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Are Rural Areas Holdouts in the Second Demographic Transition? Evidence From Canada and the United States

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ABSTRACT A central premise of the first demographic transition theory is that demographic change would occur more slowly in rural than urban areas. Few studies, however, have investigated whether rural areas remain holdouts during the second demographic transition. To address this gap, this study (1) examines trends among rural and urban families in Canada and the United States over a 30-year period and (2) determines whether compositional differences in demographic, socioeconomic, and religious factors explain current differences between rural and urban families. We find that rural Canadian women continue to have, on average, 0.6 more children than urban women. However, rural families do not trail behind urban families on any other indicator of family change. In fact, rural women in both countries are now significantly more likely to cohabit and roughly 10 percentage points more likely to have children outside of marriage than urban women. These differences are largely explained by lower levels of education and income among rural American women and fewer immigrants in rural Canada. Examining family change through a rural–urban lens fills important empirical gaps and yields novel insights into current debates on the fundamental causes of ongoing family change in high-income countries.

KEYWORDS Second demographic transition • Family change • Rural sociology • Canada • United States

Introduction

The contrasts between rural and urban ways of life and demographic behaviors were central to the theoretical underpinnings of the (first) demographic transition. Demographers who sought to understand what drove the transition from high fertility and mortality to low fertility and mortality throughout much of the West during the late eighteenth and nineteenth centuries often discussed urbanization, industrialization, and the decline of subsistence agriculture. In his classic explanation of demographic change, Notestein (1953) identified the "urban industrial society" as the catalyst for the initial fertility decline in Europe and North America. Specifically, he drew attention to two key features of urban life. First, he noted that "urban life stripped the family of many functions of production, consumption, recreation, and education" (Notestein 1953:16).

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In Notestein's view, the burgeoning urban economies, which were fueled by factory employment, compelled individuals to stand on their own accomplishments, undermining their reliance on large families. In contrast, rural agricultural-based economies continued to incentivize the formation of large families through early marriage and high fertility within marriage (Notestein 1953). Second, Notestein argued that "the anonymity of city life reduced the pressure toward traditional behavior exerted by the family and the community" (Notestein 1953:16). Thus, economic structures and social norms in rural areas were expected to encourage nearly universal marriage and high fertility and discourage remaining single, being childless, or having children outside of marriage.

Most empirical analyses supported these theoretical expectations, although the negative association between urban residence and fertility was often weaker than anticipated (Coale and Watkins 1986; Garenne 2008; Heuveline 2001; Hirschman 1994; White et al. 2008). Diffusion theories helped explain these findings by arguing that social norms about family formation and reproductive behaviors would spread from urban cores to the rural periphery, eventually reducing fertility rates in rural areas. However, theories of the first demographic transition maintained that although they would change, rural fertility and family behaviors would lag behind those in urban areas (Bongaarts and Watkins 1996).

In recent decades, many demographers have shifted their focus from explanations of why fertility rates initially fell during the (first) demographic transition to understanding why fertility continues to fall below replacement levels and what explains the decline in marriage and the related, but not synonymous, increase in the proportion of children born outside of marriage. Both low fertility and greater diversity in union and family types have become common demographic characteristics of most high-income countries, although the causes of these demographic changes are debated (Zaidi and Morgan 2017). Perhaps the best-known explanation for these recent changes is the second demographic transition (SDT) theory. As originally articulated, the SDT theory posits that these recent changes in fertility and family behaviors are driven by increased secularization and changing values that emphasize individualistic expression and self-actualization (Lesthaeghe and van de Kaa 1986; van de Kaa 1987). Other researchers have critiqued the importance of ideational change, arguing that institutional contexts (Heuveline and Timberlake 2004; Perelli-Harris and Lyons-Amos 2016; Rindfuss et al. 2016), economic structures (McLanahan 2004; Perelli-Harris et al. 2010), and gender norms (Goldscheider et al. 2015) are primarily responsible for declining fertility and increasing family variation.

Each of these theories of recent family change has implications for rural–urban family trajectories and for current differences between rural and urban families. Yet, in contrast to theories of the first demographic transition, variation in rural and urban family behaviors receives scant attention in theoretical or empirical studies focusing on the SDT. One of the few exceptions is a study in Poland and the United Kingdom examining spatial variation in the SDT across the rural–urban continuum (Walford and Kurek 2016). This study found evidence that declines in total fertility and increases in nonmarital births spread from more urban to more rural areas but that rural areas still trail urban areas in both countries. Unfortunately, this study focused exclusively on fertility outcomes and did not evaluate other key markers of family change, such as union status. Previous research also demonstrated that family change

evolves quite differently across different countries (Heuveline and Timberlake 2004; Sobotka 2008). Further research is therefore needed to understand whether rural areas have remained holdouts with respect to the timing and type of family formation.

This study aims to use a comparative rural–urban lens to yield fresh insights into recent family change. We focus on three outcomes capturing multiple dimensions of family change: (1) women's union status, (2) the number of children ever born, and (3) nonmarital births. First, we explore how rural and urban families in the United States and Canada have changed over the past 30 years. Specifically, we test whether gaps in these rural and urban family behaviors have persisted, converged, or even reversed. Second, if rural–urban family behaviors currently differ, we examine whether differences in the demographic characteristics, socioeconomic status (SES), and religiosity of rural and urban populations account for them. Our analyses focus on the United States and Canada, comparing the trends and underlying drivers of rural–urban differences in two high-income countries in North America.

Theoretical Predictions of Trends Among Rural and Urban Families

There are equally plausible theoretical reasons to think that rural–urban differences have persisted, converged, or perhaps even reversed. Proponents of ideological change as the primary driver of family behavior would likely contend that rural areas will remain holdouts in the SDT. Urban centers are often characterized as hubs of creative individualism that foster self-expression. In contrast, rural areas are regularly portrayed as bulwarks of traditional family values, which are more resistant to the tides of secularization and individualization (Albrecht and Albrecht 1996). Some rural scholars have argued that these cultural, religious, and political divisions have increased in recent years in light of growing economic despair in many U.S. rural areas (Albrecht 2022; Cramer 2016; Monnat and Brown 2017; Wuthnow 2018). Consequently, although rural families might experience some change, differences between rural and urban families would persist well into the SDT.

Other rural scholars, however, have argued that advancements in communication technology, economic integration, and transportation have blurred the once-sharp rural–urban economic, social, and cultural divide (Lichter and Brown 2011; Lichter and Ziliak 2017). Importantly, rural and urban economies have become more similar. For example, since the early 2000s, roughly only 6% of rural American workers earn a living from agriculture, forestry, fishing, or mining (Glauber and Schaefer 2018; Sherman 2009). Instead, a growing proportion of rural Americans and Canadians work in the manufacturing, retail, and service sectors (Mattingly 2020). These changes in rural adults' economic livelihoods, along with child labor laws and mandatory schooling for children, reduce the economic advantages of marriage and high fertility. As a result, marriage rates and fertility in rural areas might decline, as they have in urban areas. Similarly, despite more limited internet access in rural areas, most rural households now have an internet connection (Dobis et al. 2022). The proliferation of social media platforms and virtual social networks has allowed rural residents to build social relationships beyond their communities, thereby avoiding the direct surveillance of neighbors and family members. Rural residents are also regularly exposed to urban lifestyles indirectly through movies and television and directly

through trips to nearby cities, facilitated by reduced transportation costs (Lichter and Brown 2011). Consequently, social prohibitions regarding some behaviors, such as cohabitation and nonmarital parenthood, might have weakened in rural areas. In short, profound social, technological, and economic changes in rural communities might have prompted a convergence in family norms and practices.

A third possibility is that rural and urban families have reversed their behaviors. Historically, rural adults were more likely to marry, have more children, and raise their children in two-parent married households relative to their urban counterparts, but the opposite might be true today. Proponents of economic structural explanations of family change have shown that socioeconomically disadvantaged women, particularly those with lower levels of education, are less likely to marry and to form stable unions and are more likely to raise their children as a single or cohabiting parent (McLanahan 2004; Perelli-Harris et al. 2010). The cumulative effects of economic restructuring, the 2008 Great Recession, and ongoing globalization have transformed and often decimated once-robust rural economies (Thiede et al. 2018; Thiede and Slack 2017). Many jobs in rural areas are not family-friendly, with irregular hours and limited maternity leave and sick days (Glauber and Young 2015; Struthers 2014).

In addition, to compensate for the loss of traditionally masculine and well-paying jobs in extractive and manufacturing industries in rural areas, a large proportion of rural women entered the labor force, disrupting men's traditional breadwinning role (Sherman 2009; Smith 2017). Yet, rural men in the United States and Canada contribute less to childcare and household chores, even when their wives work outside the household (Batty 2022; Smith 2017). These gender role disruptions might increase family instability and lower fertility in rural areas, given that rural women bear the double burden of being the primary earner outside the household and the caregiver within the household (Goldscheider et al. 2015). Hence, theories of family change drawing on economic disadvantage and gender norms raise the prospect of a reversal of traditional family behaviors, with rural families experiencing lower marriage rates, greater union instability, higher nonmarital childbirth rates, and possibly even lower fertility relative to urban families.

The empirical merit of these contrasting theoretical expectations in recent decades is largely unknown. Despite drastic changes in rural American families in the 1980s and 1990s, demographic research on rural families since the early 2000s has been limited in the United States and virtually nonexistent in Canada (Brooks and Voltaire 2020; Tickamyer 2020). As late as the 1970s, rural families in North America could be accurately depicted as larger and more traditional than their urban counterparts, with higher marriage rates and a larger proportion of children being raised in married-parent households (Albrecht and Albrecht 1996). However, U.S. data from the 1980s and 1990s suggest that rural and urban family behaviors had started to converge on some dimensions (Albrecht and Albrecht 2000; MacTavish and Salamon 2003; Snyder and McLaughlin 2004). Much of this earlier work focused on the relationship between family structures and rural poverty, particularly child poverty (Horton and Allen 1998; Lichter and Eggebeen 1992; Lichter and McLaughlin 1995; Snyder and McLaughlin 2004, 2006; Snyder et al. 2006). Cohabiting and female-headed households were more common in central cities than rural areas at the turn of the second millennium (Snyder and McLaughlin 2006). However, by 2006, the proportion of American children living in single-parent households was roughly equal in rural and

urban areas (19% vs. 21%), and the proportion of children living with cohabiting parents was higher in rural areas (7% vs. 4%; O'Hare et al. 2009). Other measures of family structures, including marital status and household size and composition, also showed signs of convergence with U.S. urban families during the early 2000s (Carson and Mattingly 2014; Daniels et al. 2018; Mattingly 2020). Nonetheless, as late as the mid-1990s, rural women remained significantly less likely than urban women to form a cohabiting union or have a nonmarital birth (Albrecht and Albrecht 2004; Snyder 2006; Snyder et al. 2004). Suburban women also faced the lowest risk of divorce, but rural women remained less likely to divorce than urban women (Snyder 2011).

Whether these trends in union status and family structures in the United States have continued, especially since the Great Recession, is unclear. Recent fertility data from government reports show that although total fertility rates (TFR) have fallen in both rural and urban areas in the United States, they remain higher in rural areas—by approximately 0.2 children in 2017 (Ely and Hamilton 2018). Rural–urban fertility disparities might be even greater in Canada. One report indicated that the TFR in 2001 was lowest in the biggest cities (i.e., Toronto, Montreal, and Vancouver), with a TFR of 1.5, and highest in the nation's most rural areas, with a TFR of 2.3 (Malenfant et al. 2007). However, to our knowledge, no prior study has compared rural and urban union status in Canada, and no study has examined rural Canada's fertility since 2001.

Demographic, Socioeconomic, and Religious Characteristics Shaping Rural and Urban Family Behaviors

Exploring the factors driving *current* rural–urban differences can yield additional insights into rural and urban families. There are known differences in the demographic, SES, and religious composition of each country's rural and urban populations that might at least partially account for current rural–urban gaps in family behaviors. In Canada and the United States, rural areas tend to be less ethnically diverse than urban areas (Mattingly 2020). Nonetheless, U.S. rural areas contain sizable Black and Hispanic populations, and roughly half of Canada's Indigenous population lives in rural areas (Jones et al. 2021; Lichter and Johnson 2020; Statistics Canada 2022b). In recent years, racial and ethnic diversity in the rural United States has increased markedly, primarily through the growth of Hispanic migrants of the reproductive ages of 15–44 (Lichter and Johnson 2020). No similar trend has been documented in Canada, given that few immigrants in Canada reside in rural areas (Statistics Canada 2021). Further, although Hispanics represent the majority of U.S. immigrants in both rural and urban areas, more than half of new immigrants to Canada come from Asia (Statistics Canada 2017).

These differences in the racial, ethnic, and immigrant composition of rural and urban areas of Canada and the United States could have important implications for their fertility and union formation behaviors. Fertility tends to be higher among immigrant Hispanic populations and lower among Asians (Parrado 2011; Statistics Canada 2017). In addition, cohabitation is high among African Americans and Indigenous groups but relatively low among Asians and Hispanics, particularly as a context for having children (Laplante and Fostik 2016; Lesthaeghe 2020).

Rural and urban populations also differ in SES characteristics closely associated with family behaviors. Rural areas, on average, have higher poverty levels, less stable employment, and lower educational levels than urban areas (Johnson and Reimer 2019; Rich et al. 2021; Thiede et al. 2018). In 2017, only 20% of rural Canadians had a bachelor's degree compared with 34% of urban Canadians (Ysasi et al. 2018). Similar educational discrepancies exist in the United States, where only 19% of rural adults but 33% of urban adults hold a bachelor's degree (Marré 2017). Higher education and SES are associated with more stable marriages and lower nonmarital childbirth and cohabitation rates (Gibson-Davis et al. 2005; Hogendoorn et al. 2022; Kalmijn 2013; Perelli-Harris et al. 2010; Sobotka 2008; Wright 2018).

In addition, rural populations are often characterized as more religious (Chalfant and Heller 1991; Reynolds and Walther 2020; Wuthnow 2018), which could shape family behaviors. Long-standing research has shown a strong positive association between religiosity and being married and having children and negative correlations between religiosity and cohabitation (Thornton et al. 1992). Nonetheless, evidence suggests a steady downward trend in participation in religious services in rural areas (Clark 2000). Whether this decline corresponds to a decrease in marriage and parenthood and a rise in cohabitation and nonmarital fertility in rural areas is unknown.

The extent to which differences in demographic characteristics, SES, and religiosity account for differences in rural and urban family behaviors has theoretical implications. If lower educational and income levels account for observed differences in fertility, cohabitation, or nonmarital childbirth in rural and urban settings, then economic structures are likely to be driving these differences. These findings would provide novel support to prior studies that examined variation by race and educational level to argue that economic disadvantage is the primary driver of recent family change. In contrast, if our empirical analyses identify religiosity differences as the key drivers of rural–urban differences, it would bolster theories that cultural values and ideational beliefs are the most important factors governing family change.

Data and Methods

Analytic Samples

To examine differences in family change between rural and urban contexts in Canada and the United States, we use nationally representative survey data from each country. For Canada, we use five cycles (1990, 2001, 2006, 2011, and 2017) of the Canadian General Social Survey (GSS), which collects information on fertility and marital histories, household structure, and demographic characteristics. The GSS is representative of noninstitutionalized Canadians aged 15 or older except for those who live in the territories (Nunavut, the Northwest Territories, and Yukon). We exclude residents of Prince Edward Island, for whom data on rural and urban residence are unavailable.

For the United States, we use six waves of the National Survey of Family Growth (NSFG). The NSFG is representative of women aged 15–44. Like the GSS, the NSFG collects detailed information on family history, household composition, and demographic characteristics. Before 2006, the NSFG conducted cross-sectional surveys every seven years. Starting in 2006, it employed a rolling sampling structure.

Hence, our waves include data from 1988, 1995, and 2002. Beginning with 2006, we constructed waves centered on 2007 (2006–2008), 2012 (2011–2013), and 2018 (2017–2019).

For each country, we create two analytic samples. First, we analyze a sample of all women aged 15–44 to assess women's union status and the number of children ever born,[1] comprising 24,287 Canadian and 44,310 American women across all waves. Our second analytic sample uses these women's birth histories to examine whether a child was born to an unmarried mother. Because marital status at birth was not reported in the 1988 NSFG, our sample of U.S. births pertains to births reported in the survey years 1995–2018. These samples comprise 23,544 Canadian and 29,027 American children younger than 18. Year-specific sample sizes by rural–urban status are shown in Table A1 (all tables identified with an "A" appear in the online appendix).

Measures

Family Change Indicators

Our analyses investigate three dimensions of family change: women's union status, fertility, and nonmarital births. Our measure of women's union status indicates whether women are currently married, cohabiting, formerly married (divorced, separated, or widowed), or never married. Second, fertility is measured as the number of children ever born. Third, we use our sample of all children younger than 18 to create a binary variable for whether the child's mother was married at the time of each child's birth. Because this measure is based on retrospective birth history data, it captures the mother's current rural–urban status and not necessarily her residence at the time of the birth.

Rural and Urban Status

Demographic research uses multiple ways to measure rurality and urbanicity (Cromartie 2017). We follow the common practice of defining rural–urban status in both countries on the basis of whether a person lives inside or outside central cities or suburban areas. In Canada, women are coded as urban if they currently live in a census metropolitan area (CMA) or a census agglomeration (CA) and as rural if they live in non–CMA/CA areas. A CMA refers to an area with a population of at least 100,000 and a minimum of 50,000 living in the urban core, whereas a CA must have a core population of at least 10,000. In the United States, women are classified on the basis of their current county of residence. The Office of Management and Budget categorizes counties as metropolitan (i.e., urban) if they contain an urban core with a population larger than 50,000 or have strong commuting ties to the urban core (2010

[1] We focus on women aged 15–44 because the NSFG does not report men's fertility histories and relationships to resident children in any year and because the NSFG did not interview women older than 44 before the 2015 wave.

Standards for Delineating 2010). Counties not meeting these criteria are classified as nonmetropolitan (i.e., rural).[2]

Demographic, SES, and Religious Indicators

Our regression and decomposition analyses include a series of demographic, SES, and religious characteristics likely to influence family and fertility behaviors. Our demographic variables include the respondent's age, race and ethnicity, and immigration status. Individuals are categorized into the age groups 15–24, 25–29, 30–34, 35–39, and 40–44. We combined age groups 15–19 and 20–24 because of the low frequency of marriage and childbirth before age 20.[3] Because race is a social construct reflecting the social contexts specific to Canada and the United States, we employ different but contextually appropriate controls of race and ethnicity in our models. In Canada, we created a single binary measure for whether an individual is an ethnic minority: whether the respondent identifies as a visible minority (non-White) or as Indigenous (i.e., First Nations, Métis, or Inuit). Ideally, we would analyze visible minority and Indigenous status separately, but small sample sizes prevented us from doing so. For the United States, we identify four racial and ethnic groups: non-Hispanic White, non-Hispanic Black, non-Hispanic other race (including Asian, Pacific Islander, and American Indian), and Hispanic of any race. Models for both countries include a binary measure of immigrant status, differentiating foreign-born and native-born individuals.

We assess the effects of individuals' SES through education and income. In the United States, we classify individuals as having less than a high school education, a high school education, some college education, or a bachelor's degree or higher. We use a similar scheme for Canada, except that "some college education" includes a trade certificate, a CEGEP degree, a non-bachelor's degree, and some college education. In addition, using each country's currency, we group women's pretax total household income into five annual income groups: less than or equal to $49,999, $50,000–$74,999, $75,000–$99,999, and $100,000 or more. Because incomes are reported in categories, we cannot directly adjust for differences in purchasing power parity (PPP). OECD data show that PPP held steady at approximately 1.2 Canadian dollars per 1 U.S. dollar between 2000 and 2018. Finally, we include a measure of the frequency of attending religious services, which is often used as an indicator of religiosity (Koenig et al. 2015).[4] Frequency is an ordinal variable categorized as never, a few times per year, a few times per month, or a few times per week.

[2] To enhance comparability of our rurality measure between Canada and the United States, we created an alternative measure for Canada, classifying all CMAs/CAs and areas with strong metropolitan-influenced zones (i.e., areas where at least 30% of the residents commute to a CMA/CA for work) as urban. These analyses (shown in Table A2) yielded similar substantive results as the more standard measure of urban/rural in Canada, although the rural–urban difference in nonmarital births is slightly larger and remains statistically significant in the adjusted model.

[3] Analyses that remove respondents younger than 20 (shown in Table A3) reveal substantively similar implications for rural–urban differences in family behaviors. Differences with respect to educational effects are noted in the text.

[4] The NSFG and GSS contain measures of the respondent's personal beliefs (i.e., spirituality) and religious denominations. However, we found that religious attendance was a stronger predictor of family behaviors and that including multiple measures of religion introduced excessive collinearity.

Analytic Plan

To examine our first research question regarding how rural and urban families have changed over the 30 years we study, we produce weighted longitudinal trends for all three family behavior indicators. We then assess whether these rural–urban differences have persisted, converged, or reversed by testing for statistically significant differences between rural and urban women in Canada and the United States in the earliest and the most recent data waves (1990 and 2017 in Canada; 1988 and 2018 in the United States). All estimates are weighted using the provided person-level and bootstrapping weights for the GSS and the person-level weights, survey strata, and cluster variables for the NSFG.[5]

To address our second research question, we focus on family indicators with statistically significant rural–urban differences in the most recent survey wave (2017 in Canada and 2018 in the United States). We examine whether demographic characteristics, SES, or religiosity account for these current differences by comparing the effect of rural residence in our unadjusted and adjusted regression models. We employ logistic regression to assess whether a woman is in a cohabiting union or not in a cohabiting union and whether a child's mother was married or unmarried at the time of birth. Table A4 provides separate logistic regressions comparing cohabiting women with currently married, formerly married, and never-married women, respectively. We use ordinary least-squares (OLS) regression to assess predictors of the number of children ever born. For consistency, we use OLS regression instead of Poisson regression because formal decomposition techniques cannot be used for Poisson regressions. Poisson regression models of the total number of children yield similar results (Table A5). In addition, because we measure the current number of children among women aged 15–44 and rural women might have children at younger ages than urban women, we also provide the results of supplemental analyses comparing rural–urban differences in completed fertility among women aged 40–44 (see Table A5). In our unadjusted models, each family outcome is modeled as the function of solely rural–urban status (ref. = urban). In our adjusted models, we introduce controls for demographic, SES, and religious characteristics to determine whether adjusting for these factors decreases or increases rural–urban differences in family behaviors.

Lastly, we use a series of grouped two-way Oaxaca–Blinder decomposition models to specify which demographic, SES, and religious characteristics explain the largest portion of rural–urban differences in family behaviors. Because our dependent variables are binary, we use Yun's (2004) nonlinear decomposition method for logistic models. Specifically, we use the *oaxaca* command in STATA 17 with the logit, pooled, and group variable options. In these models, urban is the reference

[5] For the 2001, 2006, 2011, and 2017 GSS, we applied the person-level weight variable (WGHT_PER) and the 500 unique bootstrapping weight variables (WTBS_001–WTBS_500) and bootstrapped our estimates 500 times. Because the 1990 GSS has no bootstrapping variables, we applied only the person-level weights for that wave. For the 2002, 2007, 2012, and 2018 NSFG, we applied a complex weighting strategy involving the NSFG-provided stratum variable (SEST), cluster variable (SEC), and the final weight variable. For the 1988 and 1995 NSFG, we applied only the final weight variable. Guidelines for how we developed this weighting strategy were taken from the GSS summary's description of data sources and methodology and the NSFG's Design and Data Collection Methods File for each year.

group. These two-way models allow us to assess which variables explain the largest percentage of rural–urban differences owing to both compositional differences (i.e., differences in the proportion of rural–urban residents who belong to a given group) and differences in coefficients (i.e., differences in the associated coefficients of a given group). In the text, we focus on compositional effects because we are primarily interested in whether differences in the characteristics of rural and urban populations explain differences in their family behaviors. For ease of interpretation, we plot the estimated compositional effects, but we provide full decomposition results for both compositional and coefficient effects in Tables A6–A8. We group similar control variables and test for joint statistical significance (Jann 2008). For example, we group all education categories to assess the effects of rural–urban differences in educational attainment overall rather than test the effects due to a specific educational level. To estimate the combined effects of categorical variables, we group individual covariates using the detail option in the *oaxaca* command. Finally, to avoid the known issue that estimates for categorical regressors are sensitive to the selection of the omitted reference category (Jann 2008; Yun 2005), we also normalize our categorical independent variables to estimate deviations from a grand mean.

Results

Have Rural–Urban Family Differences Persisted, Converged, or Reversed?

Trends in Union Status

Panels a–c in Figure 1 show the trends in women's union status, number of children, and nonmarital childbirths, respectively, over the 30 years of study; summaries of these trends can be found in Table 1. Despite similar overall trends, notable differences are evident between Canada and the United States and between rural and urban areas in each country. Marriage among women has declined in rural and urban areas in both countries (panel a). This decline, however, was faster in rural areas, where the percentage of married women fell by 25.4 percentage points in Canada and 21.8 percentage points in the United States (Table 1). Consequently, panel a of Figure 1 shows rural–urban convergence in marriage in both countries, although this convergence appears to have occurred earlier in the United States (around 2002) than in Canada (around 2011). In contrast, cohabitation has become increasingly popular in both countries, especially in rural areas (panel a). Rural and urban cohabitation rates in both the United States and Canada were similar around 1990, but cohabitation rates in rural areas exceeded those in urban areas by 8.3 percentage points in Canada in 2017 and by 5.3 percentage points in the United States in 2018. In both countries, these trends suggest a reversal of our expectations that cohabitation would be more common among urban women. Prior empirical studies found that cohabitation in the United States was higher among urban women before 1990, reflecting a true reversal. In Canada, rural–urban differences in cohabitation before 1990 are unknown, although the trajectories of rural–urban cohabitation suggest it was likely lower in rural Canada before 1990.

Among unpartnered women, there is convergence in rural and urban rates of being formerly married (panel a, Figure 1). In 1990, rural women in Canada were

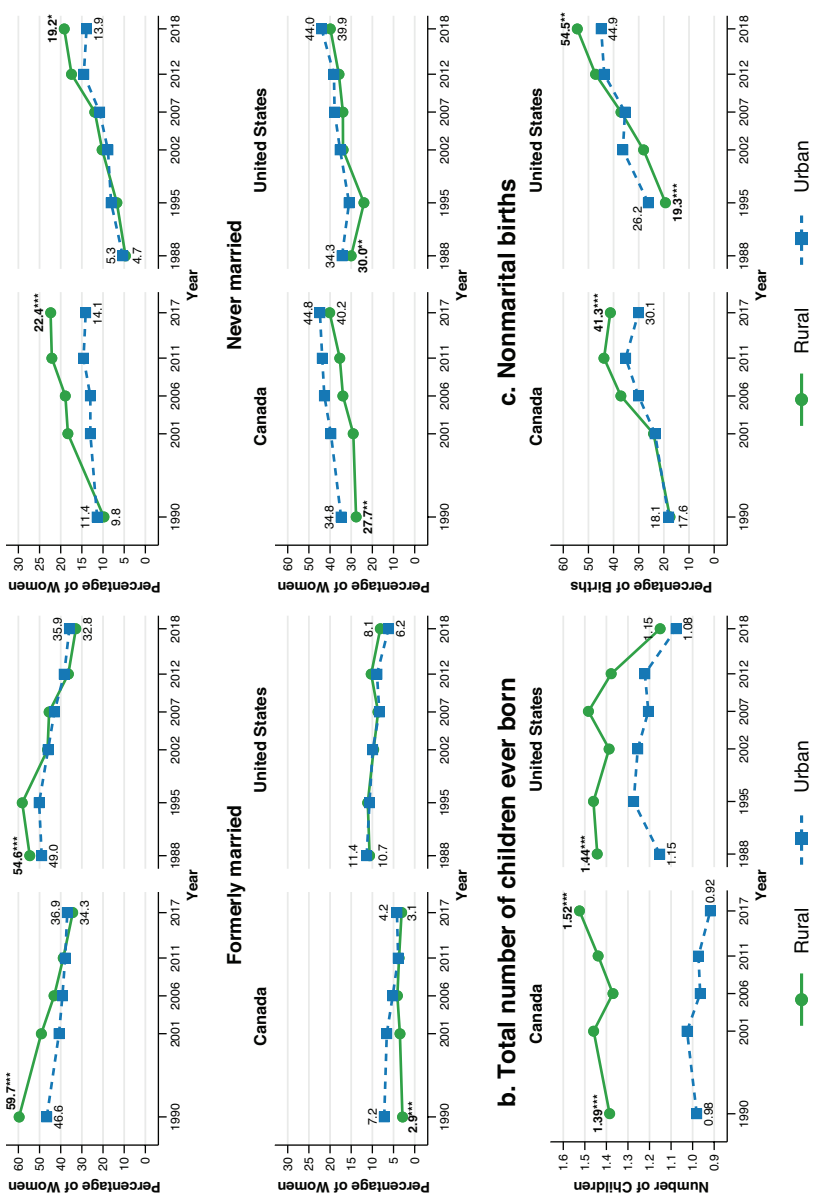

Fig. 1 Trends in family behaviors among women aged 15–44 by rural–urban status. Estimates in bold indicate significant rural–urban differences. *$p < .05$; **$p < .01$; ***$p < .001$

Table 1 Trends and disparities in family behaviors by rural–urban status

	Canada					United States				
	Percentage Point Difference					Percentage Point Difference				
	From 1990 to 2017		Between Rural and Urban			From 1988 to 2018		Between Rural and Urban		
	Rural	Urban	1990	2017	Trend[a]	Rural	Urban	1988	2018	Trend[a]
Union Status (%)										
Currently married	–25.4***	–9.7***	13.1***	–2.6	Convergent	–21.8***	–13.1***	5.6***	–3.1	Convergent
Cohabiting	12.6***	2.7*	–1.6	8.3***	**Reversal**	14.5***	8.6***	–0.6	5.3*	**Reversal**
Formerly married	0.2	–3.0***	–4.3***	–1.1	Convergent	–2.5	–5.2***	–0.7	2.0	
Never married	12.5**	10.0***	–7.1***	–4.6	Convergent	9.8***	9.7***	–4.3**	–4.2	Convergent
Number of Children	0.1	–0.1	0.4***	0.6***	**Persistent**	–0.3**	–0.1	0.3***	0.1	Convergent
Nonmarital Birth (%)	23.7***	12.0***	–0.5	11.2***	**Reversal**	35.1***	18.7***	–6.9***	9.5**	**Reversal**

[a]Trends in bold indicate significant differences in the most recent period.

*$p<.05$; **$p<.01$; ***$p<.001$

4.3 percentage points less likely than urban women to be formerly married. By 2017, this rural–urban gap had decreased to a statistically insignificant 1.1 percentage points. In the United States, the 1988 rural–urban gap in rates of being formerly married was much smaller: urban women were a mere 0.7 percentage points more likely to be formerly married. By 2018, this pattern had reversed such that rural American women were slightly, albeit not significantly, more likely than urban women to be formerly married. We find larger differences in the percentage of women who were never married. Being never married is more common among urban women than rural women in both countries and all periods, although these differences were smaller and insignificant by 2002 in the United States and by 2017 in Canada, providing some evidence of convergence.

Trends in the Number of Children

Fertility behaviors in the rural and urban areas of Canada and the United States were also strikingly different (panel b, Figure 1). On average, rural women in Canada had 0.4 more children than urban women in 1990; in the United States, the rural–urban difference in the number of children was 0.3 in 1988. Over the intervening 30 years, this difference in fertility declined in the United States to a statistically insignificant 0.1. In Canada, however, this fertility gap grew such that rural women had, on average, 0.6 more children than urban women in 2017.

Trends in Nonmarital Births

These notable union status and fertility trends influence the family structures into which rural and urban children are born (panel c, Figure 1). Roughly 18% of both rural and urban Canadian children were born to unmarried mothers at the beginning of the 30-year period, whereas rural children were more than 10 percentage points more likely to be born outside of marriage by the end of the period. Whether nonmarital births were less common in rural than urban areas in Canada before 1990 is unknown. An even more striking trend is observed in the United States, where the relative probability of nonmarital childbirth in rural and urban areas is clearly reversed. In the United States, rural children were approximately 7 percentage points less likely to be born outside of marriage than urban children in 1995 but 9.5 percentage points *more* likely than urban children to be born outside of marriage by 2018.

Table 1 summarizes which rural and urban differences persisted, converged, or reversed. The table displays evidence of rural–urban convergence in women's likelihood of being currently married, never married, or formerly married. However, rural women became more likely to cohabit over time, suggesting a reversal in traditional family forms. Nonmarital fertility was also markedly higher in rural areas in both countries at the end of the 30-year period. In the United States, rural–urban trends in nonmarital fertility clearly reversed over this period. Only with respect to fertility in Canada did differences in traditional family behaviors persist in the expected direction. Hence, by the most recent survey wave from each country, we find statistically significant rural–urban differences in three family behaviors: fertility in Canada and

Table 2 Descriptive statistics of rural and urban women in Canada (2017) and the United States (2018)

	Canada			United States		
	Rural	Urban	Sig.	Rural	Urban	Sig.
N	568	3,156		888	4,498	
Age Group (%)						
15–24	29.7	30.2		28.2	31.9	
25–29	17.2	17.9		17.2	18.6	
30–34	19.6	17.6		20.0	17.0	
35–39	17.4	17.7		17.0	17.3	
40–44	16.0	16.6		17.6	15.2	
Race and Ethnicity (%)						
Non-Hispanic White				73.7	55.9	**
Non-Hispanic Black				10.0	15.9	
Hispanic				12.2	21.9	
Non-Hispanic other				4.1	6.2	
Ethnic Minority (%)	10.6	36.6	***			
Immigrant (%)	6.7	29.7	***	9.9	14.7	
Education (%)						
Less than high school	18.5	10.8	**	25.5	19.7	*
High school	25.6	21.8		23.7	18.4	
Some college	39.1	30.2	**	30.5	28.7	
Bachelor's degree or higher	16.8	37.2	***	20.2	33.2	***
Household Income (%)						
≤$49,999	22.7	27.1		62.9	50.5	**
$50,000–$74,999	18.6	18.4		17.4	19.8	
$75,000–$99,999	15.6	10.8	*	9.3	10.0	
≥$100,000	43.1	43.7		10.3	19.7	**
Religious Attendance						
Never	45.8	48.0		32.8	31.9	
A few times per year	32.8	29.3		25.6	29.0	
A few times per month	10.0	9.3		16.1	16.8	
A few times per week	11.4	13.4		25.5	22.3	

Note: In Canada, *some college* includes those with some college, a CEGEP degree, a trade certificate, or a non-bachelor's degree.

*$p < .05$; **$p < .01$; ***$p < .001$

cohabitation and nonmarital childbirth in both the United States and Canada. To better understand what explains these different family behaviors, we turn to our regression and decomposition methods.

Do Differences in Demographic, SES, and Religious Characteristics Explain Current Differences in Rural–Urban Family Behaviors?

Descriptive Characteristics of Rural and Urban Women

To help set the stage for our regression and decomposition results, we first briefly describe differences in women's demographic, SES, and religious characteristics in both countries. Table 2 reveals striking differences in rural and urban women's

demographic profiles. Some of these differences are well known, but others are often overlooked. Rural women are markedly less ethnically diverse than urban women. In the United States, non-Hispanic Whites represent nearly three quarters of rural women (73.7%) but only roughly half (55.9%) of urban women. In Canada, only 10.6% of rural women are ethnic minorities, of whom almost 80% are Indigenous. In contrast, ethnic minorities represent 36.6% of Canada's urban women, of whom only 11% are Indigenous. Immigrant women in Canada are far more likely to make their home in cities than in rural areas (29.7% urban vs. 6.7% rural). Immigration patterns in the United States are similar, although the differences are less pronounced (14.7% urban vs. 9.9% rural), partly because of recent waves of Hispanic immigration to rural areas. Lastly, given our sample's age restrictions, we find no significant differences in the average ages of respondents.

In both Canada and the United States, rural women have lower educational attainment than urban women. In Canada, urban women are more than twice as likely as rural women (37.2% vs. 16.8%) to have a bachelor's degree. The corresponding figures in the United States are 33.2% for urban women and 20.2% for rural women. The United States also shows large disparities in income: urban women are almost twice as likely as rural women to live in households earning more than US$100,000 per year. In Canada, rural and urban incomes are more similar, although they have slightly different distributions. Interestingly, rural–urban differences in women's frequency of attending religious services are not statistically significant in either the United States or Canada.

Rural–Urban Differences in Cohabitation

Our regression models examine whether the demographic, SES, and religious composition of rural and urban women help explain each of the statistically significant differences in current family behaviors identified in Table 1. Table 3 shows the unadjusted and adjusted odds ratios of being in a cohabiting partnership among women in rural and urban areas. The comparison group in Table 3 is all non-cohabiting women: currently married, formerly married, and never-married women. Results from logistic regressions comparing each of these groups separately with cohabitation are provided in Table A4. The unadjusted model indicates that the odds of being in a cohabiting partnership are 76% higher for rural women than for urban women in Canada (Model 1). After we adjust for their demographic, SES, and religious characteristics, the coefficient for rural residence decreases substantially but remains statistically significant at conventional levels (Model 2). In the United States, the odds of cohabitation are only 47% higher for rural women (Model 3) and fall slightly to 41% after we introduce our controls (Model 4). In both Canada and the United States, analyses comparing cohabiting women with currently married and with never-married women yield similar results (Table A4).

The adjusted models in Table 3 also provide insights into the relationships between demographic, SES, and religious factors and cohabitation. In both countries, cohabitation peaks at ages 25–29. Cohabitation is lowest among women with less than a high school education, primarily because many respondents younger than 20 are likely to be in high school. Table A3 shows that after removing women younger than 20, having less than a high school education is no longer significantly associated with

Table 3 Odds ratios (OR) from logistic regression of cohabitation among women

	Canada				United States			
	Model 1: Unadjusted		Model 2: Adjusted		Model 3: Unadjusted		Model 4: Adjusted	
	OR	SE	OR	SE	OR	SE	OR	SE
Rural–Urban Status (ref. = urban)	1.76***	0.27	1.42*	0.23	1.47*	0.23	1.41*	0.22
Age Group (ref. = 15–24)								
25–29			3.93***	0.96			2.36***	0.52
30–34			3.34***	0.77			2.23***	0.51
35–39			2.40***	0.57			1.59	0.39
40–44			2.41***	0.60			1.33	0.39
Race and Ethnicity (ref. = non-Hispanic White)								
Non-Hispanic Black							0.85	0.15
Hispanic							1.26	0.26
Non-Hispanic other							0.71	0.28
Ethnic Minority (0/1)			0.58**	0.10				
Immigrant (0/1)			0.50***	0.10			1.03	0.20
Education (ref. = less than high school)								
High school			2.29**	0.64			1.69**	0.31
Some college			2.63**	0.79			1.24	0.23
Bachelor's degree or higher			1.99*	0.61			1.26	0.29
Household Income (ref. = ≤$49,999)								
$50,000–$74,999			2.68***	0.48			0.89	0.14
$75,000–$99,999			2.86***	0.56			0.96	0.19
≥$100,000			1.64**	0.27			0.42***	0.07
Religious Attendance (ref. = never)								
A few times per year			0.64***	0.08			0.71**	0.09
A few times per month			0.43**	0.14			0.70*	0.12
A few times per week			0.17**	0.06			0.33***	0.05
F Statistic	13.24***		11.85***		6.07*		7.01***	
N	3,724		3,724		5,386		5,386	

Note: Year-specific weights, stratum, and cluster are applied.

*$p < .05$; **$p < .01$; ***$p < .001$

cohabitation. Interestingly, women with the lowest household incomes tend to be least likely to be in a cohabiting relationship in Canada (Model 2 of Table 3) but most likely to be in one in the United States (Model 4). Further, after we adjust for education and income, ethnic minority women in Canada are nearly half as likely as White women to be in a cohabiting partnership. In our models for the United States, race is not significantly related to cohabitation. Immigrants in Canada are also roughly half as likely to cohabit as native-born Canadians; this finding does not hold for the United States. As expected, religious attendance is strongly negatively correlated with cohabitation in both countries.

To better understand which of these characteristics contributes to elevated cohabitation rates in rural areas, we present the effects of differences in composition on women's cohabitation in panel a of Figure 2. The shaded bars in Figure 2 show the percentage of the differences in the outcome that are due to differences in women's demographic, SES, and religious characteristics. The whiskers around the bars indicate the 95% confidence intervals for these estimates. This figure includes only the explained or composition effects because none of the unexplained or coefficient effects are statistically significant. Full decomposition models that include both composition and coefficient effects can be found in Table A6. Our decomposition models identify differences in ethnic and immigrant composition as the most important factors driving rural–urban disparities in cohabitation in Canada. Rural Canada's lower proportions of women who are ethnic minorities and immigrants account for 16.6% and 18.2% of the difference, respectively. This finding is likely attributable to the greater likelihood of residing in urban areas and lower likelihood of being in cohabiting unions among Asians, who constitute a large proportion of Canada's immigrant population. In comparison, income explains the largest fraction of rural–urban cohabitation discrepancies in the United States. The lower household incomes among rural women account for 14.7% of the rural–urban cohabitation gap, given that income is negatively associated with cohabitation in the United States. Rural–urban differences in age, education, and religiosity do not help explain higher levels of cohabitation in rural areas in either country.

Rural–Urban Differences in the Number of Children

The unadjusted model (Model 1) in Table 4 confirms our previous finding that, on average, rural women in Canada have 0.6 more children than urban women. Adjusting for demographic characteristics, SES, and religiosity reduces this difference by 17%. However, rural women still have, on average, 0.5 more children than urban women—a difference that remains highly significant (Model 2). Model 2 also shows that, as expected, age is strongly and positively associated with the number of children. In Canada, women's education has a strong negative association with fertility, and this negative effect becomes even stronger after we remove women younger than age 20 (Table A3). Income has a slight positive effect in all models. Women who attend religious services a few times a week have, on average, 0.5 more children than those who never attend (Model 2). Importantly, although we find no associated differences by immigrant status, ethnic minorities in Canada have 0.1 fewer children. Note that these estimates reflect the current number of children ever born, not necessarily completed fertility. Nonetheless, when we limit our sample to women aged 40–44 (Table A5), we find that rural women have, on average, 1.1 more children than urban women, suggesting that completed fertility differences may be even larger than current fertility.

Turning to our decomposition analysis, panel b of Figure 2 shows that lower educational levels among rural Canadian women drive up rural fertility and account for 15.8% of the rural–urban difference in the number of children. In addition, the lower proportion of ethnic minority groups contributes an additional 5.2%. Nonetheless, nearly 80% of the differences in rural–urban fertility remains unexplained by compositional differences (Table A7). Further, two coefficient effects (age and religiosity)

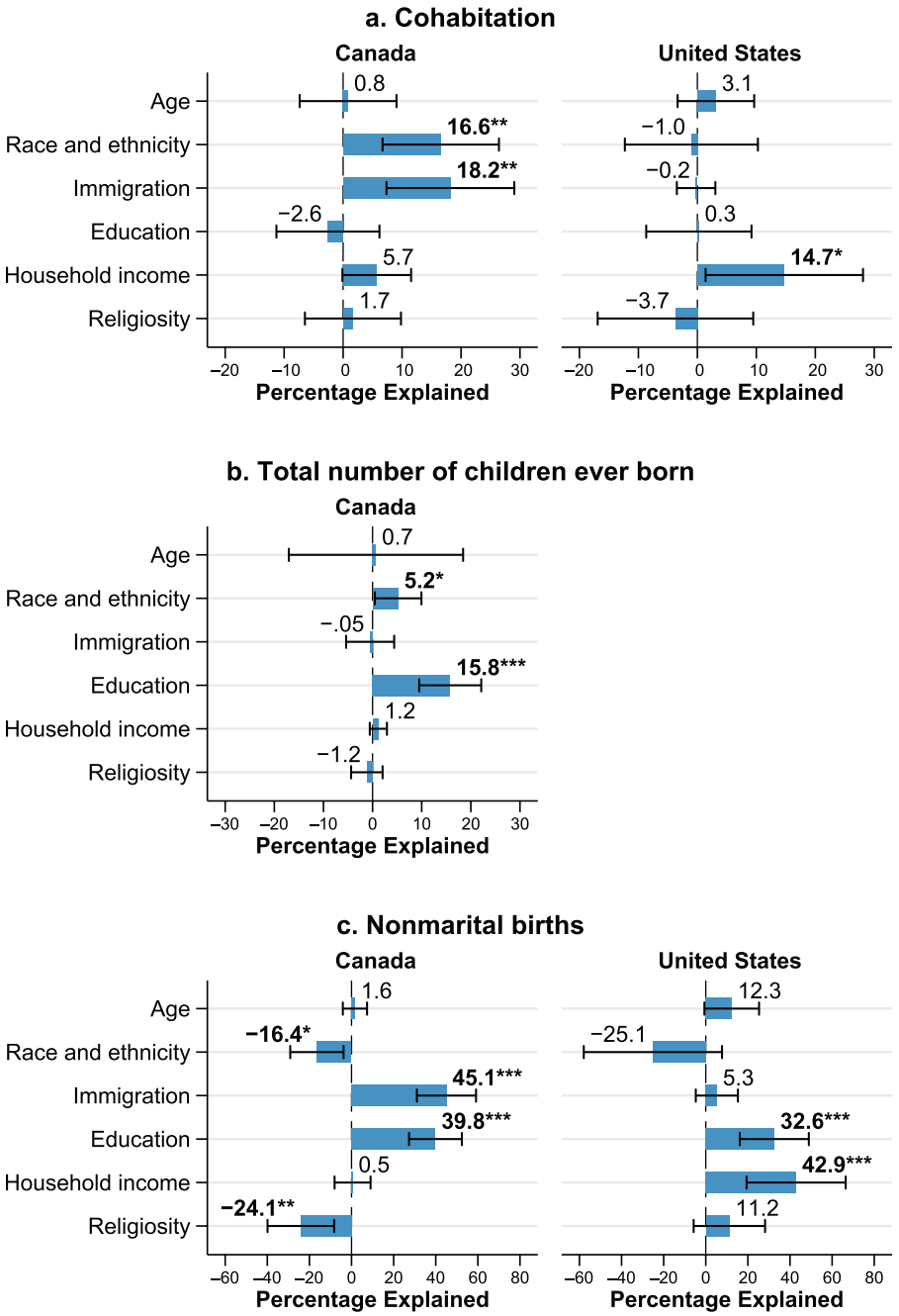

Fig. 2 Percentage of the difference in rural and urban women's family behaviors explained by compositional differences (shaded bars). Whiskers represent 95% confidence intervals. Estimates in bold indicate a significant percentage explained. *$p < .05$; **$p < .01$; ***$p < .001$

Table 4 OLS regression of the number of children ever born in Canada

	Model 1: Unadjusted		Model 2: Adjusted	
	Coef.	SE	Coef.	SE
Rural–Urban Status (ref. = urban)	0.62***	0.14	0.49***	0.10
Age Group (ref. = 15–24)				
25–29			0.70***	0.07
30–34			1.41***	0.08
35–39			2.01***	0.08
40–44			2.23***	0.10
Ethnic Minority (0/1)			–0.12*	0.06
Immigrant (0/1)			0.01	0.07
Education (ref. = less than high school)				
High school			–0.07	0.10
Some college			–0.43***	0.11
Bachelor's degree or higher			–0.68***	0.12
Household Income (ref. = ≤$49,999)				
$50,000–$74,999			0.14*	0.07
$75,000–$99,999			0.17*	0.07
≥$100,000			0.17**	0.05
Religious Attendance (ref. = never)				
A few times per year			0.06	0.04
A few times per month			0.14*	0.07
A few times per week			0.50***	0.11
F Statistic	18.81***		133.00***	
N	3,724		3,724	

Note: Year-specific weights, stratum, and cluster are applied.

*$p < .05$; **$p < .01$; ***$p < .001$

are statistically significant (Table A7). These results indicate that although rural–urban differences in age composition do not account for higher rural fertility, rural women have more children than urban women as they age. Similarly, despite similar religious composition in rural and urban areas (see Table 2), the effect of religion on fertility is stronger in rural than in urban areas of Canada.

Rural–Urban Differences in Nonmarital Births

Table 5 shows that although nonmarital births are 64% and 47% more common in rural than urban areas of Canada (Model 1) and the United States (Model 3), respectively, these differences are partially explained by demographic, SES, and religious factors (Models 2 and 4). In particular, nonmarital childbirth is nearly four times as likely among children of native-born Canadians than among immigrant children. In both countries, nonmarital births also decline sharply as education and household income increase. Further, nonmarital births are higher among non-White mothers in the United States and Canada. In the United States, children of non-Hispanic Black women are almost five times as likely to be born outside

Table 5 Odds ratios (OR) from logistic regression of nonmarital births

	Canada				United States			
	Model 1: Unadjusted		Model 2: Adjusted		Model 3: Unadjusted		Model 4: Adjusted	
	OR	SE	OR	SE	OR	SE	OR	SE
Rural–Urban Status (ref. = urban)	1.64*	0.31	1.40	0.24	1.47**	0.18	1.11	0.17
Age Group (ref. = 15–24)								
25–29			0.24**	0.13			0.56*	0.14
30–34			0.23***	0.12			0.41***	0.10
35–39			0.20**	0.10			0.27***	0.08
40–44			0.15***	0.08			0.19***	0.05
Race and Ethnicity (ref. = non-Hispanic White)								
Non-Hispanic Black							4.91***	0.91
Hispanic							1.79**	0.39
Non-Hispanic other							2.19	0.95
Ethnic Minority (0/1)			1.50*	0.31				
Immigrant (0/1)			0.22***	0.05			0.67	0.17
Education (ref. = less than high school)								
High school			0.51	0.19			0.84	0.17
Some college			0.58	0.20			0.72	0.15
Bachelor's degree or higher			0.26***	0.09			0.33***	0.07
Household Income (ref. = ≤$49,999)								
$50,000–$74,999			0.61*	0.14			0.58***	0.08
$75,000–$99,999			0.45***	0.10			0.32***	0.07
≥$100,000			0.30***	0.06			0.15***	0.04
Religious Attendance (ref. = never)								
A few times per year			0.48***	0.08			0.71	0.14
A few times per month			0.30***	0.10			0.57*	0.12
A few times per week			0.16***	0.04			0.29***	0.05
F Statistic	6.57*		12.52***		9.83*		32.09***	
N	3,540		3,540		5,152		5,152	

Note: Year-specific weights, stratum, and cluster are applied.

*$p < .05$; **$p < .01$; ***$p < .001$

of marriage as children of non-Hispanic White women. Mothers' religiosity is strongly negatively associated with nonmarital births in both countries: children whose mothers attend religious services a few times per week are less than one third as likely as children whose mothers never attend religious services to have unmarried parents (Models 2 and 4).[6]

[6] Childbirth before age 20 is rare. In our samples, less than 0.7% ($n = 34$) of U.S. births and no Canadian births were to women younger than 20. Removing these births from our U.S. sample had virtually no effect on our results, and the Canadian results were unaltered. Hence, these results are not shown in Table A3.

Decomposition analyses shown in panel c of Figure 2 reveal that compositional differences in rural and urban populations often have opposite effects on the nonmarital fertility gap. In Canada, the lower percentage of immigrants and lower educational attainment in rural areas account for nearly 85% of the rural–urban differences in nonmarital fertility. However, if rural ethnic minority populations were proportionately as large as urban ethnic populations, differences in the proportion of nonmarital births would be even larger (by 16.4%). Similarly, if rural women attended religious services with the same frequency as urban women, we would expect the nonmarital fertility gap to be 24.1% larger. In comparison, in the United States, rural women's lower levels of education are responsible for 32.6% of the rural–urban nonmarital fertility gap, with rural women's lower household income explaining an additional 42.9%. As in Canada, some evidence suggests that the more limited ethnic diversity in rural areas reduces the nonmarital fertility gap by roughly 25%, but this difference is not significant at the 5% level. Lastly, although several coefficient effects are quite large (see Table A8), none are statistically significant. Thus, although 53.5% of rural–urban differences in nonmarital births in the United States and 20.9% of differences in Canada remain unexplained, it is difficult to attribute these differences to differences in the behaviors of specific groups.

Discussion

This study uses the theoretical concept of the SDT to examine recent family change in North America through a rural–urban lens. Specifically, it asks (1) how have rural and urban families in Canada and the United States changed over the 30-year period spanning roughly 1990 to 2020, and (2) do demographic, SES, and religious differences explain current differences in rural and urban families? Our findings uncover some unexpected trends in rural and urban families and identify intriguing differences in the underlying explanations of disparities in Canada and the United States. Hence, this study helps fill important empirical lacunae and offers new insights into theoretical debates about contemporary family change. Further, it provides a more accurate depiction of the experiences of rural families in North America, which are less studied and less well understood than rural families in most other regions, including sub-Saharan Africa and Asia.

Families in Canada and the United States, as in other high-income countries, have undergone remarkable changes during the 30-year period of this study. Although it is often implicitly assumed that rural areas will resist changes in marriage, family structures, and fertility levels—remaining holdouts in the SDT—evidence supporting this assumption is mixed at best. We discover a large and persistent gap in fertility between rural and urban women in Canada. In Canada, rural women have an average of 0.6 more children than urban women aged 15–44. Among older women, those aged 40–44, this gap increases to more than 1 additional child, suggesting that rural Canada remains exceptionally fertile grounds. Because of the dearth of Canadian data, these large differences are not widely known and generally underappreciated. In the United States, immigrants are often credited for contributing their comparatively high fertility (Parrado 2011), whereas in Canada rural populations are likely to be responsible for boosting national fertility rates. Rural individuals constitute more than one in

six Canadians today, yet rural residents and their fertility remain an afterthought in demographic research (Statistics Canada 2022a). Further, differences in demographic and SES characteristics explain only a small fraction of the rural–urban fertility gap. Differences in religious composition, somewhat surprisingly, also do not help explain the large fertility gap, although the effect of religiosity on fertility is stronger in rural than in urban Canada. Hence, these findings may reflect differences in cultural and ideational beliefs that are not captured by our measure of religiosity, such as political views, family values and the importance of children, and the social stigma associated with childlessness.

No other indicator of family change, however, supports the claim that rural families are holdouts in the SDT. In the United States, fertility rates are only slightly (and not significantly) higher in rural areas than in urban areas. Further, rural and urban women in both countries exhibit similar proclivities to remain unmarried or divorce. This finding is consistent with rural scholarship documenting convergence on some of these trends as early as the 1990s and emphasizes the growing social integration of rural and urban areas (Lichter and Brown 2011). Yet, perhaps our most unexpected findings are those suggesting a reversal of expectations between rural and urban families across several key dimensions. Specifically, by the end of our study period, rural women in both countries were more likely than urban women to form cohabiting partnerships and give birth outside of marriage. In many instances, these changes mark a clear departure from traditional rural and urban patterns of union formation and family structures.

Whether these growing disparities in cohabitation and nonmarital births signify that rural families are distressed depends on the underlying factors driving these differences. Our analyses of demographic and SES predictors show that immigrant status plays a critical role in Canada but not the United States. Immigrants to Canada are less likely than native-born Canadians to form cohabiting partnerships or have children outside of marriage. They are also far less likely to live in rural areas. Differences in educational levels also explain a significant portion of the difference in fertility, including nonmarital fertility, in Canada. In contrast, in the United States, lower income and education are the most important explanatory factors. The strikingly lower incomes in rural areas appear to contribute to the higher rates of cohabitation and nonmarital childbirth in rural America. These findings from the United States and, to a lesser extent, Canada support previous studies' conclusions that economic structures, rather than ideational beliefs, are the dominant drivers of family change (McLanahan 2004; Perelli-Harris et al. 2010).

Future Studies and Conclusions

Our findings lend credence to some theories of family change over others, although limited data prevented us from directly testing specific theories. Using religious attendance as a proxy for differences in culture and ideological beliefs, we found that religious attendance was a strong predictor of family behaviors but that it failed to capture many aspects of ideological beliefs, including political views and gender norms. Ideally, future studies would directly measure and test whether differences in cultural values and social norms sustain rural Canada's higher fertility. In-depth qual-

itative studies would be especially valuable because rural American and Canadian families might be experiencing considerable tension between their family ideals and their family behaviors, potentially fueling frustration and resentment (Cramer 2016; Miller and Edin 2022; Wuthnow 2018). To the extent that rural cultural values place greater importance on marriage and, especially, on raising children in two-parent married households, individuals in rural areas may be experiencing what Sobotka (2008:171) described as an "apparent paradox": although "individuals often embrace values that can be characterised as rather traditional, they also frequently manifest family behavior associated with the [second demographic] transition, such as non-marital childbearing, high partnership instability, and high prevalence of long-term cohabitation." Nonetheless, the assumption that "family values" are stronger in rural areas and have not changed along with increasing cohabitation and nonmarital fertility rates warrants further direct study.

In addition, despite uncovering interesting differences in family change in the United States and Canada, we did not investigate whether specific policies or institutional contexts help explain these cross-national differences. Another fruitful area for future studies would be to consider how particular states or provinces influence rural and urban families within subregions. For example, cohabitation differences across Canadian provinces are well documented and striking. Québec has far higher levels of cohabitation than other areas because of differences in cultural histories (Laplante 2014) and policy contexts (Beaujot et al. 2013). Provincial differences in family policies, such as subsidized childcare and parental leave, as well as differences in religion, SES, and immigrant populations, could influence the comparative behaviors of rural and urban families. To explore this possibility, we conducted sensitivity analyses that included controls for regions in Canada (Table A9). Despite strong (and expected) subregional variation in family behaviors, the inclusion of these regional controls did not change our substantive findings regarding differences in rural and urban family behaviors. For example, rural women are still estimated to have 0.5 more children than urban women, even after we control for regional variation.[7]

Studies that directly measure differences in rural and urban areas' institutional contexts, such as access to public childcare or family planning clinics, would also be illuminating. Similarly, future research could explore variation across the rural–urban continuum. Because of limited sample sizes, our analyses followed the common practice of using a dichotomous measure of rurality. We also used two of the most common measures of rural and urban in the United States and Canada, but these definitions are not identical across countries. Sensitivity tests (shown in Table A2) that attempted to make our urban category for Canada more similar to that for the United States by including areas with strong commuting patterns to urban centers yielded similar results. Ideally, researchers would have access to more precise geographic location data to ensure greater comparability across countries. Future work could address additional questions, such as how distance to urban hubs or population density are related to family behaviors. In addition, our study examined respondents'

[7] We could not conduct similar analyses for the United States because publicly available NSFG data suppress state and regional variables.

current place of residence and current SES and religiosity. Such measures provide snapshots of rural and urban families at different times and show how they are associated with key characteristics. However, they do not speak to the issue of causation. For example, Canadian women with high fertility may deliberately move to rural areas, and having had a nonmarital birth may limit women's educational attainment and household income. Although these questions are beyond this study's scope and capacity, they demonstrate the potential of future demographic research on rural families to better understand variation in family change.

Differences in urban and rural ways of life featured prominently in theories of the first demographic transition, but they have been largely ignored in more recent studies of fertility and family change. One could argue this omission is attributable to the considerable slowing of urbanization in the intervening 150 years, yet urbanization has not stopped. Indeed, over the roughly 30 years we studied, the percentage of Canadian and American women aged 15–44 living in rural areas fell substantially, from roughly 22% to only 16% (Table A1). Further, although neither of the key factors Notestein (1953) highlighted—agricultural production and social surveillance—is likely an important driver of differences in rural and urban families today, critical differences remain in rural and urban women's exposure to gainful employment, educational opportunities, egalitarian norms, family-oriented cultural values, and institutional environments. Understanding why these differences place rural and urban families on divergent trajectories can provide novel insights into current demographic changes and has meaningful implications for the future stability and well-being of rural families. ■

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References

2010 Standard for Delineating Metropolitan and Micropolitan Statistical Areas, 75 F.R. 37246 (Notice from the Office of Management and Budget, June 28, 2010). Retrieved from https://www.federalregister.gov/d/2010-15605

Albrecht, D. E. (2022). Rural/urban differences: Persistence or decline. *Rural Sociology, 87,* 1137–1154.

Albrecht, D. E., & Albrecht, C. M. (2004). Metro/nonmetro residence, nonmarital conception, and conception outcomes. *Rural Sociology, 69,* 430–452.

Albrecht, D. E., & Albrecht, S. L. (1996). Family structure among urban, rural and farm populations: Classic sociological theory revisited. *Rural Sociology, 61,* 446–463.

Albrecht, D. E., & Albrecht, S. L. (2000). Poverty in nonmetropolitan America: Impacts of industrial, employment, and family structure variables. *Rural Sociology, 65,* 87–103.

Batty, S. (2022, May). *Urban and rural Canada: Differences in the gendered division of household labor*. Paper presented at the annual meeting of the Canadian Population Society. Available from https://www.canpopsoc.ca/conferences/past-conferences/2022-conference/

Beaujot, R., Du, C. J., & Ravanera, Z. (2013). Family policies in Quebec and the rest of Canada: Implications for fertility, child-care, women's paid work, and child development indicators. *Canadian Public Policy, 39,* 221–240.

Bongaarts, J., & Watkins, S. C. (1996). Social interactions and contemporary fertility transitions. *Population and Development Review, 22,* 639–682.

Brooks, M. M., & Voltaire, S. T. (2020). Rural families in the U.S.: Theory, research, and policy. In J. E. Glick, S. M. McHale, & V. King (Eds.), *National symposium on family issues: Vol. 10. Rural families and communities in the United States: Facing challenges and leveraging opportunities* (pp. 253–267). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-030-37689-5_10

Carson, J. A., & Mattingly, M. J. (2014). Rural families and households and the decline of traditional structure. In C. Bailey, L. Jensen, & E. P. Ransom (Eds.), *Rural America in a globalizing world: Problems and prospects for the 2010s* (1st ed., pp. 347–364). Morgantown: West Virginia University Press.

Chalfant, H. P., & Heller, P. L. (1991). Rural/urban versus regional differences in religiosity. *Review of Religious Research, 33,* 76–86.

Clark, W. (2000). Patterns of religious attendance. *Canadian Social Trends, Winter*(59), 23–27.

Coale, A. J., & Watkins, S. C. (1986). *The decline of fertility in Europe*. Princeton, NJ: Princeton University Press.

Cramer, K. J. (2016). *The politics of resentment: Rural consciousness in Wisconsin and the rise of Scott Walker*. Chicago, IL: University of Chicago Press. Retrieved from http://books.google.com/books?vid=isbn9780226349084

Cromartie, J. (2017). *Rural America at a glance: 2017 edition* (Economic Information Bulletin, No. 182). Washington, DC: U.S. Department of Agriculture, Economic Research Service. Retrieved from https://www.ers.usda.gov/publications/pub-details/?pubid=85739

Daniels, K., Martinez, G. M., & Nugent, C. N. (2018). *Urban and rural variation in fertility-related behavior among U.S. women, 2011–2015* (NCHS Data Brief, No. 297). Hyattsville, MD: National Center for Health Statistics. Retrieved from https://pubmed.ncbi.nlm.nih.gov/29319474/

Dobis, E. A., Krumel, T., Cromartie, J., Conley, K. L., Sanders, A., & Ortiz, R. (2022). *Rural America at a glance: 2021 edition* (Economic Information Bulletin, No. 230). Washington, DC: U.S. Department of Agriculture, Economic Research Service. Retrieved from http://www.ers.usda.gov/publications/pub-details/?pubid=102575

Ely, D. M., & Hamilton, B. E. (2018). *Trends in fertility and mother's age at first birth among rural and metropolitan counties: United States, 2007–2017* (NCHS Data Brief, No. 323). Hyattsville, MD: National Center for Health Statistics.

Garenne, M. M. (2008). *Fertility changes in sub-Saharan Africa* (DHS Comparative Reports, No. 18). Calverton, MD: Macro International. http://dhsprogram.com/pubs/pdf/CR18/CR18.pdf

Gibson-Davis, C. M., Edin, K., & McLanahan, S. (2005). High hopes but even higher expectations: The retreat from marriage among low-income couples. *Journal of Marriage and Family, 67,* 1301–1312.

Glauber, R., & Schaefer, A. (2018). *Employment, poverty, and public assistance in the rural United States* (National Issue Brief, No. 126). Durham: Carsey School of Public Policy, University of New Hampshire. Retrieved from https://carsey.unh.edu/publication/rural-us-assistance

Glauber, R., & Young, J. R. (2015). On the fringe: Family-friendly benefits and the rural–urban gap among working women. *Journal of Family and Economic Issues, 36,* 97–113.

Goldscheider, F., Bernhardt, E., & Lappegård, T. (2015). The gender revolution: A framework for understanding changing family and demographic behavior. *Population and Development Review, 41,* 207–239.

Heuveline, P. (2001). Demographic pressure, economic development, and social engineering: An assessment of fertility declines in the second half of the twentieth century. *Population Research and Policy Review, 20,* 365–396.

Heuveline, P., & Timberlake, J. M. (2004). The role of cohabitation in family formation: The United States in comparative perspective. *Journal of Marriage and Family, 66,* 1214–1230.

Hirschman, C. (1994). Why fertility changes. *Annual Review of Sociology, 20,* 203–233.

Hogendoorn, B., Kalmijn, M., & Leopold, T. (2022). Why do lower educated people separate more often? Life strains and the gradient in union dissolution. *European Sociological Review, 38,* 88–102.

Horton, H. D., & Allen, B. L. (1998). Race, family structure and rural poverty: An assessment of population and structural change. *Journal of Comparative Family Studies, 29,* 397–406.

Jann, B. (2008). The Blinder–Oaxaca decomposition for linear regression models. *Stata Journal, 8,* 453–479.

Johnson, T. G., & Reimer, B. (2019). Comparing ruralities: The case of Canada and the United States. In M. Vittuari, J. F. Devlin, M. Pagani, & T. G. Johnson (Eds.), *The Routledge handbook of comparative rural policy* (1st ed., pp. 27–42). Oxon, UK: Routledge.

Jones, N., Marks, R., Ramirez, R., & Ríos-Vargas, M. (2021, August 12). *2020 census illuminates racial and ethnic composition of the country*. U.S. Census Bureau.

Kalmijn, M. (2013). The educational gradient in marriage: A comparison of 25 European countries. *Demography, 50,* 1499–1520.

Koenig, H. G., Al Zaben, F., Khalifa, D. A., & Al Shohaib, S. (2015). Measures of religiosity. In G. J. Boyle, D. H. Saklofske, & G. Matthews (Eds.), *Measures of personality and social psychological constructs* (pp. 530–561). London, UK: Academic Press. https://doi.org/10.1016/B978-0-12-386915-9.00019-X

Laplante, B. (2014). Normative groups: The rise of the formation of the first union through cohabitation in Quebec, a comparative approach. *Population Research and Policy Review, 33,* 257–285.

Laplante, B., & Fostik, A. L. (2016). Cohabitation and marriage in Canada. The geography, law and politics of competing views on gender equality. In A. Esteve & R. J. Lesthaeghe (Eds.), *Cohabitation and marriage in the Americas: Geo-historical legacies and new trends* (pp. 59–100). Cham, Switzerland: Springer Nature.

Lesthaeghe, R. (2020). The second demographic transition, 1986–2020: Sub-replacement fertility and rising cohabitation—A global update. *Genus, 76,* 10. https://doi.org/10.1186/s41118-020-00077-4

Lesthaeghe, R., & van de Kaa, D. (1986). Two demographic transitions? In R. Lesthaeghe & D. van de Kaa (Eds.), *Bevolking: Groei en krimp, mens en maatschappij* [Population: Growth and shrinkage, people and society] (pp. 9–24). Arnhem, the Netherlands: Van Loghum Slaterus.

Lichter, D. T., & Brown, D. L. (2011). Rural America in an urban society: Changing spatial and social boundaries. *Annual Review of Sociology, 37,* 565–592.

Lichter, D. T., & Eggebeen, D. J. (1992). Child poverty and the changing rural family. *Rural Sociology, 57,* 151–172.

Lichter, D. T., & Johnson, K. M. (2020). A demographic lifeline? Immigration and Hispanic population growth in rural America. *Population Research and Policy Review, 39,* 785–803.

Lichter, D. T., & McLaughlin, D. K. (1995). Changing economic opportunities, family structure, and poverty in rural areas. *Rural Sociology, 60,* 688–706.

Lichter, D. T., & Ziliak, J. P. (2017). The rural-urban interface: New patterns of spatial interdependence and inequality in America. *Annals of the American Academy of Political and Social Science, 672,* 6–25.

MacTavish, K., & Salamon, S. (2003). What do rural families look like today? In D. L. Brown & L. E. Swanson (Eds.), *Challenges for rural America in the twenty-first century* (pp. 73–86). University Park, PA: Penn State University Press.

Malenfant, É. C., Milan, A., Charron, M., & Bélanger, A. (2007). *Demographic changes in Canada from 1971 to 2001 across an urban-to-rural gradient* (Research Paper, No. 2007-008). Ottawa, Ontario: Statistics Canada, Demography Division. Retrieved from https://www150.statcan.gc.ca/n1/en/pub/91f0015m/91f0015m2007008-eng.pdf?st=PwSOqCJX

Marré, A. W. (2017). *Rural education at a glance, 2017 edition* (Economic Information Bulletin, No. 171). Washington, DC: U.S. Department of Agriculture, Economic Research Service. Retrieved from http://www.ers.usda.gov/publications/pub-details/?pubid=83077

Mattingly, M. J. (2020). Changes in work and family across the rural U.S. In J. E. Glick, S. M. McHale, & V. King (Eds.), *Rural families and communities in the United States: Facing challenges and leveraging opportunities* (pp. 27–45). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-030-37689-5_2

McLanahan, S. (2004). Diverging destinies: How children are faring under the second demographic transition. *Demography, 41,* 607–627.

Miller, E. E. N., & Edin, K. (2022). Coming of age in Appalachia, emerging or expedited adulthood? *Russell Sage Foundation Journal of the Social Sciences, 8*(4), 50–67.

Monnat, S. M., & Brown, D. L. (2017). More than a rural revolt: Landscapes of despair and the 2016 presidential election. *Journal of Rural Studies, 55,* 227–236.

Notestein, F. W. (1953). The economics of population and food supplies. In *Proceedings of the Eighth International Conference of Agricultural Economics* (pp. 13–31). London, UK: Oxford University Press.

O'Hare, W., Manning, W., Porter, M., & Lyons, H. (2009). *Rural children are more likely to live in cohabiting-couple households* (Policy Brief, No.14). Durham, NH: Carsey Institute, University of New Hampshire. Retrieved from https://scholars.unh.edu/cgi/viewcontent.cgi?article=1074&context=carsey

Parrado, E. A. (2011). How high is Hispanic/Mexican fertility in the United States? Immigration and tempo considerations. *Demography, 48,* 1059–1080.

Perelli-Harris, B., & Lyons-Amos, M. (2016). Partnership patterns in the United States and across Europe: The role of education and country context. *Social Forces, 95,* 251–281.

Perelli-Harris, B., Sigle-Rushton, W., Kreyenfeld, M., Lappegård, T., Keizer, R., & Berghammer, C. (2010). The educational gradient of childbearing within cohabitation in Europe. *Population and Development Review, 36,* 775–801.

Reynolds, J., & Walther, C. S. (2020). The social capital of rural demography of marriage, cohabitation, and divorce. In D. N. Farris & A. J. J. Bourque (Eds.), *International handbooks of population: Vol. 7. International handbook on the demography of marriage and the family* (pp. 139–156). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-030-35079-6

Rich, K., Hall, H., & Nelson, G. (Eds.). (2021). *State of rural Canada 2021: Opportunities, recovery, and resiliency in changing times* (Report). Canadian Rural Revitalization Foundation. Retrieved from https://sorc.crrf.ca/fullreport2021/

Rindfuss, R. R., Choe, M. K., & Brauner-Otto, S. R. (2016). The emergence of two distinct fertility regimes in economically advanced countries. *Population Research and Policy Review, 35,* 287–304.

Sherman, J. (2009). Bend to avoid breaking: Job loss, gender norms, and family stability in rural America. *Social Problems, 56,* 599–620.

Smith, K. (2017). Changing gender roles and rural poverty. In A. R. Tickamyer, J. Sherman, & J. Warlick (Eds.), *Rural poverty in the United States.* (pp. 115–132). New York, NY: Columbia University Press. https://doi.org/10.7312/tick17222-007

Snyder, A. R. (2006). The role of contemporary family behaviors in nonmarital conception outcomes of nonmetro women: Comments on Albrecht and Albrecht (2004). *Rural Sociology, 71,* 155–163.

Snyder, A. R. (2011). Patterns of family formation and dissolution in rural America and implications for well-being. In K. E. Smith & A. R. Tickamyer (Eds.), *Economic restructuring and family well-being in rural America* (pp. 124–135). University Park: Pennsylvania State University Press.

Snyder, A. R., Brown, S. L. & Condo, E. P. (2004). Residential differences in family formation: The significance of cohabitation. *Rural Sociology, 69,* 235–260.

Snyder, A. R., & McLaughlin, D. K. (2004). Female-headed families and poverty in rural America. *Rural Sociology, 69,* 127–149.

Snyder, A. R., & McLaughlin, D. K. (2006). Economic well-being and cohabitation: Another nonmetro disadvantage? *Journal of Family and Economic Issues, 27,* 562–582.

Snyder, A. R., McLaughlin, D. K., & Findeis, J. (2006). Household composition and poverty among female-headed households with children: Differences by race and residence. *Rural Sociology, 71,* 597–624.

Sobotka, T. (2008). Overview chapter 6: The diverse faces of the second demographic transition in Europe. *Demographic Research, 19,* 171–224. https://doi.org/10.4054/DemRes.2008.19.8

Statistics Canada. (2017, October 25). *Immigration and ethnocultural diversity: Key results from the 2016 census* [Press release]. Retrieved from https://www150.statcan.gc.ca/n1/daily-quotidien/171025/dq171025b-eng.htm?indid=14428-1&indgeo=0

Statistics Canada. (2021). *Immigrants to Canada: Income trajectories and regions of settlement, 1987 to 2017* (Infographic). Retrieved from https://www150.statcan.gc.ca/n1/pub/11-627-m/11-627-m2021024-eng.htm

Statistics Canada. (2022a). *Population growth in Canada's rural areas, 2016 to 2021* (Census in Brief report). Retrieved from https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-x/2021002/98-200-x2021002-eng.cfm

Statistics Canada. (2022b, September 21). *Indigenous population continues to grow and is much younger than the non-Indigenous population, although the pace of growth has slowed* [Press release]. Retrieved from https://www150.statcan.gc.ca/n1/daily-quotidien/220921/dq220921a-eng.htm

Struthers, C. B. (2014). The past is the present: Gender and the status of rural women. In C. Bailey, L. Jensen, & E. Ransom (Eds.), *Rural America in a globalizing world: Problems and prospects for the 2010s* (pp. 489–505). Morgantown: University of West Virginia Press.

Thiede, B. C., Lichter, D. T., & Slack, T. (2018). Working, but poor: The good life in rural America? *Journal of Rural Studies, 59,* 183–193.

Thiede, B. C., & Slack, T. (2017). The old versus the new economies and their impacts. In A. R. Tickamyer, J. Sherman, & J. Warlick (Eds.), *Rural poverty in the United States* (pp. 231–249). New York, NY: Columbia University Press. Retrieved from http://www.degruyter.com/doc/cover/9780231544719.jpg

Thornton, A., Axinn, W. G., & Hill, D. H. (1992). Reciprocal effects of religiosity, cohabitation, and marriage. *American Journal of Sociology, 98,* 628–651.

Tickamyer, A. R. (2020). Rural poverty: Research and policy for U.S. families. In J. E. Glick, S. M. McHale, & V. King (Eds.), *National symposium on family issues, Vol. 10. Rural families and communities in the United States: Facing challenges and leveraging opportunities* (pp. 3–26). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-030-37689-5_1

van de Kaa, D. J. (1987). *Europe's second demographic transition* (Population Bulletin, Vol. 42 No. 1). Washington, DC: Population Reference Bureau.

Walford, N., & Kurek, S. (2016). Outworking of the second demographic transition: National trends and regional patterns of fertility change in Poland, and England and Wales, 2002–2012. *Population, Space and Place, 22,* 508–525.

White, M. J., Muhidin, S., Andrzejewski, C., Tagoe, E., Knight, R., & Reed, H. (2008). Urbanization and fertility: An event-history analysis of coastal Ghana. *Demography, 45,* 803–816.

Wright, L. (2018). Union transitions and fertility within first premarital cohabitations in Canada: Diverging patterns by education? *Demography, 56,* 151–167.

Wuthnow, R. (2018). *The left behind: Decline and rage in rural America*. Princeton, NJ: Princeton University Press.

Ysasi, N. A., Marini, I., & Harley, D. A. (2018). Rural development, employment, chronic health, and economic conditions in Canada. In D. A. Harley, N. A. Ysasi, M. L. Bishop, & A. R. Fleming (Eds.), *Disability and vocational rehabilitation in rural settings: Challenges to service delivery* (pp. 353–366). Cham, Switzerland: Springer Nature. https://doi.org/10.1007/978-3-319-64786-9_19

Yun, M.-S. (2004). Decomposing differences in the first moment. *Economics Letters, 82,* 275–280.

Yun, M.-S. (2005). A Simple solution to the identification problem in detailed wage decompositions. *Economic Inquiry, 43,* 766–772.

Zaidi, B., & Morgan, S. P. (2017). The second demographic transition theory: A review and appraisal. *Annual Review of Sociology, 43,* 473–492.

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