is emerging consensus that postponement of childbirth presents the potential for recovering an important share of foregone births (e.g., Bongaarts and Feeney 1998, Lutz et al 2003, Sobotka 2004, Billari et al., 2006), this demographic solution to low fertility provides few insights into the causes of Europe's low fertility puzzle.

This paper examines family influences in fertility decline. We hypothesize that shifts in intra-family exchanges of both material and social support play an important role in fertility

decline. Family traditions across Europe have involved a wide array of exchanges among kin that have historically played important roles in both agrarian societies and urban enterprises. Transfers of material resources and labor occurring between generations, in-laws, siblings and more distant kin have long been central to family formation and entrepreneurial development. Such transfers pose potentially large consequences for the individual cost-benefit calculus of fertility decision-making. Intra-family exchanges may also have a larger role in fertility decision-making that extends beyond the costs of childbirth. The prevalence of intra-family exchanges may reflect a broader social cohesion within families. Greater intra-family economic integration may correspond with higher levels of emotional closeness, trust and social control. To the extent that the proximate determinants to fertility are subject to the influences of family, these elements of family cohesion present potentially important effects for fertility outcomes. Cohesive families with low fertilities may exert reinforcing influences on kin fertilities that amount to a diffusion of declining fertility among family members over time. Alternatively, cohesive families with high or low fertilities may have greater exchanges which moderate the effects of individual characteristics and non-family factors on fertility behaviors. Whether fertility behaviors are subject to inter-generational effects or are learned among siblings, the degree of family cohesion presents potentially important influences on individual fertility and the economic exchanges related to childbirth.

We analyze a new dataset of kinships to examine the relationship between intra-family exchanges of labor and completed fertility. The Kinship and Social Security (KASS) survey constructed 570 genealogies with individual socio-demographic characteristics and measures of exchanges in eight European countries. We assess the dependence in fertilities within a definition of family that extends beyond first degree family members. Many reported estimates of correlated fertilities between parents and children and among siblings suggest a dependence in

individual fertility within first-degree family members.¹ Yet, the share of these correlations attributable to broader kin influences has not been established due to the limited availability of kinship data extending beyond first degree families. We first examine the extent of correlated kin fertilities to assess the importance of broader family cohesion for fertility. We show that individual fertilities are significantly correlated within kinships. We then assess the importance of exchanges among kin for individual fertility. The available data include a battery of questions describing exchanges of labor and time among all kin members. We find that the intensity of general exchange and of childcare exchanges among non-coresident kin members are associated with completed fertility. We then examine fertility decline and show that the intensity of exchange is negatively associated with fertility decline over the period spanning 1947 to 2007. While the available data do not permit a closer inspection of the direction of causality, both sets of results are consistent with kinship effects in both individual fertility and the exchanges that are related to childbirth.

This paper proceeds in section two by outlining the pathways between family structure and individual fertility that tie family exchange to fertility decline. Section three discusses the empirical strategy and section four describes the data. Results are presented in section five.

¹ The large literature examining the inter-generational transmission of early age at first birth consistently reports positive correlations for entry to parenthood during early adulthood (McLanahan and Bumpass 1988, Furstenberg et al. 1990, Horwitz et al. 1991, Kahn and Anderson 1992, Manlove 1997, Barber 2001). Positive correlations between mothers' and daughters' completed fertility may also be found in historical population studies across Europe and Canada (Anderton et al. 1987, Pullum and Wolf 1991, Murphy and Wang 2001, Murphy and Knudsen 2002, Steenhof and Liefbroer, 2008).