Lisa Dillon, Département de démographie, Université de Montréal,
ly.dillon@umontreal.ca
Roxana Arana, Département de démographie, Université de Montréal,
roxana.ivette.arana.ovalle@umontreal.ca

Multicultural Origins of the Demographic Transition: the impact of cross-cultural proximity on fertility outcomes, 19th-century Quebec

Topic

Historical demography of the late nineteenth- and early twentieth-century fertility transition is a robust and dynamic field of research. Combining new sources of historic population data with advanced methodologies, researchers analyze fertility transitions using a variety of interpretive frameworks. In fact, historical demographers now often seek to synthesize established causal paradigms with new perspectives drawn from history, evolutionary demography, historical geography and historical economics. In the case of Quebec and Canada, previous research on fertility behaviour has indicated the importance of ethno-religious identity, economic status and proximate grandparents in predicting fertility outcomes. Newly available longitudinal and complete-count population microdata for Quebec offers an opportunity to revisit this question, this time integrating multiple interpretive frameworks. This is an especially valuable opportunity as 19th-century Quebec represents a complex socio-cultural and economic milieu in which a French Catholic population famous for a high natural fertility regime resided alongside an anglophone population with ties to New England, known for its relatively early fertility transition, and Great Britain. The proposed paper will use a family reconstitution database of the Quebec population from 1760 to 1861 alongside complete-count census microdata for 1852, 1861, 1871 and 1881 to test whether mixed Catholic-Protestant unions or residence in predominantly Protestant counties predicted an early shift in fertility behaviour on the part of a minority of Quebec Catholic families.

Literature review and context

Pathbreaking research on the historic fertility transition in the last 15 years has emphasized the importance of **exposure to social innovators** and **new ideas** about family limitation. In their study of Belgium, 1887-1934, Costa, Bocquier and Eggerickx used vital records and census data to study the diffusion of fertility control at the municipal-level. The authors used a multi-level event-history analysis, controlling for spatiotemporal contextual variables which also may have contributed to **diffusion effects**, and concluded that diffusion between proximate municipalities influenced the geographic spread of family limitation as well as the speed of fertility decline in the earliest stages of the fertility transition (Costa, Bocquier and Eggerickx, 2021, 441). Harton's study of fertility behaviour in 1880-1911 Manchester, New Hampshire, demonstrated that French-origin married women who spoke English had lower odds, even when controlling for residence in the Little Canada neighbourhood (dominated by French Canadians). Reinforcing the importance of **communication communities**, Harton also found that French-origin married women married to American men demonstrated lower fertility than their counterparts married to French-origin men (Harton, 2017, 203-206). Harton concludes "As a result, we argue that generation, language and neighbourhood variables

both strengthen and complicate our explanatory models of French-Canadian reproductive behaviour.» (translation). **Ethno-cultural identity** and the **communication of new ideas** is central to a 2023 study by Beach and Hanlon. Using sub-district-level tabulated data as well as 1881 census microdata, Beach and Hanlon argue that after 1877, "British-origin Canadians reduced their fertility sharply, even relative to other Canadians living in the same county, at exactly the same time as fertility declined in Britain," connecting this sudden decrease to the diffusion of news reports of the Bradlaugh-Besant which sparked publicity of contraceptive techniques (Beach & Hanlon, 2023, 1680).

These more recent studies of diffusion and communication communities resonate with established research on the Quebec fertility transition which emphasize the distinctiveness of **ethno-religious demographic regimes**. Gauvreau and Gossage indicate that French-speaking Catholic women in turn-of-the-century Quebec exhibited higher fertility than their Protestant counterparts (Gauvreau & Gossage, 2001, 180). Olson and Thornton described divergent fertility and mortality behaviours on the part of the 19th-century French Catholic and English Protestant communities, with the French Catholic population exhibiting generally high infant mortality and high fertility even into the twentieth century and the English Protestant community demonstrating a decline in fertility by 1870 (Olson & Thornton, 2011). Hacker and Roberts also demonstrate a positive association of religiosity and high fertility in the U.S. from 1850 to 1930 (Hacker & Roberts, 2019). At the same time, Dribe et. al. (and Olson and Thornton too) argue for the continued importance of **economic status**, observing that elites were forerunners in reducing fertility while farming families lagged behind their counterparts in moving to lowered fertility (Dribe et. al., 2017). Hacker & Roberts found that occupational structure and increasing urbanization from 1850 to 1930 "provide the most consistent and substantive contribution to fertility decline" yet argue for a more comprehensive approach which takes cultural and kinship effects into account (Hacker & Roberts, 2019, page 171). Finally, scholars drawing upon evolutionary demography perspectives have analyzed whether the **proximity of grandmothers and grandfathers** was associated with high fertility and thus a delay in the fertility transition (for example, Rotering & Bras, 2015; Hacker, Helgertz, Nelson & Roberts, 2021). Research in this field has produced contrasting results; in the case of 18th-century Quebec and 1930 Mexico, a positive association of proximate grandmothers and grandfathers with fertility has been observed (Dillon et. al, 2023; Arana, 2024).

This field's continued emphasis on cultural and kinship effects alongside important new work on diffusion prompts us to look once again at the behaviour of French Catholic husbands and wives who lived in proximity—or were even married to—English Protestants. As Harton observed for Manchester, New Hampshire, is it possible that diffusion effects also operated within mixed marriages and/or within Quebec communities which included English Protestant residents? Our proposed paper will take advantage of the unique multi-cultural context of 19th-century Quebec to better understand the role of diffusion and exposure to social innovators in declining fertility while controlling for kinship effects and socio-economic status. With the British Conquest in 1760, the Quebec population was gradually augmented by the immigration of British settlers, some arriving as British officers and soldiers, some as Loyalist

refugees from the American revolution, and some as prospective farmers seeking better opportunities in the eastern townships south of Montreal. Intermarriage of Quebec's French Catholics and British settlers began slowly; by the mid-nineteenth century, Montreal and the Eastern townships in particular formed a cultural cross-roads with French Catholic and English Protestant families living in proximity. We propose to examine whether mixed Catholic-Protestant families and Catholic families living in close proximity to English Protestant families were more likely to demonstrate early signs of fertility decline.

Data and Methods

Our proposed research will be based on a family reconstitution database of the Quebec Catholic population which has been recently extended to 1861. These data have already been integrated with the 1831 Census of Quebec, in order to add declarations of household head occupation as well as farm size and farm output to the longitudinal data. We are currently linking these longitudinal data to the 1852, 1861 and 1871 complete-count Canadian census microdata from The Canadian Peoples project in order to add further socio-economic information on household heads as well as confirm the presence and location of couples and their families members in 1861 and 1871. While our family reconstitution database focuses on Catholic families, we have integrated into these data mixed Protestant-Catholic marriages of couples who baptized their children in the Catholic church (Dillon, Amorevieta-Gentil, Gagnon & Desjardins, 2023). The historical census microdata for 1852, 1861, 1871 and 1881 will allow us to extend our study to years when the fertility transition is underway. These data will serve as a benchmark, allowing us to compare mixed marriage couples in our family reconstitution data to mixed marriage couples identified in the census. The census microdata will also allow us to create township- and/or parish-level contextual variables accounting for the socio-economic community-level characteristics as well as the ethnic profile of each community.

Our research will provide two views of fertility behaviour in nineteenth-century Quebec. The first view is derived from family reconstitution data which encompass a time period which, for the most part, precedes the fertility transition, but which affords a direct view of fertility behaviour and accounts for infant mortality. This analysis will incorporate community-level indicators drawn from the census microdata. A second view is based on analysis of census microdata, which picks up where the family reconstitution analysis leaves off, encompasses the entire population of Quebec and extends up to 1881. Our family reconstitution analysis will examine birth intervals and age at last birth, comparing mixed-marriage couples to all-Catholic couples, comparing couples who lived in Catholic-dominated/adjacent communities to those living in Protestant-dominated/adjacent communities, and controlling for the occupation of the husband and proximate kin. This analysis will use event-history analysis of the time to next birth and regression analysis of age at last birth to maximize the longitudinal nature of the data. Our census analysis will examine the number of own-children under 5, once again comparing mixed-marriage couples to all-Catholic couples, comparing couples who lived in Catholic-dominated/adjacent communities to those living in Protestant-dominated/adjacent communities and controlling for the occupation of the husband and

proximate kin. We expect to observe among French-Catholics a negative association of fertility with mixed Protestant-Catholic marriages and residential proximity to Protestants, but expect to only observe this in our census microdata for a later period.

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